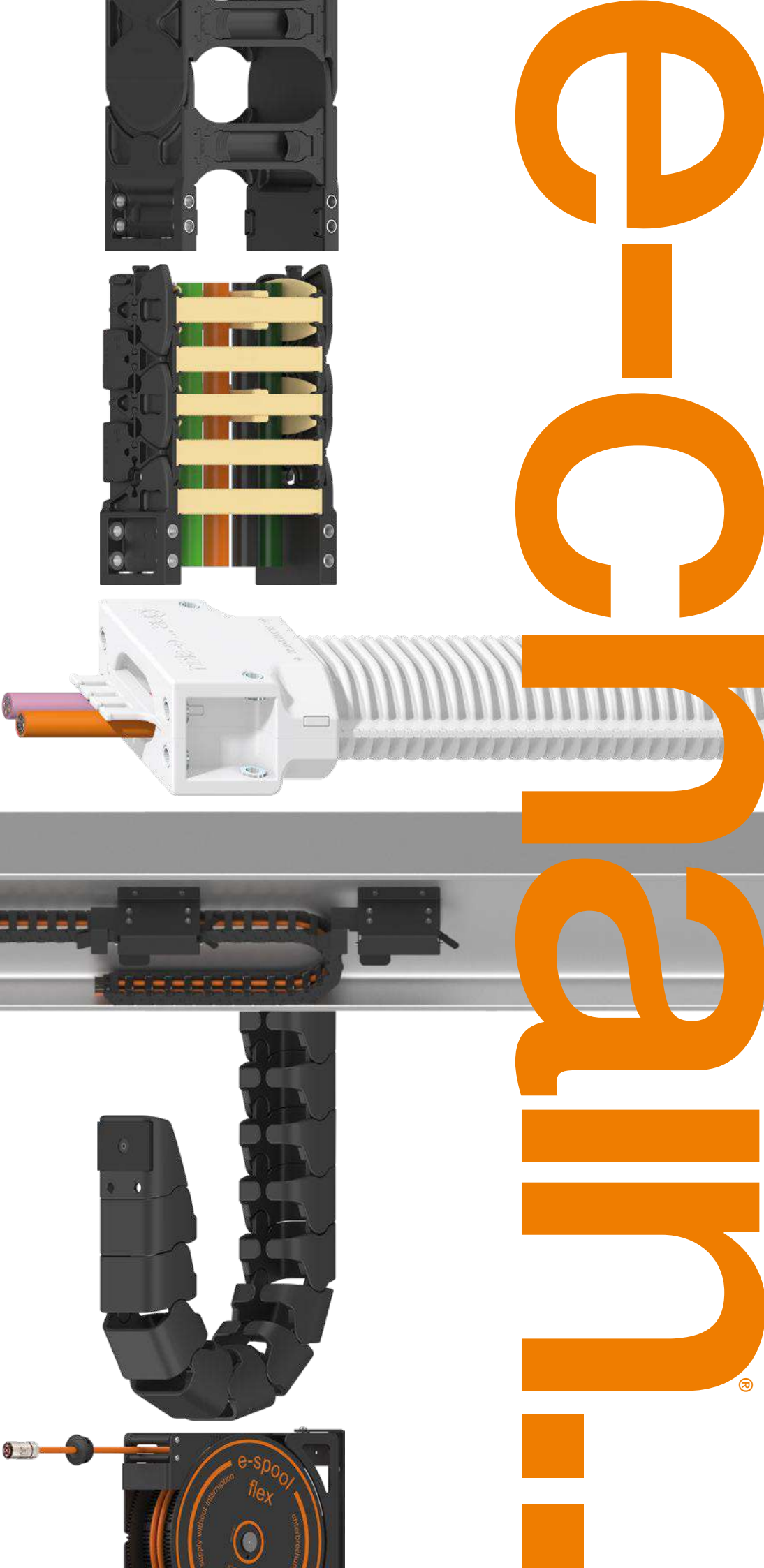


e-chain®



e-chains® and e-chain systems® ...

motion plastics® igus.eu

systems

motion? plastics!

Tech up, Cost down ...

.... the goal of all igus® products is to always offer at least one of these. Other benefits are the fast delivery time, from 24hrs until shipping, plus the service life calculation for nearly all product lines. We will be happy to send you free sample parts for your testing and prototypes. Tested and proven service life. Available immediately with online service life calculation.



Available from stock. Ready to ship in 24 - 48hrs.

The delivery times indicated are the average time until the ordered goods are dispatched.



No minimum order value. No surcharges.

No minimum order value with igus®. Just order the amount you need.



Chain - Cable - Guarantee

Beyond the legal warranty we also vouch for wear and tear. With guarantee certificate.



"7 to 8 plus Saturday" service

Monday to Friday 7.00am to 8.00pm
Saturday from 8.00am to 12.00pm.



Order hotline

Phone +49-2203 9649-800
Fax +49-2203 9649-222



Order around-the-clock - www.igus.eu/e-chains

Discover over 100,000 products in our on-line shop and order around-the-clock!



Calculate and configure online

Download 3D CAD models free of charge and quickly find the product you are looking for with our product finders and intelligent filters.



igus® online live chat

There are many ways to reach us, including our online live chat.



Do you have any questions?

If you have any questions, simply call us or use our online tools at ► www.igus.eu



Designing with igus®

Technical design, installation types, applications

From page
36



igus® solutions for simple applications

OCO | easy chain®

From page
82



All-rounder - e-chains® and e-tubes, micro ... mini ... medium

E2.1 micro | E2.1 | R2.1

From page
110



E4 universal modular kit - e-chains® and e-tubes for any application

E4Q | E4QL | E4.1 | E4.1L | E4/light

From page
176



Plastic-steel hybrid e-chains® and e-tubes - tough, shake-proof and compact

YE/YR | YEHD/YRHD

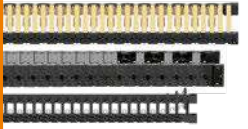
From page
334



Cleanroom energy supply systems as connectable individual profiles or as openable corrugated tubes

e-skin® flat profiles SKF | e-skin® SK/SKS

From page
354



Cleanroom e-chains® and e-tubes - low noise, low vibration and high dynamics

C6 | E6/R6 | E3

From page
368



Solutions for circular movement and multi-axis motion

twisterband | e-spool®

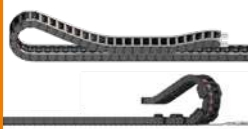
From page
434



Solutions for vertical motion

guidelok slimline P/P.S | e-loop®

From page
460



e-chains® for long travel applications

autoglide 5 | P4HD

From page
470



Guide troughs for long travels

Aluminium SuperTrough basic/heavy-duty | Steel guide trough | guidefast | guidelok swing | guidelok horizontal

From page
480



Support tray for unsupported applications

Steel support tray | Aluminium support tray

From page
540



chainfix strain relief

Clamps for maximum holding force | Tiewrap plates bolted or to clip-on | Clip-on solutions

From page
548

Tech up. Cost down.



Dear customer,

In this catalogue, we show you the current standard range of our energy chains, from the proven top-sellers to new products.

In addition, the igus® online configurators also make it easier for you to select the right product for your application. For example, thanks to the e-chains® service life calculator, you can create a guarantee certificate for up to 4 years for your chosen system with just a few entries. We can give this guarantee because we know exactly what our products can do through numerous tests in the igus® laboratory and decades of applications experience.

And even after your system has run its course, we are there for you and take back old energy chains to recycle them in our Chainge® recycling programme. The recycled material flows into our new material igumid® CG LW, which we use to manufacture our energy chains in the E2.1 family since spring 2025, reducing the CO₂ footprint of this series by around 80%. We have also revised this catalogue in the spirit of sustainability: focus on standard series and technical information, less marketing, details and special solutions outsourced to our website. The result: over 700 pages saved.

We are looking forward to your feedback!

Michael Blaß
CEO e-chain systems®



► www.igus.eu/e-chain-catalogue-feedback



e-chain systems®

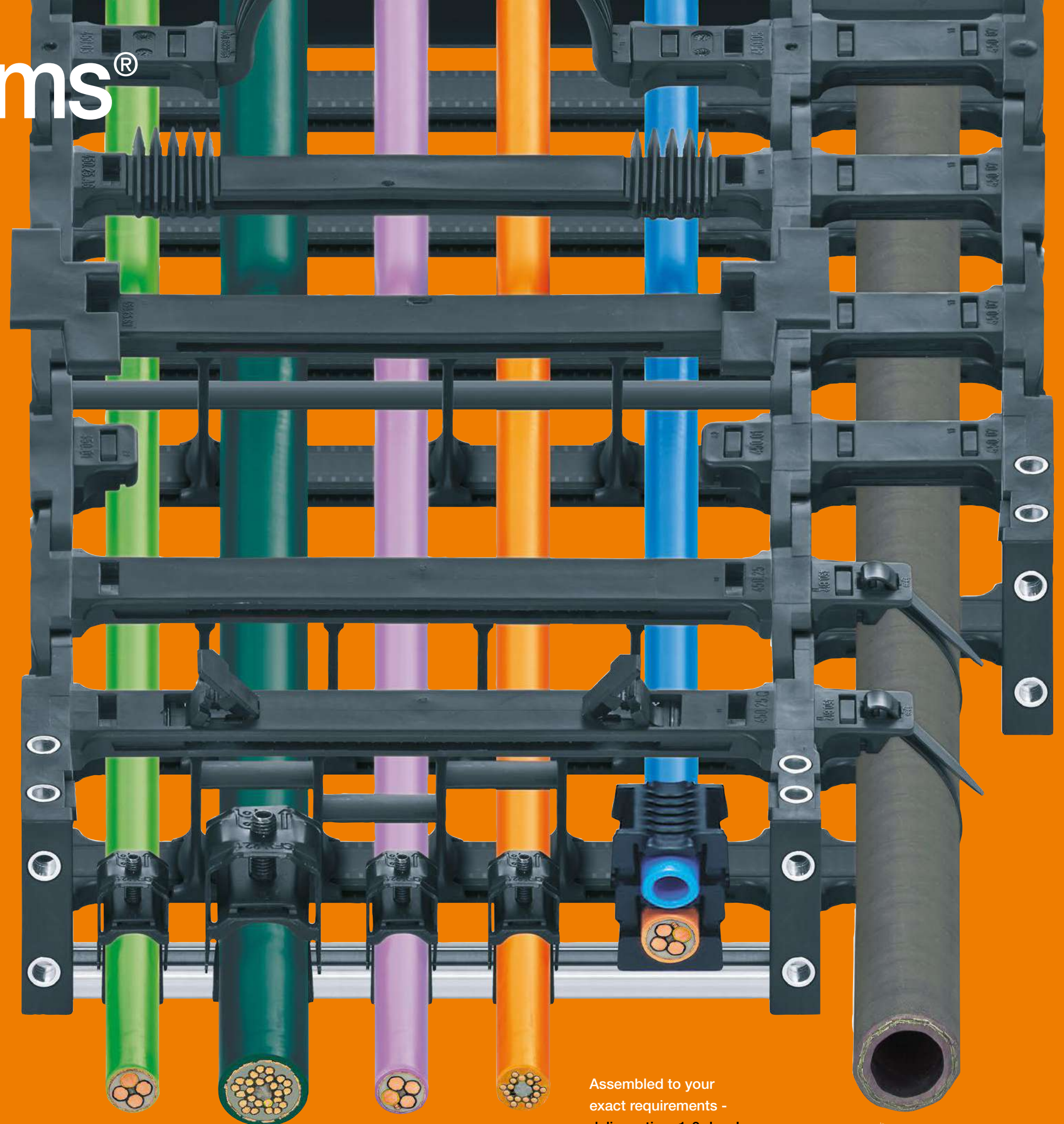
Moving energy made easy

igus® e-chains® are reliably used in hundreds of thousands of applications worldwide - from beverage vending machines to steel mills. They have a modular design and are therefore easy to assemble. They are resistant to different media and are ideal for very small spaces as well as for large, heavy cables and hoses. e-chain systems® are indispensable for modern machines, they ensure the supply of energy, data and signals while in constant motion. igus® has been developing, producing and testing polymer e-chains® since 1971. Our expert knowledge is being continuously refined with the help of our customers to constantly improve our product range.

- Many options in terms of movement and length
- High requirements regarding service life where dynamic loads are very high
- For different environments and applications
- Innovative products that can be assembled very quickly
- Large range of products - find the right solution quickly
- System quotes, including made-to-measure harnessing and “turnkey” installation



► www.igus.eu/the-chain



Assembled to your
exact requirements -
delivery time 1-3 days!

Tested.

We operate the largest test laboratory in the industry for you - 10 billion test cycles per year in the laboratory for energy chains and chainflex® cables.

Are e-chains® correct for your application? You don't need to guess. Instead, we operate the largest test laboratory in the industry in an area of 4,000m². We test energy chain systems under the realistic conditions. 180 test stations perform over ten billion test cycles with e-chains® and chainflex® cables every year.

We use the results to develop the optimum energy supply system for any application and to make reliable statements about service life. Regardless of whether your application is in the dusty desert or freezing cold. For this reason, we also offer you an above-average guarantee of up to 4 years - as the only supplier worldwide to do so.

*As of 01/2025



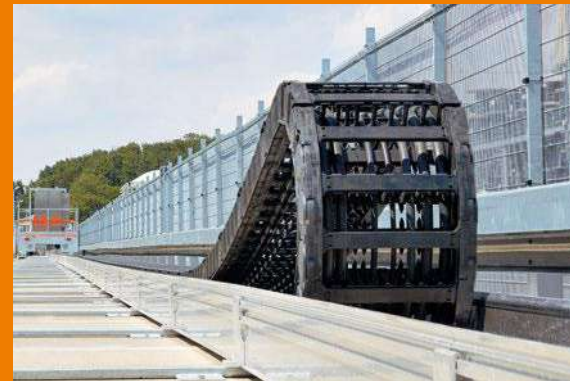
IPA-certified in-house cleanroom laboratory



Cable test, more than 80 million strokes



Bend factor test, 76 million strokes at 9.4 x d



Outdoor test facility for travel lengths of up to 400m



Swarf test, 100% swarf-resistant



Test for torsion and twisting



4,000m² igus® laboratory. More than 15,000 tests, about 4,000 of them for e-chains® and chainflex® cables.



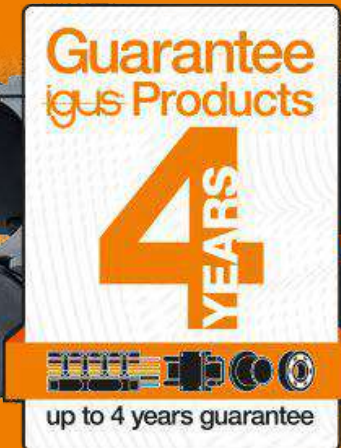
► www.igus.eu/testlab

Guaranteed.

Up to 4 years e-chain® guarantee* - use the service life calculator to determine the guaranteed service life and receive your individual guarantee certificate online

The service life of e-chains® often exceeds 10 years. The new guarantee service gives customers the confidence of being able to design their individual application right and always choose the most cost-effective e-chain® that works reliably.

- Up to 4 years guarantee* on all e-chain® components that have failed due to wear and tear
- Generate individual guarantee certificate via the igus® e-chain® service life calculator and have it sent by e-mail
- Free replacement parts for e-chains® that fail due to wear and tear
- The chainflex® cables used in e-chains® also come with a guarantee* of up to 4 years



▶ Quickly harnessed ...

▶ ... quickly delivered ...

▶ ... with up to 4 years guarantee*!



▶ www.igus.eu/ECS-service-life

Guarantee information*

The igus® e-chain® guarantee of up to 4 years applies to the number of double strokes according to the online service life calculator (www.igus.eu/info/energy-chains-service-life-calculator).

The guarantee conditions available at
▶ www.igus.eu/e-chain-guarantee apply.

The igus® chainflex® guarantee of up to 4 years is valid for the number of double strokes calculated according to the online service life calculator (www.igus.eu/ChainflexTools/ServiceLifeCalculator).

The guarantee conditions available at
▶ www.igus.eu/guarantee apply.

Manufactured.

The igus® factory - investment in better technology and faster delivery times

A few decades ago, it was unthinkable to replace metal with plastic in the production of energy chains. But that is precisely the secret of our success. We have pushed the boundaries of plastic technology a lot further. And at the same time, costs are being reduced all the time. 188,000 customers worldwide trust **motion plastics®**. We will continue on our growth trend and, with all innovations and investments, we will focus more than ever on sophisticated yet simple solutions.



Material preparation



Injection moulding



Warehouse



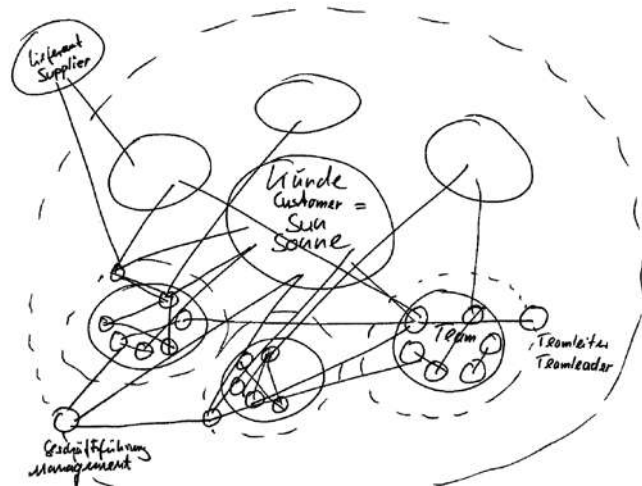
Assembly factory



Toolmaking



Open offices



"For us, customers have the same significance as the sun to life on earth. The sun gives light, warmth and energy; our customers give us ideas, work and money."



► www.igus.eu/quality



Configured online.

Digital assistance to save time

From a concept to configuration and service life simulation. Check price and delivery time online. Download CAD file of your individual configuration? All of this is possible at no cost and without registration. Find your product and information with the tool of your choice.

All digital tools for energy chains at a glance



Energy chain configurator



Service life calculator



Configurator for robotic equipment



e-skin® flat configurator



e-skin® interior separation configurator



Spring cable drums product finder



Interior separation configurator



3D CAD models

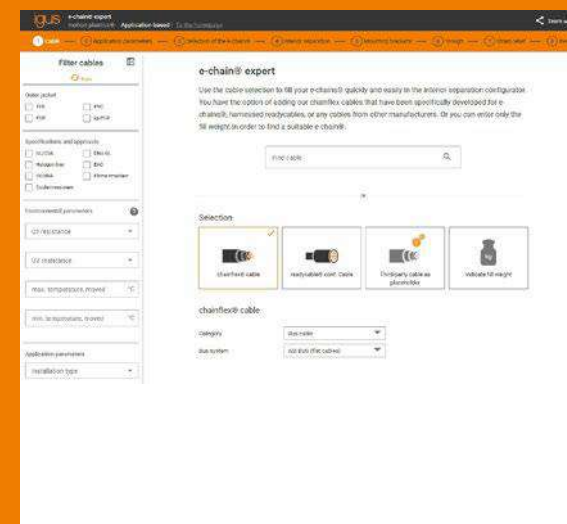


► www.igus.eu/configurator



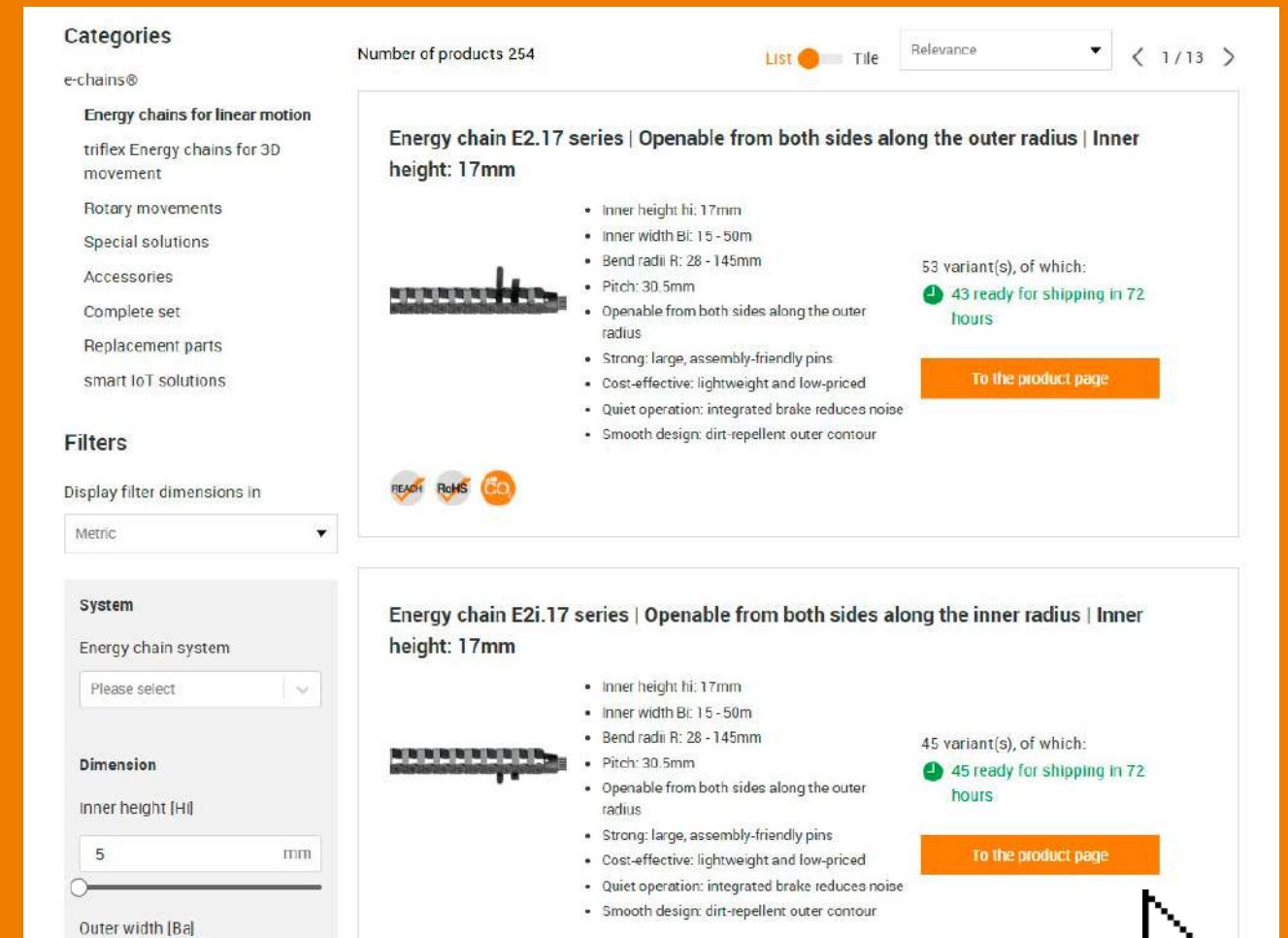
CALCULATE & CONFIGURE ONLINE

with igus® e-chains® expert systems



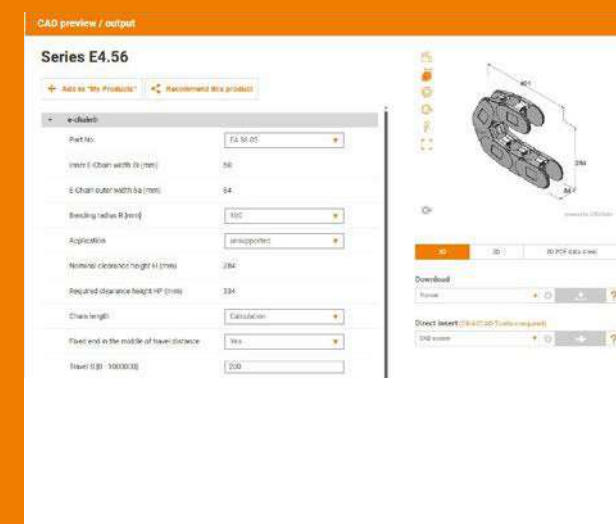
FIND AND ORDER DIRECTLY/SUBMIT ENQUIRY

with igus® product filters and the online shop



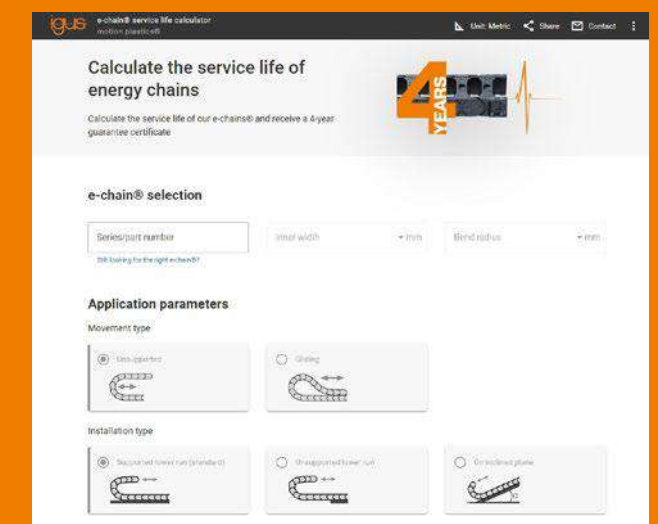
CAD DOWNLOAD

with igus® configurators and CAD



CALCULATE THE GUARANTEED SERVICE LIFE ONLINE

with the e-chains® service life calculator

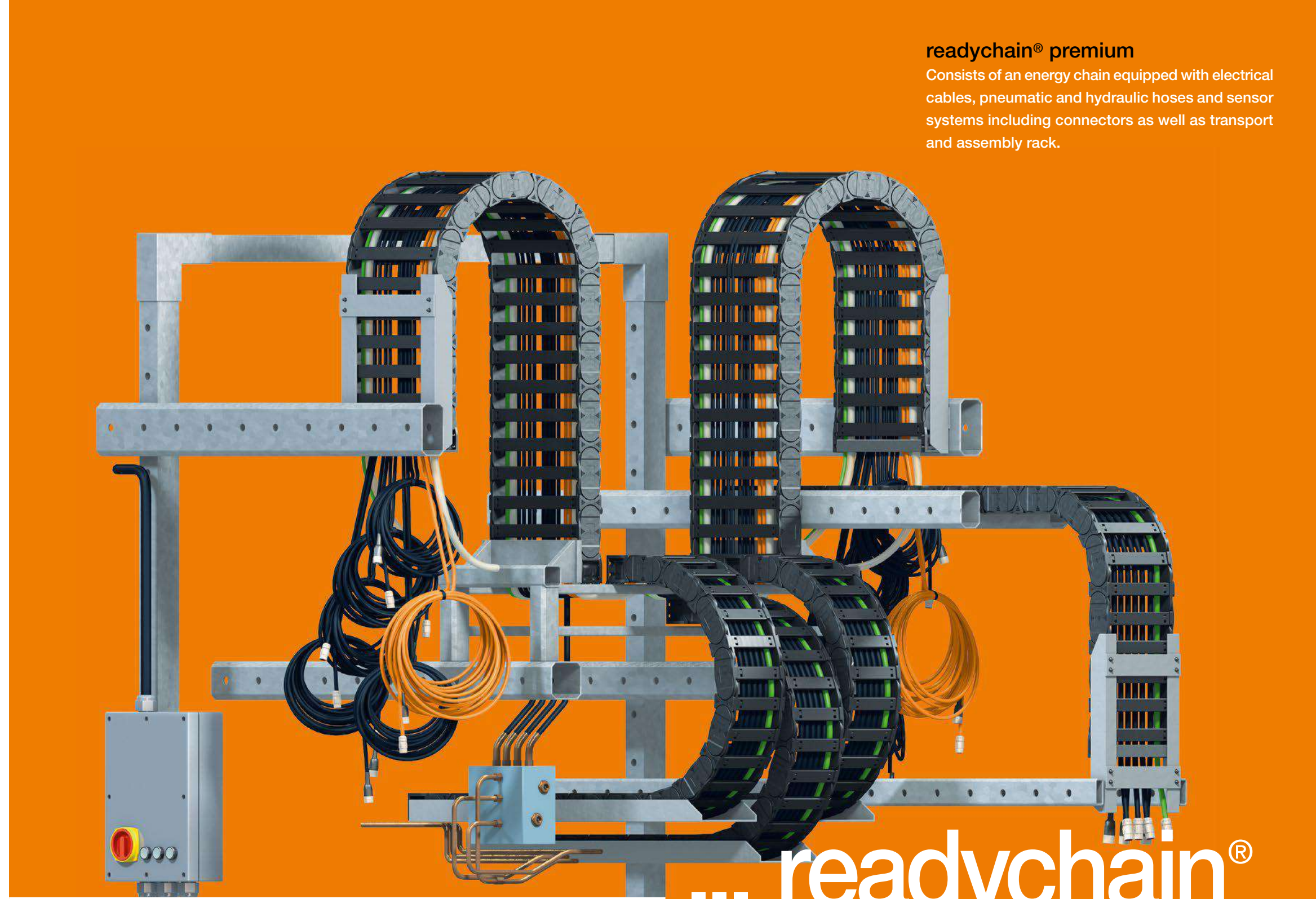


Harnessed.

readychain® - ready-to-install e-chain systems®: reduce assembly and harnessing time by 95%

Ready-made energy supply systems are developed, fitted with connectors and delivered ready to fit to your machine. Customers can dispense with their own storage space for e-chains®, cables and connectors, saving time and space for internal logistics and for assembly and installation of their energy supply system. The ready-made modules reduce process costs for our customers by up to 80% and dramatically increase throughput. Machine downtime is also minimised. To achieve this, we supply the systems worldwide from 12 assembly and logistics centres.

- Harnessing time is reduced by up to 95%
- Reduction in manufacturing costs
- Minimal amount of logistics work - no storage space necessary
- Procurement optimisation - one system, one part number
- Reduce assembly time - less machine downtime
- Installation on the spot - international service with 32 subsidiaries
- Special designs are possible - igus® is developing further components



... readychain®



readychain® basic

Consists of an e-chain® equipped with electrical cables, pneumatic and hydraulic hoses without plug connections.



readychain® standard

Consists of an e-chain® equipped with electrical cables, pneumatic and hydraulic hoses and sensor systems including connectors.



readychain® standard plus

Consists of an e-chain® equipped with electrical cables, pneumatic and hydraulic hoses and sensor systems including connectors as and mounting metalwork.



► www.igus.eu/readychain

Fast delivery.

Our supply chain pushes the accelerator for you

We guarantee fast delivery worldwide - with 4,600 employees in Germany and at 30 international subsidiaries as well as offices and support points in more than 80 countries. 97% of the catalogue parts are immediately available. Your order will be ready to ship within 24-48 hours - even sooner if you wish. You can conveniently track the shipment online.

And best of all: there are no surcharges for small quantities, no cutting charges for cables and no packaging costs.



Shipped
from 24hrs



7-20 plus
Saturday service



No minimum
order quantity



Online order
tracking

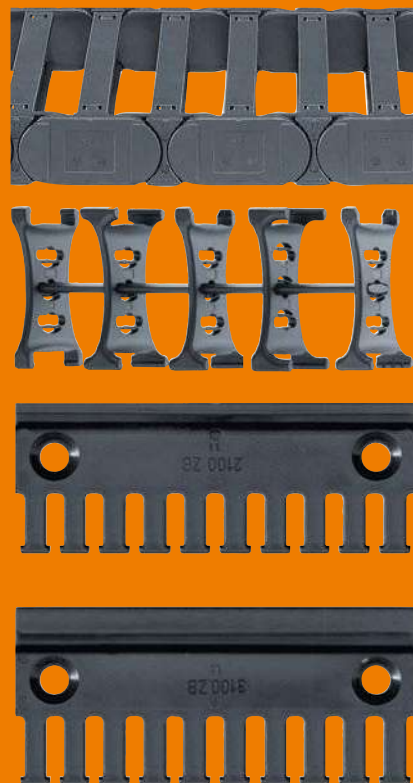


► www.igus.eu/24hrs

24hrs

Single components e.g.

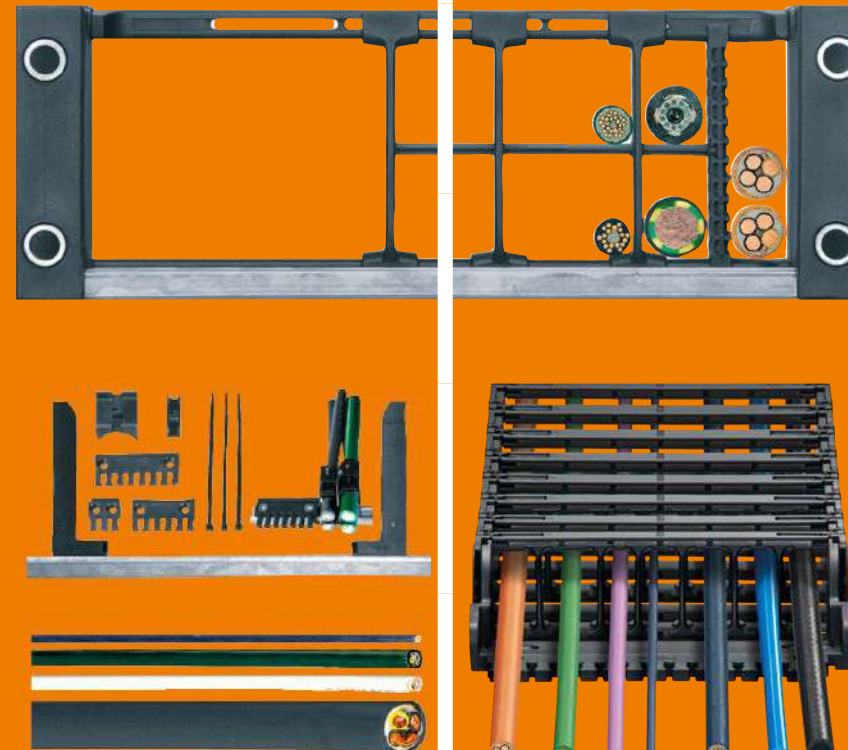
A single e-chain® link, 6m of e-chain®, 3 strain relief elements, etc.



24-72hrs

Customised e-chain systems® e.g.

11.46m of igus® e-chains® with interior separators, mounting brackets and strain relief elements according to your specifications. Also with loose accessories as chainflex® cables, guide troughs, mounting brackets, strain relief and installation materials



3-5 business days

Harnessed systems, e.g. readychain® basic

Simple, harnessed e-chain systems® including installed cables without connectors, labelled and tail lengths to your specifications



10 business days

readychain® premium

Fully harnessed igus® e-chain system® with cables of all types as well as plug connections, connectors, projections and components according to your specifications



Assembled on site.

Save time and money - installation and maintenance of your e-chain system®

New installation

- Installation of a tailored e-chain system® on-site at your facility or your new plant
- Documentation and planning of the project at your construction site
- Configuration of the system interfaces and consulting by igus® engineering
- Everything from one source - including customised system guarantee

Conversion / Modernisation / Retrofit

- Modernisation and implementation concept for the conversion of existing energy supply systems to e-chain systems®
- Reduction of costs and energy consumption
- Increased service life

Inspection

- Assessment of the technical condition of the your energy supply system
- Determination of the repair and maintenance requirements
- Documentation of the plant condition in the inspection report: deficiencies, risks and optimisation proposals

Maintenance

- Preventive maintenance enables you to proactively recognise and address any damage or issues, thereby extending the service life of your system.
- Adjustments and documentation in the maintenance handbook

Repair / Service

- Prompt, flexible, and professional exchange and service on e-chain systems® and their components



► www.igus.eu/installation



Consultation
from igus® at
your premises



Measurement
and project
planning



Delivery &
customised
assembly planning



Installation and
conversion service
incl. change®



Acceptance
and
commissioning



igus®
guarantee



Superwise
igus® smart
service



Inspection/
maintenance



Works.

Energy supply made easy for every industry - with igus® e-chain systems®

Our task is to supply energy and data to moving power consuming equipment safely and reliably. Such equipment is constantly in motion and has to function reliably in difficult ambient conditions as well as under high levels of stress and at high speeds. e-chain systems® can be used universally in these kinds of application.



For example: machine tools, woodworking equipment, cranes, material handling systems, robots ...



Harnessed energy chains - readychain®



Extremely long travels with rol e-chains® (here 700m)



Reliable cable guidance in agricultural engineering



e-loop® for top drives



Enclosed energy chains for reliable protection against dirt and swarf



Vertical energy supply systems for theatre and stage technology



igus® e-chain system®
on cranes



► www.igus.eu/applications

Recycling.

Let's protect the environment together! We can recycle old energy chains, irrespective of their manufacturer

CO₂ emissions in the industry are driving climate change. Industry must take responsibility to counteract this, and we have therefore launched the **chainge**® recycling program.

Send us your old energy chains instead of simply disposing of them with industrial waste. We will separate the material into its constituent materials and shred it. We use the granulate of igus® energy chains for moulding new products. We place recycled material from competitors' chains over to circular economy exchanges.

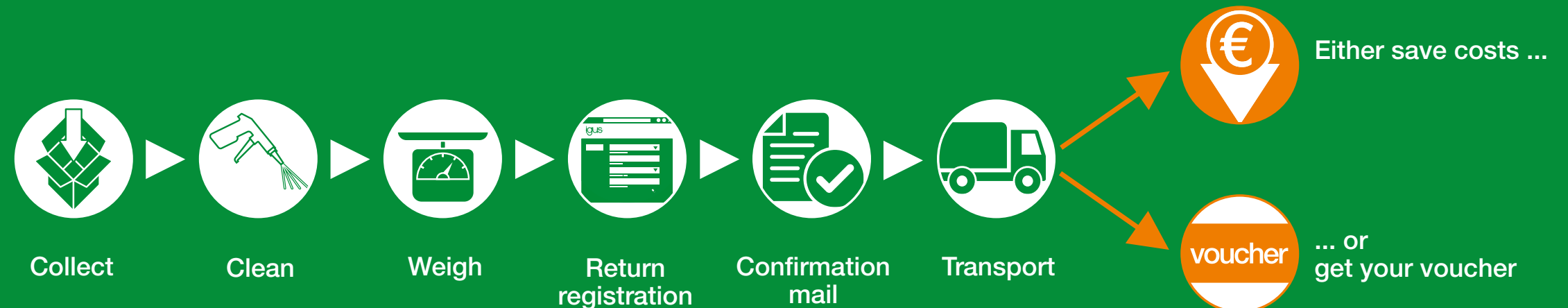


Chainge
engineering plastics recycling



► www.igus.eu/chainge

Recycling made easy ...



►► For simple applications, easy to fill

Office chain
OCO | "easy" design



32
Functional energy supply for moving desks with "easy" design.
► From page 82

e-chain® version E
easy chain® | "easy" design



5-48.5
Split crossbar along the outer radius. Some types with multi-chamber design.
► From page 86

e-chain® version Z
easy chain® | "easy" design



9.4-48.5
Split crossbar along the inner radius. Some types with multi-chamber design.
► From page 86

►► All-rounder e-chains®, medium sizes

e-chains®, two-piece design
E2.1i | Openable



21.2-48
Strong all-rounder, easy to open. Lids openable along the inner radius, from both sides.
► From page 132

e-chains®, two-piece design
E2.1 | Openable



21.2-48
Strong all-rounder, easy to open. Crossbars openable along the outer radius, from both sides.
► From page 132

e-chains®, one-piece design
E2C.1 | Non-openable



21.2-38
Strong all-rounder, easy to open. One-piece design, non-openable.
► From page 132

►► ... e-chains® and e-tubes for any application

e-chains® with crossbars every 2nd link
H4Q | Openable without tools



34-82
Opening and closing without tools. Crossbars removable along the inner and outer radius.
► From page 176

e-chain® with crossbars every link
E4Q.L | Openable without tools



64
L variant - opening and closing without tools. Crossbars removable along the inner and outer radius.
► From page 202

e-chains® with crossbars every 2nd link
H4Q.L | Openable without tools



64
L variant - opening and closing without tools. Crossbars removable along the inner and outer radius.
► From page 202

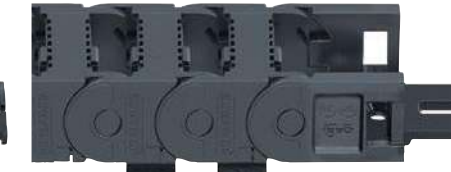
►► All-rounder e-chains®, micro and mini

e-chains®, one-piece design
E2/E2C.1 micro | Non-openable



5-17
Strong, quiet, for the smallest installation spaces. One-piece design, non-openable.
► From page 110

e-chains®, two-piece design
E2i.1 micro | Openable



10.1-17
For the smallest installation spaces. Lids openable along the inner radius, from both sides.
► From page 110

e-chains®, two-piece design
E2.1 micro | Openable



10.1-17
For the smallest installation spaces. Crossbars openable along the outer radius, from both sides.
► From page 110

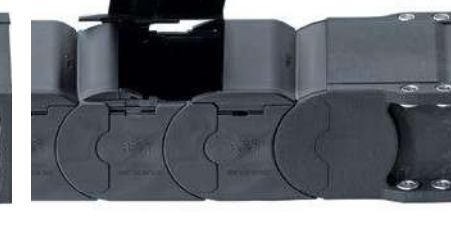
►► e-tubes, medium sizes

R2.1 e-tubes
R2.1i | Openable



26-48
Cost-effective, strong e-tubes. Lids openable along the inner radius, from both sides.
► From page 158

R2.1 e-tubes
R2.1 | Openable



26-75
Cost-effective, strong e-tubes. Lids openable along the outer radius, from both sides.
► From page 158

►► E4 - universal modular kit ...

e-chain® with crossbars every link
E4Q | Openable without tools



34-82
Opening and closing without tools. Crossbars removable along the inner and outer radius.
► From page 176

►► ...

e-chain® with crossbars every link
E4.1 | Openable



21-350
For especially demanding applications. Crossbars removable along the inner and outer radius.
► From page 210

e-chains® with crossbars every 2nd link
H4.1 | Openable



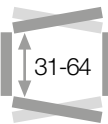
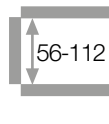
32-80
For almost any application, the standard. Crossbars removable along the inner and outer radius.
► From page 210

e-tubes
R4.1 | Openable

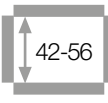
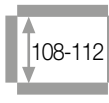
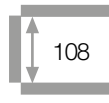


28-108
Fully enclosed design. Lids openable along the outer radius, from one side. Shelves can be removed from the inner radius.
► From page 210

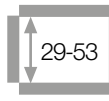
▶ ...

e-chain® with crossbars every link E4.1L Openable	e-tubes R4.1L Openable	e-chain® with crossbars every link E4/light Openable
		
 High dynamics, light design, cost-effective. Crossbars openable along the inner and outer radius from both sides. ▶ From page 270	 High dynamics, light design, cost-effective. Lids openable along inner and outer radius, from both sides. ▶ From page 270	 Low weight and cost-effective. Crossbars removable along the inner and outer radius. ▶ From page 296

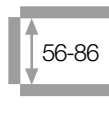
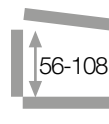
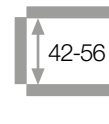
▶ e-chains® and e-tubes - tough, shake-proof and compact

e-tubes YR Openable	HD e-chains® YEHD Openable	HD e-tubes YRHD Openable
		
 Plastic-steel hybrid e-tubes. Lids removable along the inner and outer radius. ▶ From page 334	 Heavy-duty plastic-steel hybrid e-chains®. Crossbars removable along the inner and outer radius. ▶ From page 334	 Heavy-duty plastic-steel hybrid e-tubes. Lids removable along the inner and outer radius. ▶ From page 334

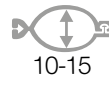
▶ ... or as openable corrugated tubes

e-skin® cleanroom corrugated tube SK Openable, two-piece design	e-skin® cleanroom corrugated tube SKS soft Openable, two-piece design	e-chain® with crossbars every link C6 Openable
		
 e-skin® SK for longer unsupported lengths. IPA cleanroom Class 1. ▶ From page 362	 e-skin® soft SKS with more elastic material and lower installation height. IPA cleanroom Class 1. ▶ From page 362	 Highest cleanroom suitability. Crossbars removable along the inner and outer radius. ▶ From page 368

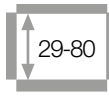
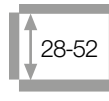
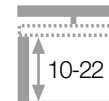
▶ ...

e-chains® with crossbars every 2nd link E4/light Openable	e-tubes E4/light Openable	Plastic-steel hybrid e-chains® YE Openable
		
 Low weight and cost-effective. Crossbars removable along the inner and outer radius. ▶ From page 296	 Lids openable along the outer radius, from one side. Shelves can be removed from the inner radius. ▶ From page 296	 Plastic-steel hybrid e-chains®. Crossbars removable along the inner and outer radius. ▶ From page 334

▶ Cleanroom energy supply systems as connectable individual profiles ...

e-skin® flat profiles SKF.C Fully enclosed	e-skin® flat profiles SKF.O Openable	Support e-chain® SKF.S For SKF12C / SKF15C
		
 With closed cable chambers. Optional support e-chain® available. IPA cleanroom Class 1. ▶ From page 354	 Openable with a special locking mechanism. IPA cleanroom Class 1. ▶ From page 354	 Support e-chain® for unsupported length, can be combined with SKF12C / SKF15C. ▶ From page 354

▶ ... e-chains® and e-tubes - low noise, low vibration and high dynamics

e-chains® E6 Openable	e-tubes R6 Openable	e-chains® E3 Openable, three-piece design
		
 Low noise - 37dB(A), low vibration, cleanroom suitable. Crossbars removable along the inner and outer radius. ▶ From page 382	 Low noise - 37dB(A), low vibration, cleanroom suitable. Lids removable along the inner and outer radius. ▶ From page 382	 Dynamic for cleanrooms. Crossbars on a strip, zip-open along the outer radius. ▶ From page 420

►► Solutions for circular movement and multi-axis motion

Energy chains for spiral movements
twisterband | Rotary movements in the smallest space



9-22 Rotary movement in the most confined space. Openable with film hinge or openable "easy" design.
► From page 434

Energy chains for spiral movements
twisterband HD | Fits tightly around the rotary axis, strong



11-30 e-chain® links with strong pin and hook connection, openable.
► From page 438

Spring-driven cable drum with no slip ring
e-spool® flex light 2.0 | SPFL



≤15 Continuous panel feed for integration into existing customer structures.
► From page 444

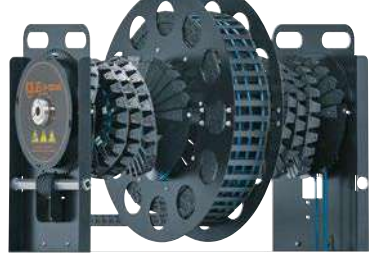
►► ...

Spring-driven cable drum with no slip ring
e-spool® for manual operation | SPC1



≤5 Cable or hose pulled out by hand. With e-chain® and 1 twisterband.
► From page 452

Spring-driven cable drum with no slip ring
e-spool® standard / HD | SP1



≤14 Flexible use. With e-chain® and 1 or 2 twisterbands.
► From page 454

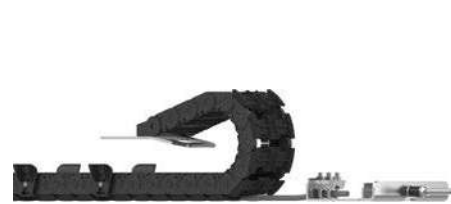
Spring-driven cable drum with no slip ring
e-spool® power



≤25 Motor-driven, for long extension lengths. Product upon request.
► From page 458

►► e-chains® for long travels

Self-guiding, two-piece design
autoglide 5 | E2/000...AG5



25-35 For self-guiding E2/000 e-chains®. Energy and data transmission installed in just 1 hour.
► From page 470

Self-guiding, four-piece design
autoglide 5 | E4.1...AG



32-42 For self-guiding E4.1 e-chains®. Energy and data transmission installed in just 1 hour.
► From page 470

Heavy-duty rol e-chain®
P4HD | Openable



56 Heavy-duty rol e-chain® for maximum service life with optimised design. Crossbars removable.
► From page 476

►► ...

Spring-driven cable drum with no slip ring
e-spool® flex 2.0 | SPF



≤15 Uninterrupted cable guidance.
► From page 446

Spring-driven cable drum with no slip ring
e-spool® flex mini | SPF



≤3 For small installation spaces.
► From page 448

Spring-driven cable drum with no slip ring
e-spool® compact | SP1 / SPHD1



≤4 Space-saving, spring-driven. With e-chain® and 1 twisterband.
► From page 450

►► Solutions for vertical motion

Vertical guidance
guidelok slimline | P / P.S



50 P version: safe vertical guidance. P.S version: for narrow lanes.
► From page 460

Vertical guidance, with crossbars every link
e-loop® | Version D / TD



150-360 Dynamic - for all moving applications. e-loop® as an alternative to the service loop.
► From page 464

Vertical guidance, with crossbars every 2nd link
e-loop® | Version S



150-230 Static - for purely static cable guidance. e-loop® as an alternative to the service loop.
► From page 464

►► Guide troughs for long travels ...

For general applications
Aluminium SuperTrough | Basic



77-236 With standard installation sets for general mechanical engineering. Very simple, modular assembly.
► From page 480

For extreme loads
Steel guide troughs



70-480 Very strong and tough for heavy-duty applications, large selection.
► From page 504

Energy supply for cranes girders and indoor cranes
guidefast | GF91.30/GF91.31

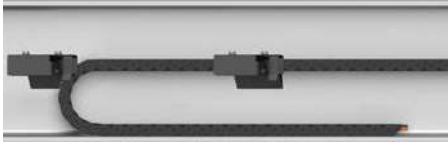


42.5-120 Economical energy supply for crane girders and indoor cranes. With or without glide bars.
► From page 528



►► ...

For jib cranes, bolted installation guidelok swing GLO.S	For jib cranes, self-adhesive installation guidelok swing GLO.S...G	Upper run guide guidelok horizontal 907.645/837
---	--	--


25-38

For jib cranes with a moving lower run and travels up to 10m.
► From page 532

25

Self-adhesive installation - for jib cranes with a moving lower run and travels up to 10m.
► From page 532

50-600

Upper run guide for long travels, unsupported in swarf areas, up to 50m possible.
► From page 536

►► ...

For C-profiles Clamps CFXL	Installation profile C-profile 92.42 92.52	For C-profiles Multi-clamps CFX/CFXL
---	---	---





Clamps with wide base for increased holding force. Suitable for C-profile 92.52., C-profile always assembled in front of the e-chain®. Cannot be integrated into KMA.
► From page 556

C-profile for standard applications (Part No. 92.42) and for increased holding force (Part No. 92.52) for heavy-duty applications.
► From page 561

More modular options of the proven chainfix clamps. For infinite assembly options.
► From page 562

►► ...

For C-profiles / openable crossbars / fixed crossbars Tiewrap plates Options	For e-chain® links Strain relief separators	For C-profiles / top-hat (DIN) rail 15 CFV Strain relief elements
---	--	--





4 options available: 1. With clip-on connection to C-profile 2. For top-hat (DIN) rail 15. 3. For fixed crossbars. 4. For openable crossbars.
► From page 572

Separator with integrated strain relief teeth. For easy strain relief either at the first or last e-chain® link with cable tiewraps.
► From page 574

Stepped strain relief elements with tiewrap teeth. For a strain relief for use outside of the e-chain® section.
► From page 576

►► Support tray for unsupported applications

Easy support of the lower run Steel support tray S9.010/ S9.020	Easy support of the lower run Aluminium support tray 9AT.35.SL	chainfix strain relief ... For C-profiles Clamps CFX
--	---	---





80-306

One-piece steel support tray for easy support of the lower run.
► From page 540

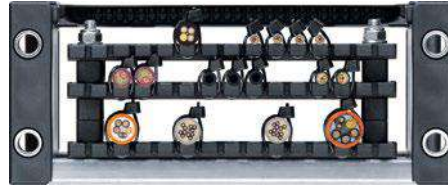
80-427

Flexible construction kit to support the lower run. Width adjustment using installation sets with C-profiles.
► From page 544

Standard clamps with standard base. Suitable for C-profile 92.42., can be integrated into KMA with C-profile option.
► From page 556

►► ...

For C-profiles Clamps for pneumatic hoses CFX/CFXL	Stackable in C-profile Multi-tiewrap plates Series 3000	For C-profiles / Mounting brackets Tiewrap plates Universal
---	--	--


With these options, the chainfix clamps can be specifically used for pneumatic hoses. Strain relief of hoses without crushing or damage.
► From page 564

Stackable, space-saving, flexible. Flexible modular system with stackable levels. For all mounting brackets with C-profile.
► From page 566

Tiewrap plates as individual parts. Screwed on KMA with C-profile or can be clipped onto some mounting brackets. Series 2000 and 3000 available as individual components.
► From page 570



hi [mm]	Series	Product	Page
5 - 11mm			
5	03	E2 micro	112
5	E03	easy chain®	88
7	04	E2 micro	114
7	E04	easy chain®	90
9	TB12.23.9	twisterband	436
9.4	E045 / Z045	easy chain®	92
10	E2C.10L	E2.1 micro	118
10	E3.10	E3	422
10	SKF10C / SKF100	e-skin® flat	356
10.1	E2.10 / E2i.10	E2.1 micro	120
10.3	045	E2 micro	116
10.5	Z06	easy chain®	94
10.6	E2C.10	E2.1 micro	120
10.7	E06	easy chain®	94
11 - 16mm			
11	TBHD12.24.11	twisterband HD	440
11.3	E065 / Z065	easy chain®	96
12	SKF12C / SKF120	e-skin® flat	356
12	TB20.44.12	twisterband	436
12	TBHD20.44.12	twisterband HD	440
14.4	E2.15 / E2i.15	E2.1 micro	124
14.6	E08	easy chain®	98
14.7	Z08	easy chain®	98
14.9	E2C.15	E2.1 micro	124
15	E3.15	E3	426
15	SKF15C / SKF150	e-skin® flat	356
17 - 23mm			
17	E2.17 / E2C.17 / E2i.17	E2.1 micro	128
18	TB20.44.18	twisterband	436
18	TBHD20.44.18	twisterband HD	440
19	E14 / Z14	easy chain®	100
20	SKS20	e-skin® SKS	364
21	E4.21	E4.1	212
21.2	E2.21 / E2C.21 / E2i.21	E2.1	134
22	E3.22	E3	430
22	TB29.27.22	twisterband	436
22	TB30.75.22	twisterband	436
22	TBHD30.75.22	twisterband HD	440
24 - 31mm			
24	SKS24	e-skin® SKS	364
24.3	E200 / Z200	easy chain®	102
26	E2.26 / E2C.26 / E2i.26	E2.1	140
26	R2.26 / R2i.26	R2.1	160
28	E4.28 / R4.28	E4.1	218
28	R6.29	R6	384
28	SK28 / SKS28	e-skin® SK / SKS	364
29	C6.29	C6	370
29	E6.29	E6	384
30	TBHD42.135.30	twisterband HD	440
31	E4.31L / R4.31L	E4.1L	272

hi [mm]	Series	Product	Page
32 - 52mm			
32	E16 / Z16	easy chain®	104
32	E4.32 / H4.32 / R4.32	E4.1	224
32	OCO.32	OCO	82
34	E4Q.34 / H4Q.34	E4Q	178
35	E6.35	E6	388
35	GLSL.P	guidelok slimline	462
35	GLSL.P.S	guidelok slimline	463
36.5	E26 / Z26	easy chain®	106
38	C6.38	C6	374
38	E2.38 / E2C.38 / E2i.38	E2.1	146
38	E4.38L / R4.38L	E4.1L	278
38	SK40 / SKS40	e-skin® SK / SKS	364
40	E6.40 / R6.40	E6 / R6	392
40	R2.40 / R2i.40	R2.1	164
42	E4.42 / H4.42 / R4.42	E4.1	230
42	YE.42 / YR.42	YE / YR	336
44	E4Q.44 / H4Q.44	E4Q	184
48	E2.48 / E2i.48	E2.1	152
48	E4.48L / R4.48L	E4.1L	284
48	R2.48 / R2i.48	R2.1	168
48.5	E300 / Z300	easy chain®	108
52	E6.52 / R6.52	E6 / R6	398
56 - 86mm			
53	C6.53	C6	378
56	14040 / 14140 / R18840	E4/light	298
56	E4.56 / H4.56 / R4.56	E4.1	236
56	P4HD.56R	P4HD	478
56	YE.56 / YR.56	YE / YR	342
58	E4Q.58 / H4Q.58	E4Q	190
62	14240 / 14340	E4/light	304
62	E6.62	E6	402
64	E4.64L	E4.1L	290
64	E4Q.64L / H4Q.64L	E4Q.L	204
70	14550 / 14650 / R19050	E4/light	310
75	R2.75	R2.1	172
80	15050 / 15150 / R19850	E4/light	316
80	E4.80 / H4.80 / R4.80	E4.1	242
80	E6.80	E6	414
80	E6.80L	E6	408
82	E4Q.82 / H4Q.82	E4Q	196
86	15250 / 15350	E4/light	322
>108mm			
108	R1608	E4/light	328
108	R4.112	E4.1	248
108	YEHD.108 / YRHD.108	YEHD / YRHD	348
112	1640	E4/light	328
112	E4.112	E4.1	248
112	YEHD.112	YEHD	348
162	E4.162	E4.1	254
200	800	E4.1	258
204	840	E4.1	262
350	E4.350	E4.1	266



Series	Product	Page
03	E2 micro	112
04	E2 micro	114
045	E2 micro	116
800	E4.1	258
840	E4.1	262
1640	E4/light	328
14040	E4/light	298
14140	E4/light	298
14240	E4/light	304
14340	E4/light	304
14550	E4/light	310
14650	E4/light	310
15050	E4/light	316
15150	E4/light	316
15250	E4/light	322
15350	E4/light	322
2400AG5	autoglide 5	472
2600AG5	autoglide 5	473
Aluminium SuperTrough	Guide trough	480
C6.29	C6	370
C6.38	C6	374
C6.53	C6	378
CFX	chainfix	558
CFXL	chainfix	559
Clamps	chainfix	556
Clamps for pneumatic hoses	chainfix	564
e-spool® power	e-spool®	458
E03	easy chain®	88
E04	easy chain®	90
E045 /.2 /.3	easy chain®	92
E06	easy chain®	94
E065 /.2 /.3 /.4	easy chain®	96
E08	easy chain®	98
E14	easy chain®	100
E16	easy chain®	104
E2.10	E2 micro	120
E2.15	E2 micro	124
E2.17	E2 micro	128
E2.21	E2.1	134
E2.26	E2.1	140
E2.38	E2.1	146
E2.48	E2.1	152
E200 /.2	easy chain®	102
E26 /.2 /.3	easy chain®	106
E2C.10	E2 micro	120
E2C.10L	E2 micro	118
E2C.15	E2 micro	124
E2C.17	E2 micro	128
E2C.21	E2.1	134
E2C.26	E2.1	140
E2C.38	E2.1	146

Series	Product	Page
E2i.10	E2 micro	120
E2i.15	E2 micro	124
E2i.17	E2 micro	128
E2i.21	E2.1	134
E2i.26	E2.1	140
E2i.38	E2.1	146
E2i.48	E2.1	152
E3.10	E3	422
E3.15	E3	426
E3.22	E3	430
E300 /.2 /.3	easy chain®	104
E4.112	E4.1	248
E4.162	E4.1	254
E4.21	E4.1	212
E4.28	E4.1	218
E4.31L	E4.1L	272
E4.32	E4.1	224
E4.32.AG5	autoglide 5	474
E4.350	E4.1	266
E4.38L	E4.1L	278
E4.42	E4.1	230
E4.42.AG5	autoglide 5	475
E4.48L	E4.1L	284
E4.56	E4.1	236
E4.64L	E4.1L	290
E4.80	E4.1	242
E4Q.34	E4Q	178
E4Q.44	E4Q	184
E4Q.58	E4Q	190
E4Q.64L	E4Q.L	204
E4Q.82	E4Q	196
E6.29	E6	384
E6.35	E6	388
E6.40	E6	392
E6.52	E6	398
E6.62	E6	402
E6.80	E6	414
E6.80L	E6	408
ELP.220	e-loop®	466
ELP.300	e-loop®	467
ELP.430	e-loop®	469
ELP.TD.300	e-loop®	468
GLO.S.E2i.21.025.1.	guidelok swing	534
GLO.S.E2i.21.025.1.G	guidelok swing	535
GLO.S.E2i.21.038.1	guidelok swing	534
GLSL.P	guidelok slimline	462
GLSL.P.S	guidelok slimline	463
guidefast	guidefast	528
guidelok horizontal	guidelok	536
H4.32	H4.1	224
H4.42	H4.1	230

Series	Product	Page
H4.56	H4.1	236
H4.80	H4.1	242
H4Q.34	E4Q	178
H4Q.44	E4Q	184
H4Q.58	E4Q	190
H4Q.64L	E4Q.L	204
H4Q.82	E4Q	196
Honeycomb strain relief	chainfix	572
OCO.32	OCO	82
P4HD.56R	P4HD	478
R1608	E4/light e-tube	328
R18840	E4/light e-tube	298
R19050	E4/light e-tube	310
R19850	E4/light e-tube	316
R2.26	R2.1	160
R2.40	R2.1	164
R2.48	R2.1	168
R2.75	R2.1	172
R2i.26	R2.1	160
R2i.40	R2.1	164
R2i.48	R2.1	168
R4.112	R4.1 e-tube	248
R4.28	R4.1 e-tube	218
R4.31L	R4.1L e-tube	272
R4.32	R4.1 e-tube	224
R4.38L	R4.1L e-tube	278
R4.42	R4.1 e-tube	230
R4.48L	R4.1L e-tube	284
R4.56	R4.1 e-tube	236
R4.80	R4.1 e-tube	242
R6.29	R6 e-tube	384
R6.40	R6 e-tube	392
R6.52	R6 e-tube	
SK28	e-skin® SK	364
SK40	e-skin® SK	364
SKF.S.08	e-skin® flat	357
SKF.S.10	e-skin® flat	357
SKF10C	e-skin® flat	356
SKF100	e-skin® flat	356
SKF12C	e-skin® flat	356
SKF120	e-skin® flat	356
SKF15C	e-skin® flat	356
SKF150	e-skin® flat	356
SKS20	e-skin® SKS	364
SKS24	e-skin® SKS	364
SKS28	e-skin® SKS	364
SKS40	e-skin® SKS	364
SP1.240	e-spool® compact	450
SP1.400	e-spool® compact	450
SP1.600	e-spool®	455
SP1.700	e-spool®	455

Series	Product	Page
SP1.850	e-spool®	455
SP2.600	e-spool®	455
SP2.700	e-spool®	455
SP2.850	e-spool®	455
SPC1.300	e-spool®	452
SPF.120	e-spool® flex 2.0 mini	448
SPF.250	e-spool® flex 2.0	446
SPFL.120	e-spool® flex light 2.0	444
SPFL.250	e-spool® flex light 2.0	444
SPHD1.400	e-spool® compact	450
SPHD1.600	e-spool® HD	456
SPHD1.700	e-spool® HD	456
SPHD1.850	e-spool® HD	456
SPHD2.600	e-spool® HD	456
SPHD2.700	e-spool® HD	456
SPHD2.850	e-spool® HD	456
Steel guide trough	Guide trough	504
Strain relief	chainfix	548
Strain relief separator	chainfix	574
Support tray, aluminium	Guide trough	544
Support tray, steel	Guide trough	540
TB12.23.9	twisterband	436
TB20.44.12	twisterband	436
TB20.44.18	twisterband	436
TB29.27.22	twisterband	436
TB30.75.22	twisterband	436
TBHD12.24.11	twisterband HD	440
TBHD20.44.12	twisterband HD	440
TBHD20.44.18	twisterband HD	440
TBHD30.75.22	twisterband HD	440
TBHD42.135.30	twisterband HD	440
Tiewrap plates	chainfix	566
YE.42	YE	336
YE.56	YE	342
YEHD.108	YEHD	348
YEHD.112	YEHD	348
YR.42	YR	336
YR.56	YR	342
YRHD.108	YRHD	348
Z045 /.2	easy chain®	92
Z06	easy chain®	94
Z065.3	easy chain®	96
Z08	easy chain®	98
Z14	easy chain®	100
Z16	easy chain®	104
Z200 /.2	easy chain®	102
Z26 /.2 /.3	easy chain®	106
Z300 /.2 /.3	easy chain®	104



Designing with igus®

Technical design,
installation types,
applications



Designing with igus® | Selection table

Contents	Page
Designing	
Explanation	38
Application icons	39
Selection guide	40
Distribution rules	42
chainfix strain relief	44
Length calculation	46
Installation types overview	47
Installation types	
Unsupported	48
Unsupported FL_U and FL_P	54
Unsupported Noise-optimised	55
Gliding	56
Vertical hanging	60
Vertical standing	62
Zig-zag	63
Side mounted unsupported	64
Side mounted gliding	65
Circular movement RBR	66
Special solutions Circular movements	68
Special solutions Special movement types	69
Materials	
Overview	70
Material properties	72
Special solutions and colours	73
Chemical resistance	74
Technical environment	
Special environments	75
ESD	76
ESD and ATEX	77
Cleanroom	78
Dry room	80
Test certificates, seals of approval and memberships	81

Short cuts and description

ΔM	Deviation of the centre point	[mm]
a	Acceleration	[m/s²]
AR	Outer radius, e-chain® (twisterchain)	[mm]
Ba	Outer e-chain® width	[mm]
Bi	Inner e-chain® width	[mm]
B_{Ra}	Guide trough outer width	[mm]
B_{Ri}	Guide trough inner width	[mm]
D	Over length e-chain® radius in final position	[mm]
D_2	Over length for long travels gliding	[mm]
FL_B	Unsupported with permitted sag	[m]
FL_G	Unsupported straight length	[m]
FL_P	Inclined unsupported length	[m]
FL_U	Unsupported lower run	[m]
FZ_{max}	Maximum fill weight	[kg/m]
H	Nominal clearance height	[mm]
H_2	Clearance height with lowered moving end	[mm]
ha	Outer e-chain® height	[mm]
H_F	Required clearance height	[mm]
hi	Inner e-chain® height	[mm]
H_{Ra}	Outer trough height	[mm]
H_{Ri}	Inner trough height	[mm]
IR	Inner radius, e-chain® (twisterchain)	[mm]
K	Add-on for bend radius (K is taken from the data tables of the individual series)	[mm]
K_2	Add-on for bend radius if the mounting point is lowered (for long travels)	[mm]
L_K	e-chain® length	[mm]
n	Number of links	[1]
n_{Mon}	Number of installation sets (left/right)	[1]
n_{Ri}	Number of trough sets (left/right)	[1]
R	Bend radius	[mm]
RBR	Reverse Bend Radius	[mm]
S	Travel	[mm]
$s/2$	Half length of travel	[mm]
T	e-chains® pitch	[mm]
v	Speed	[m/s]
X_1	Inner machine limit (twisterchain)	[mm]
X_2	Outer radius e-chain®, including clearance (twisterchain)	[mm]
ΔCL	Offset fixed end	[mm]

SFL_B	$2 \times FL_B$	Calculation of maximum travel length, unsupported with sag
SFL_G	$2 \times FL_G$	Calculation of maximum travel length, unsupported straight
B_{Ri}	$\geq Ba + 4$	Minimum guide trough width
H_{Ri}	$2 \times ha$	Minimum guide trough height for gliding applications
K	$\pi \times R + (2 \times T)$	Add-on for bend radius
L_K	$s/2 + \Delta M + K$	e-chain® length, fixed end is outside the centre of travel (FL_G , FL_B and ΔM)
L_K	$s/2 + K$ [m]	e-chain® length for long travels, fixed end in the centre of travel
L_K	$s/2 + K_2$ [m]	e-chain® length for long travels, fixed end in the centre of travel*

*Does not apply to circular movements and most long travels

Accessibility of e-chains® and e-tubes

	"easy" design - simply press cables in		One-piece, non-openable		Crossbars/lids openable along the inner and outer radius from both sides
	Zipper - zip-open along the outer radius		Crossbars openable from both sides along the outer radius		Crossbars removable along the inner and outer radius
	Openable along the inner radius from one side		Crossbars openable from both sides along the inner radius		Openable from both sides - lids openable along the outer radius, from one side
	Openable along the outer radius, from one side		Lids removable along the outer radius		Chain links with 2 or 4-chamber, openable

Further application icons

	Unsupported applications		Unsupported lower run FL_U		igus® information
	Gliding		Inclined unsupported length FL_P		igus® order example
	Unsupported applications, side-mounted		Zig-zag		igus® delivery time
	Gliding applications, side-mounted		Circular movement RBR		igus® order key
	Hanging		Circular movement		ESD e-chains®
	Standing				Cleanroom solutions

Price index

	Low price level		Medium price level		High price level
--	-----------------	--	--------------------	--	------------------

Designing e-chains®

1

2

3

4

Sizing e-chains®
Determine the size of the e-chain® based on the specified installation space of your machine and/or of the selected filling (such as the number of cables/outer diameter of cable).

Determine fill weight
Determine the weight of the filling (cables and/or media hoses) in [kg/m] using the chainflex® quick selection or the manufacturer's information.

Determine length of travel
Compare the fill weight calculated in (point 2) to the maximum fill weight of the selected e-chain® and check suitability for unsupported application.

Unsupported length
The maximum unsupported length initially depends on the fill weight and the e-chain® selected. As a result, we differentiate among three types of unsupported length:

- 1 Recommended range of application: FL_G
- 2 Permitted sag: FL_B
- 3 Critical sag: should never be allowed!

● Twice the value of the unsupported length determines the maximum travel in the unsupported type of operation. For evaluation the weight of the cables to be carried must be known, then an exact evaluation can be made using a diagram on the introductory page of the selected product. You will find the values for FL_G (and FL_B) in the unsupported installation type section as an overview and within every individual series' chapter. They are essential for:

- Finding a suitable e-chain® for your fill weight and travel distance
- Identifying the maximum load for the selected e-chain®

Energy chain configurator

With the energy chain configurator "e-chain® expert", you can define your individual ready-to-connect energy chain system in just a few steps.

- Fast, simple online design
- Price, service life, and delivery time are displayed
- Share current processing status with others

Designing e-chains®

Yes

No

5

6

7

8

9

A

or

B

An unsupported application is **possible with the selected e-chain®**

Opening principle:
The quick finder gives an overview of the possibilities to fill the e-chain®.

Bend radius R :
Determine the possible bend radius R [mm] of the e-chain® with respect to the cable diameter.

Interior separation options:
Separators, full-width shelves, partial shelves

Low
Medium
High

The price index gives you the possibility of making price comparisons of similar sizes within the range.

Additional criteria:
... for selection criteria such as pitch, permissible temperatures etc., please refer to our quick finder.

An unsupported application is **not possible with the selected e-chain®**

You can choose the **next and stronger** e-chain®, that can be operated unsupported.

Option:
You can design your application to be gliding.

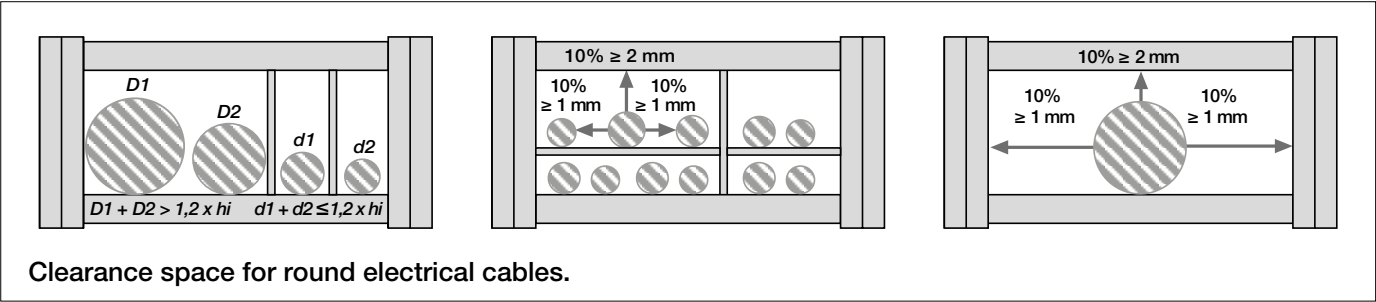
Part No. e-chain®

. . .

Alternative e-chain® dimensions:
 hi : ____ Bi : ____ ha : ____ Ba : ____
Fill weight _____ [kg/m]
Travel length _____ [m]

Do you need help designing an energy chain system or would you like to request a customised quotation? We would be happy to assist you!

Rules for cables and hoses in e-chains®



General rules

Different types of cables and hoses can be accommodated in an energy chain system. We recommend the optimal separation layout of the cables and hoses in the e-chain®, but you, the customer, are still afforded the final choice. In addition to the quality of the cables used, the arrangement of each conduit within the e-chain® and the space allowed, are important for the service life of the system.

Maximum cable or hose diameter

The maximum cable and/or hose diameter equals the inner height of the selected e-chains® and e-tubes plus minimum clearance. This minimum clearance is 10% for electrical round cables and 20% for hydraulic hoses, for example. An e-chain® is ideally filled if minimum lateral clearance to the next cable or hose has been factored in. Depending on the nature of the cables, the dynamics, and the expected service life, more clearance may be required. In specific cases, filling may be designed with less clearance. Please contact us.

The maximum conduit diameter is specified for each series on its respective chapter.

Cable type	Required clearance space
Round electrical cable	10%
Electrical flat cable	10%
Pneumatic hoses	5 - 10%
Hydraulic hoses	20%
Media hoses	15 - 20 %

Configure with igus® expert systems

Due to the variety of the application parameters, we recommend our online designing tool e-chain® expert of our free personal consultation services.

- Distribution rule 1
- If $d1 + d2 > 1,2 \times \text{inner height}$, no separation between the two cables/hoses is necessary. Two cables/hoses should never be left unguided on top of one another or be allowed to become tangled.
- Distribution rule 2
- If $d1 + d2 \leq 1,2 \times \text{inner height}$, a vertical separator or a horizontal shelf must be used to reduce the inner height. This prevents $d1$ and $d2$ from crossing-over.

Distribution rules

The cables and hoses must be laid so that they can move freely at all times and so that no tensile force is exerted at the radius of the e-chains®. For high-speed applications and high numbers of load cycles, cables or hoses must not be laid on top of each other without horizontal separation. The standard values for this are: travel speed over 0.5m/s and cycles over 10,000p.a. igus® interior separation offers a safe solution for this situation.

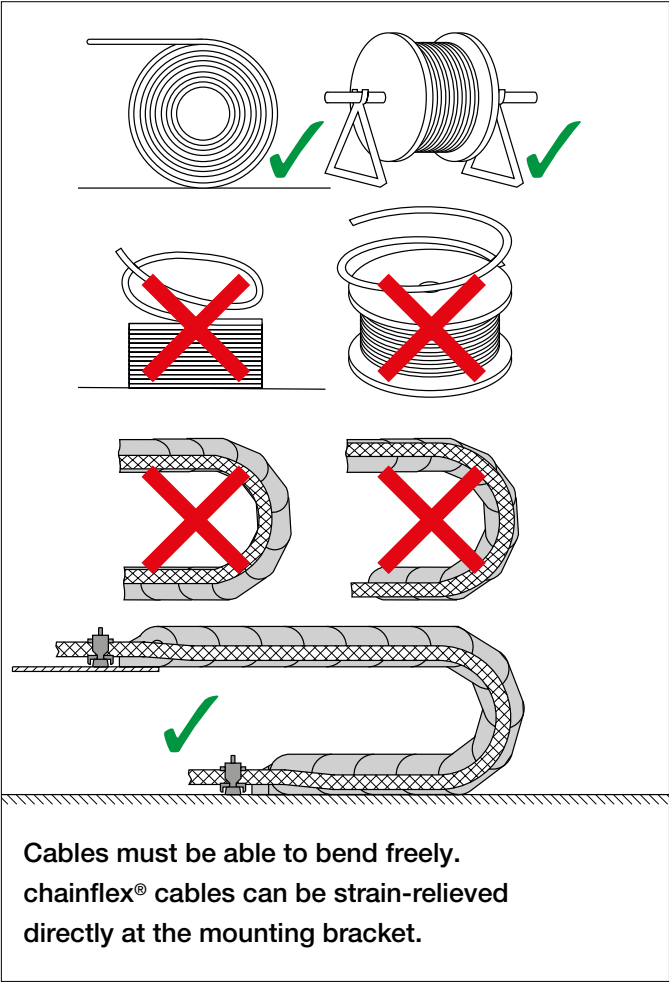
Further guidelines for distribution

The cable or hose weight should be symmetrically distributed along the width of the e-chain®. Cables and hoses with different outer jacket materials must not be allowed to stick together. If necessary, they must be laid separately. All igus® chainflex® cables series can be combined. Generally, the faster and more frequently the e-chain® operates, the more important the exact positioning of the cables and hoses inside the e-chain® becomes.

Bend radius R

Ideally, the bend radius of the e-chain® should always be based on the cable with the largest minimum bending radius. This is often also the largest or stiffest cable.

Rules for cables and hoses in e-chains®



Round electrical cables

For the optimum cable guidance solution, we recommend the use of chainflex® cables from igus®. If third-party products are used, the manufacturer's instructions for continuous operation must be observed.

Pneumatic hoses

The same rules apply as for round cables. If possible, the igus® pneumatic hoses from the chainflex® Air series should be used. If third-party products are used, the manufacturer's instructions for continuous operation must be observed.

Hydraulic hoses

When designing hydraulic hoses into e-chains®, special attention should be paid to the expansion of the hoses when pressurised. We recommend e-chains® with crossbars every link to distribute uniformly the force of the hoses over more crossbars. It is important for selected hoses to be sufficiently flexible. For continuous use, please observe the manufacturer's instructions.

Installation and strain relief for round electrical cables

- 1) Cables must be laid straight, without any twisting. Cables must not be uncoiled from the top of the spool. igus® chainflex® cables are immediately ready for placement directly into the e-chain®. They need not be disconnected or laid out before installation.
- 2) The cables must be laid so that each individual cable can move freely from side to side.
- 3) The cables must be able to move freely along the radius. This must be double-checked if the upper run operates at the cable's maximum bend radius.
- 4) The division of the e-chains® interior using igus® interior separators or shelves is necessary if several cables and/or hoses with varying diameters are laid out. It is important to prevent cables and hoses from tangling.
- 5) Cables and hoses with different jacket materials must not be allowed to stick together. If necessary, they should be separated. igus® chainflex® cables can be combined with all others.
- 6) Round electrical cables must be secured with strain relief at both ends. In exceptional cases, the cables may be fixed with strain relief at the moving end of the e-chain® only. A gap of 10-30 times the cable diameter between the end of the bend segment and the fixed point is recommended for most cables. chainflex® cables can, on the other hand, have strain relief directly at the mounting bracket, as testing has confirmed.
- We will be pleased to provide you with recommendations for complete e-chain systems®: bend radii of all cables and hoses, interior separation and service life are then optimised.

- Pneumatic hoses

The igus® programme also offers polymer pneumatic hoses called chainflex® Air
- Hydraulic hoses

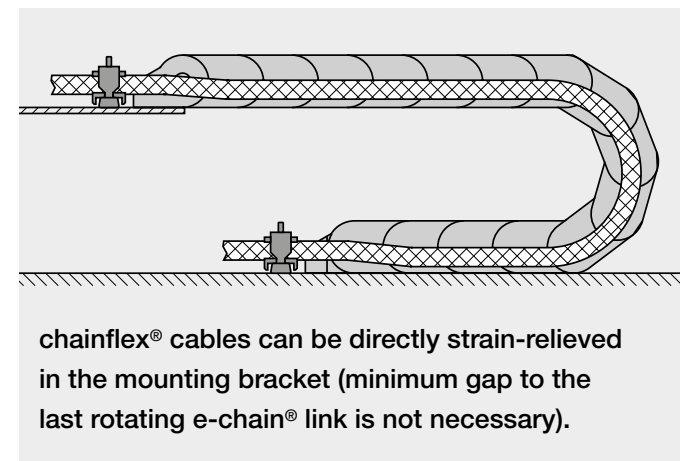
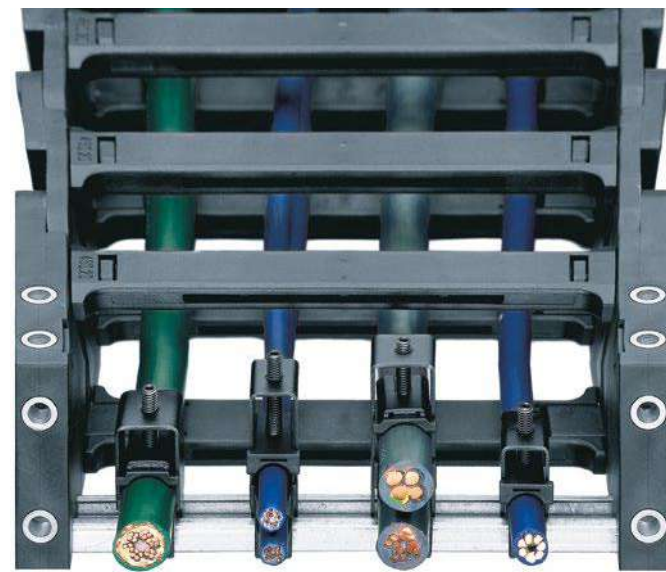
Hydraulic hoses need more space: 20% all-around clearance. We recommend e-chains® with crossbars every link to distribute the force of the hoses over more crossbars!

The necessity of strain relief

Strain relief for electrical cables

The strain relief is a mechanical protection mechanism for flexible, electrical cables. Strain relief prevents cables and hoses from moving randomly, thereby protecting them from damage and increasing their service life.

Cable strain relief can consist of standard elements or can be custom-made. Our standard product range of C-profiles and chainfix clamps or simple strain relief using tiewrap plates is suitable for most applications. Ideally, the cables should be strain relieved at both ends of the e-chain®. (In a few instances, strain relief at the moving end of the e-chain® is sufficient - please consult igus® for these cases).



chainflex® cables can be directly strain-relieved in the mounting bracket (minimum gap to the last rotating e-chain® link is not necessary).

Minimum gap between the strain relief and the beginning of the bend radius

Tests show strain relief located at the last bend point of the e-chain® has no influence over the durability of igus® chainflex® cables. Strain relief can be integrated onto the mounting bracket. Options, i.e. chainfix clamp or tiewrap plate, are offered by igus® for almost all e-chains®.

Hydraulic hoses are attached at the moving end with CFX clamps. Special attention should be paid to the expansion of the hoses when pressurised.

Standard solutions

CFX clamps - fitted quickly and securely

Clamps are assembled as standard on a C-rail, which is either integrated or screwed in front of the KMA mounting bracket. chainfix clamps are the safest strain relief solution.

More information ► From page 556.



Tiewrap plate for easy strain relief with cable tiewraps

Tiewrap plates are a standard strain relief that can be assembled onto mounting brackets or crossbars, depending on the type. A tiewrap plate is an inexpensive and quick solution for strain relief and can be used for almost any e-chain®.

More information ► From page 570.



Special solutions

Strain relief separators - separator with integrated strain relief teeth

Suitable for particularly small installation spaces, the strain relief separators enable strain relief for chainflex® cables.

More information ► From page 574.



CFV strain relief - for a stepped strain relief for use outside of the e-chain® section

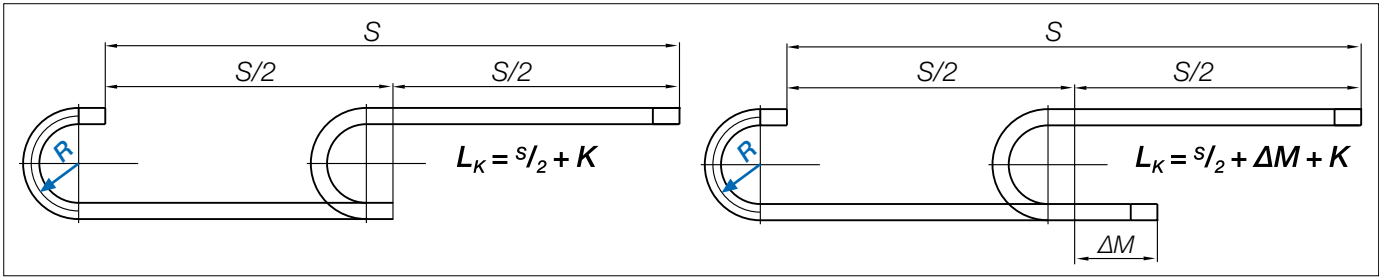
For stepped strain relief of cables in compact systems.

More information ► From page 576.

More solutions ► From page 548.



Calculation of e-chain® lengths



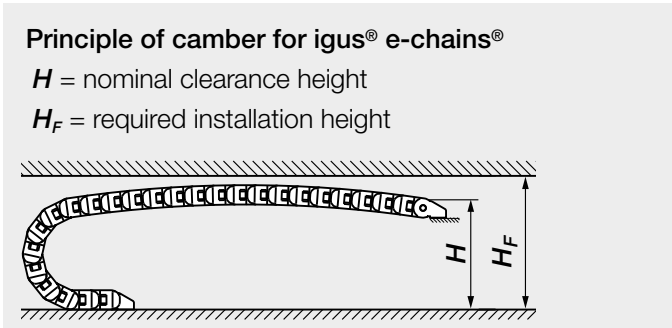
If the fixed end of the e-chain® is located in the centre of the travel, the e-chain® length L_K is calculated by using half the length of travel and adding the value K for the bend radius. You can obtain the value K from the tables in the catalogue. Placing the fixed end in the centre of the travel is the most **cost-effective solution** because it requires the shortest e-chain®, cables and hoses.

Pre-load

The largest possible unsupported length is influenced by the design, material and camber. Camber is the curve of the upper run along its unsupported length. All igus® e-chains® are manufactured with camber.

In the installation dimensions section of each respective e-chain® description, you will find the measurement H_F , which specifies the necessary clearance height, taking the camber into account. The camber allows for longer unsupported lengths and increases service life and operating safety.

$L_K = S/2 + K$
This formula is generally valid for all types of applications if the fixed end is in the centre of the travel. Exceptions: circular movements and most long travels.
 $L_K = S/2 + \Delta M + K$
This formula is valid if the fixed end is outside the centre of the travel.



Upon request, we can deliver e-chains® with reduced camber for restricted space applications - however, these reduced camber e-chains® do not have the same load-bearing capacity. Please reach out to us.

e-chain® design: with crossbars every link or every 2nd link

When to use e-chains® with crossbars every link?

- When guiding very thin cables to prevent the cables from moving out of place
- For narrow e-chains®, to improve lateral stability
- For high lateral accelerations ($> 5\text{m/s}^2$), e.g. for highly dynamic linear robots
- In high humidity, because the holding force of the crossbars is lower
- When guiding hydraulic hoses, in order to distribute the force of the hoses over more crossbars
- For travel lengths over 100m
- For travel speeds above 2m/s, gliding

When to use e-chains® with crossbars every 2nd link?

- If a version with crossbars every link is not required and the following advantages are to be gained:
- Interior separation easily attainable/accessible
 - Less installation work (less crossbars)
 - Approx. 10-15% more cost-effective depending on width
 - Up to 20% lighter depending on the width



E4 e-chains® with crossbars every link

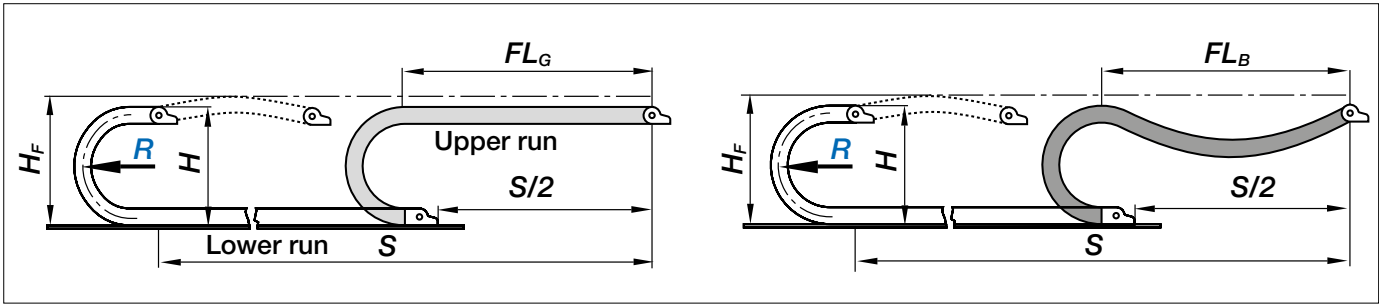


E4 e-chains® with crossbars every 2nd link

Movement types of energy chains

Moving directions	Application icons	Motion type	Detailed page(s)	Recommended series
Horizontal		Unsupported	► Page 48	all series (except OCO, P4HD, autoglide 5)
		Gliding	► Page 56	E2.1, E4Q, E4.1, P4HD, autoglide 5
		Side mounted / unsupported	► Page 64	E4.1, E4.1L, E4/Light
		Side mounted / gliding	► Page 65	E2.1, E4Q, E4.1, E6
Inclined		Unsupported lower run FL_U	► Page 54	E4.1, E4Q
		Inclined unsupported length FL_P	► Page 54	E4Q, E4.1, YE(HD)
Vertical		Vertical hanging	► Page 60	E2.1, E4Q, E4QL, E4.1, E4.1L
		Vertical standing	► Page 62	E2.1, E4Q, E4QL, E4.1, E4.1L
		Zig-zag	► Page 63	E2.1, E4Q, E4QL, E4.1, E4.1L
Rotation		Circular movement RBR	► Page 66	E2.1 micro, E2.1, E4Q, E4QL, E4.1, E4.1L, E4/Light
		Circular movement scrolling	► Page 67	E2.1 micro, E2.1, E4QL, E4.1, E4.1L, E4/Light
		Circular movement	► Page 68	twisterband twisterchain

Short travels



Unsupported

If the upper run of the e-chain® operates without touching the lower run over the entire travel, it is called an unsupported application. The distance between moving end and the beginning of the radius curve of the e-chain® is called the **unsupported length**. The unsupported

application is the most common. igüs® e-chains® are very well suited for high dynamics and long service life. The maximum unsupported length depends on the fill weight and the type of e-chain® or e-tube. As a result, we differentiate among three types of unsupported length.

Unsupported	FL_G	FL_B
v max.	20 [m/s]	3 [m/s]
v peak	50 [m/s]	–
a max.	200 [m/s²]	6 [m/s²]
a peak	784 [m/s²]	–

The FL_G type of installation always generates the longest service life and can be operated with the max. values for speed and acceleration.

1. Unsupported with straight upper run FL_G

The e-chain® is unsupported FL_G when the upper run still has camber, is straight or has a maximum sag of 1/2 of the e-chain® link height. Installing the e-chain® in FL_G is always recommended. The e-chain® runs smoothly without additional vibration.

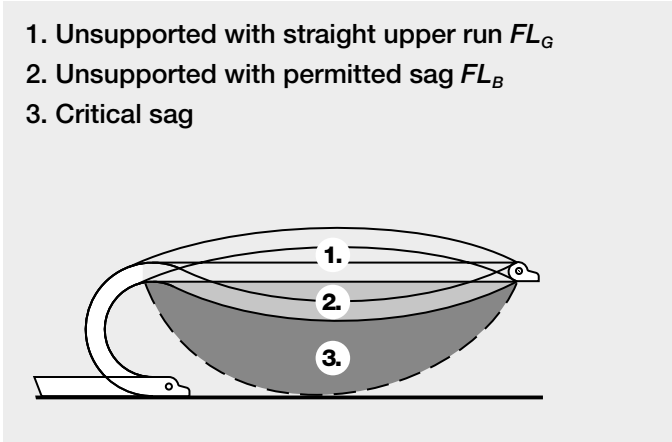
2. Unsupported with permitted sag FL_B

The e-chain® is unsupported FL_B when the sag is more than 1/2 e-chain® link height and less than the smallest available radius of this e-chain® series. In most applications the e-chain® can be used unsupported FL_B without any problems. There are restrictions concerning the maximum speed and acceleration.

3. Critical sag

When the sag of the e-chain® is higher than allowed for FL_B , it is in critical sag. Using an e-chain® in critical sag should be avoided or solved with special solutions. An e-chain® should never be

installed with critical sag. Applications may reach critical sag after long service times. The e-chain® or e-tube should be replaced in these cases.



Short travels

What to do if the unsupported length is insufficient?

If your application, fill weight and travel fall outside the unsupported length parameters of the desired e-chain®, you have the following options:

- Select a stronger igüs® e-chain®
- Support the e-chain® in the unsupported area. This option means restrictions for acceleration, speed and noise as a consequence - three fundamental examples are detailed to below - please consult igüs® if you are considering this possibility - we will gladly provide you with a detailed proposal
- Use a multiband e-chain® or nest two igüs® e-chains® inside one another. (Please consult igüs®)
- Design the travel distance as a gliding application

For every igüs® e-chain® or e-tube, you will find the values for FL_G and FL_B in two locations: on the following pages in this chapter as an overview and within every individual series' chapter.

They are essential for:

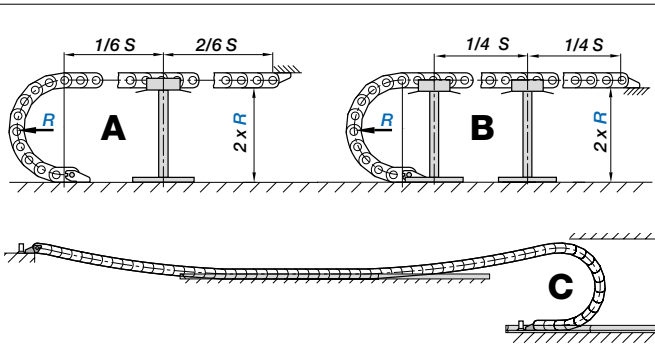
- Finding a suitable e-chain® for your fill weight and travel distance
- Identifying the maximum load for the selected e-chain®

Support of the FL_G area

A) The overall straight, unsupported travel can be increased here by a maximum of 50% of the FL_G and in case of option B) by a maximum of 100%.

Support of the FL_B area

C) The overall travel distance can be extended to a maximum of 100% from FL_B .



Contact surfaces

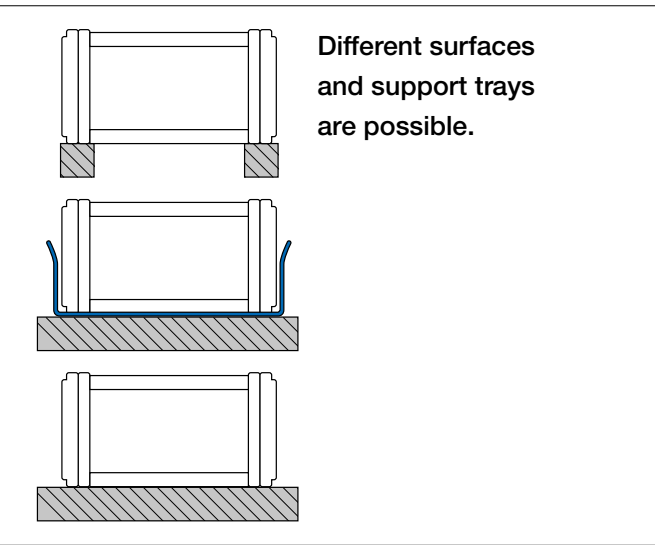
Unsupported igüs® e-chains® normally require some type of surface on which the lower portion of the e-chain® runs. A wide range of configurations is available, as the drawings on the right demonstrate. Many material options are feasible: metals, polymers, stone, wood, concrete, glass, etc. We also have solutions to minimise the noise generated by the e-chain® lower portion. When selecting the running surface, please ensure that dirt and debris cannot collect in the e-chain® path.

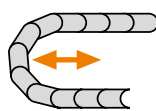
Mounting brackets

Pivoting mounting brackets compensate for the camber, can be installed more easily and decrease the load on the first e-chain® link in operation.

Exception: if the acceleration is greater than 20m/s² or if the height is limited to the H_F measurement.

In such cases, locking mounting brackets keep the e-chain® under the H_F measurement.





Installation type | Unsupported

Selection of the energy chain | Load diagrams

FL diagrams for the selection and design of the suitable energy chain for specific applications

They show how the maximum unsupported length depends on the fill weight of the energy chain. The side links are the energy chains supporting elements. They support the weight of the energy chain itself, as well as the weight of the cables and hoses inside it, and the weight of the assembled interior separations. With our E4 e-chain® series, which is available in a range of designs from narrow with a crossbar every second link to wide e-tubes, the weight of the chain itself is an important factor that needs to be taken into account - especially with regard to the service life of the energy chain system.

In the individual e-chain® chapters you will find specific diagrams, each with two lines: one for the recommended unsupported straight length (FL_G) and one for the unsupported length with sag (FL_B), which is only suitable for lower dynamics. The FL_G and FL_B lines are a strong simplification of reality in order to provide a simple design aid.

Our online tools offer precise validation taking into account the chain's own weight: the design of the complete energy chain system by our e-chains® expert or a quick pre-validation using our e-chains® service life calculator (see QR code).

Furthermore, the diagrams do not provide any information about the expected service life of the energy chains. The acceleration in particular is a critical factor that influences the service life, as well as the specific design of the respective energy chain. For a realistic service life calculation (including a guarantee of up to 4 years), please use our e-chains® service life calculator.

For an initial preselection, you will find overview diagrams on the following pages that compare the FL_G lines of all series included in this catalogue. For reasons of clarity, some lines that actually differ slightly from each other have been combined.

e-chain® service life calculator

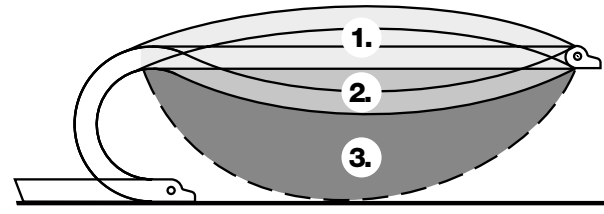
Our service life calculator gives you the energy chain's expected service life when you enter a few application parameters. You can also use the tool to create a guarantee certificate for up to 4 years.

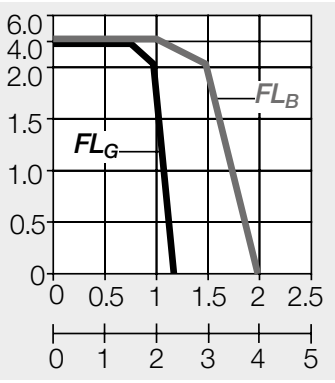


1. Unsupported with straight upper run FL_G

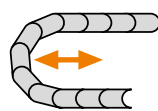
2. Unsupported with permitted sag FL_B

3. Critical sag - must be avoided!



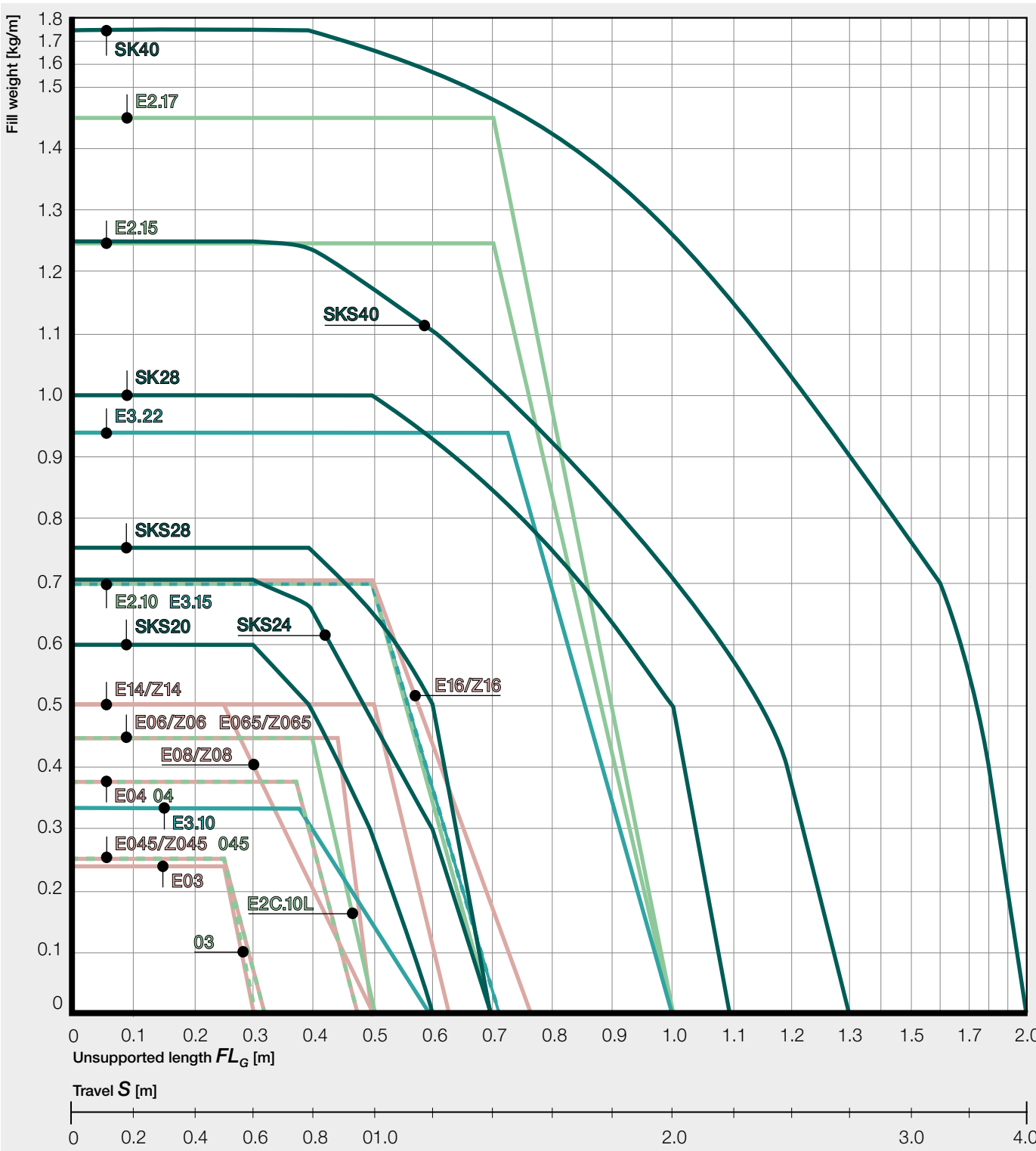


Find the diagram values for FL_G and FL_B also in every individual series chapter.



Installation type | Unsupported

Unsupported straight FL_G | Fill weights up to 1.75kg/m



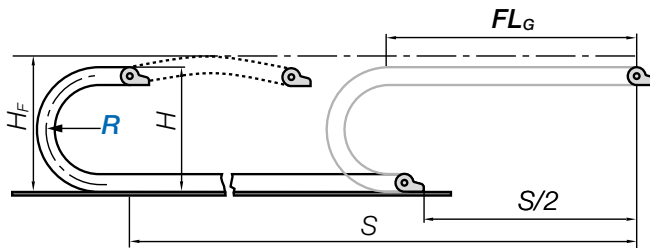
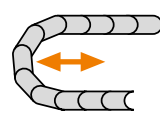


Diagram series - you will also find these diagrams in every individual series chapter in this catalogue.

easy chain® Page 86	E3 Page 420
E2.1 micro Page 110	e-skin® Page 362



Installation type | Unsupported

Unsupported straight FL_G | Fill weights up to 10kg/m

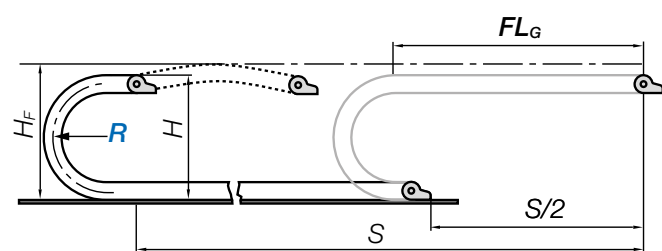
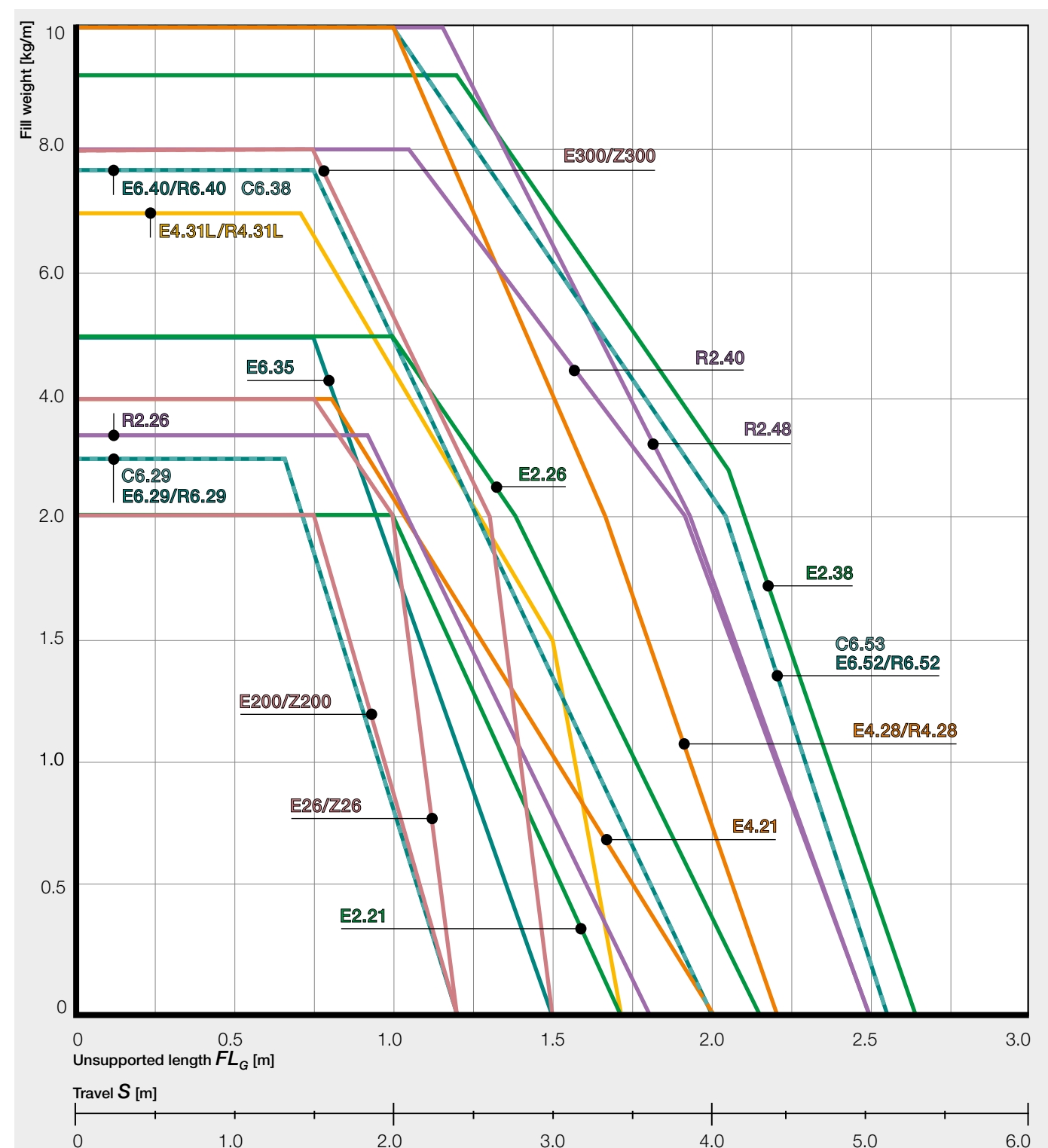
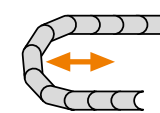


Diagram series - you will also find these diagrams in every individual series chapter in this catalogue.

easy chain®	Page 86	E4.1L	Page 270
E2.1	Page 132	C6	Page 368
R2.1	Page 158	E6	Page 382



Installation type | Unsupported

Unsupported straight FL_G | Fill weights up to 90kg/m

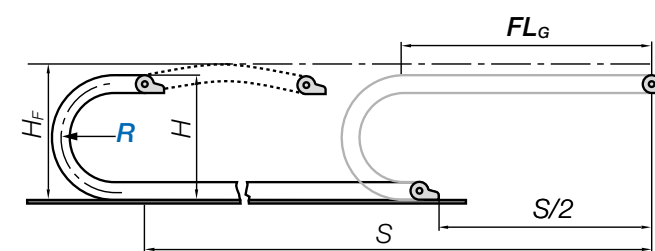
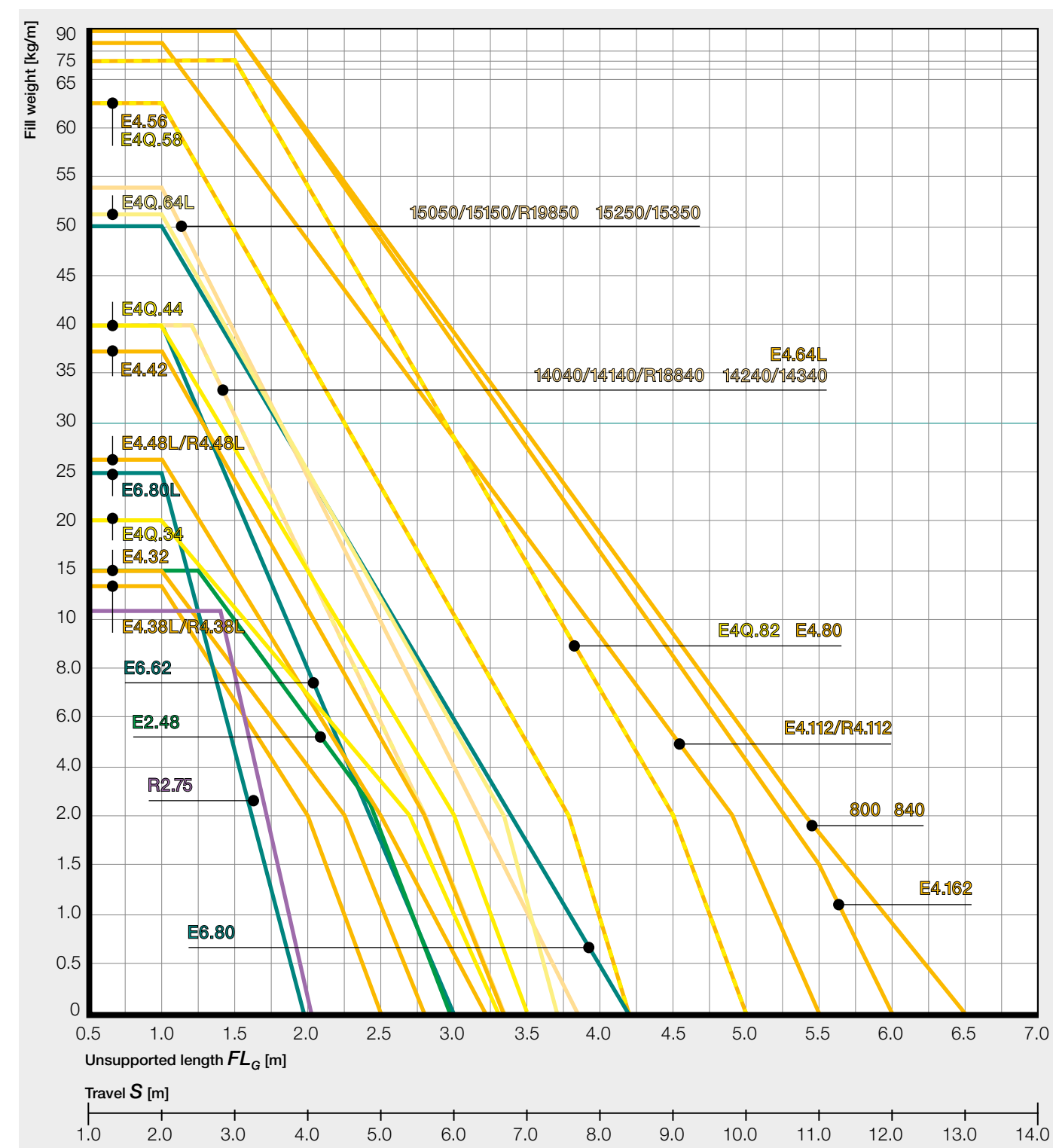
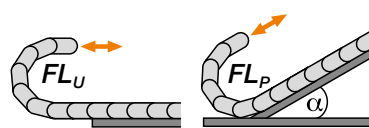


Diagram series - you will also find these diagrams in every individual series chapter in this catalogue.

E2.1	Page 132	E4.1	Page 210
R2.1	Page 158	E4.1L	Page 270
E4Q	Page 176	E4/light	Page 296
E4QL	Page 202	E6	Page 382



Installation type | Unsupported | FL_U and FL_P

Installation type | Unsupported lower run FL_U

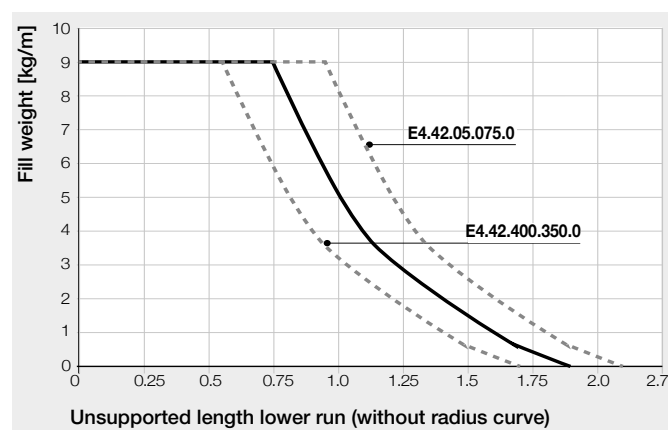
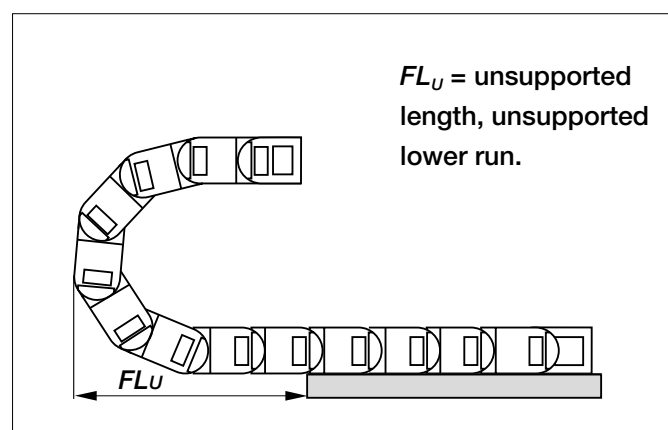
What does unsupported lower run mean?

One speaks of an unsupported lower run FL_U as soon as part of the lower run of the energy chains is not supported. This installation type enables a compact design in which the workspace area is as close as possible to the footprint of the machine, saving space.

Our recommendation: for short strokes of up to 2m, it can be an attractive alternative to create more space while maintaining the same machine dimensions.

Special features of the unsupported lower run

1. At least the first three chain links of the lower run should be supported to reduce the force on the mounting bracket
2. Supported chain links do not count as part of the FL_U area
3. The maximum unsupported length of the lower run is approximately 1/3 less than the unsupported length FL_G
4. The maximum speed and acceleration data are the same as for the unsupported length with sag FL_B



Installation type | Unsupported, inclined FL_P

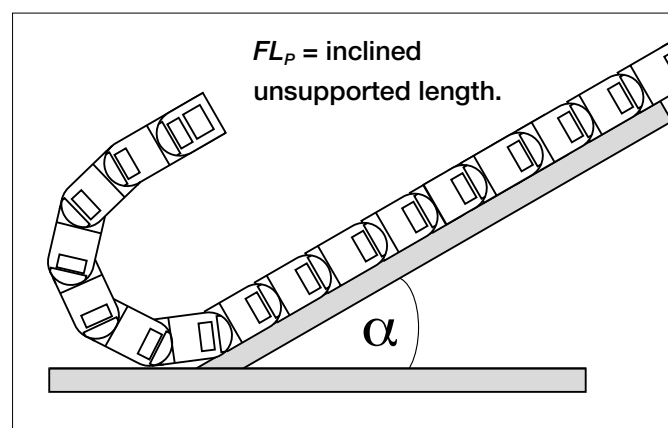
What does inclined unsupported length mean?

In some applications, the energy chains are often used with an inclined travel. The inclined unsupported length FL_P installation type is often used in construction machinery or work platforms.

Special features of the inclined unsupported length FL_P

In inclined applications, we recommend installing the energy chain so that the arc of the chain radius always points downwards. The angle α indicates the degree of inclination of your machine. At the lowest degree of inclination, the inclined unsupported length of the energy chain and therefore its load is the greatest.

The suitability of igus® energy chains for this type of installation can be checked for specific applications with the e-chain® service life calculator.

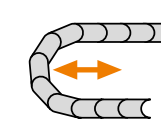


e-chain® service life calculator

After entering a few application parameters, you will receive a statement about the expected service life of the energy chain. You can also use the tool to create a guarantee certificate for up to 4 years.



Installation type | Unsupported | Noise optimised



Noise-optimised energy supply solutions

Noise-optimised energy supply solutions

To keep noise to a minimum in production, you need machines that run smoothly. The igus® product range includes e-chains® optimised for low noise and optional accessories for sound reduction in unsupported applications. Have our specialists design the quietest e-chain system® for your application, for example.



Selected noise tests - external noise corrected measurement values

e-chains® series	igus® system	Averaging of the corrected sound pressure levels	Test method unsupported
E61.29	E6.1	≈ 32dB(A)	1.0m/s
T3.29	T3	≈ 33dB(A)	1.0m/s
E3.22	E3	≈ 38dB(A)	1.8m/s
E6.52	E6	≈ 46dB(A)	2.0m/s
ES4.42	E4.1	≈ 46dB(A)	1.0m/s
SE2i.48	E2.1	≈ 54dB(A)	2.0m/s

Values were determined during internal tests in the igus® laboratory.

Noise reduction options



System E6/E6.1 with scalable crossbar.



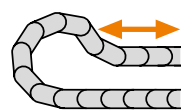
E2.1 system with damper clip.



E3 system with spring connector.



T3 system with modular "T-band"



Installation type | Gliding

Long travels

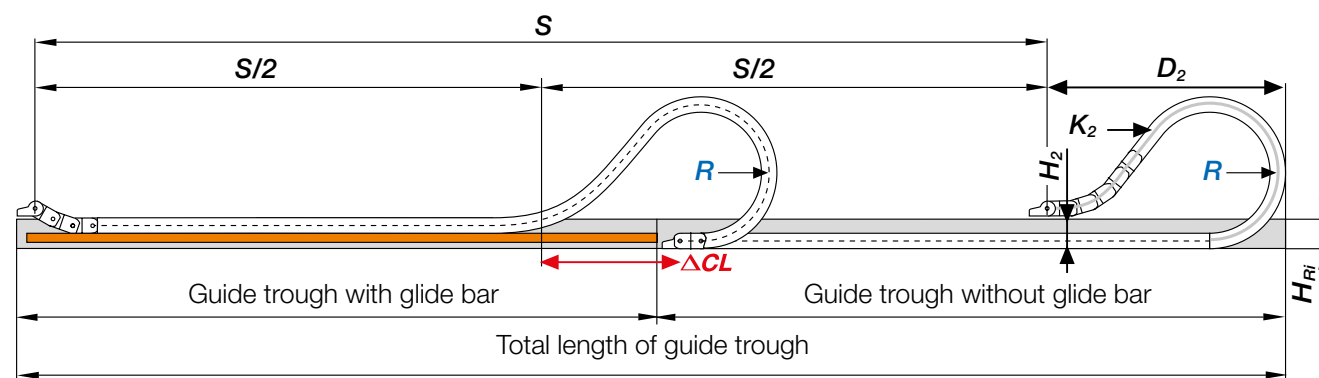
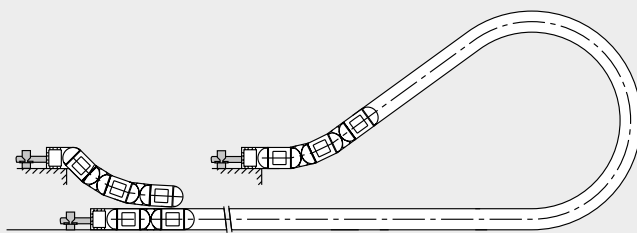
Gliding applications principle

For long travels, the upper run of the igus® e-chains® rests on the lower run. The upper run of the chain glides partly on the lower run and partly on a glide bar. The diagram below shows this. For lateral guidance, a guide trough is necessary. If the stationary mounting bracket and the fixed end of the cables and hoses can be placed **in the centre**, the e-chain® length is calculated as follows: $L_K = \frac{S}{2} + K_2$.

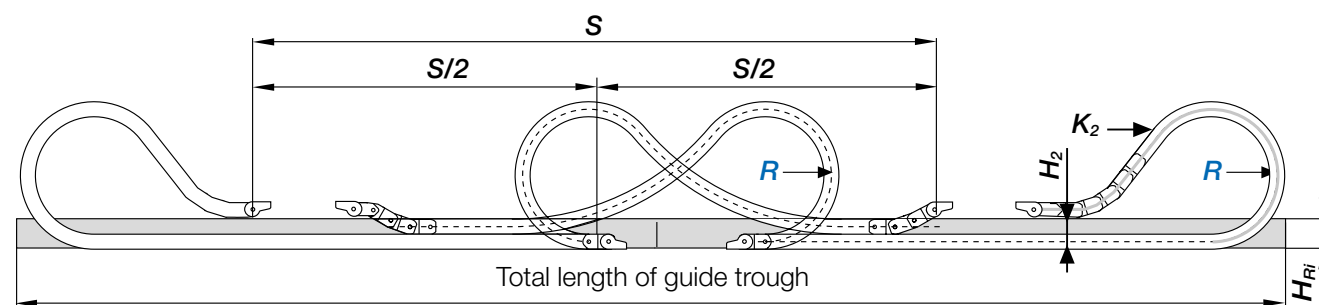
Depending on the technical data and the selected e-chain®, the mounting point of the moving end of the e-chain® must be lowered on some units (lowered moving end).

Advantages for lowered moving end

- Space-saving
- Longer travels
- Longer service life



Schematic showing the function of an e-chain system® on a gliding application. The fixed end of the e-chain® is located in the centre of the travel distance.

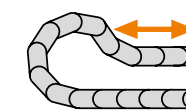


Configuration involving two opposed e-chains®. For a configuration involving two opposed e-chains®, the travel is measured as shown and can be used when there are high loads or restricted space.

Recommended ratio of inner width Bi to bend radius R

The minimum inner width of an e-chain® on long travels depends on its bend radius. For particularly large bend radii on long travels, please consult igus®. **igus® specifies:** $Bi_{min.} \geq \frac{R}{4}$

Installation type | Gliding



Long travels



Energy chains with integrated rollers

For most long travel applications, solutions with gliding energy chains are the first choice, both technically and economically. For particularly high requirements in terms of dynamics, fill weight, environment conditions and/or service life, we recommend e-chain systems® with integrated rollers. In this kind of system, the upper run rolls on the lower run instead of gliding. This significantly reduces the push/pull force acting on the energy chain. Some example applications for rol e-chains® include STS cranes, waste incineration and composting plants as well as highly dynamic gantries.

Advantages for long travel applications with igus® e-chains®

- Travels over 1,000m
- 6m/s speed (up to 10m/s possible after consultation with igus®)
- Fill weights up to 70kg/m
- Service life of 10 years and more with igus® e-chain systems®
- More than 20 years of continuous improvement of the igus® rol e-chains® for long travels and reduced drive force

Further advantages compared to alternative technologies

- Many different types of cables and hoses can operate together in the same system (i.e. electrical, data, fibre optic cables with hydraulic and pneumatic hoses)
- Space-saving installation
- Quiet operation
- High accelerations can be absorbed
- Durable in wind, weather, dirt and chemicals
- Easy installation of the modular system on site
- Quick installation and retrofitting of cables

Design assistance, free of charge

We recommend that igus® calculate every gliding application for you. We will always offer the most cost-effective solution, taking the technical requirements and operating safety into consideration.

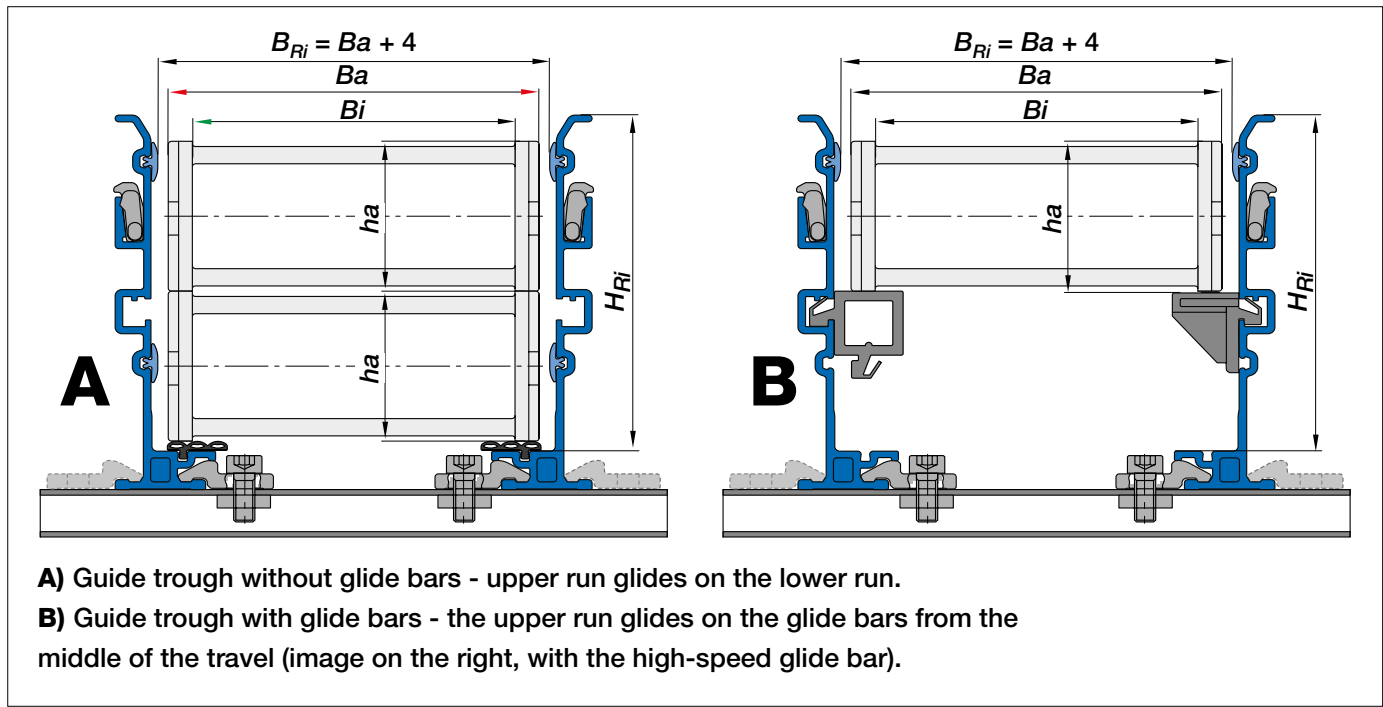
We need the following variables in order to advise you correctly:

- Length of travel [m]
- Travel speed [m/min] or [m/s]
- Acceleration [m/s²]
- Fill weight [kg/m]
- Maximum cable or hose diameters [mm]
- Type and number of cables
- Intended bending radius [mm]
- Cycle frequency (n/day or n/hour)
- Technical environment

We recommend pivoting mounting brackets for gliding applications!



Long travels



Long travels with iglus® guide troughs

Guide troughs allow iglus® e-chain® and e-tubes to continue smooth, low-friction operation in long travel applications. Principle sketches are shown on this page. The height of the trough must be at least twice that of the e-chain® height. The sides must provide a chamfered opening. The trough inner width is the same as the e-chain® outer width, plus 4mm (for the Aluminium SuperTrough) $B_{Ri} = Ba + 4$. Along the side of the trough, where the upper run cannot glide on the lower run, glide bars must be installed.

We recommend the use of iglus® polymer high-speed glide bars. They are optimised for use with the e-chain® material and offer the lowest gliding friction, noise and wear - available for Aluminium SuperTrough series 973/974/975. Guide troughs with and without glide bars can be obtained from stock for almost all iglus® e-chains®.

Note: When assembling the trough parts, the following points must be given particular attention:

- Properly align all trough parts upon installation
- All screw heads should be flush with the trough
- Smooth level transition between the end of the e-chain® and the glide bars
- Solid connection with the glide surface

These points must be observed when using assembly-friendly iglus® guide troughs.

If the fixed point is in the centre of the travel, use half of the guide trough with glide bars and the other half without glide bars.

Glide friction values for e-chains® made of igumid® G LW / CG LW and various glide bars

iglus® igumid® G LW / CG LW	Polymer glide bar	Galvanised steel sheet	Anodised aluminium	AISI 304 stainless steel (material: 1.4301)
Coefficient of friction dynamic	0.19	0.45	0.54	0.48

Source: iglus® lab, Cologne.

Long travels

Travel speeds and accelerations

Travel speeds up to 6m/s in continuous operation are possible with rol e-chains® and in use on current applications. In special cases, up to 10m/s possible after consultation with iglus®. For example, E4 e-chains® achieve speeds of 22m/s and accelerations of 784m/s² in crash test units. In these cases, however, only a few thousand cycles are required per year. Acceleration plays a crucial role in the life calculation. Differentiations must be made between normal operational acceleration and a sudden jolt of acceleration such as unexpected stops or so-called "E-stops". Even in these situations, iglus® e-chains® prove to be very durable.

Service life

We offer service life calculations for your application based on our extensive gliding application experience. As developers of polymer plain bearings, we possess vast material behaviour knowledge which we apply to the development of e-chains® as well. Units with 200m travels have been in operation for 8 years with minimum maintenance. Units up to 60m travels have been in operation for 15 years with almost no maintenance. Please consult iglus® for references and calculations for your project. The maintenance-free aspects of iglus® e-chain systems® over long periods and under harsh operating conditions is often the deciding factor in choosing iglus®. Our system guarantee (depends on the application) provides additional peace of mind.

Technical environment

Long travel applications using iglus® e-chains® run in water, in dirt, in the tropics, in explosion risk

areas (with special design features) and many other conditions. You will find more details in the Technical Environment section of this chapter. Guide troughs can be supplied in corrosion-free materials.

Calculation

Comprehensive tests place us in the position of knowing our products capabilities.

Important factors in testing are:

- High push/pull forces under temperature
- Moisture and dirt
- Plastic coefficient of friction with and without different mating surface
- Behaviour of electrical cables under push/pull force
- Behaviour of hydraulic and media hoses under push/pull forces
- Service life and noise comparison

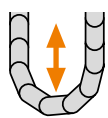
If we cannot calculate your application based on these factors, we can carry out a test for you in our laboratory. Please consult iglus®.

Corrosion-free guide troughs are available in the following materials:

- Standard = seawater resistant aluminium
- Galvanised steel
- AISI 316Ti/AISI 316L stainless steel material 1.4571/1.4404 upon request

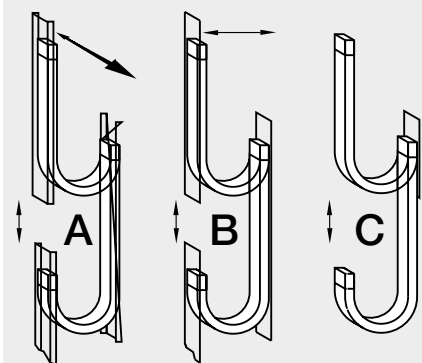
Technical data

Long travels		
Max. travel	600m - 800m	
v max.	10m/s	
a max.	50m/s²	Depending on the application, please check with iglus®
Fill weight max.	70kg/m	Depending on the application, please check with iglus®

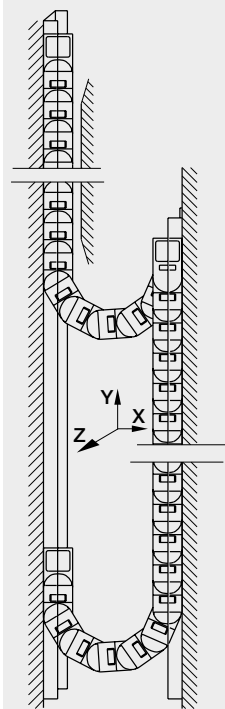


Installation type | Vertical hanging

Vertical hanging applications



Lateral acceleration can occur in two directions (diagrams A+B). Guidance is necessary. In most cases, vertical motion applications do not require lateral guidance (diagram C).



Principle of a hanging igus® e-chain® with lateral guidance, lateral accelerations in both directions are contained. Lateral accelerations in both directions are contained.

Vertical, hanging applications

For hanging applications, heights of over 100m are possible with igus® e-chains®.

Cables and hoses

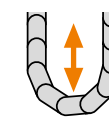
Two important factors in vertical hanging applications are how the cables and hoses lay in the e-chain® and how they are secured at the end points: all cables and hoses must be hung so that they bear their own weight. The e-chain® fulfils the function of orderly conduit bundling only and should not absorb any further tensile forces. igus® interior separation elements should be used for distinct division of all cables and hoses. The cables and hoses must be secured carefully to both end points of the e-chain®. The strain relief must be designed so that the opposite run cannot catch. Safe strain relief and clear separation of the cables and hoses are the basic prerequisites for hanging installations. **Cables must be able to move freely and bear their own weight.**

Vertical motion with lateral acceleration

If the application has a purely vertical movement without lateral acceleration, a lateral support is not necessary. If lateral acceleration occurs, lateral guidance of the e-chain® must be provided in most cases. The diagram shows the principle of such guidance. Partial guidance is also an option - however, it must at least cover the area in which the e-chain® may sway. Lateral acceleration can occur in two directions. The lateral guidance must be installed accordingly. **If you have a choice, the layout in figure A is preferred.** The lateral acceleration then acts transversely to the e-chain®, where it is more stable. When using a guide, an e-chain® with camber should be selected. This ensures that the chain is pressed into the trough.

We recommend locking mounting brackets for vertical hanging applications!

Installation type | Vertical hanging



Vertical hanging applications

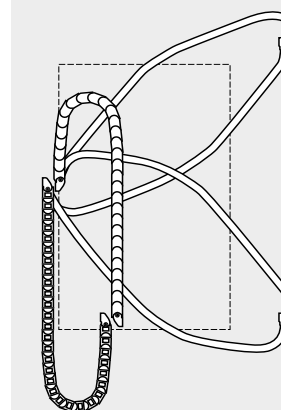
Vertical hanging		
Max. stroke height	100m	
v max.	20m/s	Depending on stroke height and strength of the e-chain®
a max.	50m/s ²	Depending on stroke height and strength of the e-chain®

Reduced camber version with igus® special NC e-chains®

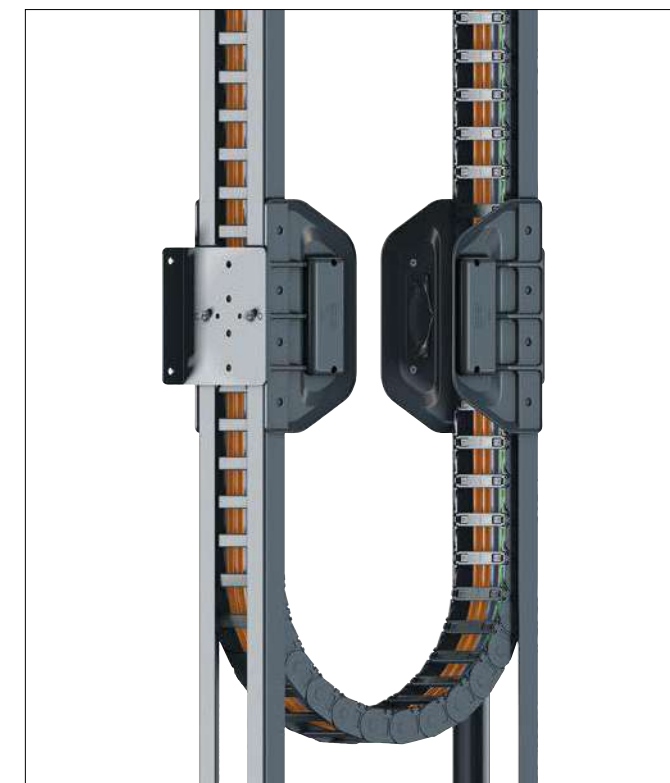
A normal igus® e-chain® with camber is suitable for hanging use if enough space is available. Camber contributes to quiet operation of the e-chain®, but needs a little more space. If there is less space - as is frequently the case for storage and retrieval systems in narrow aisles - an e-chain® with reduced camber must be ordered. igus® offers numerous NC versions. (NC = No Camber, without pretension).

NC version by simply rotating the outer link at E4.1 system.

Hanging igus® e-chain systems® can reach different points.



Special solution for vertical applications:

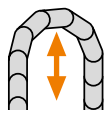


Safe vertical guidance - guidelok slimline P and P.S

More cost-effective, lighter and even easier to install. guidelok slimline "P" and "P.S" plastic guide troughs for vertical applications, especially for all types of storage and retrieval units; now with even lighter components and simplified installation. Locking lever and guide rails prevent the energy chain from swaying or swinging outwards.

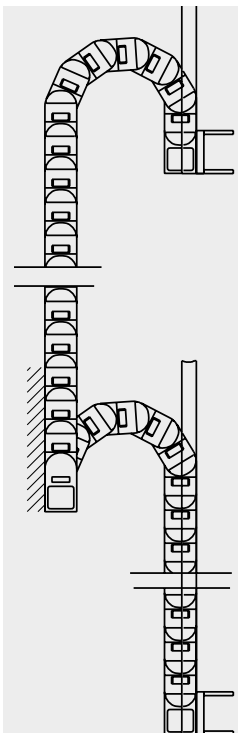
Benefits

- Significant savings in costs and weight when compared with a complete housing
- Now also for particularly narrow lanes
- For hanging systems up to 50m
- Fast, safe and easy assembly with plug-in guide rails
- Reduced noise
- Easy access for servicing
- Energy, data and all kinds of media can be safely guided

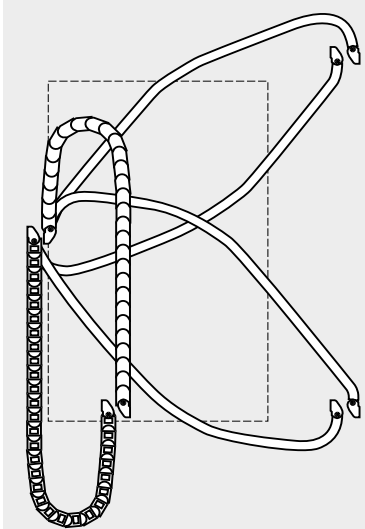


Installation type | Vertical standing

Vertical standing applications



Options for a standing application with support of the first e-chain® links: on the right, with U-shaped guidance - on the left, with the support of the first e-chain® links.



Standing e-chain systems® can reach very different points.

Vertical standing	
Max. stroke height - without support	≈ 4m
Max. stroke height - with support of the first e-chain® links	≈ 6m
Max. stroke height - with full support	≈ 20m
v max. (depending on stroke height and fill weight)	20m/s
a max. (depending on stroke height and fill weight)	50m/s²

Vertical standing applications
Standing applications are standard on many machines and plants. Cables will be guided safely in vertical strokes.

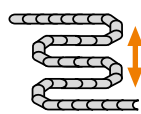
Mounting brackets
The mounting brackets must be attached so that the e-chain® cannot bow outwards. The igus® product range offers locking or one-sided, locking mounting brackets for almost all types of e-chains®. Locking KMA mounting brackets are highly recommended because they can be attached flush to the machine.

We recommend locking mounting brackets for vertical standing applications!

Cables and hoses
Cables and hoses must be laid in the e-chain® so that they can bend freely and bear their own weight. For precise guidance of the cables and hoses, we strongly recommend igus® interior separation elements. Cables must have strain relief at both ends.

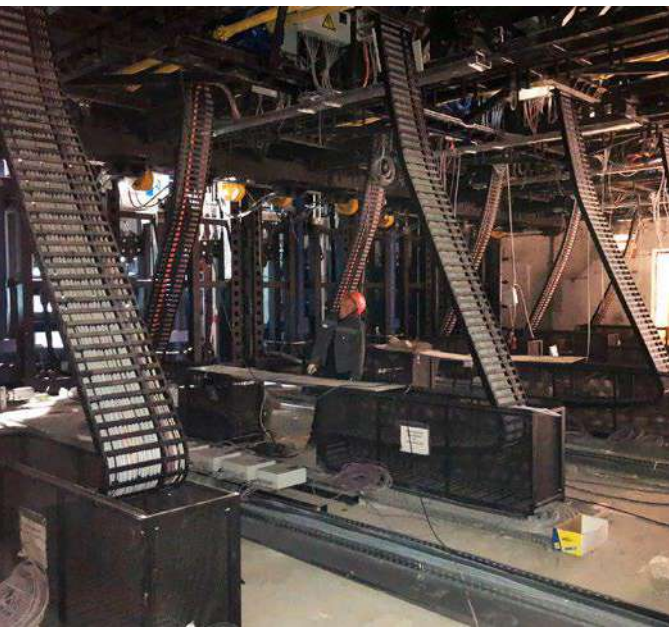
Lateral acceleration
If lateral acceleration occurs, the e-chain® should, in most cases, be supported along the outer radius. For higher e-chain® heights, it is generally recommended that at least the first three links on the outer radius be supported. For maximum heights and weights, the whole distance must often be supported. Due to the wide variety of combinations involving fill weights, stroke heights, e-chain® types and bend radii, we strongly recommend you make use of our consulting services.

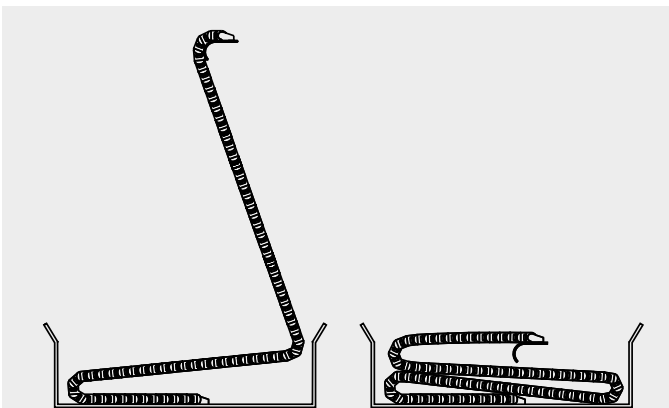
Combined motion
Combined vertical and horizontal movements are possible with igus® e-chains® for a cost-saving solution.



Installation type | Zig-zag

Zig-zag design





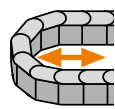
Space-saving installation - travel heights of more than 20m possible. Picture left: extended e-chain®, illustration right: unextended e-chain® stored in a basket.

Zig-zag design
The modular design of igus® e-chains® facilitates this space-saving and unconventional solution. For modern platform technology, such as theatre stages, a variety of cables and hoses which adjust the stage height must be accommodated. Lack of space almost invariably presents difficulties. The picture shows an e-chain® in a zig-zag configuration. The unextended

e-chain® is stored in a basket. If the platform is raised, the e-chain® unfolds, generating little or no noise. This construction is possible with the e-chains® of the E4.1 system as well as many other types. Please consult igus® for these kinds of applications.

We recommend pivoting mounting brackets for zig-zag applications.

Zig-zag		
Max. travel	40m	Longer travels upon request
v max.	0.4m/s	Depending on the application, please check with igus®
a max.	1.0m/s²	Depending on the application, please check with igus®



Installation type | Side-mounted, unsupported

Side-mounted applications | Unsupported

Unsupported - side-mounted

igus® e-chains® placed on their side can be used unsupported to a limited extent.

The side-mounted unsupported length depends on:

- Duration in extended, unsupported position
- Fill weight
- Width of e-chain®
- Bend radius
- Parallelism of the application

The greater the fill weight of the e-chain®, the shorter the unsupported length. When placed on its side, the e-chain® width, in effect, becomes the height. As this height increases, the e-chain system® becomes proportionally more stable. If further movement in a second axis is added to the parallel motion of two e-chains®, the unsupported length is impaired. For applications with low fill weight, the standard mounting brackets are adequate. If, however, the fill weight is

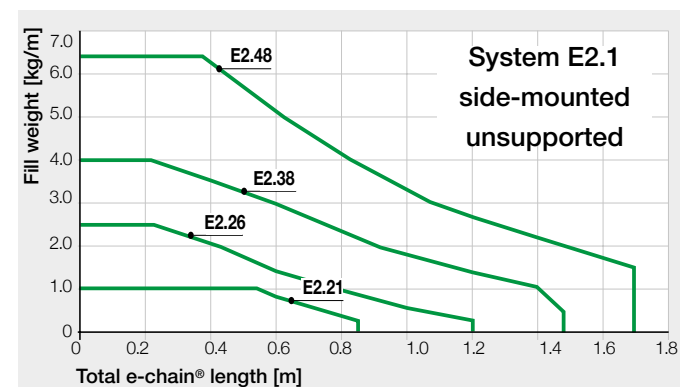
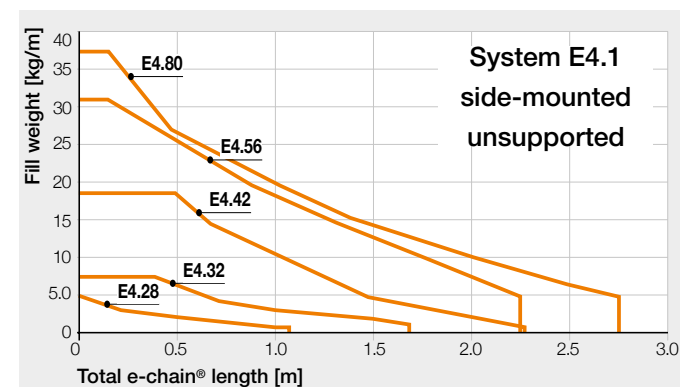
high and the travels are long, the e-chain® must then be supported either in whole or in part. Due to the variety of application possibilities, we strongly recommend that you make use of our consulting services.

We recommend locking mounting brackets for side-mounted applications!

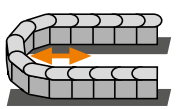
Side-mounted e-chains® are strongly recommended if the installation height is restricted.

Standard values for side-mounted unsupported lengths are available upon request. The unsupported lengths can be extended by supporting the links next to the mounting brackets.

Example load diagrams for e-chains® side-mounted at 90°

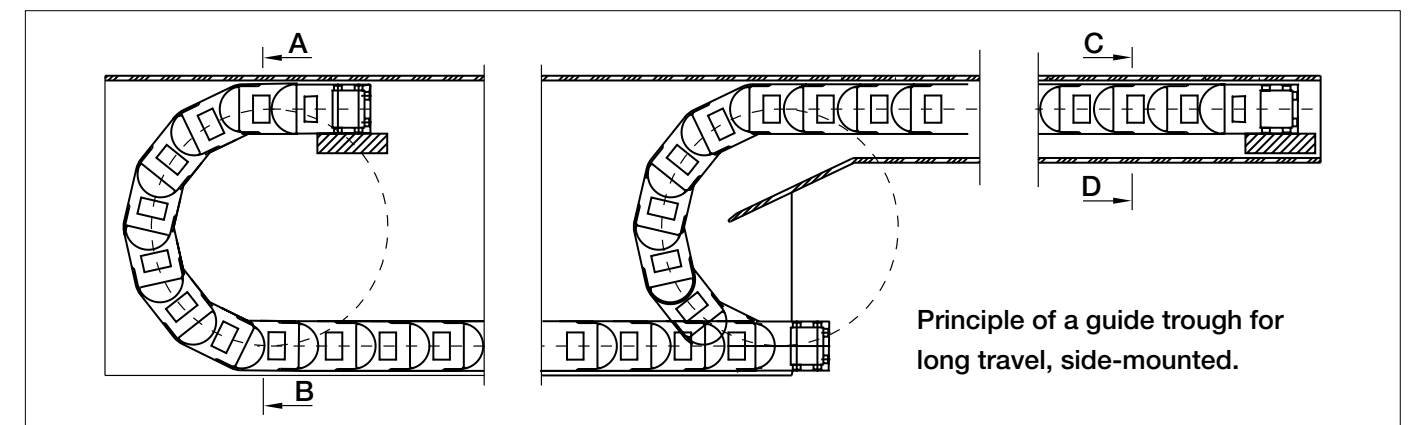


The unsupported lengths can be extended by supporting the links next to the mounting brackets. Please consult igus® for more series and details.



Installation type | Side-mounted, gliding

Side-mounted applications | Gliding



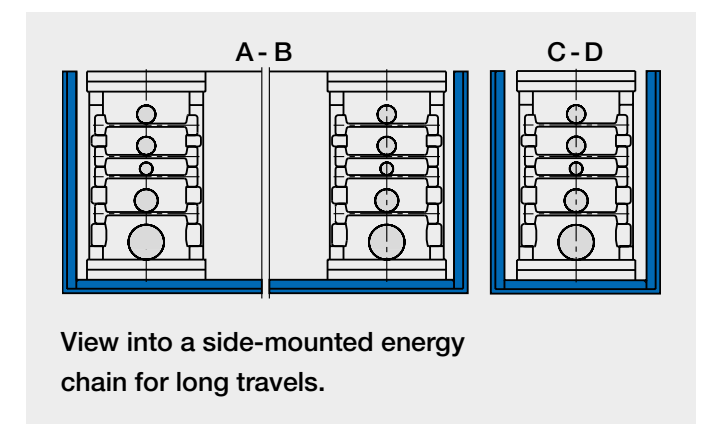
Long travel, gliding

Side-mounted e-chains® can travel over 100m with adequate guidance. All e-chain® types are designed to operate gliding on their side. The corresponding glide surface is usually an igus® polymer, stainless steel (1.4301 material) or galvanised steel, depending on how high the demands on the travel speed and service life are. Roller and ball bearings or additional gliding elements are not necessary for igus® e-chains®.

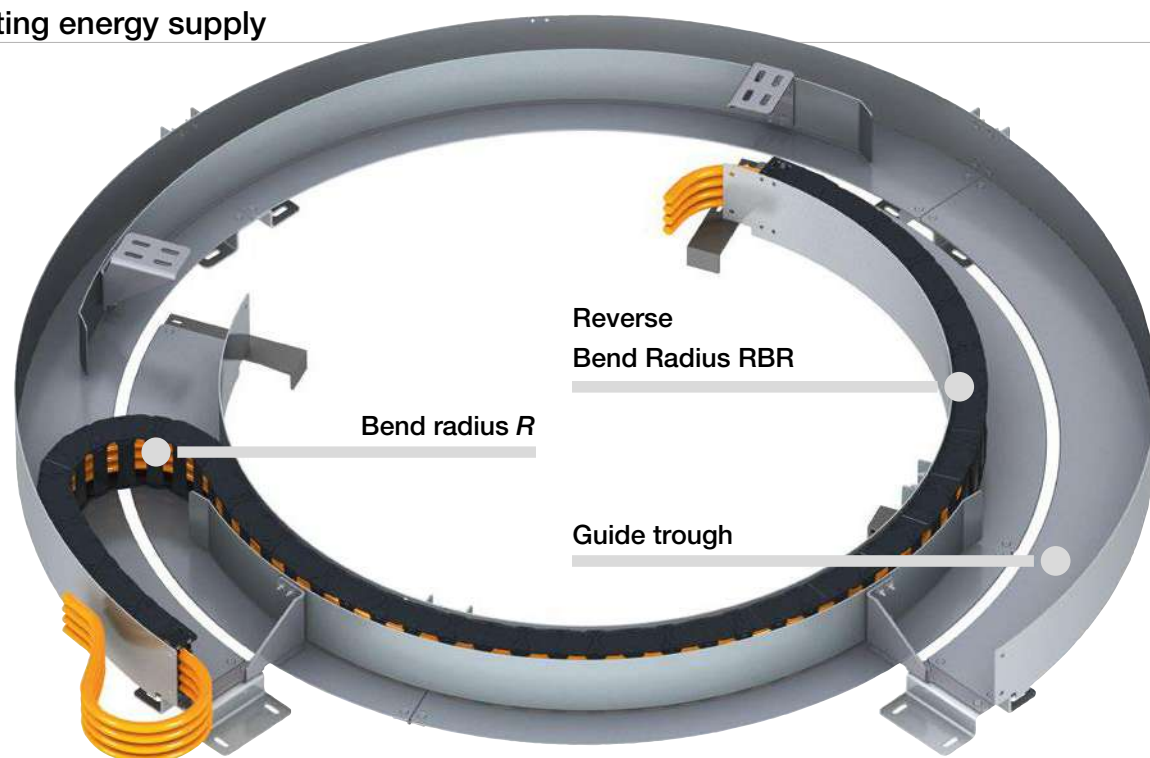
of dispensing with spacers. igus® will gladly provide an application analysis, free of charge.

Cables and hoses

Cables and hoses must be guided so that the e-chain system® can move freely at all times. The igus® modular separation options offers numerous possibilities, such as vertical separators and spacers (see illustration). With the standard e-chain® series, notch separators on the crossbars offer the option



Rotating energy supply



Circular movement RBR

Max. angle of rotation	540°	Higher rotation angles up to 900° MRM
v max.	2m/s	Depending on the application, please check with igus®
a max.	20m/s²	Depending on the application, please check with igus®

The modular system for fast rotating applications with RBR

For several years igus® has been developing customised systems for circular movements with e-chains®. The rotating energy supply systems consist of an e-chain® with a Reverse Bend Radius (*RBR*) and a guide trough system adapted to the e-chain® and the circular motion.

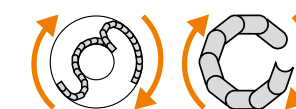
igus® offers both trough systems designed for specific projects and some dimensions as pre-engineered standard rotary modules. These guide trough systems consists of two circular guide elements. One part of the guide trough is attached to the static part of the system and the other part to the rotating part of the system. The fixed end of the e-chain® can be freely placed, as both the inside and outside parts of the rotary modules can be rotated. Reverse Bend Radius means that the e-chain® can bend in two directions. Versions with Reverse Bend Radius (*RBR*) can be made for many igus® e-chains® by reworking the standard chain links. The *RBR* does not necessarily need to be identical to the normal bend radius (*R*) of an e-chain®.

- Maximum rotation angle in minimal installation space
- Minimum displacement forces and maximum service life
- Modular construction with standardised mounting options
- Integrated strain relief and cable guidance directly in the guide trough
- Depending on the application in question, the e-chains® glide on surfaces made of plastic, stainless steel or galvanised steel and are guided by special channels in a predefined circular movement.

We recommend pivoting mounting brackets for most applications with circular movement with RBR.

Energy chains for circular and spiral movements

You can find the list of e-chains® with Reverse Bend Radius available from stock online on our homepage.



Rotating energy supply | Guide troughs

Standard Rotation Module (RM) systems

Depending on the dynamics and load of the application, the guides are made of steel or stainless steel (material: 1.4301). For applications with high duty cycle, we provide a plastic sliding liner in the guide troughs. The igus® e-chains® do not require any additional sliding pads either for contact with the substrate or with the side walls. We would be happy to offer complete systems with guide troughs, and also support you with drawings for your own construction.

Multi Rotation Module system (MRM)

With the Multi Rotation Module (MRM) you can implement larger angles of rotation of 900° and more. Thanks to stackable add-on modules the angle of rotation can be extended virtually indefinitely. One layer for rotations up to 540°, two layers for 900°, larger angles of rotation are possible with more layers. The rotation and add-on modules are perfectly suited for rotary movements with high fill weights and limited space.

- Several individual systems are stacked on each other and thus are combined to a complete system
- The maximum rotation of the individual levels can be easily added, thereby enabling rotary movements up to 900 degrees and more
- Compact design enables the operation even in tight spaces, extendable "at will"
- High fill weights possible
- e-chains® can be freely assembled
- Peripheral speeds up to 1 m/s

How it works

- Is the defined rotation angle of the lower layer reached, the next upper module is carried along automatically due to an integrated connection system. The entire system only needs a mechanical force transfer
- The construction minimises potential interference. The Multi Rotation Module system is ideal for rotary applications, heavy loads and for harsh environments
- Unlike other systems using sliding contacts, the e-chain® can also guide hoses for air, gas or fluids, as well as bus and fibre optic cables
- Even for tough environmental conditions

CAD configurator

RBR Determine the rotating energy supply quickly and easily using the CAD configurator. You can find it online on our homepage.

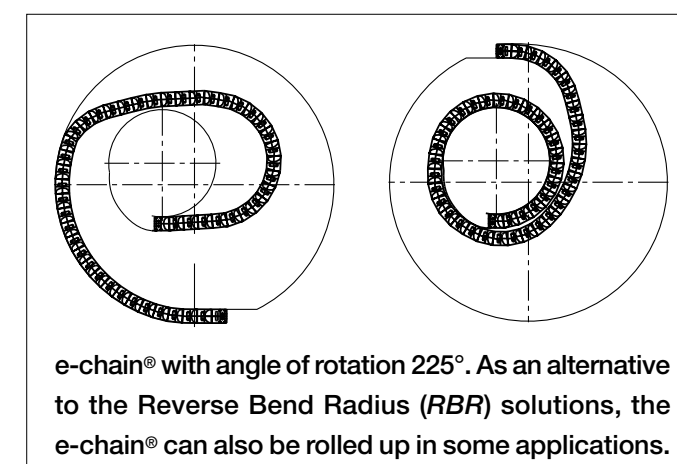
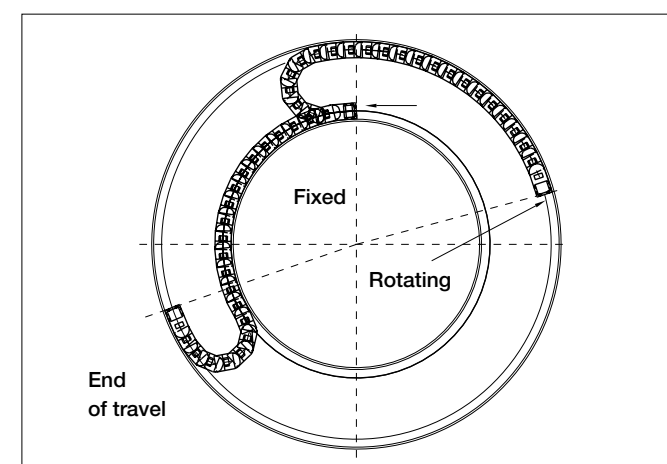


Rotation module configurator

Quickly and easily configure individual rotating energy supply systems for a wide variety of applications.



Rotating energy supply | Scrolling





Special solutions | Circular movements

twisterband / twisterchain

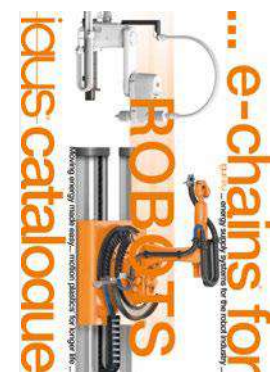
Up to 7,000°* rotary movements in small spaces - twisterband

With the compact igus® twisterband, rotations of up to 7,000°* can be achieved cost-effectively, even in confined spaces. Rotary movements up to 3,600° can be ordered from stock. Above 3,600°, please contact igus®.

- Energy, data and media are securely guided.
- Up to 7,000° rotation horizontally and 3,000° rotation vertically
- Rotary speeds of up to 180°/s possible
- Openable with film hinge or openable "easy" design
- HD version with strong pin and hook connection for an even longer service life
- Compact, modular and light
- Strips can be shortened as required

Strong, quiet and up to 360° - circular and spiral movements with twisterchain

- Tough, quiet and high dynamics, suitable for high fill weights
- Rotary speeds up to 1m/s and more
- Circular/spiral movements up to 360° from stock (up to 400° upon request)



Moving energy made easy - even for robot applications

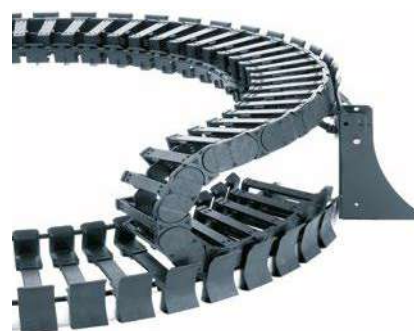
Further information on twisterchain and triflex® can be found in the Robotics catalogue.



- Minimum installation spaces, fits tightly around the rotary axis
 - Cost-effective and easy to fill
- More information ► From page 434.**



- Modular interior separation
- Smooth cable-friendly interior
- Openable from both sides - crossbars removable along the inner and outer radius
- Available with guide trough for optimum quiet operation
- Successfully tested for over 1 million cycles in the igus® laboratory



Special solutions | Special movement types

e-spool® flex / e-loop® / triflex® R

The cable reel without a slip ring - igus® e-spool®

Guidance of many different cables types together in a compact system: e-spool® uniquely combines two different energy supply systems.

- More versatile and flexible to use than cable reeling drums
- When different media (power, data and fluids) can be routed together in one system
- Energy supply is possible in all directions (horizontal, vertical, diagonal)
- If travels must be kept free
- Very well suited for use in theatre and stage technology
- No tensile strain on the cables
- Cables can be retrospectively added or changed
- Alternative to zig-zag solutions
- Maximum extension and retraction speed 1m/s
- Large standard product range and special projects available

More information ► From page 442.

igus® e-spool® flex

- Guidance of energy and signal cables without interruption
- The ideal solution for "tidy" and reliable cable guidance of mobile operating panels
- Compact type as a prerequisite for universal application

More information ► From page 446.



Reliable e-loop® cable guidance for top drives

The e-loop® combines the advantages of a plastic energy chain with those of a high-strength tension rope. Inside the energy chain, the rope transfers the pull force to the mounting brackets and the structure. The e-loop® is used not only in the oil and gas industry, but also in the offshore industry and for onshore power supply, construction machinery, and wind turbines.



- Guide hoses and cables reliably in a single system
- Weather- and dirt-proof
- Protects against impact due to robust PU outer body
- Cables can be added or replaced, even during operation
- Secondary locking tension for all bolted connections offers great operational reliability

More information ► From page 464.

3D movements and robots

- triflex® R series for demanding multi-axis robots in harsh industrial environments
- Fibre-rod option for the partial reinforcement of the triflex® R
- Approx. ±10° torsion per link
- High tensile strength due to ball and socket joint





igumid® G LW

With the base material igumid® G LW alone, most of the possible applications can be implemented. The cost-effective material fulfils even conflicting requirements. It can handle continuous temperatures ranging from -40°C to far above 100°C, allowing use in cold store or steel mills. Even applications in snow and ice run smoothly in practice.

igumid® CG LW

The further development of our recycling material igumid® CG is the new base material of our complete E2.1 standard programme.

With the same properties as our igumid® G LW, this sustainable material incorporates both the "end-of-life" energy chains collected as part of our Chainge® recycling programme and other recycled plastic, e.g. from fishing nets.

igumid® NB

Comparable performance values apply to igumid® NB, the standard material for all energy chains of the type easy chain®. The e-chains® in this series are extremely easy to fill. Pliant split crossbars allow cables to be pressed in easily by hand. That is why a material that combines the necessary flexibility and stability has been selected.

igumid® TE

The igumid® TE is used when still higher demands are placed on the permanent elasticity and flexibility of energy chain components. Such applications include the scalable crossbars of the E6 chains, which were developed for extreme dynamics, and the especially tear-proof, flexible zipper e-chain® lids.

igumid® GE

This material is characterised by even greater abrasion resistance and is used in the side parts of our E6 energy chains for dynamic applications, which have been tried and tested for many years.

igumer SK & SKS

This material has been developed for our cleanroom corrugated tubes and is characterised by its abrasion resistance and durability. With this material it is possible to manufacture e-skin® corrugated tubes for cleanrooms of cleanliness class ISO 1 (ISO 14644-1). The SKS igumer material is a softer variant that makes corrugated tubes more flexible and minimises installation space.

igumer SKF

This material is used for the production of e-skin® flat profiles and is characterised by its abrasion resistance. This means that several flat profiles made of this material can be used in rooms of the highest cleanliness class ISO 1, even if they are in contact with each other, with a very long service life.

igumid® ESD

ESD-compliant solutions and tools are used in many industries to protect sensitive electronic components from electrostatic discharges. This is especially important for moving parts such as energy supplies. igumid® ESD gives igus® a material that was designed specifically for this challenging application and that can discharge electrostatic charges immediately in a controlled manner.

igumid® EG+

The material is remarkable for its extremely low moisture absorption, which gives it very great resistance to chemicals. The igumid® EG+ has been specifically developed for applications with aggressive chemicals, such as those used, for e.g. in galvanisation or fertiliser production, where it serves in both energy chains and trough systems. Where expensive stainless steel was previously necessary as a trough material, igumid® EG+ now offers a cost-effective alternative.

igumid® HT

This special material is resistant to maximum temperatures of up to 850°C at short-term. This makes the material ideal in applications with hot swarf, e.g. in machine tools. The closed design of e-tubes prevents swarf from getting into the system and the lids made of igumid® HT also ensure that swarf does not stick with temperatures up to 850°C. Availability upon request.

igumid® XXL

E4 e-chains® made of this special material achieve greater unsupported lengths or allow higher fill weights with the same unsupported length. They are manufactured upon request. However, the stiffer material does reduce the service life to some extent.

igumid® DT

The development of the plastic compound igumid® DT was intended in particular for applications throughout food production. The basic material was modified so that a fragment of just 1mm can be detected by all commonly used detection systems. In this way, any splinters can be detected and automatically removed.

igumid® G V0 GF / igumid® NB V0

Special variants of the standards energy chains with self-extinguishing properties according to UL94-V0 are made of these materials. Availability upon request.

Material properties

e-chain® Series/system	Units of measurement	igumid® G LW	igumid® CG LW	igumid® NB	igumid® TE									
Short description		Basic material e-chains®	Base material System E2.1	Basic material easy chains®	For permanently elastic components									
Mechanical properties														
Mechanical properties														
Yield stress (dry/wet)	MPa	190/130	190/130	78/40	*			*	*	*	*	*	*	*
Elongation at break (dry/wet)	%	004/006	004/006	20/120	*			*	*	*	*	*	*	*
Flexural modulus (tensile test)	MPa	9000/7000	9000/7000	2900/1200	*			*	*	*	*	*	*	*
Limit of elasticity (bending test)	MPa	7800	7800	3000	1290			7200	9500	*	*	*	6000	9800
Flexural strength	MPa	240	240	120	55			200	230	*	*	*	180	210
Shore D hardness	–	79	79	79	72			80	83	78	84	*	85	79
General properties														
Density	g/cm³	1.37	1.37	1.14	1.02			1.46	1.2	1.24	1.4	*	1.49	1.43
Moisture absorption 23/50 r.h.	% weight	1.4	1.4	3.4	0.8			0.7	1.9	<0.1	1.5	*	2.0	2.1
Maximum water absorption	% weight	5.6	5.6	7.6	1.6			4	7.3	<0.1	5.6	*	6.0	6.5
Electrical properties														
Specific volume resistance	Ω*cm	>10 ¹¹	>10 ¹¹	>10 ¹¹	>10 ¹¹			>10 ¹¹	<10 ⁹	>10 ¹¹	>10 ¹¹	>10 ¹¹	>10 ¹¹	>10 ¹¹
Surface resistance ROA	Ω	>10 ¹¹	>10 ¹¹	>10 ¹¹	>10 ¹¹			>10 ¹¹	<10 ⁹	>10 ¹¹	>10 ¹¹	>10 ¹¹	>10 ¹¹	>10 ¹¹
Thermal properties														
Lower operating temperature	°C / °F	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F			-40°C / -40°F	-40°C / -40°F	0°C / 32°F	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F
Max. long-term application temperature	°C / °F	+120°C / +248°F	+120°C / +248°F	+80°C / +176°F	+70°C / +158°F			+120°C / +248°F	+80°C / +176°F	+90°C / +194°F	+140°C / +284°F	+120°C / +248°F	+80°C / +176°F	+90°C / +194°F
Max. short-term application temperature	°C / °F	+180°C / +356°F	+180°C / +356°F	+170°C / +338°F	+140°C / +284°F			+200°C / +392°F	+150°C / +302°F	+170°C / +338°F	+200°C / +392°F	+180°C / +356°F	+120°C / +248°F	+140°C / +284°F
Material certificates														
Fire resistance according to UL94	–	HB	HB	V2	HB			HB	HB	HB	HB	HB	HB	V0
Silicone-free	–	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓
Halogen-free	–	✓	✓	✓	✗			✗	✓	✓	✓	✓	✓	✓
2015/863/EU (RoHS3)	–	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓
1907/2006 EG (REACH)	–	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓
Colour														
according to RAL, approx.	–	≈ RAL9004	≈ RAL9004	≈ RAL9004	≈ RAL9004			≈ RAL9004	≈ RAL7015	blue	≈ RAL9004	≈ RAL9004	blue	≈ RAL9004
Are special colours possible?	–	✓	✓	✓	*			*	✗	✗	✗	✗	✗	✗

✓ = Yes / ✗ = No / *Values upon request

Colours and special solutions

Product prices are always based on the colour **black**. Any other colours that are not shown in the chart are individually calculated depending on the article and quantity, insofar as this is technically possible. As a rule, coloured e-chains® are not available from stock. Delivery time and surcharges for coloured e-chains® are available upon request. As a rule, all specifications related to stability (for instance unsupported lengths) and material characteristics apply only to black e-chains®.

The characteristics of coloured e-chains® may differ. This also applies to all igus® e-chains® from special materials, such as conducting e-chains® made from igumid® ESD material or other special materials.

For technical reasons special materials cannot be supplied in other colours, or a prior material development, sampling and approval process is required.

Material properties

	igumid® GE	igumid® ESD	igumid® EG+	igumid® HT	igumid® XXL	igumid® DT	igumid® G V0 GF	igumid® NB V0
	For increased abrasion resistance	Dissipative special material	Acid-resistant special material	Short-term high temperature resistance	Special material for higher rigidity	Special materials for the food industry	Special material according to UL94 V0	Special material according to UL94 V0
	*	*	*	*	*	*	*	*
	*	*	*	*	*	*	*	*
	*	*	*	*	*	*	*	*
	7200	9500	*	*	*	6000	9800	3100
	200	230	*	*	*	180	210	115
	80	83	78	84	*	85	79	75
	1.46	1.2	1.24	1.4	*	1.49	1.43	1.15
	0.7	1.9	<0.1	1.5	*	2.0	2.1	2.2
	4	7.3	<0.1	5.6	*	6.0	6.5	9.0
	>10 ¹¹	<10 ⁹	>10 ¹¹	>10 ¹¹	>10 ¹¹	>10 ¹¹	>10 ¹¹	>10 ¹¹
	>10 ¹¹	<10 ⁹	>10 ¹¹	>10 ¹¹	>10 ¹¹	>10 ¹¹	>10 ¹¹	>10 ¹¹
	-40°C / -40°F	-40°C / -40°F	0°C / 32°F	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F	-40°C / -40°F
	+120°C / +248°F	+80°C / +176°F	+90°C / +194°F	+140°C / +284°F	+120°C / +248°F	+80°C / +176°F	+90°C / +194°F	+80°C / +176°F
	+200°C / +392°F	+150°C / +302°F	+170°C / +338°F	+200°C / +392°F	+180°C / +356°F	+120°C / +248°F	+140°C / +284°F	+140°C / +284°F
	HB	HB	HB	HB	HB	HB	V0	V0
	✓	✓	✓	✓	✓	✓	✓	✓
	✗	✓	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓
	≈ RAL9004	≈ RAL7015	blue	≈ RAL9004	≈ RAL9004	blue	≈ RAL9004	≈RAL9004
	*	✗	✗	✗	✗	✗	✗	✗

e-chain® colour variations with RAL-numbers

Colour designation		RAL	Index	Colour designation		RAL	Index
 Black	Standard, from stock	≈ 9004	.0	 Orange	Special colour	≈ 2003	.2
 Silver-grey	Special colour	≈ 7001	.31	 Yellow	Special colour	≈ 1018	.4
 White	Special colour	≈ 9003	.1	 Light grey	Special colour	≈ 7035	.14
 Grey-white	Special colour	≈ 9002	.1S	 Ultramarine blue	Special colour	≈ 5002	.81

Chemical resistance of igumid®

Medium	Concentration % weight	igumid® G LW / NB	igumid® EG+
Acetone	100	●●	●●
Formic acid (aqueous)	2	●	●●
Ammonia (aqueous)	10	●●	●●
Gasoline	100	●●	●●
Benzene	100	●●	●●
Bitumen	100	●	X
Boric acid (aqueous)	10	●●	●
Butyric acid	100	●	X
Calcium chloride (aqueous)	Sat. aq. sol.	●●	●●
Chlorinated hydrocarbons	–	●●	●
Chlorine water	Sat. aq. sol.	X	X
Chromic acid (aqueous)	1	●	X
Diesel oil	100	●●	●●
Acetic acid	2	●●	●
Acetic acid	50	X	●●
Colour	–	●●	●●
Greases, cooking fat	–	●●	●●
Fluorinated hydrocarbons	–	●●	●●
Hydrofluoric acid	30	X	●●
Formaldehyde (aqueous)	30	●	●
Hydraulic oils	–	●●	●
Caustic potash	10	●●	●●
Potassium carbonate (aqueous)	60	●●	●●
Potassium sulphate (aqueous)	100	●●	●●
Methyl acetate	100	●●	●●
Milk	–	●●	●●
Mineral oil	–	●●	●●
Sodium carbonate (aqueous)	50	●●	●●
Oil, lubricating oil	–	●●	●●
Oil, cooking	–	●●	●●
Oleic acid	100	●●	●●
Paraffin oil	–	●●	●●
Perchloroethylene	100	●●	X
Phosphoric acid	80	X	●●
Polyester resins (with styrene)	–	●●	●●
Propane gas	–	●●	●●
Mercury	–	●●	●●
Nitric acid	40	X	●●
Hydrochloric acid	pH2	●	X
Hydrochloric acid	2	X	X
Hydrochloric acid	10	X	X
Hydrochloric acid	100	X	●●
Sulphuric acid	60	X	●●
Ink, printing ink	–	●●	●●
Vaseline	–	●●	●●
Tartaric acid	–	●	●●
Zinc sulphate (aqueous)	10	●●	X

The values specified are values determined by igus® laboratory tests and are material-specific.
All specifications apply to black e-chains®.

- = Resistant
- = limited resistant
- X = Non-resistant
- Sat. aq. sol.= Saturated aqueous solution

Environmental influences overview

The suitability of an energy chain for an application depends not only on the technical parameters such as travel length, fill weight and dynamics. The technical environment, i.e. the environmental conditions under which the energy chain is used, also has a decisive influence on the functionality and service life of the energy chain system.

igus® energy chains have proven their suitability in a wide variety of environments over many years. This can be in environments that are particularly dirty, such as composting plants; acidic, such as electroplating facilities; or subject to adverse weather conditions, such as continuous operation on port cranes. Together, we will find the best energy supply solution for your particular application. Take advantage of our extensive experience and global project planning expertise and availability.

igus® experience with: dust, dirt, mud, compost, wood, textile fibres, paper dust, abrasive paste, cooling agents, glass dust, glass splinters, coal dust, sand, corundum and much more.

Spatter, coarse swarf
Laboratory tests and numerous field applications have proved that igus® e-chains®, and e-tubes in particular, reliably protect cables in welding robots and machine tools since 20 years. e-tubes made from the igus® igumid® HT material are resistant to hot swarf up to +850°C (1,562°F), no swarf sticks

Fine dust and swarf
Fine swarf or dust pose a particular challenge for energy chains. Over time, these can accumulate in the stop-dog system of the energy chains, causing the radius arc to grow. For these applications, igus® offers the AX series of e-chains®, which have external stop-dog

Strong environmental effects
Energy chains are sometimes exposed to extreme weather conditions, e.g. in port cranes, wastewater and sewage treatment plants or construction machinery. Thanks to their good UV resistance, robust design and optional housing solutions, many igus® e-chains® achieve a long service life even under these conditions.

Radiation resistance
igus® offers several solutions for high-radiation areas. igumid® G LW is very resistant to high-energy radiation. Under gamma radiation, in the range of 8 x 10⁴ rd, the mechanical properties of igumid® G LW change very little.

Vacuum
igus® e-chains® made of igumid® G LW can be used in vacuum applications. Very little outgassing occurs. Outgassing values available upon request.

Chemical resistance
igumid® G LW is resistant to fuel, lubricants, oils, fats, alcohol, ester, ketone, and aliphatic and aromatic hydrocarbons. Oxidants and acids are damaging. The table on the left shows an excerpt of the resistance to chemicals. Acid-resistant e-chains® made of special material igumid® EG+ are available upon request.

Coolant resistance
e-chains® and e-tubes have proven resistance to cooling agents. However, we are always willing to perform individual tests if you have particular problems or advanced developments.

Table on resistance to chemicals ► Page 74.
More information about:
ESD ► Page 76
ATEX ► Page 77
Cleanroom ► Page 78
Dry room ► Page 80



ESD = Electro Static Discharge

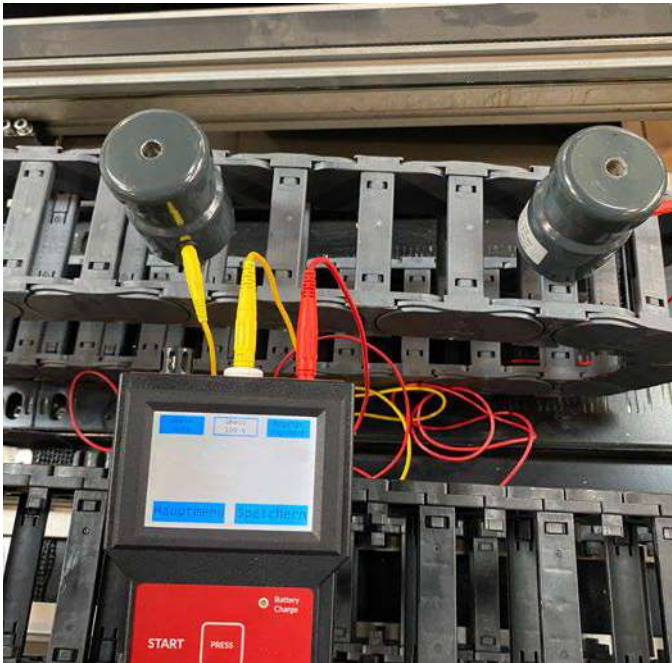
ESD-compliant e-chains®

ESD energy chains are energy supply systems for use in preventing electrostatic charges in the manufacturing processes of electronic components or assemblies in order to protect sensitive electronics from damage caused by electrostatic discharge (ESD).

Measurements of the electrical surface leakage resistance for igus® energy chains with the special material igumid® GC, were made back in 1992 by igus® GmbH together with the PTB (Physikalisch-Technische-Bundesanstalt) in Braunschweig, supplemented by additional certifications in 1998 and 1999 according to DIN 53482, and the guidelines for static electricity ZH1/200 of the Federation of Trade Associations.

Advantages of ESD-compliant energy chains

- Long service life: ESD material tested with over 10 million cycles for highest requirements
- Openable energy chains with mounting brackets and interior separation in ESD version available from stock
- Standardised product made from igumid® ESD
- Proven over years of use in explosion-proof areas
- Short delivery times



ESD test in the igus® laboratory

igus® recommends using the igumid® ESD material to discharge such electrostatic energy in the production of sensitive electrical components. In some areas, igumid® ESD even outperforms the standard igumid® G LW material and has been tested in the igus® technical centre for over 10 million cycles.

Picture above: 100% of the produced ESD e-chains® are checked for their continuous conductivity from one end to the other.

The following e-chain® series are certified by the ESD Academy: easy chain®, E2.1, E4.1, E6, trifix® R, E3, T3



ESD (Electro Static Discharge) - avoidance of static charges in the field of manufacturing processes of electronic components or assemblies.



ESD = Electro Static Discharge

1. General safety information

These additional operating instructions apply to our ESD e-chains® in colour grey (similar to RAL 7015). They supplement the assembly instructions for the standard e-chains® and the catalogue information.

The information in these instructions relates only to data regarding ESD areas. The technical information in the installation instructions for standard e-chains® and the category information still apply unless these instructions explicitly exclude or replace the relevant information.

2. Assembly, removal and installation

Please follow the information in the installation instructions for the standard e-chains® and the catalogue information on assembly, removal and installation for trouble-free operation.

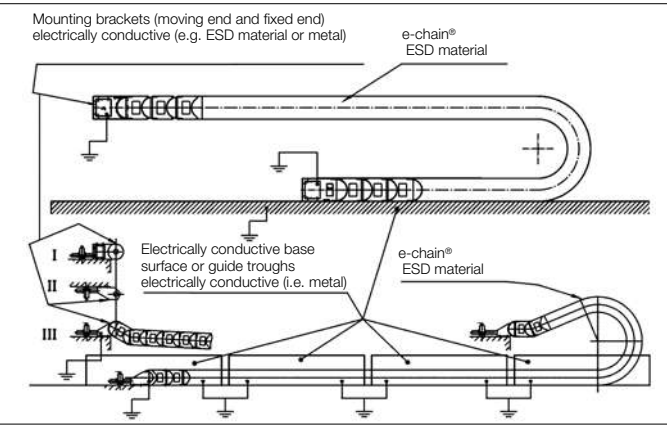
igus® ESD e-chains® must be grounded with appropriate measures in accordance with drawing number 18392 in order to discharge any occurring electrostatic.

Assembly, installation, commissioning and maintenance may be performed only by personnel properly trained in explosion protection!

ATEX

Although the parts offered by igus® are components according to the ATEX definition and hence ought to meet the ATEX guidelines, they themselves do not have to be certified.

According to a TÜV Rheinland assessment, the ESD parts offered by igus® do not fall under the guideline 2014/34/EU because they have no autonomous function and no ignition source of their own. Hence, they cannot be declared as being ATEX compliant. Nevertheless, components from ESD material prevent static loads and the resulting explosion hazard, which will help users acquire ATEX certification for the entire plant.



3. Commissioning

Before commissioning the system, check that the system has been installed correctly in accordance with the installation instructions for the standard e-chains® and the catalogue information. Correct grounding must be checked in particular in the case of ESD e-chains®.

4. Maintenance

igus® e-chains® require very low maintenance. Correct grounding of the ESD e-chains® must be inspected at regular intervals. In case of large projects a customised maintenance plans can become an issue and will be created if necessary.

We recommend using ESD energy chains for ATEX areas. The responsibility for the ATEX conformity of a system lies with the system manufacturer.

Please also note the corresponding national safety regulations and the relevant national regulations in respect of explosion protection during installation and operation.

According to a statement by TÜV Rheinland 557/Ex125071309.00/17, igus® e-chains® do not fall under the scope of application of Directive 2014/34/EU.



Cleanroom applications IPA cleanroom Class 1 to cleanroom Class 5

In robots or pick-and-place applications, in semiconductor manufacturing and microelectronics:

igus® offers components for any cleanroom to improve technology and reduce costs. In cleanrooms, moving component abrasion must be especially low, as any contamination is harmful to products and processes. This costs money. We develop and test our high-performance polymer products in our own cleanroom laboratory with the greatest care, and in order to show that our products are ideal for use in cleanrooms, we have the Fraunhofer Institute subject them to further tests. This gives us an IPA-tested product portfolio with the best possible cleanroom classification (ISO Class 1).

- Since 1997, energy chains for cleanrooms
- 4,000m² test laboratory unique in the industry with its own cleanroom lab
- Over 9,000 e-chain® parts with ISO 1-5
- Over 1,100 cables with ISO 1 and 2
- 40 million guaranteed double strokes with CFCLEAN and 100 million double strokes with CF98.PLUS/CF99.PLUS
- ISO 1 after 60 million double strokes with e-skin® flat system

Fraunhofer TESTED DEVICE
igus GmbH
Energy chain / Cable systems
Report No. IG 0704-400

Fraunhofer Institute IPA tests for various igus® e-chains® (according to DIN EN ISO 14644-1)

IPA cleanroom Class	e-chain® series for cleanrooms	Report number	Speed [m/s]
ISO Class 1	e-skin® flat system	IG 2102-1212	0.5 / 1.0 / 2.0
ISO Class 1	e-skin flat 3 layers	IG 2107-1242	0.5 / 1.0 / 2.0
ISO Class 1	SKS28.068.02.1 e-skin® soft + cable	IG 1907-1125	0.5 / 1.0 / 2.0
ISO Class 1	0.SK28.068.02.1 e-skin	IG 1907-1125	0.5 / 1.0 / 2.0
ISO Class 1	C6.29.060.100.17	IG 2304-1412	0.5 / 1.0 / 2.0
ISO Class 1	E6.29.060.100.0	IG 2409-1552	0.5 / 1.0 / 2.0
ISO Class 1	E61.29.050.075.0	IG 1303-640	0.5 / 1.0 / 2.0
ISO Class 1	E3.15.040.075.0	IG 0704-400	0.5 / 1.0 / 2.0
ISO Class 1	TH3.25.2/26.070.8	IG 2304-1412	0.5 / 1.0 / 2.0
ISO Class 2	SKS20 + TR.CSCS Clean SCARA Cable Solution	IG 2303-1401	0.5 / 2.0
ISO Class 2	T3.29.050.038.0	IG 1303-640-1	0.5 / 1.0 / 2.0
ISO Class 2	1500.050.038.0	IG 1303-640-1	0.5 / 1.0 / 2.0
ISO Class 2	E14.3.038.0	IG 0308-295	0.5 / 1.0 / 2.0
ISO Class 3	2500.05.055.0	IG 0308-295	0.5 / 1.0 / 2.0
ISO Class 5	GLO.CR.56 with E6.52 system for long travels	IG 2303-1406	0.5 / 1.0 / 2.0
ISO Class 5	E4.32.10.063.0	IG 1303-640-1	0.5 / 1.0 / 2.0

1) Individual series of igus® e-chains® from e-skin®, E6, E6.1, T3, E3, E2/000, E4.1 and easy chain® families have been given ISO Class 1 to ISO Class 5 certification by the Fraunhofer IPA institute in accordance with DIN EN ISO 14644-1 (Report IG1303-640-1, IG0704-400, IG308-295 and IG 1907-1125). This corresponds to almost 10,000 articles from the e-chain® product range of the same type of construction/based on the same principle.

Cleanroom laboratory

Unique igus® cleanroom laboratory for IPA cleanroom Class 1 components - innovative cleanroom technology successfully on the test rig!

In semiconductor manufacturing, components such as e-chains® and cables must meet the highest standards regarding their release of particles. In order to be able to develop new motion plastics that are suitable for use in cleanrooms, the Fraunhofer IPA, working as a development and certification partner on behalf of igus®, has now designed and built a tailor-made cleanroom laboratory with an ISO cleanroom Class 1 system in Cologne.

In the new laboratory, customer tests and new developments can be carried out in advance under real conditions within a very short time. Furthermore, our new cleanroom laboratory helps considerably in the continuous further development of our cleanroom products and materials.



Some igus® cleanroom e-chains® in comparison

Specification/Description	e-skin® flat SKF	e-skin® SK	e-skin® SKS	System C6	System E6
IPA cleanroom Class 1 according to EN ISO 14644-1	✓	✓	✓	✓	✓
Modular design	●●●●●	●●●	●●●	●●●●	●●●●
Components individually interchangeable	✓	✓	✓	✓	✓
Openable	●●●●	●●●●●	●●●●●	●●●●●	●●●●●
Easy maintenance	●●●	●●●●	●●●●	●●●●●	●●●●●
Available from stock	✓	✓	✓	✓	✓
Can be shortened	✓	✓	✓	✓	✓
No minimum order quantity	✓	✓	✓	✓	✓
Cost-effective	●●●	●●●●	●●●	●●●●	●●●●●
Suitable for unsupported applications	●●●●	●●●	●●	●●●●●	●●●●●
For high dynamics	●●●	●●●	●●●	●●●●●	●●●●●
Low clearance height	●●●●●	●●●	●●●●	●●●●	●●●
Fill weight	●●	●●●●	●●●	●●●●●	●●●●●
Quiet, smooth operation	●●●●●	●●●●	●●●●	●●●●	●●●●
Online calculation of service life	X	X	X	X	✓
Online interior separation configurator	X	✓	✓	X	✓

●●●●● = Ideal
● = Less suitable
✓ = yes / X = no

Certified energy chains for dry cleanrooms

Dry cleanroom with igus® e-chains®

Applications in very dry environments are constantly increasing, as battery production systems for the manufacture of lithium-ion batteries in particular require areas with a relative humidity of less than 1%. To guarantee error-free production and thus long battery life, the production process must be continuously optimised. A clean and low-particle environment is therefore also required.

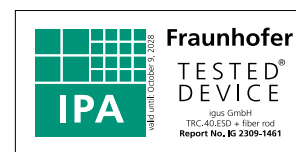
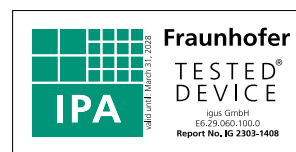
That is why the Fraunhofer IPA has developed a new type of certificate to document the ISO cleanroom classification under dry room conditions in 2023. The igus® E6 e-chain® series is the very first cable guidance system to be certified by the IPA under dry room conditions. The E6.29.060.100.0 achieved the best possible result at the time: ISO Class 4*.

The e-chain® was tested in a dry cleanroom ISO Class 3 with a dew point of -40°C, which corresponds to a relative humidity of <1% at room temperature of 22°C.

Under these conditions, the triflex® TRC.40.058.0.ESD energy chain was certified in combination with the associated fibre-rod system. The system was specifically



designed for use on industrial robots to ensure a smooth and ideally contact-free production process. Here even as a version made of ESD material.



Certified cleanliness after continuous operation in the dry room

In January 2024, the service life and cleanliness of igus® energy chains were tested in the Fraunhofer IPA dry room. Over a period of more than 10 months, the e-chains® completed more than 15 million double strokes in continuous operation in the dry environment. Not only did the energy chains withstand this stress without any problems, but some even passed the test without losing any of their cleanliness.

Fraunhofer IPA has certified the SKS28.068.02.1 cleanroom energy supply system in accordance with ISO 4 cleanroom class ("with pre-aging", i.e. after completing continuous operation in the dry room).



Test certificates, seals of approval and memberships

Standards and certificates | Certifying



DIN EN ISO 9001:2016 and IATF 16949:2016
igus® is certified in accordance with DIN EN ISO 9001:2015 and IATF 16949:2016 in the field of energy supply systems, cables and harnessing, as well as plastic plain bearings.



ESD (Electro Static Discharge)

igus® energy chains are tested and certified by the ESD Academy. The material igumid® ESD combines the requirements according to ESD in its specifications and is recommended by igus® to avoid static charges in the area of the manufacturing processes of electronic components or assemblies ► **Page 76.**



ATEX (EU guideline on explosion protection)

According to a statement by TÜV Rheinland: 557/Ex125071309.00/17, igus® e-chains® do not fall under the scope of application of Directive 2014/34/EU ► **Page 77.**



IPA cleanroom and dry cleanroom

A lot of e-chains® are suitable for the use in cleanrooms according to DIN EN ISO 14644-1. Confirmed by the IPA Fraunhofer Institute ► **Page 78.** Energy chains in the dry cleanroom (especially in battery production) were also certified by IPA FRa etc. and tested ► **Page 80.**



UL, CSA, CEI and VDE

All igumid® materials for e-chains® and e-tubes have got the UL-material approval. Our standard materials have got the fire protection class approval UL94 HB. The material igumid® NB has got the fire protection class approval IIb according to the test VDE 0304 Part 3/5.70, the approval V2 according UL94 and the construction material class B2 according DIN 4102. The special materials igumid® G V0 GF and igumid® NB have the UL94-V0 fire classification.



igumid®

The material igumid® is free from toxins, according to 2015/863/EU (RoHS3).



Award-winning designs

Since 1987, 42 of our products have been honoured by "iF Forum Design GmbH" in the "Industry Design" category. The iF Design Award goes to especially innovative and attractive products. We have also been among the winners of the reddot and German Design Award several times. ► **www.igus.eu/iF**

Simply functional - Office Chain OCO

Top design energy supply for moving desks. Organised cable guidance is a must for mobile desks. With the OCO.32.37.0, it's a piece of cake. It also has a simple design that blends unobtrusively into any office. When straight, it is closed on one side, which makes for a visually simpler design. The one-piece construction with concealed pin/bore connection also ensures a tidy appearance.

Benefits

- Semi-enclosed design for an aesthetic appearance
- Quick filling and easy assembly thanks to igus® easy design
- Tested in the igus® laboratory

Typical application areas

- Office furniture
- Furniture construction
- IT systems



Mounting bracket screwed in place or fitted with a special rubber-coated magnet

Elegant and minimalist design, specially designed for the furniture industry

Save time: fast filling thanks to igus® easy design

Protected: closed on the outside for cable protection and concealment

Abrasion-optimised: cable-friendly due to smooth interior

Simple customisation: flexibly lengthen or shorten

Flammability class: UL94-V2

Selection table

Part No.	Inner height <i>hi</i> [mm]	Outer height <i>ha</i> [mm]	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Bend radius <i>R</i> [mm]	Page
OCO with easy design - simply press cables in						
OCO.32	32	37	37	50	20	84

Technical data

General properties

e-chain® and mounting bracket material - igumid® NB
Flammability class, igumid® NB

-40°C / +80°C
VDE 0304 IIC UL94-V2

More solutions for office and furniture

Award-winning design - OCR office e-chain®

- Movable in all axes, round and square versions
- Simply press in or pull out cables with easy design
- Mounting brackets with magnets for easy attachment in seconds
- Flexible, locking or both combined



Cable guidance for office and furniture - ZF office e-chain®

- Attractive, cable-friendly easy design
- Closed outer sides (half-tube)
- Easy to fill, even when installed
- Mounting brackets can be either screwed or bonded

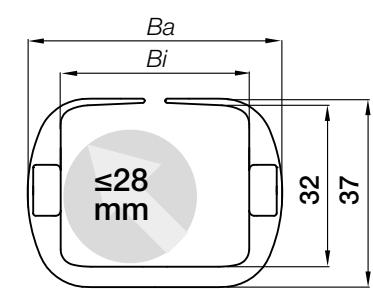


Product range



Part No.	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Weight [kg/m]
one-piece, non-openable OCO.32.37.0	37	50	≈ 0.52
Bend radius <i>R</i> [mm] 032			

Unsupported applications | Short travels



Inner height [mm]	32
Pitch [mm]	30
Links/m [pc.]	33
corresponds to [mm]	990
e-chain® length	$L_K = \frac{S}{2} + K$

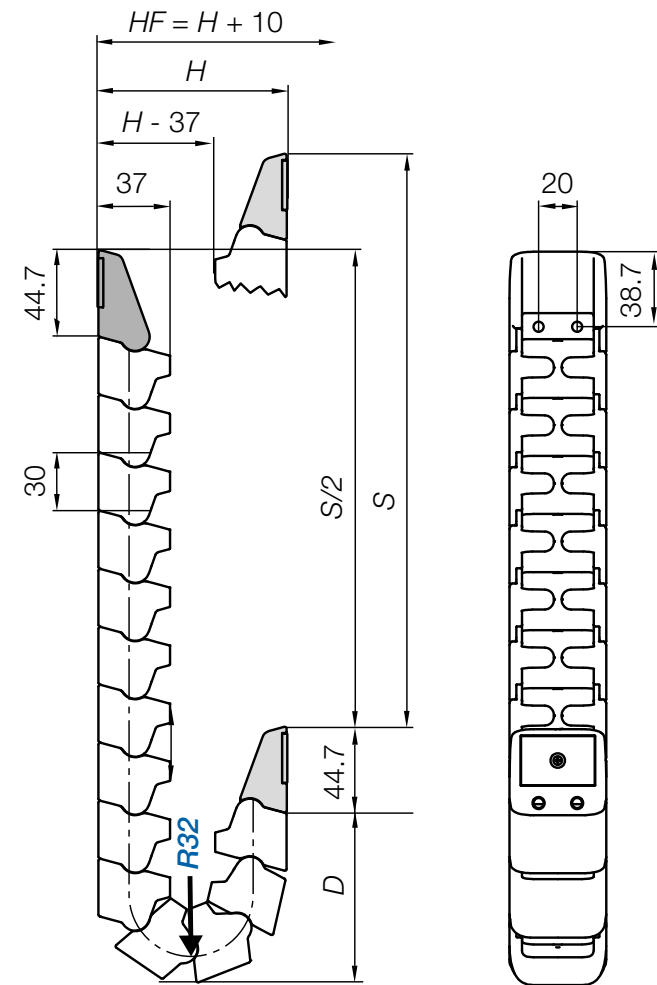
<i>R</i>	032
<i>H</i>	100
<i>D</i>	90
<i>K</i>	180

The required clearance height: $H_F = H + 10\text{mm}$

e-chain® order key

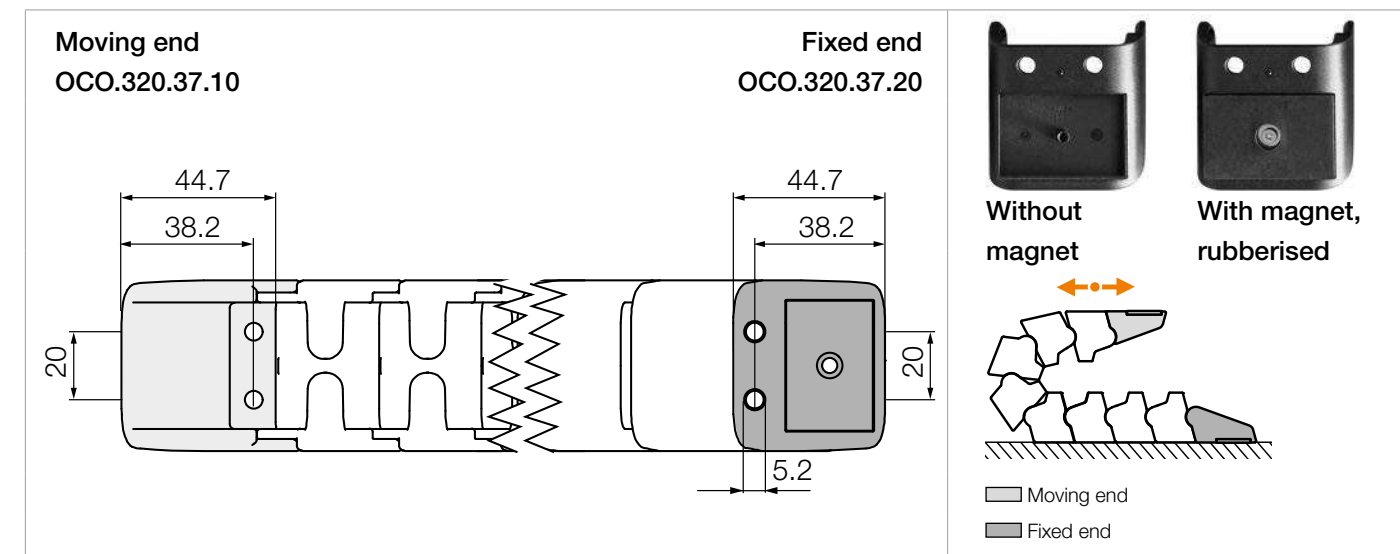
OCO.32.37.0

Series	Inner height	Width index	Colour index
Order example: For 1.32m e-chain® 40 chain links OCO.32.37.0 + 1 set mounting bracket OCO.320.37.12. Order index for colour options ► www.igus.eu/info-colours			



Available from stock
Upon request

Mounting brackets, plastic



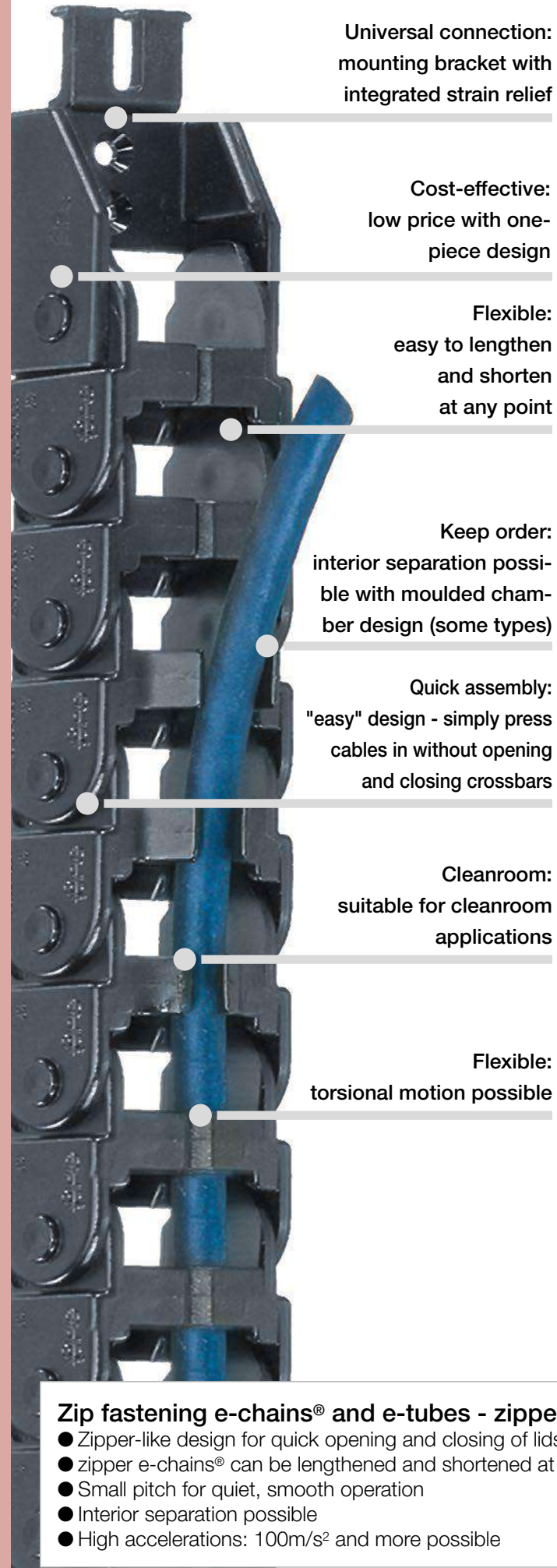
Width index	Part No. Full set	Part No. Full set
	Mounting bracket without magnet	Mounting bracket with rubberised magnet
037.	OCO.320.37.12	OCO.320.37.12.MAG1

Mounting bracket order key

OCO.320.37.12

Series	Width index	Width index	Full set
Note: Possible variations for assembled mounting brackets. OCO.320.37.12 = mounting bracket, full set, with magnet			

Available from stock
On request



Easy to fill and cost-effective - easy chain®

Cost-effective, easy to fill e-chains® are available in two versions. In the "E" version the cable is simply installed from the outside, and in the "Z" version from the inside. The primary reason to choose easy chains® is to save time when fitting cables. The material, igumid® NB, presents more application opportunities due to its flexibility, UL94-V2 classification and excellent cleanroom qualities. The one-piece design keeps the easy chain® very cost-effective.

Benefits

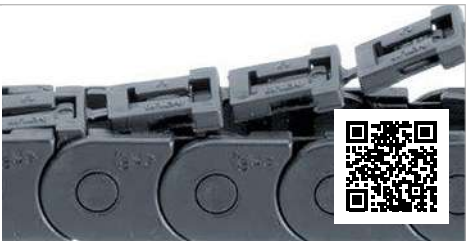
- Easy filling without opening and closing the lids
- If quiet running is required
- If a light and cost-effective e-chain® is required
- For high accelerations

Typical application areas

- Cleanrooms
- Electronic devices
- Office furniture
- Vending machines
- Packaging machines
- General machinery, etc.

Proof

Certified for cleanrooms, further details ► Page 78



Zip fastening e-chains® and e-tubes - zipper

- Zipper-like design for quick opening and closing of lids
- zipper e-chains® can be lengthened and shortened at any point
- Small pitch for quiet, smooth operation
- Interior separation possible
- High accelerations: 100m/s² and more possible

Selection table

Part No.	Inner height <i>hi</i> [mm]	Outer height <i>ha</i> [mm]	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Bend radius <i>R</i> [mm]	Unsupported length ≤ [m]	Page
----------	--------------------------------	--------------------------------	-------------------------------	-------------------------------	------------------------------	-----------------------------	------

Version E with "easy" design - split crossbar along the outer radius

E03	5	8	5 - 10	8.7 - 13.7	010 - 028	0.40	88
E04	7	10	7	13	015 - 048	0.55	90
E045	9.4	12.5	10 - 16	16 - 23	018 - 038	0.40	92
E06	10.7	15	10 - 20	16.5 - 26.5	018 - 038	0.55	94
E065	11.3	15	16	24.8	018 - 038	0.60	96
E08	14.6	19.3	10 - 50	18.2 - 58.2	028 - 048	1.00	98
E14	19	25	15 - 50	27 - 62	028 - 125	0.65	100
E200	24.3	35	57	74.4	055 - 200	1.75	102
E16	32	39	23 - 100	37.5 - 115.3	040 - 125	1.00	104
E26	36.5	50	75	92	063 - 250	2.00	106
E300	48.5	64	75	95	075 - 300	2.25	108

Version Z with "easy" design - split crossbar along the inner radius

Z045	9.4	12.5	16	23	018 - 038	0.40	92
Z06	10.5	15	10 - 20	16.5 - 26.5	018 - 038	0.55	94
Z065	11.3	15	9	39.3	018 - 038	0.60	96
Z08	14.7	19.3	10 - 50	18.2 - 58.2	028 - 048	1.00	98
Z14	19	25	15 - 50	27 - 62	028 - 125	0.65	100
Z200	24.3	35	57	74.4	055 - 200	1.75	102
Z16	32	39	23 - 100	37.5 - 115.3	040 - 125	1.00	104
Z26	36.5	50	75	92	063 - 250	2.00	106
Z300	48.5	64	75	95	075 - 300	2.25	108

Technical data

General properties	igumid® NB	igumid® G LW
Speed gliding / acceleration gliding	≤ 3 [m/s] / ≤ 10 [m/s²]	–
Speed <i>FL_G</i> /acceleration <i>FL_G</i>	20 [m/s] / ≤ 200 [m/s²]	–
Speed <i>FL_B</i> /acceleration <i>FL_B</i>	≤ 3 [m/s] / ≤ 6 [m/s²]	–
e-chain® - permitted temperature °C	-40°C / +80°C	–
Mounting bracket - permitted temperature °C	possible upon request	-40°C/+120°C
Flammability class	VDE 0304 IIC UL94-V2	VDE 0304 IIC UL94-HB

Installation types, maximum travel lengths

Series	Unsupported	Vertical hanging	Vertical standing	Side mounted, unsupported	Rotary
E03	≤ 0.80m	upon request	upon request	upon request	with rework
E04	≤ 1.10m	upon request	upon request	upon request	with rework
E045/Z045	≤ 0.80m	upon request	upon request	upon request	with rework
E06/Z06	≤ 1.10m	upon request	upon request	upon request	with rework
E065/Z065	≤ 1.20m	upon request	upon request	upon request	with rework
E08/Z08	max. 2.00 m	upon request	upon request	upon request	with rework
E14/Z14	≤ 1.30m	upon request	upon request	upon request	with rework
E200/Z200	≤ 3.50m	≤ 10m	≤ 1.5m	≤ 0.5m	with rework
E16/Z16	≤ 4.00m	≤ 10m	≤ 1.5m	≤ 0.5m	with rework
E26/Z26	≤ 4.00m	≤ 10m	≤ 1.5m	≤ 0.5m	with rework
E300/Z300	≤ 4.50m	≤ 10m	≤ 1.5m	≤ 0.5m	with rework

Product range



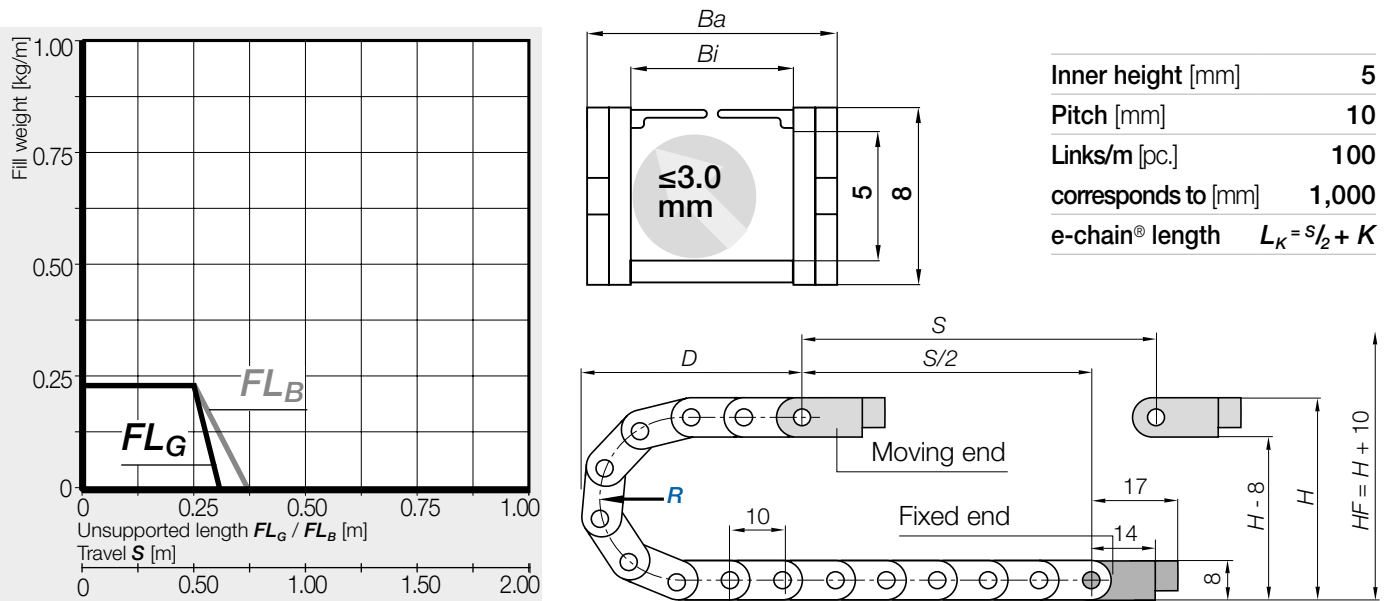
Part No. Version E - split crossbar along the outer radius	Inner width <i>Bi</i> [mm]	Outer width <i>Ba*</i> [mm]	Weight [kg/m]
1-chamber design			
E03.05. .0 ¹⁾	5	8.7	≈ 0.03
E03.07. .0 ²⁾	7	10.7	≈ 0.04
E03.10. .0 ²⁾	10	13.7	≈ 0.05

Available bend radii *R* [mm] | 010 | 012 | 015 | 018 | 028 |

Crossbars do not overlap: 1) Gap = 1mm, 2) Gap = 2mm.

*Ba**: pin dimension approx. 0.1 - 0.3mm wider.

Unsupported applications | Short travels

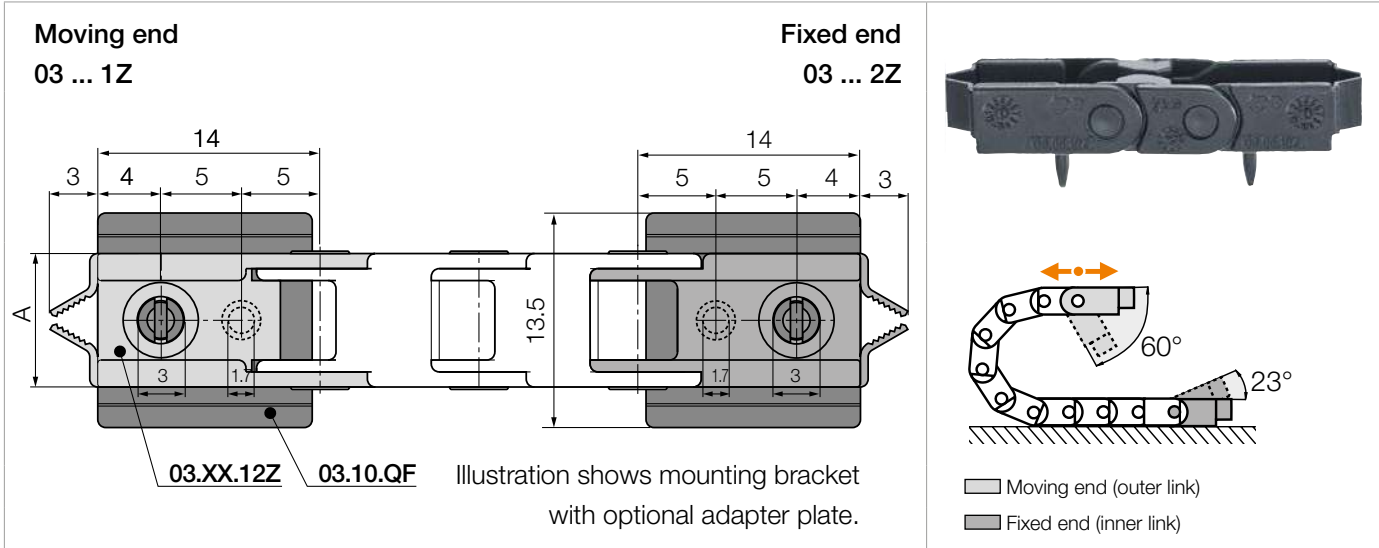


<i>R</i>	010	012	015	018	028
<i>H</i>	28	32	38	44	64
<i>D</i>	29	31	34	37	47
<i>K</i>	55	60	70	80	110

The required clearance height: $H_F = H + 10\text{mm}$ (with 0.1kg/m fill weight)

Available from stock
Upon request

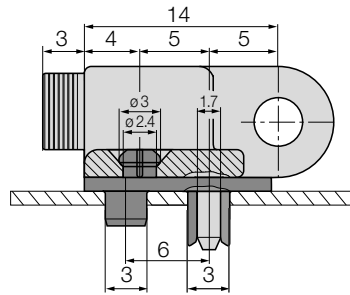
Mounting brackets, polymer one-piece | Pivoting



Width index	Part No. Full set	<i>A</i> [mm]	Part No. Adapter plate
	Pivoting with tiewrap plates		Single part, optional
05.	03.05.12Z	8.4	03.10.QF
07.	03.07.12Z	10.4	03.10.QF
10.	03.10.12Z	13.4	03.10.QF

Additional features | Adapter plate

Adapter plate for rapid installation for all sizes. With scored lines so that it can be adapted to the respective e-chain® width. The adapter plate is not always necessary when attaching the mounting brackets as they can also be screwed on without the adapter plate.



e-chain® order key

E03.05.028.0

Series	Width index	Bend radius	Colour index
--------	-------------	-------------	--------------

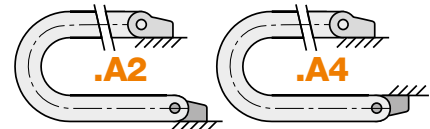
Example:
Complete Part No. with the required radius . Example:
03.05.028.0 = "easy" design, split crossbar along the outer radius
Order index for colour options ► www.igus.eu/info-colours

Mounting bracket order key

03.05.12Z.A2

Series	Width index	Full set	With integrated strain relief tiewrap plates	Pre-fitted
--------	-------------	----------	--	------------

Note: Possible variations for assembled mounting brackets.
To receive mounting brackets with **pre-fitted** option please add index **.A2** or **.A4**.



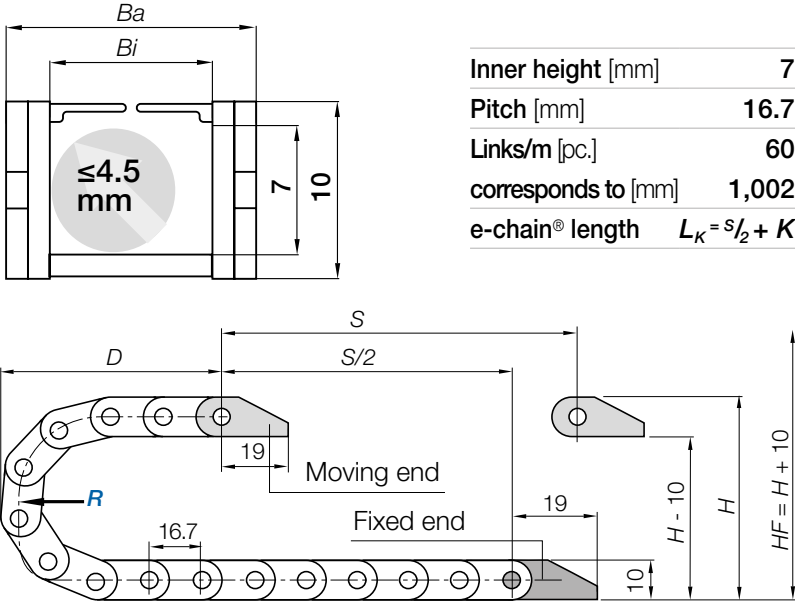
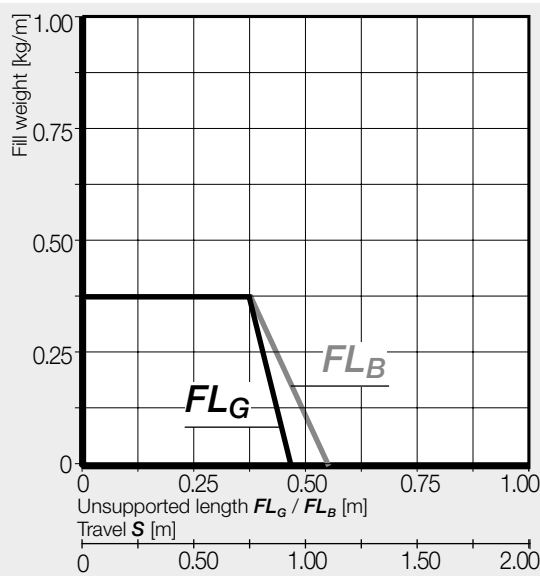
Product range



Part No. Version E - split crossbar along the outer radius	Inner width <i>Bi</i> [mm]	Outer width <i>Ba*</i> [mm]	Weight [kg/m]
1-chamber design			
E04.07. .0 ¹⁾	7	13	≈ 0.08
Available bend radii <i>R</i> [mm] 015 018 028 038 048			

Crossbars do not overlap: 1) Gap = 2.5mm.
Special solution with narrow opening gap: Gap = 0.8mm, **Part No. E04.07.015.0.S.**
*Ba**: pin dimension approx. 0.1 - 0.3mm wider.

Unsupported applications | Short travels

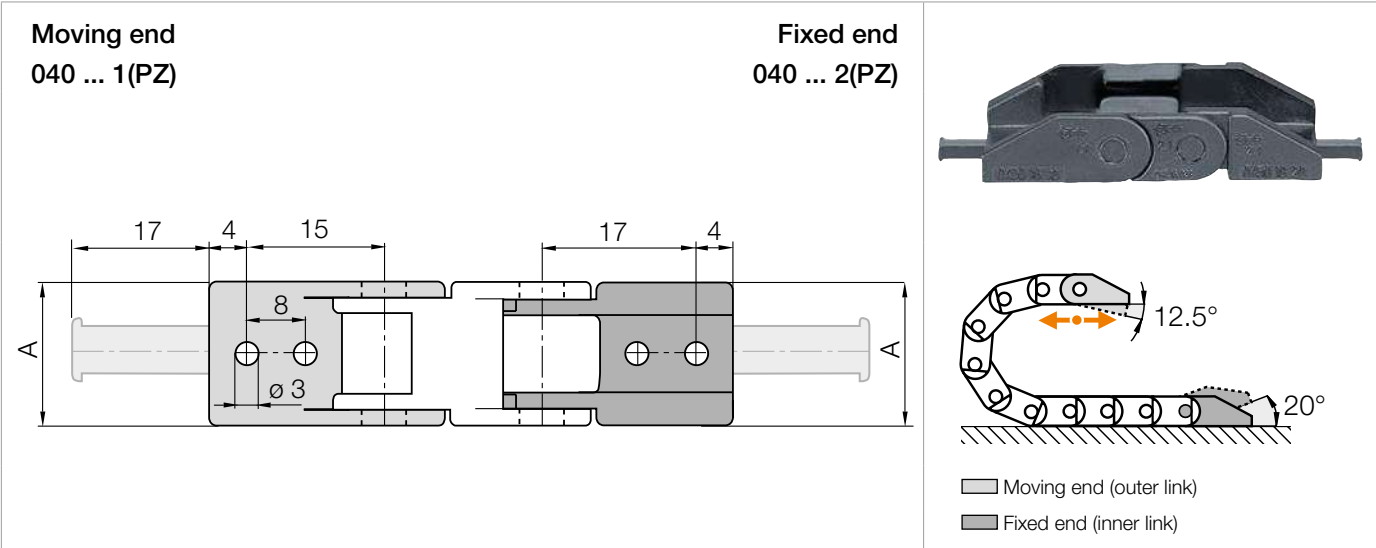


<i>R</i>	015	018	028	038	048
<i>H</i>	40	46	66	86	106
<i>D</i>	45	48	58	68	78
<i>K</i>	85	90	125	155	185

The required clearance height: $H_F = H + 10\text{mm}$ (with 0.1kg/m fill weight)

Available from stock
Upon request

Mounting brackets, polymer one-piece | Pivoting



Width index	Part No. Full set	Part No. Full set	<i>A</i> [mm]	Number of teeth
	Pivoting with tiewrap plates*	Pivoting without tiewrap plates**		
07.	040.07.12PZ ¹⁾	040.07.12	12	1

1) 040.07.12PZ only installation versions A2 and A4 possible.
*Countersink Ø 3mm / **Only holes of Ø 3mm.

e-chain® order key

E04.07.015.0

Series	Width index	Bend radius	Colour index
--------	-------------	-------------	--------------

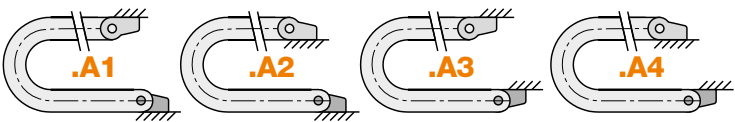
Example:
Complete Part No. with the required radius . Example:
E04.07.015.0 = "easy" design, split crossbar along the outer radius
Order index for colour options ► www.igus.eu/info-colours

Mounting bracket order key

040.07.12PZ..A2

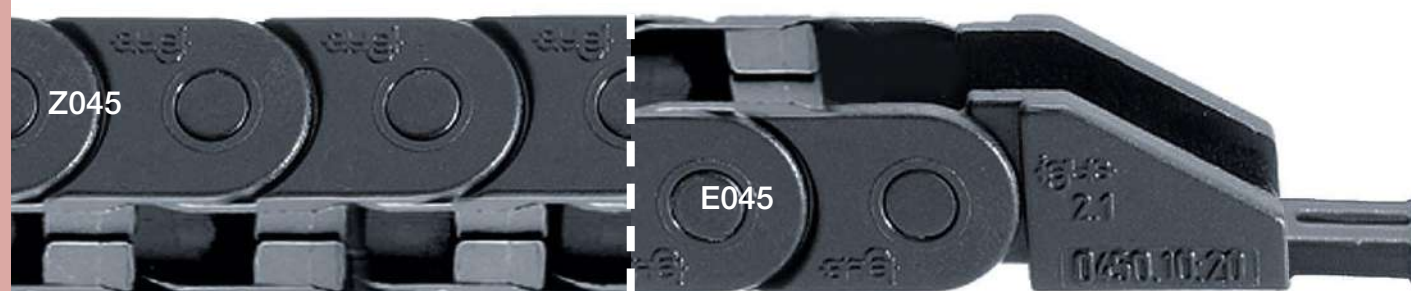
Series	Width index	Full set	With integrated strain relief tiewrap plates	Pre-fitted
--------	-------------	----------	--	------------

Note: Possible variations for assembled mounting brackets. To receive mounting brackets with **pre-fitted** option please add index .A1, .A2, .A3 or .A4.



Available from stock
Upon request

Product range



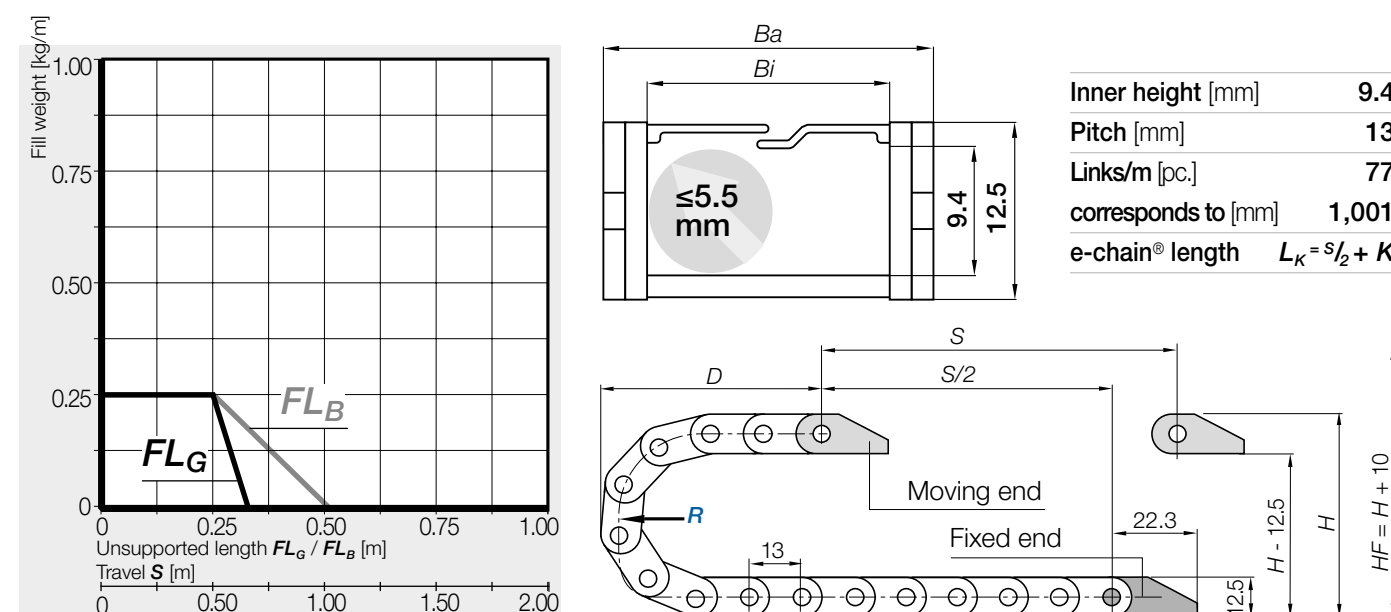
Part No. Version E - split crossbar along the outer radius	Part No. Version Z - split crossbar along the inner radius	Inner width B_i [mm]	Outer width B_a^* [mm]	Weight [kg/m]
1-chamber design				
E045.10. .0 ¹⁾	–	10	16	≈ 0.09
E045.16. .0	Z045.16. .0	16	23	≈ 0.11
2-chamber design				
E045.2/7. .0 ²⁾	Z045.2/7. .0 ²⁾	7/7	23	≈ 0.13
E045.2/9. .0 ²⁾	–	9/9	27	≈ 0.14
3-chamber design				
E045.3/9. .0 ²⁾	–	9/9/9	37	≈ 0.17

Available bend radii R [mm] | 018 | 028 | 038 |

Crossbars do not overlap: 1) Gap = 2mm, 2) Gap = 2.25mm.

B_a^* : pin dimension approx. 0.5mm - 1.0mm wider.

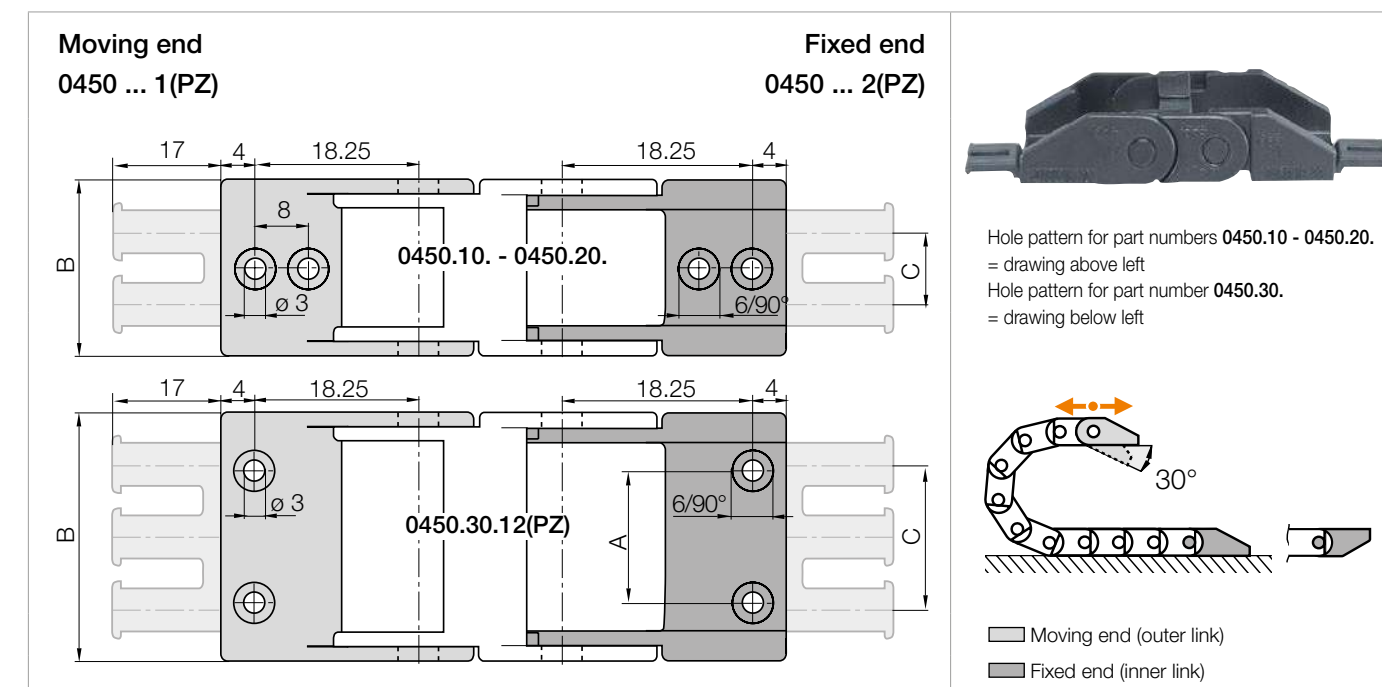
Unsupported applications | Short travels



R	018	028	038
H	48.5	68.5	88.5
D	44	54	64
K	85	115	150

The required clearance height: $H_F = H + 10\text{mm}$ (with 0.1kg/m fill weight)

Mounting brackets, polymer one-piece | One end pivoting



Width index	Part No. Full set One end pivoting with tiwrap plates*	Part No. Full set One end pivoting without tiwrap plates**	A [mm]	B [mm]	C [mm]	Number of teeth
10.	0450.10.12PZ	0450.10.12	–	16	–	1
16.	0450.16.12PZ	0450.16.12	–	22	10	2
2/7.	0450.16.12PZ	0450.16.12	–	22	10	2
2/9.	0450.20.12PZ	0450.20.12	–	26	10	2
3/9.	0450.30.12PZ	0450.30.12	22	36	20	3

*Countersink $\varnothing 3\text{mm}$ / $\varnothing 6\text{mm}$ 90° / **Only holes of $\varnothing 3\text{mm}$.

e-chain® order key

E045.16.038.0

Series	Width index	Bend radius	Colour index
--------	-------------	-------------	--------------

Example:

Complete Part No. with the required radius R. Example:

E045.16.038.0 = "easy" design, split crossbar along the outer radius

Order index for colour options ► www.igus.eu/info-colours

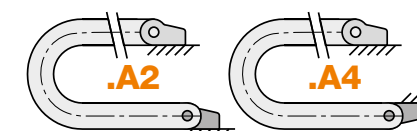
Mounting bracket order key

0450.16.12PZ.A2

Series	Width index	Full set	With integrated strain relief tiwrap plates	Pre-fitted
--------	-------------	----------	---	------------

Note: Possible variations for assembled mounting brackets.

To receive mounting brackets with **pre-fitted** option please add index A2 or A4.



Product range



Part No. Version E - split crossbar along the outer radius	Part No. Version Z - split crossbar along the inner radius	Inner width <i>Bi</i> [mm]	Outer width <i>Ba*</i> [mm]	Weight [kg/m]
1-chamber design				
E06.10. .0 ¹⁾	Z06.10. .0 ¹⁾	10	16.5	≈ 0.14
E06.16. .0 ¹⁾	Z06.16. .0 ¹⁾	16	22.5	≈ 0.16
E06.20. .0	Z06.20. .0	20	26.5	≈ 0.18

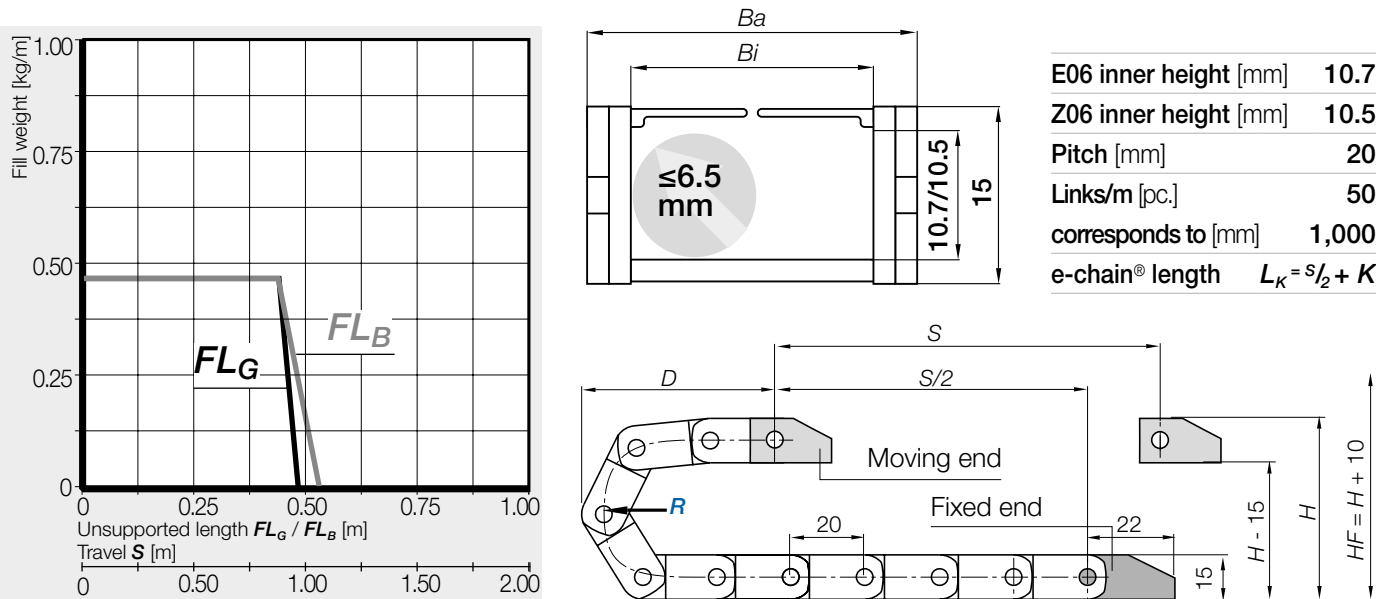
Available bend radii *R* [mm] | 018 | 028 | 038 |

Crossbars do not overlap: 1) Gap = 5.5mm.

Special solution with narrow opening gap: Gap = 3.5mm, Part No. E06.10.018.0.S.

*Ba**: pin dimension approx. 1.5mm - 2.0mm wider.

Unsupported applications | Short travels

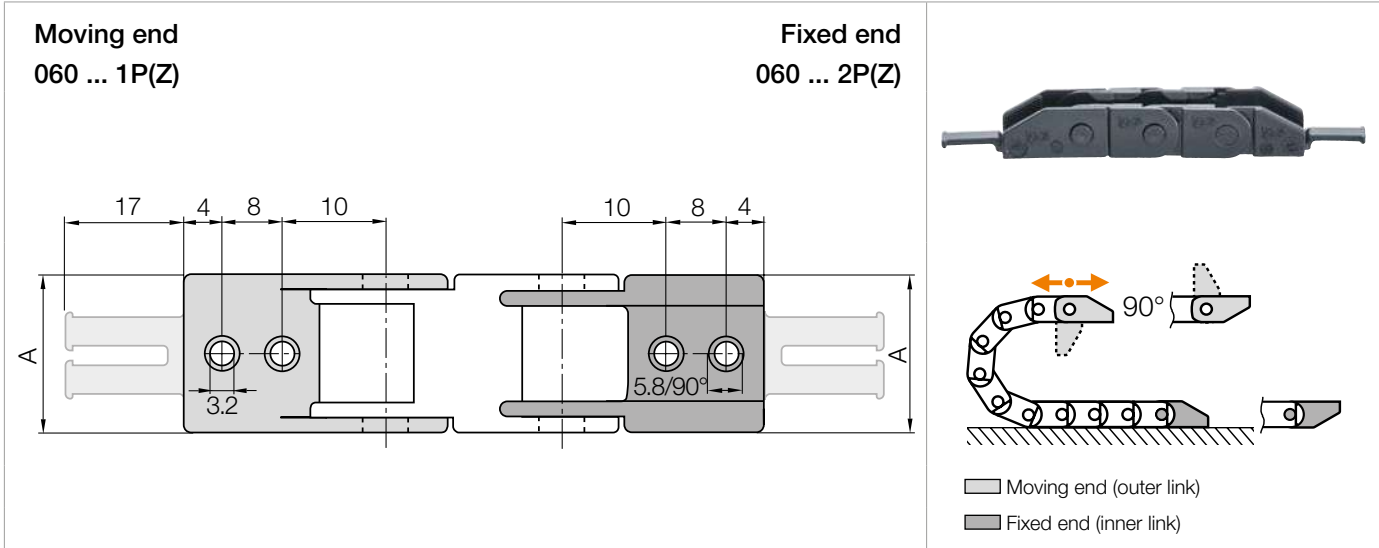


<i>R</i>	018	028	038
<i>H</i>	51	71	91
<i>D</i>	56	66	76
<i>K</i>	100	130	160

The required clearance height: $H_F = H + 10\text{mm}$ (with 0.2kg/m fill weight)

Available from stock
Upon request

Mounting brackets, polymer one-piece | Locking



Width index	Part No. Full set Locking with tiewrap plates	Part No. Full set Locking without tiewrap plates	<i>A</i> [mm]	Number of teeth
10.	060.10.12PZ	060.10.12	16.5	1
16.	060.16.12PZ	060.16.12	22.5	2
20.	060.20.12PZ	060.20.12	27.0	2

e-chain® order key

E06.10.028.0

Series	Width index	Bend radius	Colour index
--------	-------------	-------------	--------------

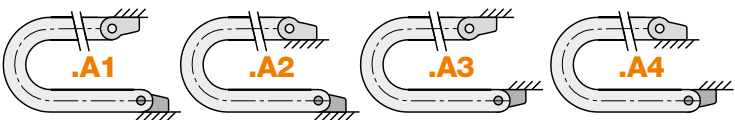
Example:
Complete Part No. with the required radius . Example:
E06.10.028.0 = "easy" design, split crossbar along the outer radius
Order index for colour options ► www.igus.eu/info-colours

Mounting bracket order key

060.10.12PZ.A2

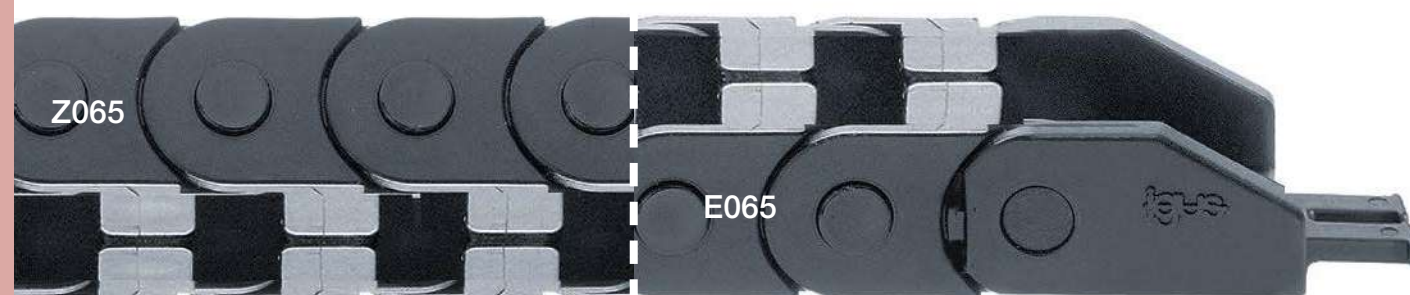
Series	Width index	Full set	With integrated strain relief tiewrap plates	Pre-fitted
--------	-------------	----------	--	------------

Note: Possible variations for assembled mounting brackets. To receive mounting brackets with **pre-fitted** option please add index .A1, .A2, .A3 or .A4.



Available from stock
Upon request

Product range



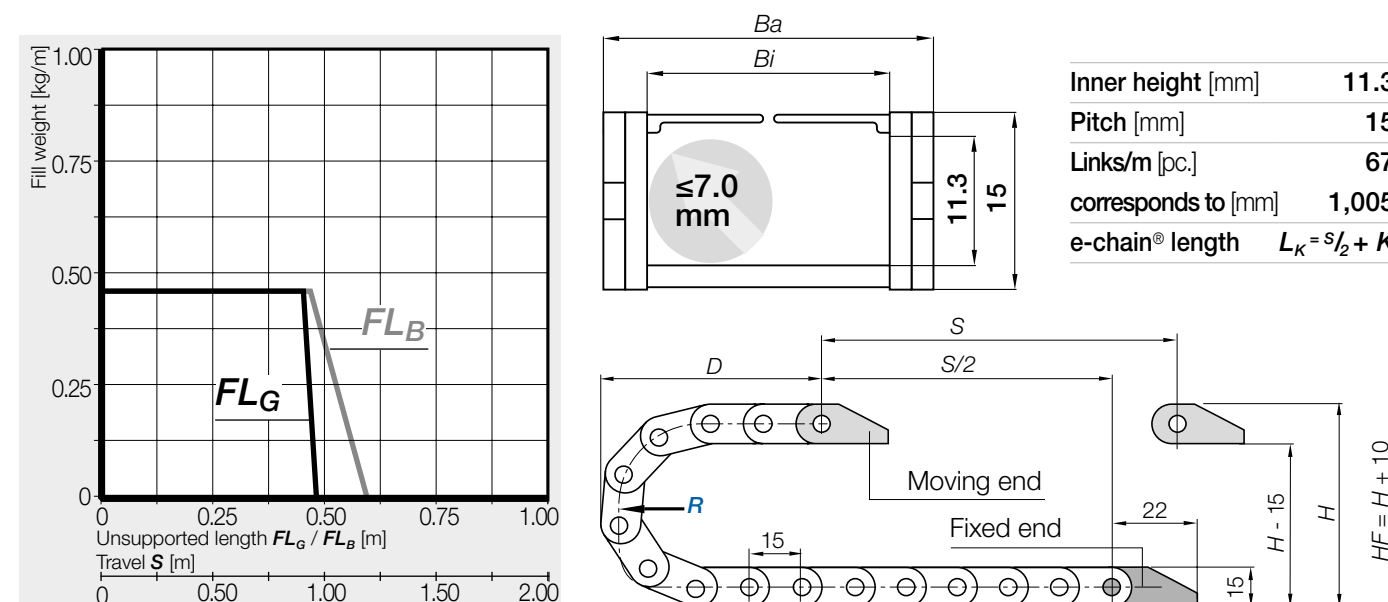
Part No. Version E - split crossbar along the outer radius	Part No. Version Z - split crossbar along the inner radius	Inner width B_i [mm]	Outer width Ba^* [mm]	Weight [kg/m]
1-chamber design				
E065.16. .0 ¹⁾	–	16	24.8	≈ 0.17
2-chamber design				
E065.2/9. .0 ¹⁾	–	9/9	29.3	≈ 0.19
3-chamber design				
E065.3/9. .0 ¹⁾	Z065.3/9. .0 ¹⁾	9/9/9	39.3	≈ 0.22
4-chamber design				
E065.4/9. .0 ¹⁾	–	9/9/9/9	49.3	≈ 0.25

Available bend radii R [mm] | 018 | 028 | 038 |

Crossbars do not overlap: 1) Gap = 2.5mm.

Ba^* : pin dimension approx. 1.0mm - 1.6mm wider.

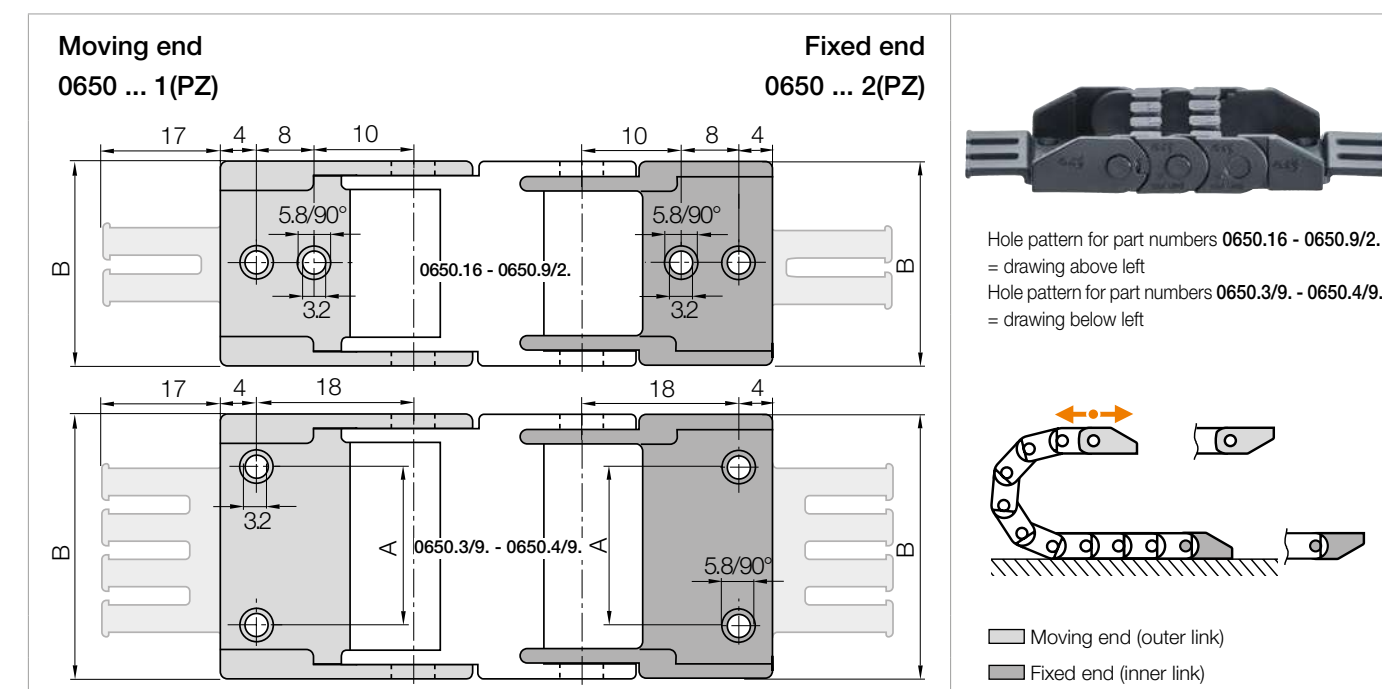
Unsupported applications | Short travels



R	018	028	038
H	51	71	91
D	48	58	68
K	90	120	150

The required clearance height: $H_F = H + 10\text{mm}$ (with 0.2kg/m fill weight)

Mounting brackets, polymer one-piece | Locking



Width index	Part No. Full set Locking with tie-wrap plates	Part No. Full set Locking without tie-wrap plates	A [mm]	B [mm]	Number of teeth
16.	0650.16.12PZ	0650.16.12	–	22.5	2
2/9.	0650.2/9.12PZ	0650.2/9.12	–	27	2
3/9.	0650.3/9.12PZ	0650.3/9.12	22	37	3
4/9.	0650.4/9.12PZ	0650.4/9.12	32	47	4

e-chain® order key

E065.16.038.0

Series	Width index	Bend radius	Colour index
--------	-------------	-------------	--------------

Example:

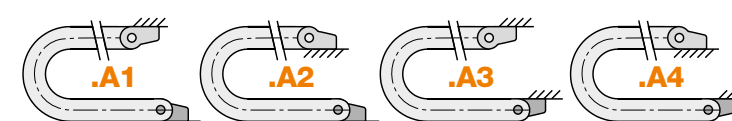
Complete Part No. with the required radius . Example:
E065.16.038.0 = "easy" design, split crossbar along the outer radius
 Order index for colour options ► www.igus.eu/info-colours

Mounting bracket order key

0650.16.12PZ.A2

Series	Width index	Full set	With integrated strain relief tie-wrap plates	Pre-fitted
--------	-------------	----------	---	------------

Note: Possible variations for assembled mounting brackets. To receive mounting brackets with **pre-fitted** option please add index **.A1**, **.A2**, **.A3** or **.A4**.



Available from stock
 Upon request

Product range



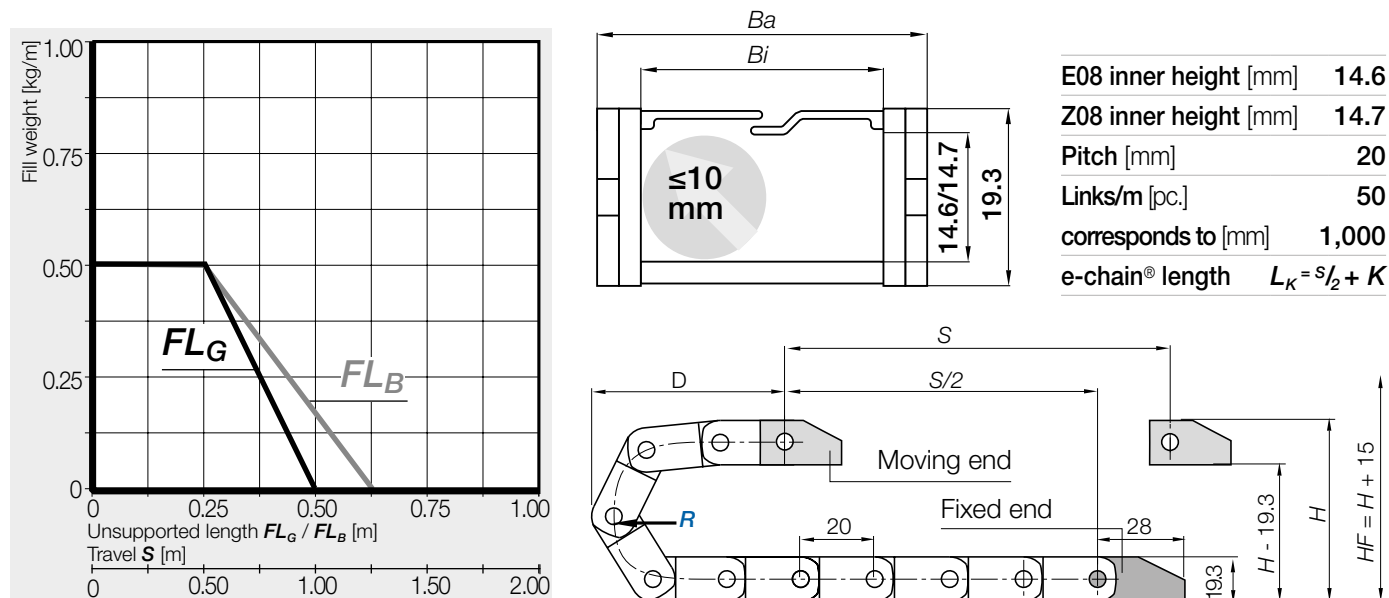
Part No. Version E - split crossbar along the outer radius	Part No. Version Z - split crossbar along the inner radius	Inner width B_i [mm]	Outer width B_a^* [mm]	Weight [kg/m]
1-chamber design				
E08.10.□.0 ¹⁾	Z08.10.□.0 ¹⁾	10	18.2	≈ 0.21
E08.16.□.0 ²⁾	Z08.16.□.0 ²⁾	16	24.2	≈ 0.24
E08.20.□.0	Z08.20.□.0	20	28.2	≈ 0.25
E08.30.□.0	Z08.30.□.0	30	38.2	≈ 0.28
E08.40.□.0	Z08.40.□.0	40	48.2	≈ 0.31
E08.50.□.0	Z08.50.□.0	50	58.2	≈ 0.37

Available bend radii R [mm] | 028 | 038 | 048 |

Crossbars do not overlap: 1) Gap = 5.5mm, 2) Gap = 4.0mm.

B_a^* : pin dimension approx. 1.4mm - 1.8mm wider.

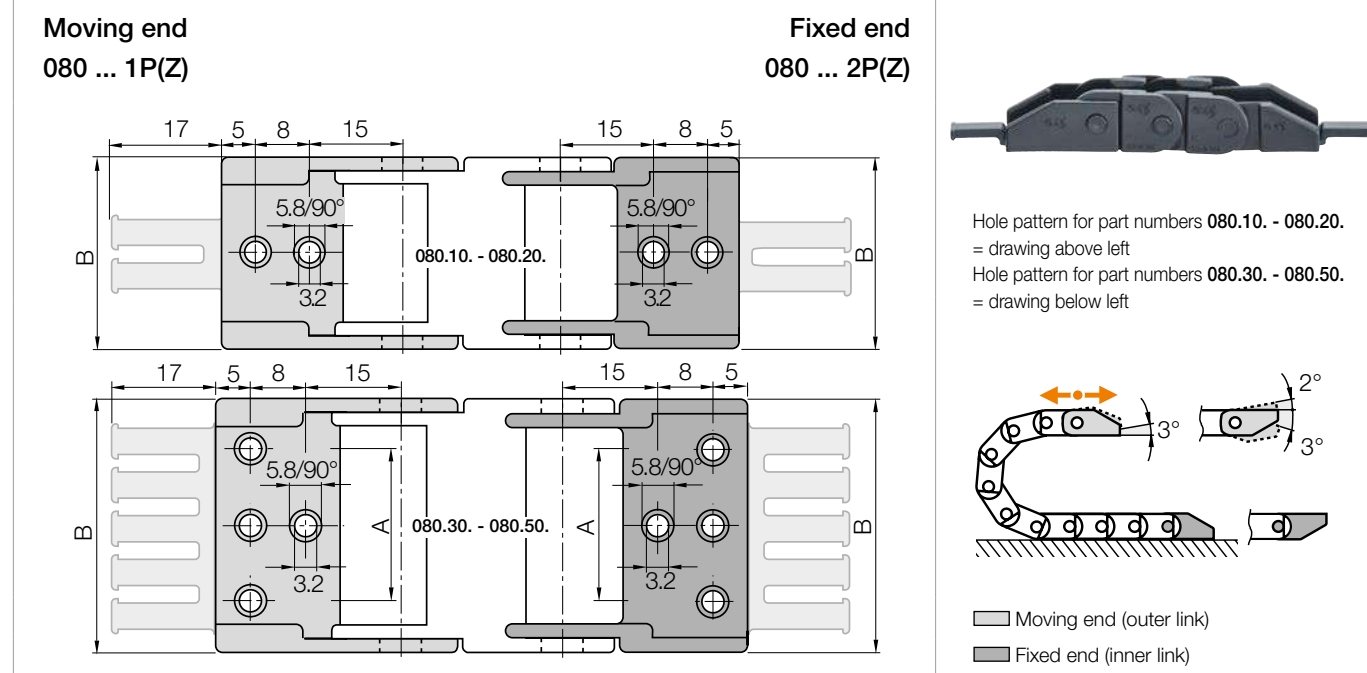
Unsupported applications | Short travels



R	028	038	048
H	75	95	115
D	68	78	88
K	130	160	195

The required clearance height: $H_F = H + 15\text{mm}$ (with 0.3kg/m fill weight)

Mounting brackets, polymer one-piece | Locking



Width index	Part No. Full set Locking with tiewrap plates	Part No. Full set Locking without tiewrap plates	A [mm]	B [mm]	Number of teeth
10.	080.10.12PZ	080.10.12	—	18.2	1
16.	080.16.12PZ	080.16.12	—	24.2	2
20.	080.20.12PZ*	080.20.12	—	28.2	2
30.	080.30.12PZ	080.30.12	22	38.2	3
40.	080.40.12PZ	080.40.12	32	48.2	4
50.	080.50.12PZ	080.50.12	42	58.2	5

*080.20.12PZ the tiewrap plate is 14mm-long.

e-chain® order key

E08.10.028.0

Series	Width index	Bend radius	Colour index
--------	-------------	-------------	--------------

Example:

Complete Part No. with the required radius R . Example:

E08.10.028.0 = "easy" design, split crossbar along the outer radius

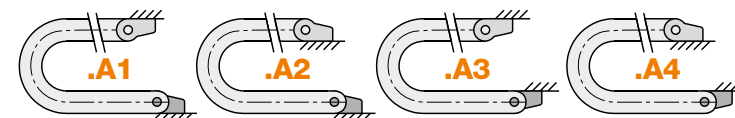
Order index for colour options ► www.igus.eu/info-colours

Mounting bracket order key

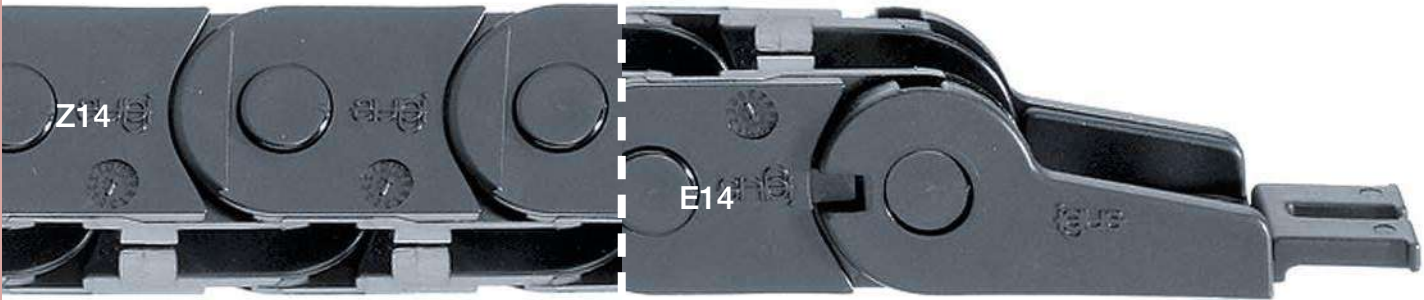
080.10.12PZ.A2

Series	Width index	Full set	With integrated strain relief tiewrap plates	Pre-fitted
--------	-------------	----------	--	------------

Note: Possible variations for assembled mounting brackets. To receive mounting brackets with **pre-fitted** option please add index .A1, .A2, .A3 or .A4.

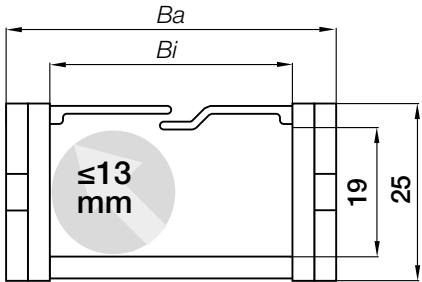
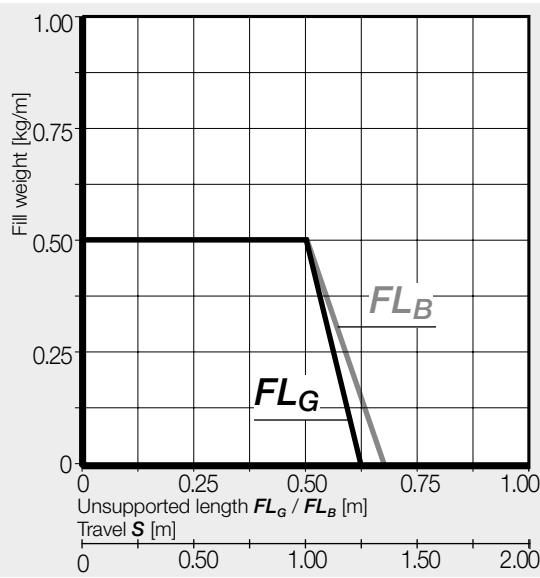


Product range

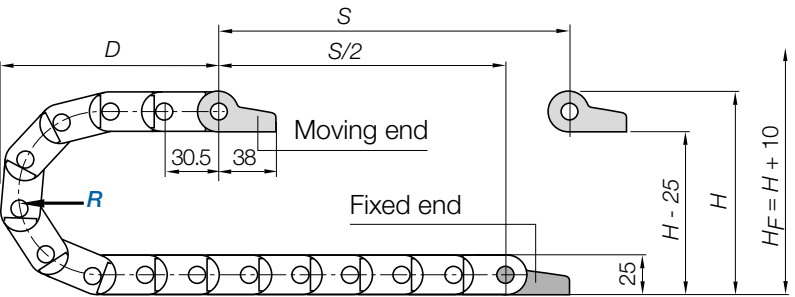


Part No. Version E - split crossbar along the outer radius	Part No. Version Z - split crossbar along the inner radius	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Weight [kg/m]
1-chamber design				
E14.1. .0	Z14.1. .0	15	27	≈ 0.31
E14.2. .0	Z14.2. .0	25	37	≈ 0.32
E14.3. .0	Z14.3. .0	38	50	≈ 0.40
E14.4. .0	Z14.4. .0	50	62	≈ 0.44
Available bend radii <i>R</i> [mm] 028 038 048 075 100 125				

Unsupported applications | Short travels



Inner height [mm] 19
Pitch [mm] 30.5
Links/m [pc.] 33
corresponds to [mm] 1,006.5
e-chain® length $L_K = \frac{S}{2} + K$

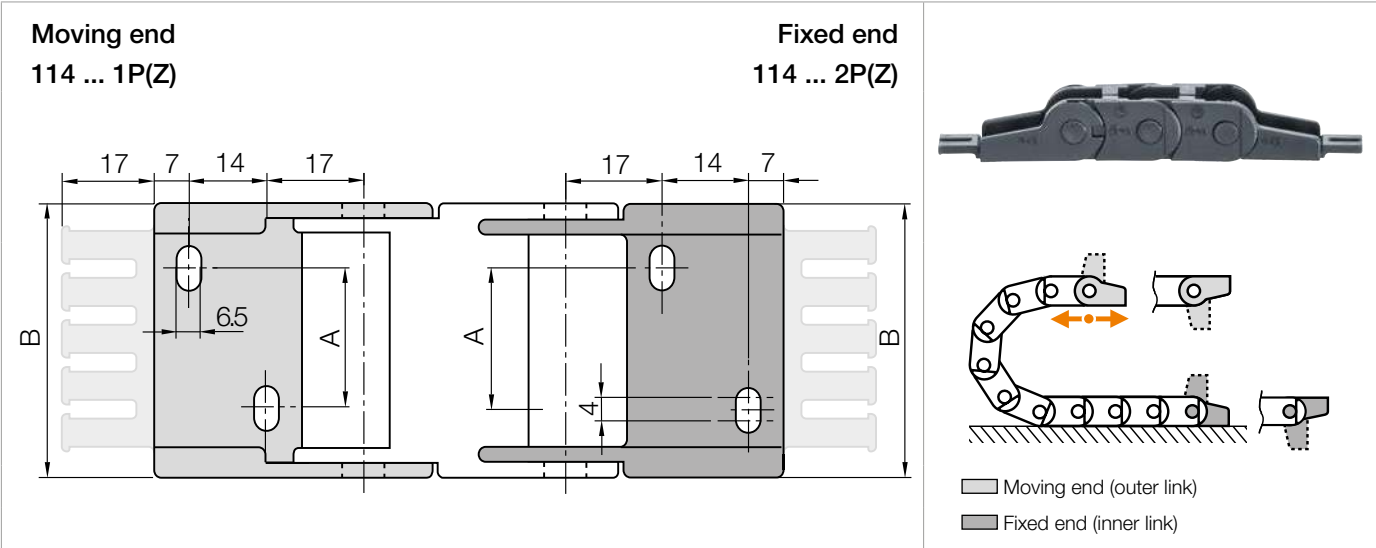


<i>R</i>	028	038	048	075	100	125
<i>H</i>	81	101	121	175	225	275
<i>D</i>	86	96	106	133	158	183
<i>K</i>	150	185	215	300	380	455

The required clearance height: $H_F = H + 10\text{mm}$ (with 0.2kg/m fill weight)

Available from stock
Upon request

Mounting brackets, polymer one-piece | Locking



Width index	Part No. Full set Locking with tiewrap plates	Part No. Full set Locking without tiewrap plates	A [mm]	B [mm]	Number of teeth
1.	114.1.12PZ	114.1.12P	–	26.3	2
2.	114.2.12PZ	114.2.12P	10	36.3	3
3.	114.3.12PZ	114.3.12P	23	49.3	4
4.	114.4.12PZ	114.4.12P	35	61.3	5

e-chain® order key

E14.1.028.0

Series	Width index	Bend radius	Colour index
--------	-------------	-------------	--------------

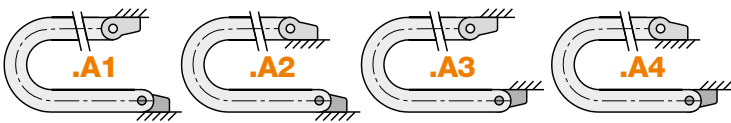
Example:
Complete Part No. with the required radius *R*. Example:
E14.1.028.0 = "easy" design, split crossbar along the outer radius
Order index for colour options ► www.igus.eu/info-colours

Mounting bracket order key

114.1.12PZ.A2

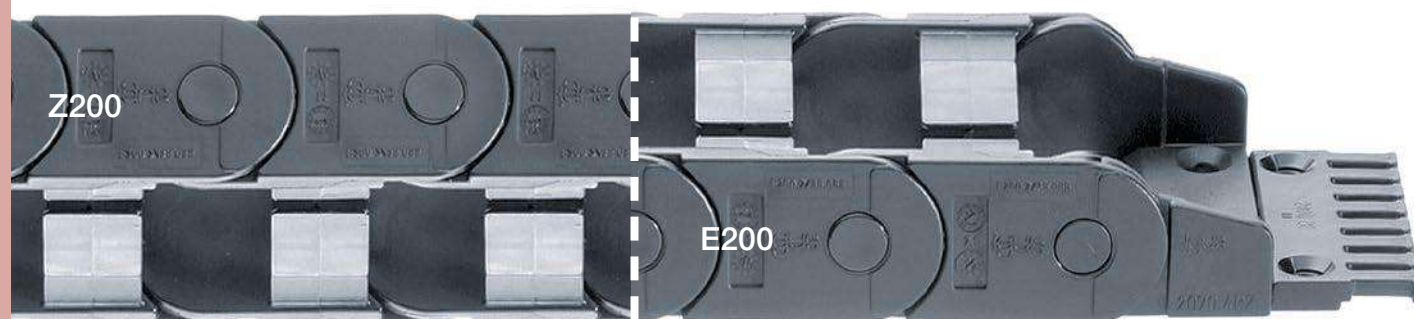
Series	Width index	Full set	With integrated strain relief tiewrap plates	Pre-fitted
--------	-------------	----------	--	------------

Note: Possible variations for assembled mounting brackets. To receive mounting brackets with **pre-fitted** option please add index .A1, .A2, .A3 or .A4.



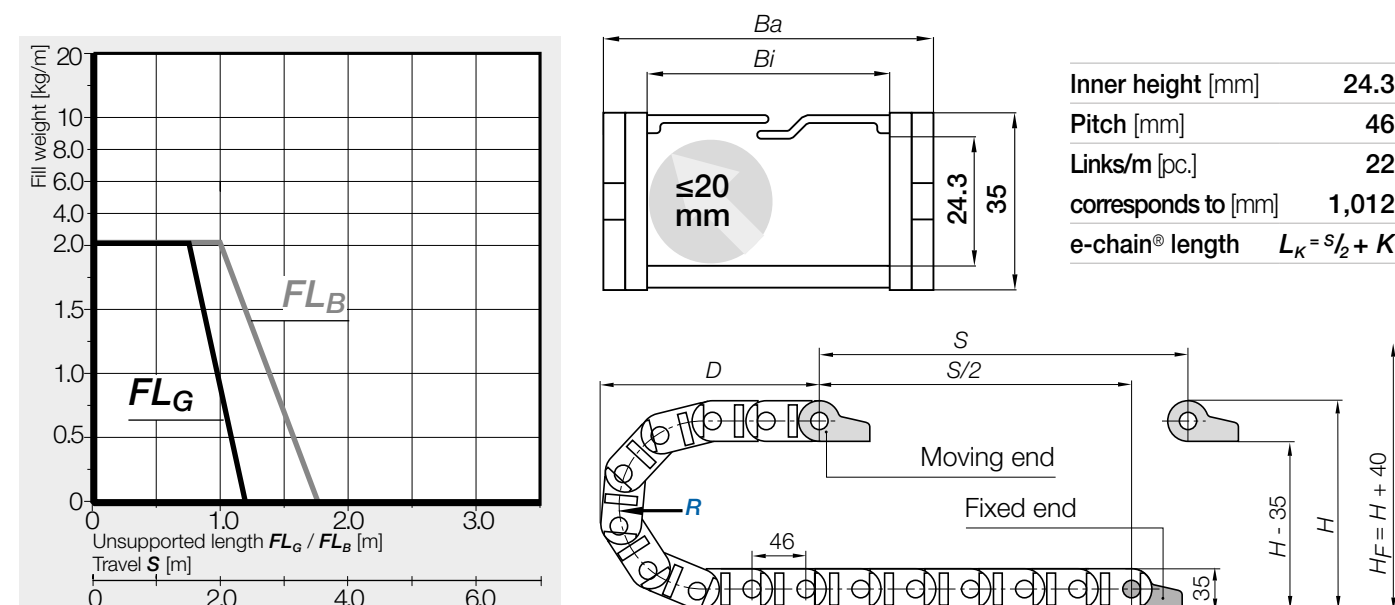
Available from stock
Upon request

Product range



Part No. Version E - split crossbar along the outer radius	Part No. Version Z - split crossbar along the inner radius	Inner width B_i [mm]	Outer width B_a [mm]	Weight [kg/m]
1-chamber design				
E200.05. .0	Z200.05. .0	57	74.4	≈ 0.70
2-chamber design				
E200.2/35. .0	Z200.2/35. .0	37/37	94.4	≈ 0.79
E200.2/50. .0	Z200.2/50. .0	50/50	120.4	≈ 0.82
Available bend radii R [mm] 055 075 100 150 200				

Unsupported applications | Short travels

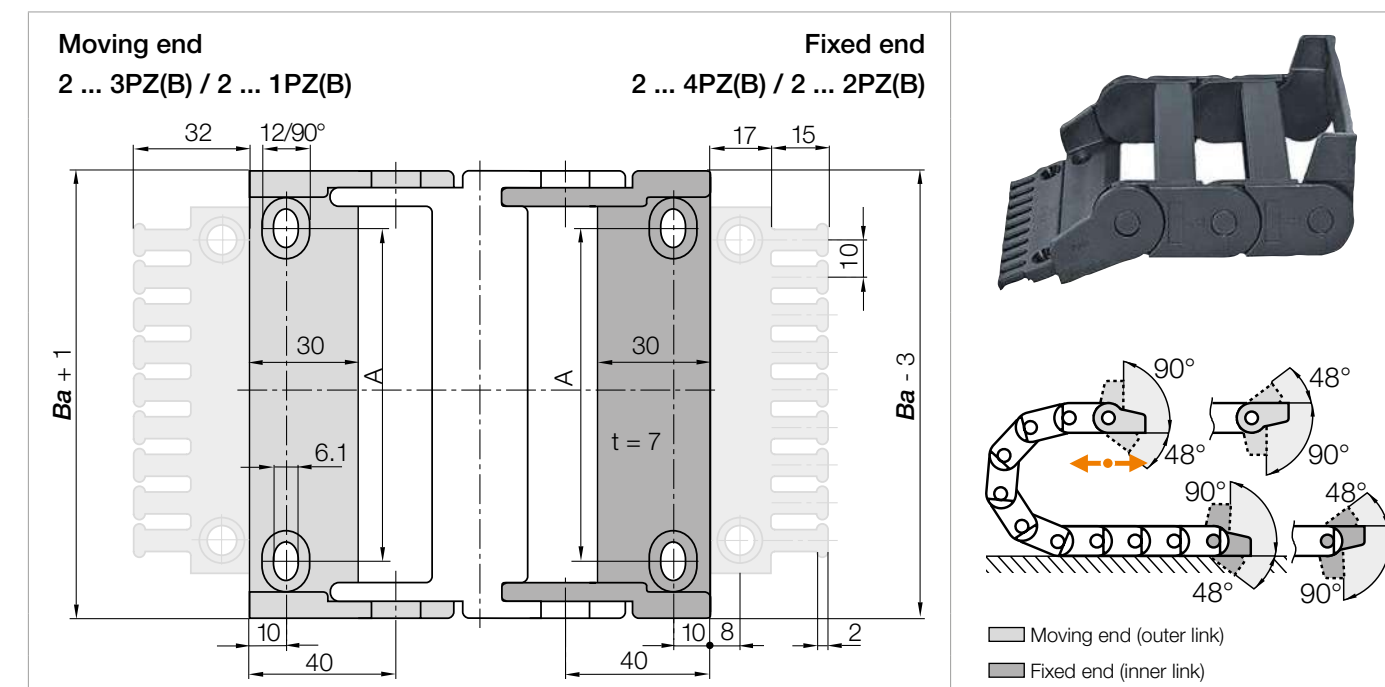


R	055	075	100	150	200
H^+4	145	185	235	335	435
D	142	162	187	237	287
K	265	330	410	565	725

The required clearance height: $H_F = H + 40\text{mm}$ (with 2.0kg/m fill weight)

Available from stock
Upon request

Mounting brackets, polymer | Pivoting | Locking



Width index	Part No. Full set		Part No. Full set		A [mm]	Number of teeth
	Pivoting with tiewrap plates	Pivoting without tiewrap plates	Locking with tiewrap plates	Locking without tiewrap plates		
05.	2050.34PZB	2050.34PZ	2050.12PZB	2050.12PZ	44	6
2/35.	2070.34PZB	2070.34PZ	2070.12PZB	2070.12PZ	64	8
2/50.	2100.34PZB	2100.34PZ	2100.12PZB	2100.12PZ	90	10

Full set with tiewrap plate + 10 cable tiewraps, please add index **K1**. Example: **Part No. 2050.34PZBK1**.

e-chain® order key

E200.05. 150 .0

Series	Width index	Bend radius	Colour index
--------	-------------	-------------	--------------

Example:

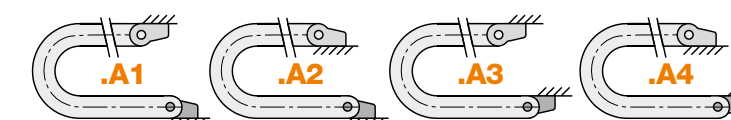
Complete Part No. with the required radius R . Example:
E200.05. 150 .0 = "easy" design, split crossbar along the outer radius
Order index for colour options ► www.igus.eu/info-colours

Mounting bracket order key

2050. 34PZ .A2

Series	Full set	With integrated strain relief tiewrap plates	Pre-fitted
--------	----------	--	------------

Note: Possible variations for assembled mounting brackets. To receive mounting brackets with **pre-fitted** option please add index **.A1**, **.A2**, **.A3** or **.A4**.



Available from stock
Upon request

Product range



Part No. Version E - split crossbar along the outer radius	Part No. Version Z - split crossbar along the inner radius	Inner width B_i [mm]	Outer width B_a [mm]	Weight [kg/m]
1-chamber design				
E16.2. .0	Z16.2. .0	23	37.5	≈ 0.51
E16.3. .0	Z16.3. .0	36	50.5	≈ 0.57
E16.4. .0	Z16.4. .0	48	62.5	≈ 0.62
E16.5. .0	Z16.5. .0	63	78.5	≈ 0.75
E16.6. .0	Z16.6. .0	80	95.5	≈ 0.83
E16.7. .0	Z16.7. .0	100	115.3	≈ 0.91

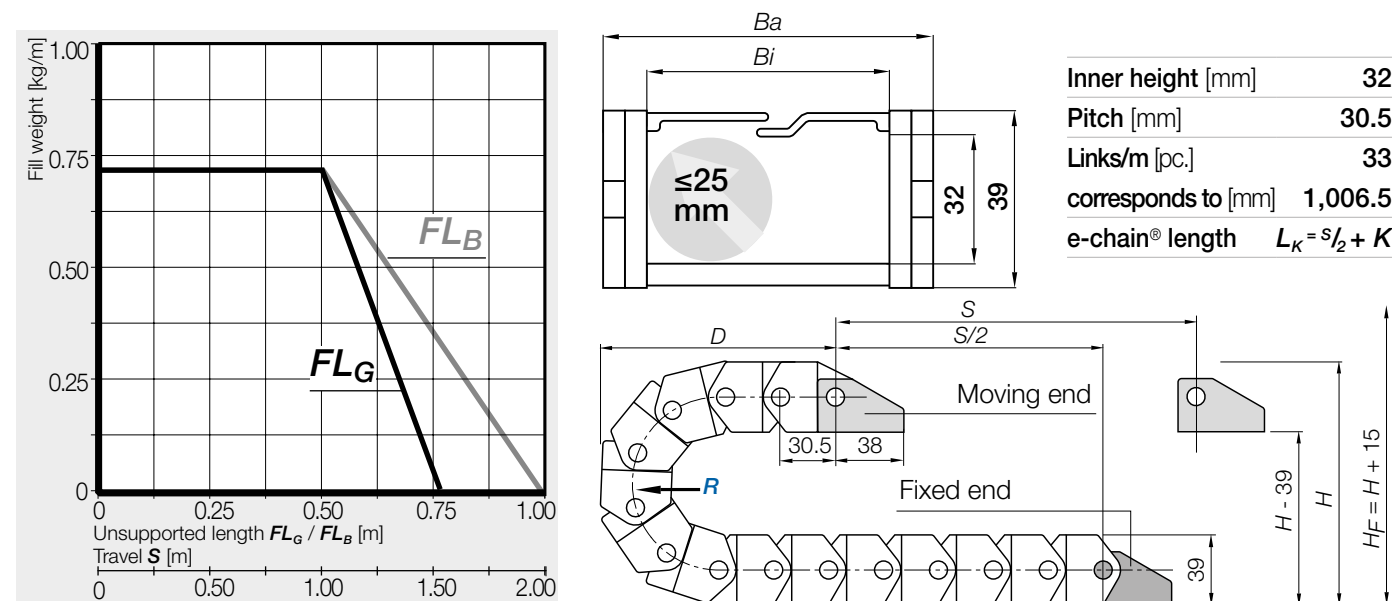
Available bend radii R [mm] | 040¹⁾ | 060 | 075 | 100 | 125²⁾

1) Radius 040 only available for E16.2, Z16.3, Z16.4, Z16.6.

2) Radius 125 only available for E16.2/Z16.2, E16.3/Z16.3, E16.7/Z16.7.

Special solution with narrow opening gap: Gap = 3.0mm, Part No. E16.2.100.0.N3 / Z16.2.075.0.N3.

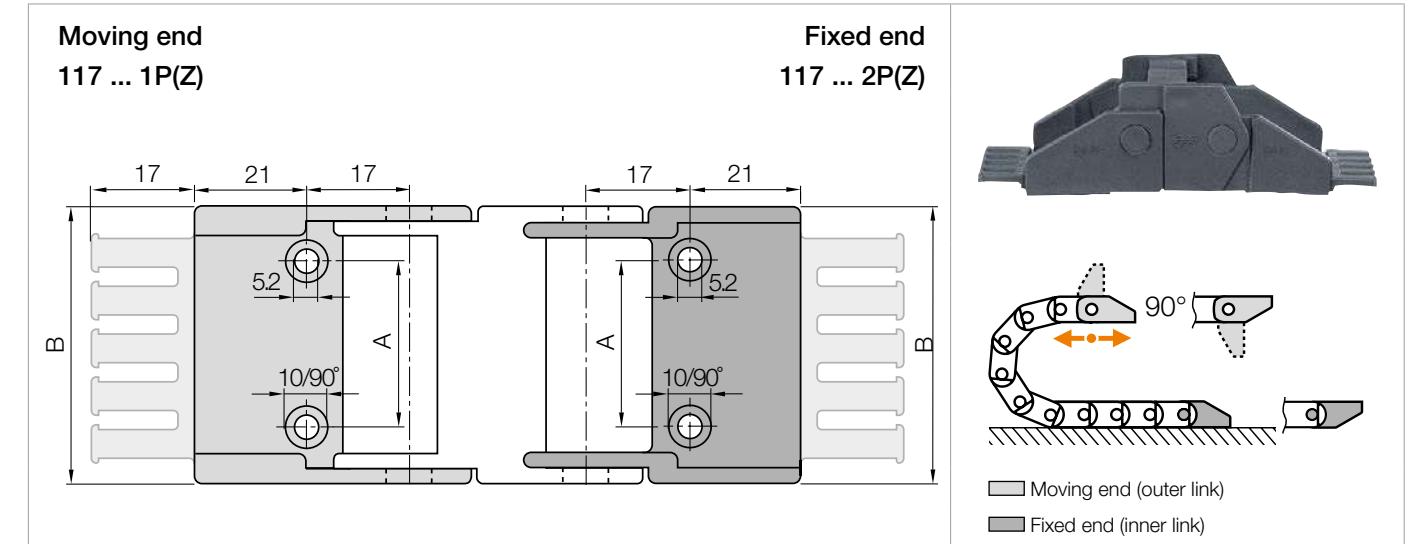
Unsupported applications | Short travels



R	040 ¹⁾	060	075	100	125 ²⁾
H	119	159	189	239	289
D	105	125	140	165	190
K	190	250	300	380	455

The required clearance height: $H_F = H + 15\text{mm}$ (with 0.3kg/m fill weight)

Mounting brackets, polymer one-piece | Locking



Width index	Part No. Full set Locking with tiewrap plates	Part No. Full set Locking without tiewrap plates	A [mm]	B [mm]	Number of teeth
2.	117.2.12PZ	117.2.12P	12	35.5	3
3.	117.3.12PZ	117.3.12P	25	48.5	4
4.	117.4.12PZ	117.4.12P	37	60.5	5
5.	117.5.12PZ	117.5.12P	48	76.0	6
6.	117.6.12PZ	117.6.12P	65	93.0	8
7.	117.7.12PZ	117.7.12P	85	113.0	10

e-chain® order key

E16.7.100.0

Series	Width index	Bend radius	Colour index
--------	-------------	-------------	--------------

Example:

Complete Part No. with the required radius R . Example:

E16.7.100.0 = "easy" design, split crossbar along the outer radius

Order index for colour options ► www.igus.eu/info-colours

Mounting bracket order key

117.7.12PZ.A2

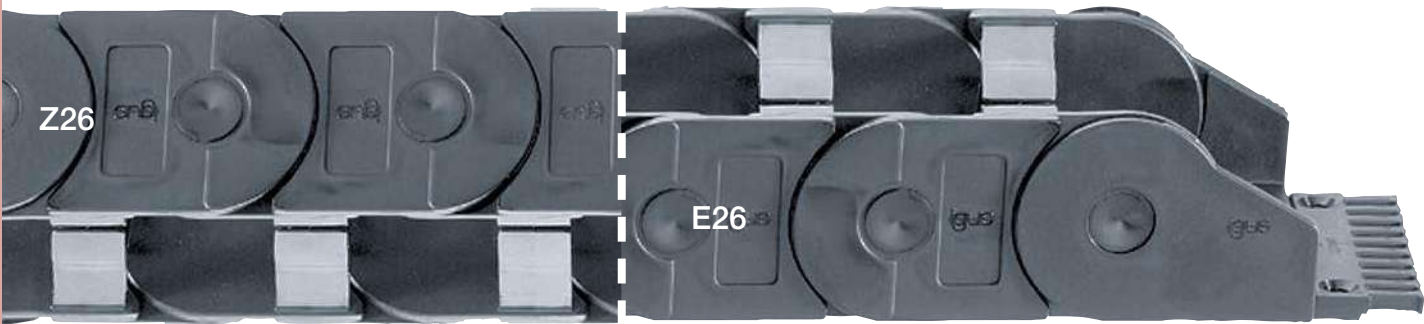
Series	Width index	Full set	With integrated strain relief tiewrap plates	Pre-fitted
--------	-------------	----------	--	------------

Note: Possible variations for assembled mounting brackets. To receive mounting brackets with **pre-fitted** option please add index .A1, .A2, .A3 or .A4.



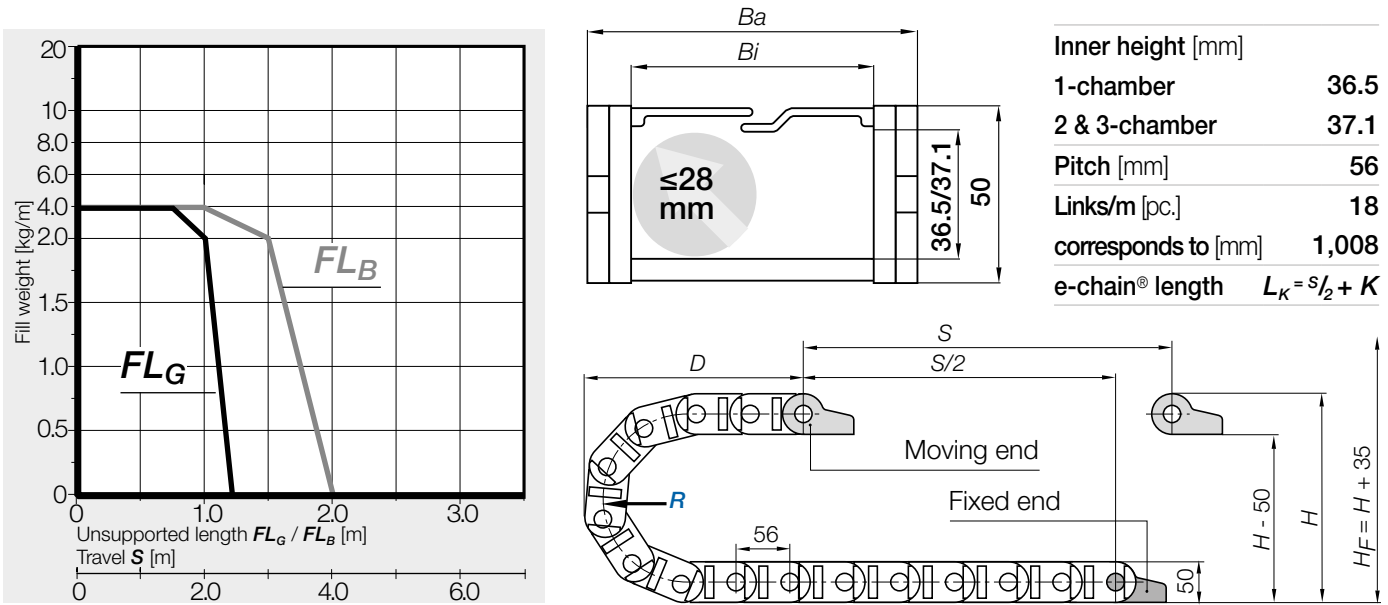
Available from stock
Upon request

Product range



Part No. Version E - split crossbar along the outer radius	Part No. Version Z - split crossbar along the inner radius	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Weight [kg/m]
1-chamber design				
E26.07. .0	Z26.07. .0	75	92	≈ 0.96
2-chamber design				
E26.2/45. .0	Z26.2/45. .0	48/48	117	≈ 1.14
3-chamber design				
E26.3/45. .0	EZ26.3/45. .0	47/48/47	167	≈ 1.30
Available bend radii <i>R</i> [mm] 063 075 100 125 150 175 200 250				

Unsupported applications | Short travels

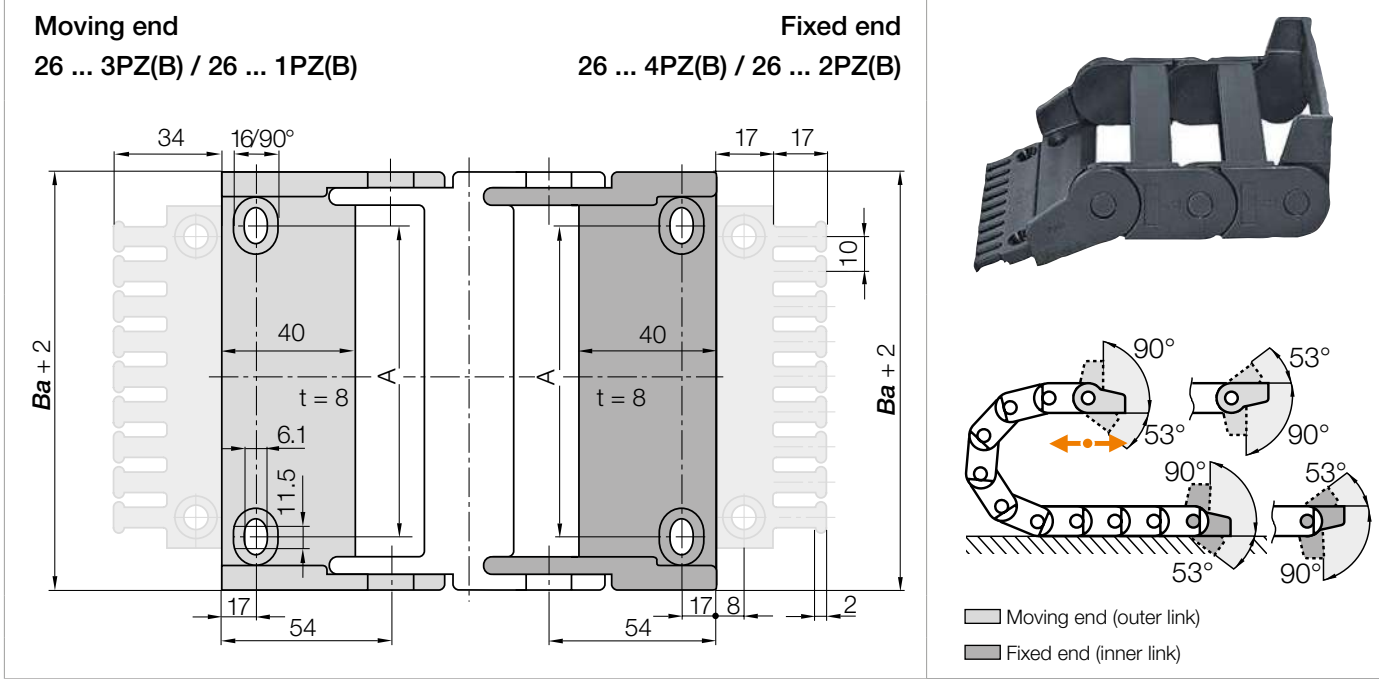


<i>R</i>	063	075	100	125	150	175	200	250
<i>H</i> ⁺⁵	176	200	250	300	350	400	450	550
<i>D</i>	172	184	209	234	259	284	309	359
<i>K</i>	310	350	430	505	585	665	745	900

The required clearance height: $H_F = H + 35\text{mm}$ (with 2.0kg/m fill weight)

Available from stock
Upon request

Mounting brackets, polymer | Pivoting | Locking



Width index	Part No. Full set		Part No. Full set		<i>A</i> [mm]	Number of teeth
	Pivoting with tiewrap plates	Pivoting without tiewrap plates	Locking with tiewrap plates	Locking without tiewrap plates		
07.	2607.34PZB	2607.34PZ	2607.12PZB	2607.12PZ	55	7
2/45.	2610.34PZB	2610.34PZ	2610.12PZB	2610.12PZ	80	10
3/45.	2615.34PZB	2615.34PZ	2615.12PZB	2615.12PZ	130	15

Full set with tiewrap plate + 10 cable tiewraps, please add index **K1**. Example: **Part No. 2607.34PZBK1**.

e-chain® order key

E26.07.150.0

Series	Width index	Bend radius	Colour index
--------	-------------	-------------	--------------

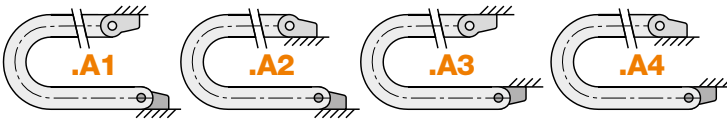
Example:
Complete Part No. with the required radius . Example:
E26.07.150.0 = "easy" design, split crossbar along the outer radius
Order index for colour options ► www.igus.eu/info-colours

Mounting bracket order key

2607.34PZ.A2

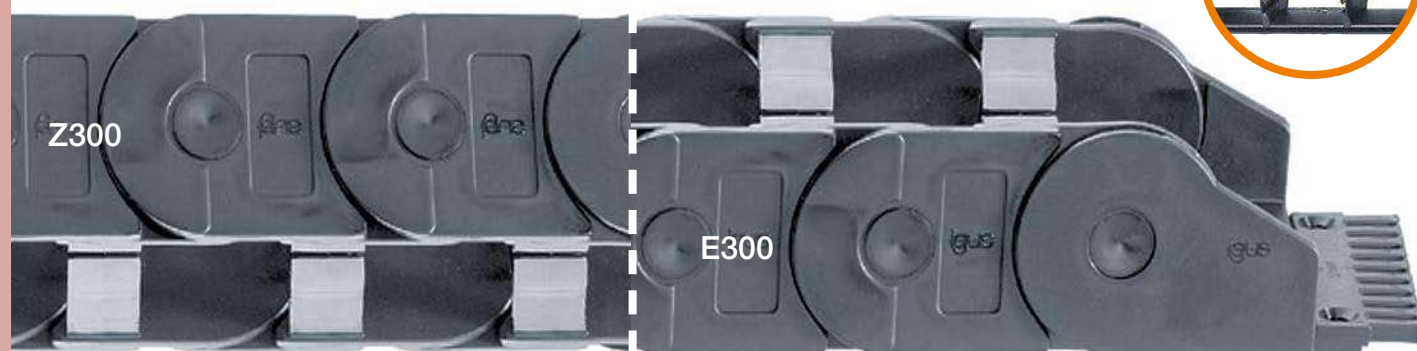
Series	Full set	With integrated strain relief tiewrap plates	Pre-fitted
--------	----------	--	------------

Note: Possible variations for assembled mounting brackets. To receive mounting brackets with **pre-fitted** option please add index **.A1**, **.A2**, **.A3** or **.A4**.



Available from stock
Upon request

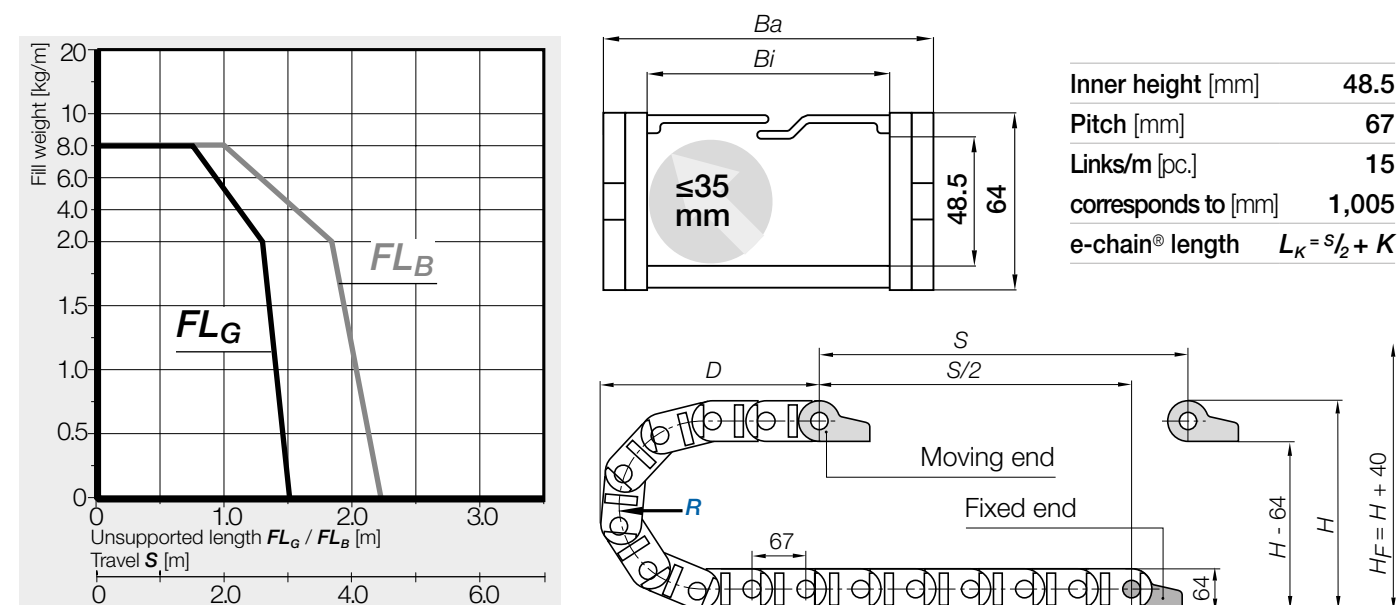
Product range



Part No. Version E - split crossbar along the outer radius	Part No. Version Z - split crossbar along the inner radius	Inner width B_i [mm]	Outer width B_a [mm]	Weight [kg/m]
1-chamber design				
E300.075. .0	Z300.075. .0	75	95	≈ 1.60
2-chamber design				
E300.2/45. .0	Z300.2/45. .0	48/48	120	≈ 1.78
3-chamber design				
E300.3/45. .0*	Z300.3/45. .0*	47/46/47	170	≈ 1.92
Available bend radii R [mm] 075 100 125 150 200 250 300				

*Partial shelves for additional horizontal separation available, Part No. see page on the right.

Unsupported applications | Short travels

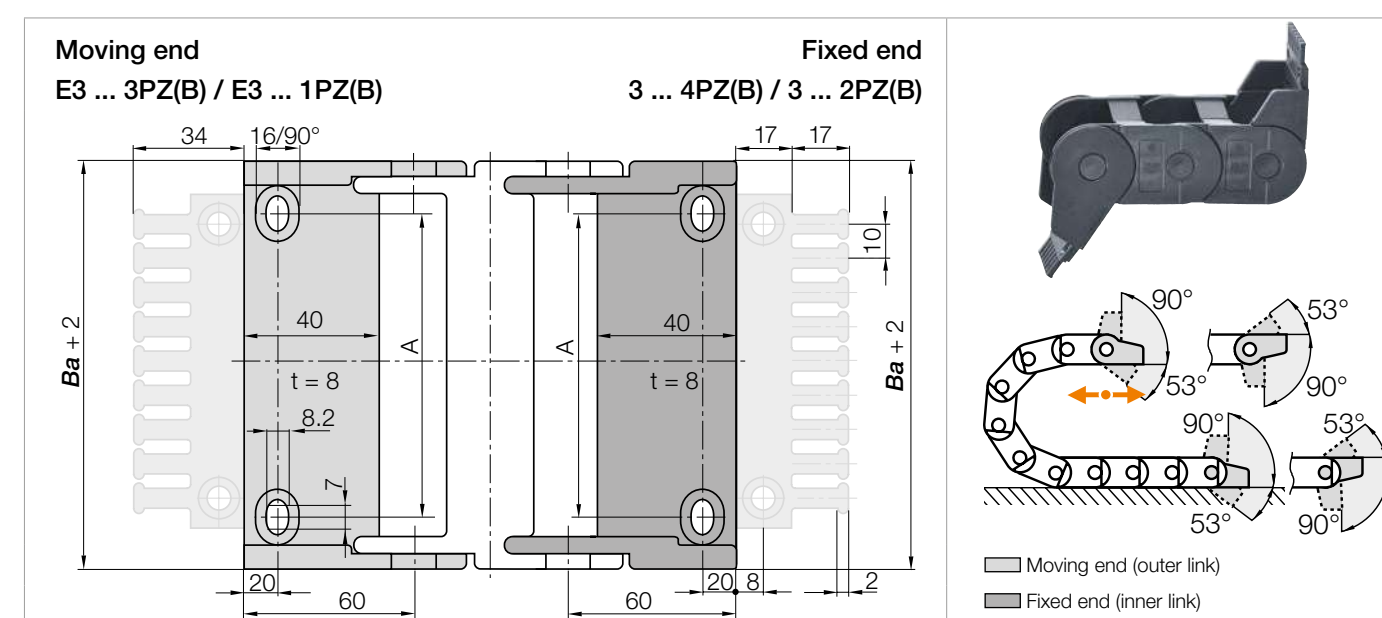


R	075	100	125	150	200	250	300
H^{*5}	214	264	314	364	464	564	664
D	208	233	258	283	333	383	433
K	370	450	530	610	765	920	1,080

The required clearance height: $H_F = H + 40\text{mm}$ (with 2.5kg/m fill weight)

Available from stock
Upon request

Mounting brackets, polymer | Pivoting | Locking



Width index	Part No. Full set		Part No. Full set		A [mm]	Number of teeth
	Pivoting with tiewrap plates	Pivoting without tiewrap plates	Locking with tiewrap plates	Locking without tiewrap plates		
075.	E3075.34PZB	E3075.34PZ	E3075.12PZB	E3075.12PZ	53	7
2/45.	E3100.34PZB	E3100.34PZ	E3100.12PZB	E3100.12PZ	78	10
3/45.	E3150.34PZB	E3150.34PZ	E3150.12PZB	E3150.12PZ	128	15

Full set with tiewrap plate + 10 cable tiewraps, please add index **K1**. Example: **Part No. E3075.34PZBK1**.

Interior separation | For E300.3/45 and Z300.3/45 with 3-chamber design

Part No.	Shelf	Modular shelf
unassembled	386,54	For additional horizontal subdivision of the inner space, shelves are available for e-chains® series E300.3/45 and Z300.3/45. They can be fitted at 7 different heights.
assembled	387,54	

e-chain® order key

E300.075.150.0

Series	Width index	Bend radius	Colour index
--------	-------------	-------------	--------------

Example:

Complete Part No. with the required radius 150. Example:

E300.075.150.0 = "easy" design, split crossbar along the outer radius

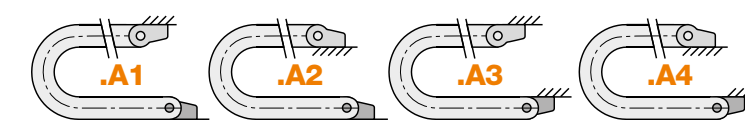
Order index for colour options ► www.igus.eu/info-colours

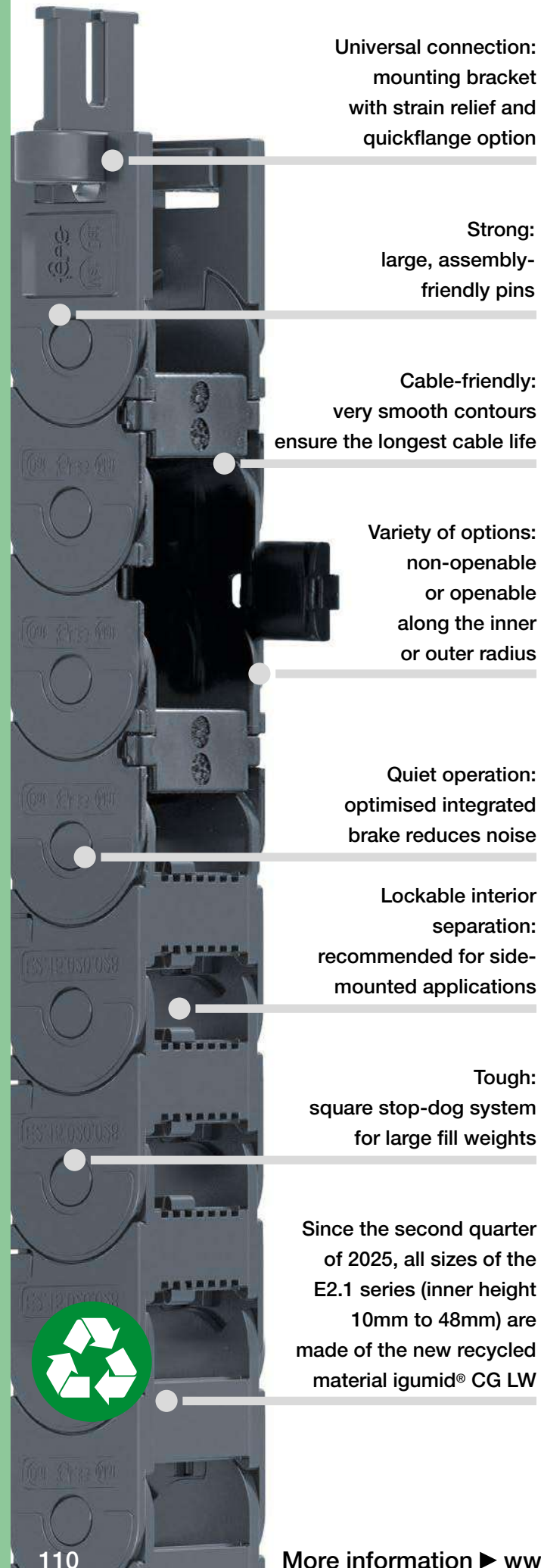
Mounting bracket order key

E3075.34PZ.A2

Series	Full set	With integrated strain relief tiewrap plates	Pre-fitted
--------	----------	--	------------

Note: Possible variations for assembled mounting brackets. To receive mounting brackets with **pre-fitted** option please add index **.A1**, **.A2**, **.A3** or **.A4**.





For very small spaces, strong - E2 micro

E2 micro e-chains® are very small, one- and two-piece e-chains® with low weight, making them ideal for highly dynamic applications. E2 micro e-chains® are optimal for smallest installation spaces, and are available in many versions. They feature a strong stop-dog system for up to 25% longer unsupported travels as well as 100% higher fill weights (compared to similar igus® types). They are light, strong and easy to open. An e-chain® opener is included in order to open the e-chain® in one go. Many accessories like interior separation and fixation options are also available.

Benefits

- More useable space*
- 25% longer unsupported length*
- 100% more fill weight*
- 10% weight saving*
- Cable friendly interior separation range
- Openable from both sides (left or right)

* in comparison to equivalent igus® series

Typical application areas

- Model making (micro e-chains®)
- Automatic doors
- Vehicles
- Measuring machines
- Electric equipment
- Handling
- Pick and place
- Robot
- General machinery, etc.

Since the second quarter of 2025, all sizes of the E2.1 series (inner height 10mm to 48mm) are made of the new recycled material igumid® CG LW

Selection table

Part No.	Inner height <i>hi</i> [mm]	Outer height <i>ha</i> [mm]	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Bend radius <i>R</i> [mm]	Unsupported length ≤ [m]	Page
E2C.1 micro / E2 micro - one-piece e-chains®, non-openable							
03	5	8	5 - 10	8.70 - 13.7	010 - 028	0.40	112
04	7	10	7 - 30	12 - 35	015 - 048	0.50	114
045	10.3	12.5	6 - 64	12 - 70	018 - 083	0.50	116
E2C.10L	10	12	6 - 30	10.7 - 34.4	018 - 038	0.61	118
E2C.10	10.6	15	6 - 50	13.4 - 57.4	018 - 038	0.75	120
E2C.15	14.9	19.3	10 - 50	17.8 - 57.8	028 - 075	1.30	124
E2C.17	17	23	25 - 63	36.1 - 74.1	028 - 145	1.25	128

E2i.1 micro - two-piece e-chains®, crossbars openable along the inner radius, from both sides

E2i.10	10.1	15	6 - 50	13.4 - 57.4	018 - 038	0.75	120
E2i.15	14.4	19.3	10 - 50	17.8 - 57.8	028 - 075	1.30	124
E2i.17	17	23	15 - 80	26.1 - 91.1	028 - 145	1.25	128

E2.1 micro - two-piece e-chains®, crossbars openable along the outer radius, from both sides

E2.10	10.1	15	6 - 50	13.4 - 57.4	018 - 038	0.75	120
E2.15	14.4	19.3	10 - 50	17.8 - 57.8	028 - 075	1.30	124
E2.17	17	23	15 - 80	26.1 - 91.1	028 - 145	1.25	128

Technical data

General properties

Speed gliding ¹⁾ / acceleration gliding ¹⁾	≤ 10m/s / ≤ 50m/s²
Speed <i>FL_G</i> /acceleration <i>FL_G</i>	≤ 20m/s / ≤ 200m/s²
Speed <i>FL_B</i> /acceleration <i>FL_B</i>	≤ 3m/s / ≤ 6m/s²
Material igumid® NB - permitted temperature °C (03 series)	-40°C / +80°C
igumid® G LW material - permitted temperature °C (04/045 series)	-40°C/+120°C
igumid® CG LW material - permitted temperature °C (other series)	-40°C/+120°C
Flammability class, igumid® NB	VDE 0304 IIC UL94-V2
Flammability class, igumid® G LW	VDE 0304 IIC UL94-HB
Flammability class, igumid® CG LW	VDE 0304 IIC UL94-HB

1) For E2i.17 series openable along the inner radius in gliding applications, please consult igus®

Installation types, maximum travel lengths

Series	Unsupported	Gliding ¹⁾	Vertical hanging	Vertical standing	Side mounted, unsupported	Rotary	Zig-zag
03	≤ 0.80m	upon request	upon request	upon request	upon request	upon request	upon request
04	≤ 1.00m	upon request	upon request	upon request	upon request	upon request	upon request
045	≤ 1.00m	upon request	upon request	upon request	upon request	upon request	upon request
E2C.10L	≤ 0.61m	upon request	upon request	upon request	upon request	upon request	upon request
E2.10	≤ 0.75m	upon request	upon request	upon request	upon request	upon request	upon request
E2.15	≤ 1.30m	upon request	upon request	upon request	upon request	upon request	upon request
E2.17	≤ 2.40m	upon request	upon request	upon request	upon request	upon request	upon request

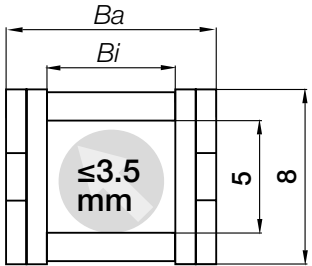
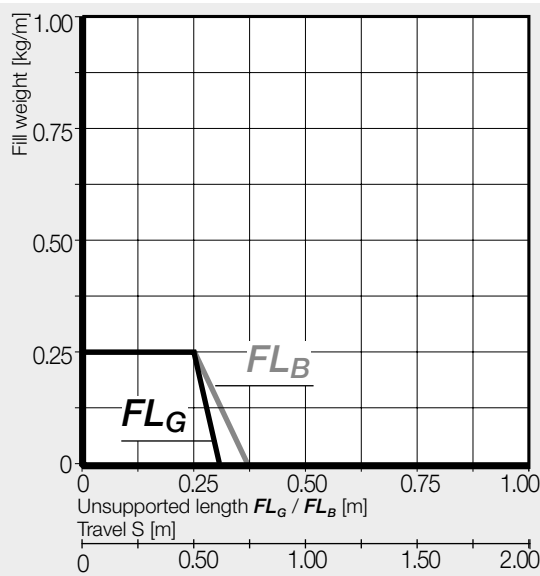
1) For E2i.17 series openable along the inner radius in gliding applications, please consult igus®

Product range

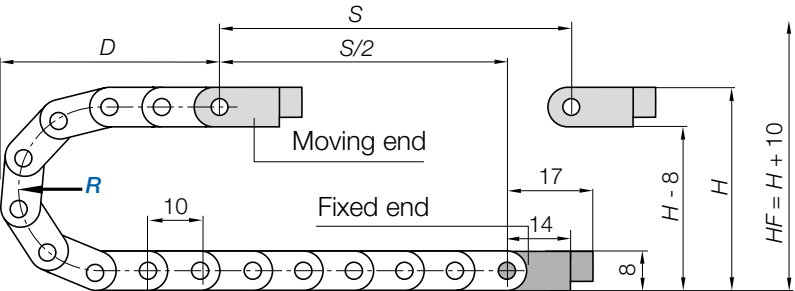


Part No.	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Weight [kg/m]
One-piece, non-openable			
03.05.□.0	5	8.7	≈ 0.04
03.07.□.0	7	10.7	≈ 0.05
03.10.□.0	10	13.7	≈ 0.06
Available bend radii <i>R</i> [mm] 010 012 015 018 028			

Unsupported applications | Short travels



Inner height [mm]	5
Pitch [mm]	10
Links/m [pc.]	100
corresponds to [mm]	1,000
e-chain® length	$L_K = \frac{S}{2} + K$

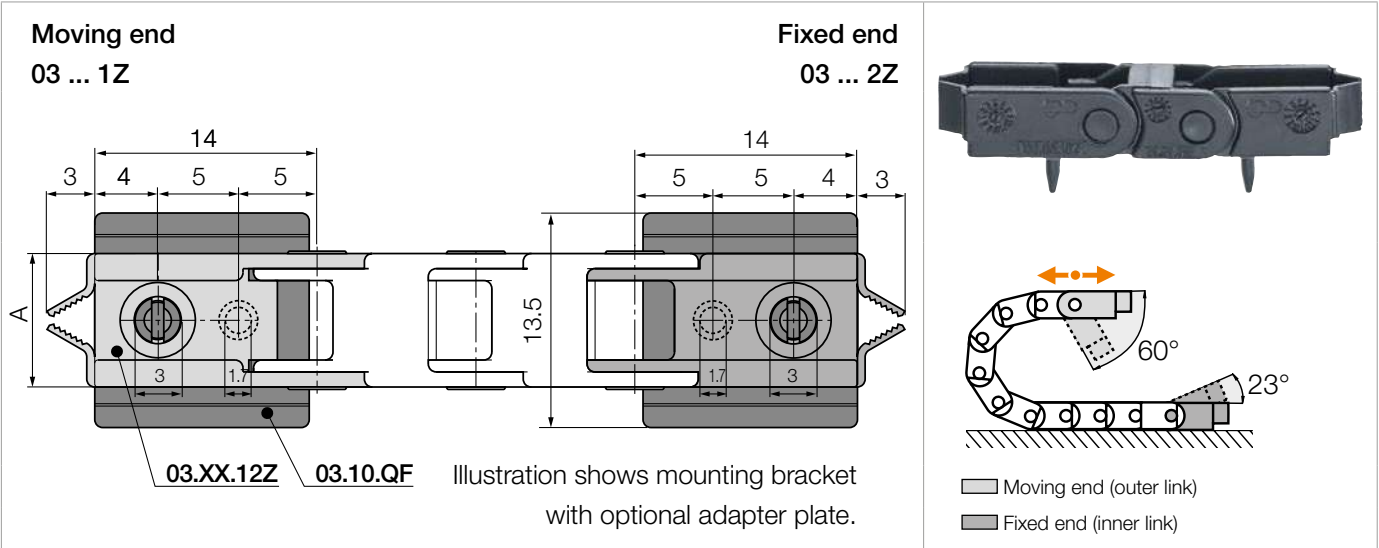


<i>R</i>	010	012	015	018	028
<i>H</i>	28	32	38	44	64
<i>D</i>	29	31	34	37	47
<i>K</i>	55	60	70	80	110

The required clearance height: $H_F = H + 10\text{mm}$ (with 0.1kg/m fill weight)

Available from stock
Upon request

Mounting brackets, polymer | Pivoting

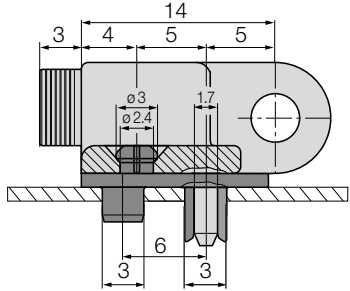


Width index	Part No. Full set	<i>A</i> [mm]	Part No. Adapter plate
	Pivoting with tiewrap plates		Single part, optional
05.	03.05.12Z	8.7	03.10.QF
07.	03.07.12Z	10.7	03.10.QF
10.	03.10.12Z	13.7	03.10.QF

Material mounting bracket - igumid® G LW, temperature: -40° up to +120°C, VDE 0304 IIC UL94-HB.

Additional features | Adapter plate

Adapter plate for rapid installation for all sizes. With scored lines so that it can be adapted to the respective e-chain® width. The adapter plate is not always necessary when attaching the mounting brackets as they can also be screwed on without the adapter plate.



e-chain® order key
03.05.028.0

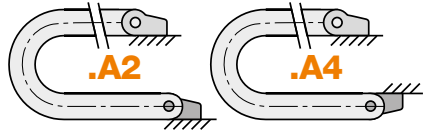
Series	Width index	Bend radius	Colour index
--------	-------------	-------------	--------------

Example:
Complete Part No. with the required radius *R*. Example:
03.05.028.0 = one-piece, non-openable
Order index for colour options ► www.igus.eu/info-colours

Mounting bracket order key
03.05.12Z.A2

Series	Width index	Full set	With integrated strain relief tiewrap plates	Pre-fitted
--------	-------------	----------	--	------------

Note: Possible variations for assembled mounting brackets.
To receive mounting brackets with **pre-fitted** option please add index **.A2** or **.A4**.

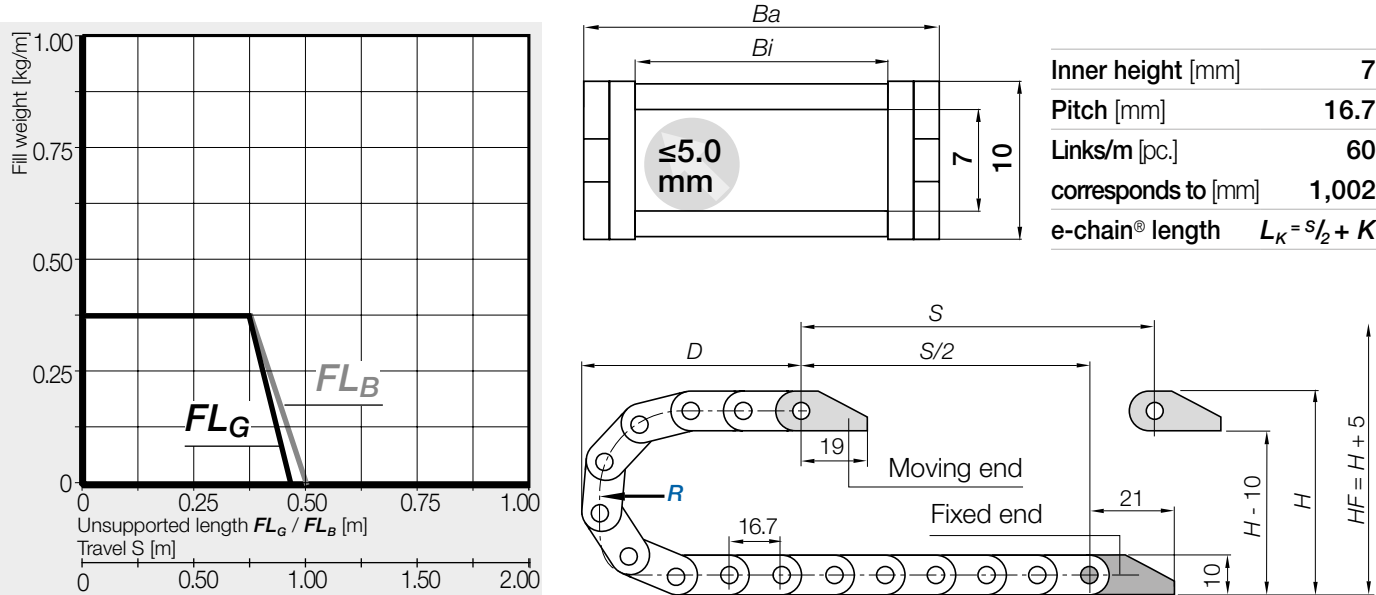


Product range



Part No. One-piece, non-openable	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Weight [kg/m]
04.07. .0	7	12	≈ 0.07
04.10. .0	10	15	≈ 0.08
04.16. .0	16	21	≈ 0.09
04.20. .0	20	25	≈ 0.10
04.30. .0	30	35	≈ 0.11
Available bend radii <i>R</i> [mm] 015 018 028 038 048			

Unsupported applications | Short travels

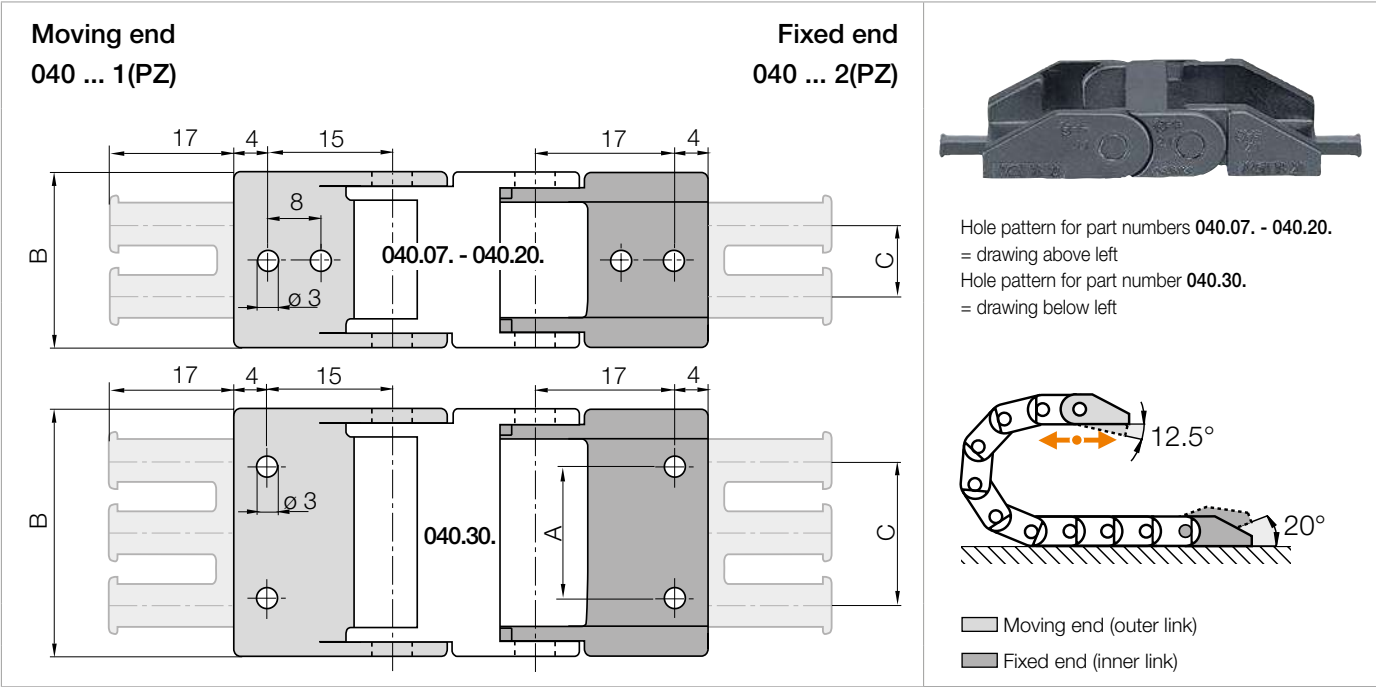


<i>R</i>	015	018	028	038	048
<i>H</i>	40	46	66	86	106
<i>D</i>	45	48	58	68	78
<i>K</i>	85	90	125	155	185

The required clearance height: $H_F = H + 5\text{mm}$ (with 0.1kg/m fill weight)

Available from stock
Upon request

Mounting brackets, polymer | Pivoting



Width index	Part No. Full set Pivoting with tiwrap plates	Part No. Full set Pivoting without tiwrap plates	A [mm]	B [mm]	C [mm]	Number of teeth
07.	040.07.12PZ	040.07.12	–	12	–	1
10.	040.10.12PZ	040.10.12	–	15	–	1
16.	040.16.12PZ	040.16.12	–	21	10	2
20.	040.20.12PZ	040.20.12	–	25	10	2
30.	040.30.12PZ	040.30.12	22	35	20	3

e-chain® order key

04.10.028.0

Series	Width index	Bend radius	Colour index
--------	-------------	-------------	--------------

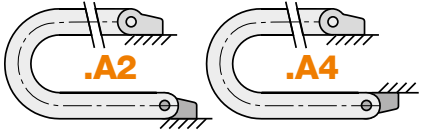
Example:
Complete Part No. with the required radius . Example:
04.10.028.0 = one-piece, non-openable
Order index for colour options ► www.igus.eu/info-colours

Mounting bracket order key

040.07. 12PZ .A2

Series	Width index	Full set	With integrated strain relief tiwrap plates	Pre-fitted
--------	-------------	----------	--	------------

Note: Possible variations for assembled mounting brackets.
To receive mounting brackets with **pre-fitted** option please add index **.A2** or **.A4**.



Product range

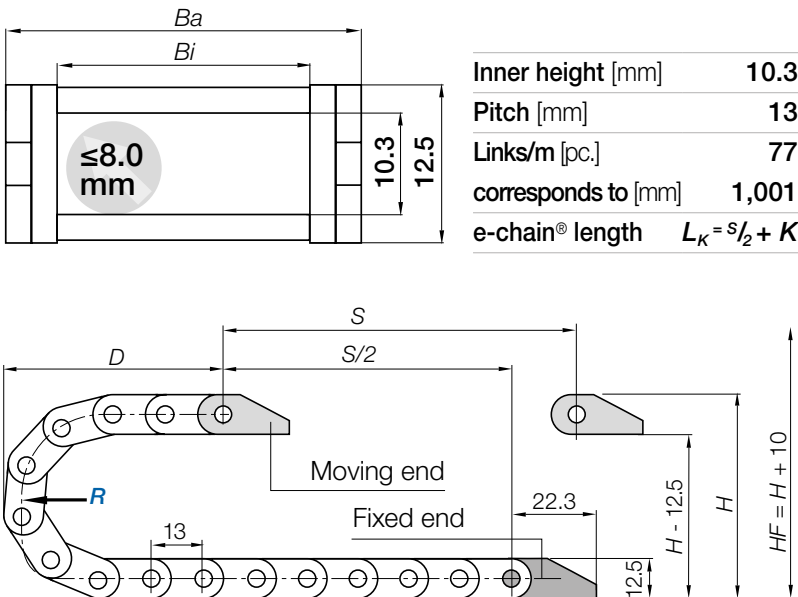
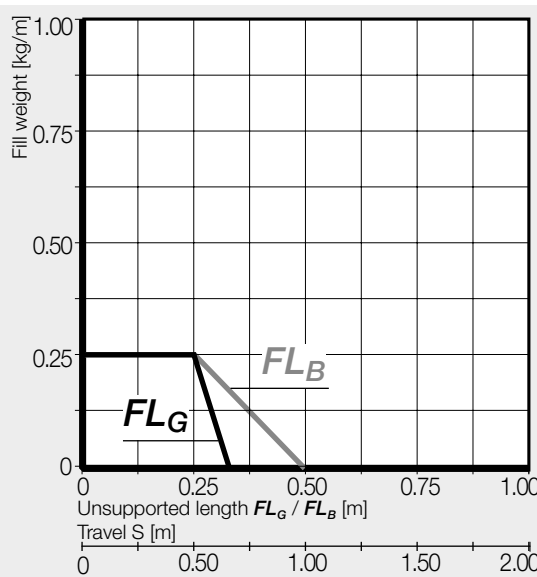


Part No. One-piece, non-openable	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Weight [kg/m]
045.06. .0	6	12	≈ 0.09
045.10. .0	10	16	≈ 0.10
045.16. .0	16	22	≈ 0.11
045.20. .0	20	26	≈ 0.13
045.30. .0	30	36	≈ 0.16
045.64. .0	64	70	≈ 0.19

Available bend radii *R* [mm] | 018 | 028 | 038 | 083*

*Radius 083 only available for Part No. 045.20.

Unsupported applications | Short travels

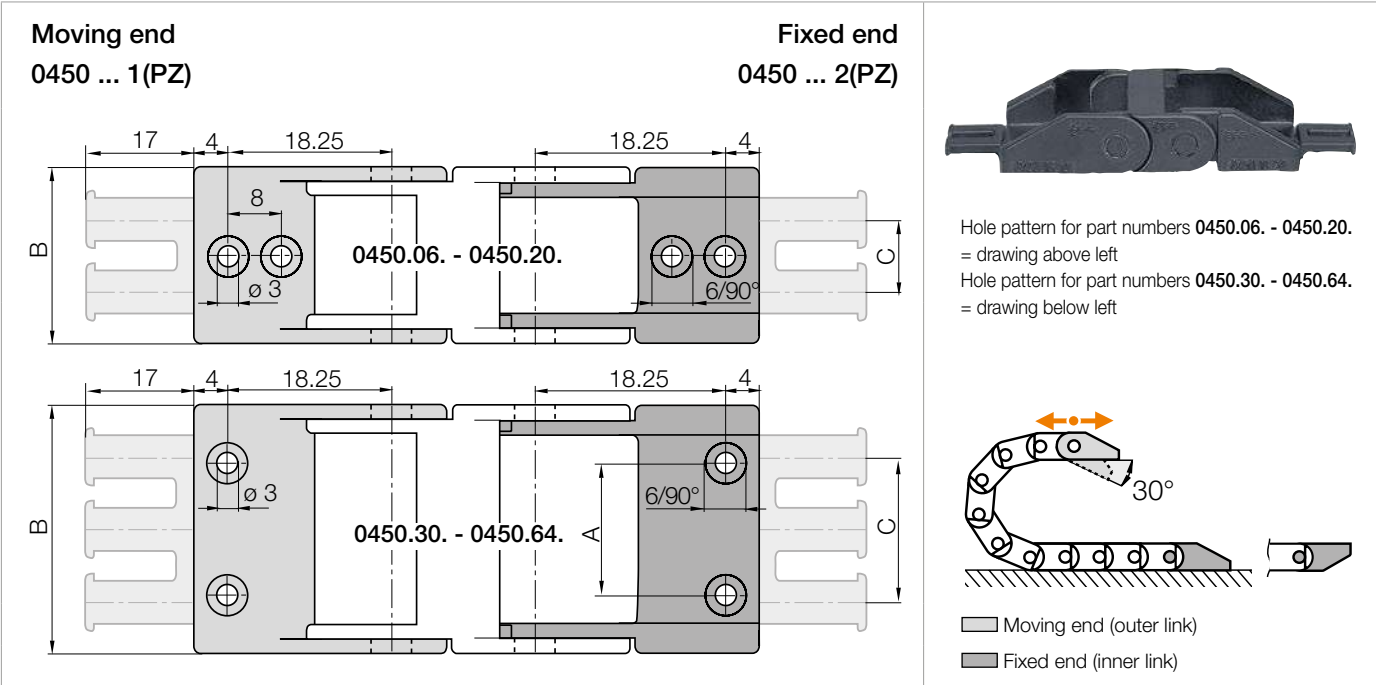


<i>R</i>	018	028	038	083*
<i>H</i>	48.5	68.5	88.5	178.5
<i>D</i>	44	54	64	109
<i>K</i>	85	115	150	290

The required clearance height: $H_F = H + 10\text{mm}$ (with 0.2kg/m fill weight)

*Radius 083 only available for Part No. 045.20.

Mounting brackets, polymer | One end pivoting



Width index	Part No. Full set	Part No. Full set	<i>A</i> [mm]	<i>B</i> [mm]	<i>C</i> [mm]	Number of teeth
	One end pivoting with tiewrap plates*	One end pivoting without tiewrap plates**				
06.	0450.06.12PZ	0450.06.12	–	12	–	1
10.	0450.10.12PZ	0450.10.12	–	16	–	1
16.	0450.16.12PZ	0450.16.12	–	22	10	2
20.	0450.20.12PZ	0450.20.12	–	26	10	2
30.	0450.30.12PZ	0450.30.12	22	36	20	3
64.	0450.64.12PZ	0450.64.12	56	70	50	6

*Countersink $\varnothing 3\text{mm}$ / $\varnothing 6\text{mm}$ 90° / **Only holes of $\varnothing 3\text{mm}$

 e-chain® order key

045.10.028.0

Series	Width index	Bend radius	Colour index
--------	-------------	-------------	--------------

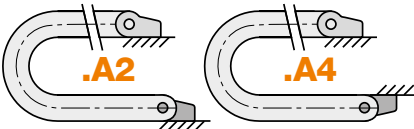
Example:
Complete Part No. with the required radius . Example:
045.10.028.0 = one-piece, non-openable
Order index for colour options ► www.igus.eu/info-colours

 Mounting bracket order key

040.10.12ZB.A2

Series	Width index	Full set	With integrated strain relief tiewrap plates	Pre-fitted
--------	-------------	----------	--	------------

Note: Possible variations for assembled mounting brackets.
To receive mounting brackets with **pre-fitted** option please add index **.A2** or **.A4**.

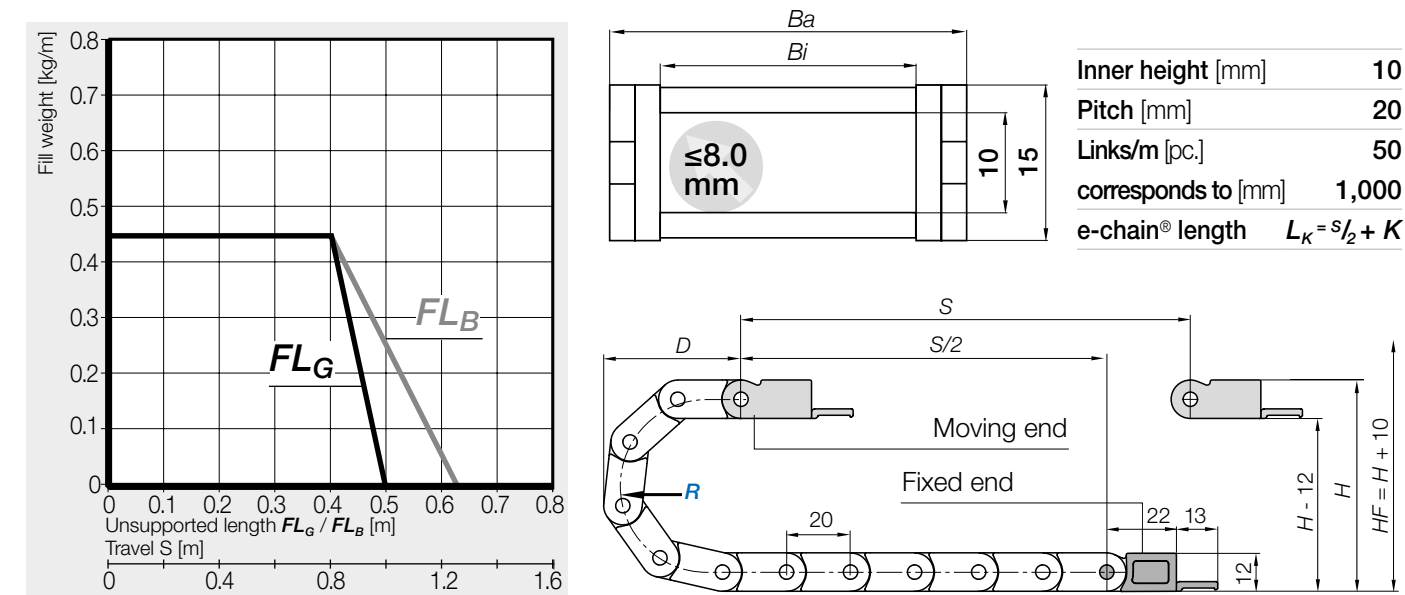


Product range



Part No.	Inner width Bi [mm]	Outer width Ba [mm]	Weight [kg/m]
One-piece, non-openable			
E2C.10L.06.0	6	10.7	≈ 0.06
E2C.10L.10.0	10	14.7	≈ 0.07
E2C.10L.16.0	16	20.7	≈ 0.07
E2C.10L.20.0	20	24.7	≈ 0.08
E2C.10L.30.0	30	34.7	≈ 0.09
Available bend radii R [mm] 018 028 038			

Unsupported applications | Short travels

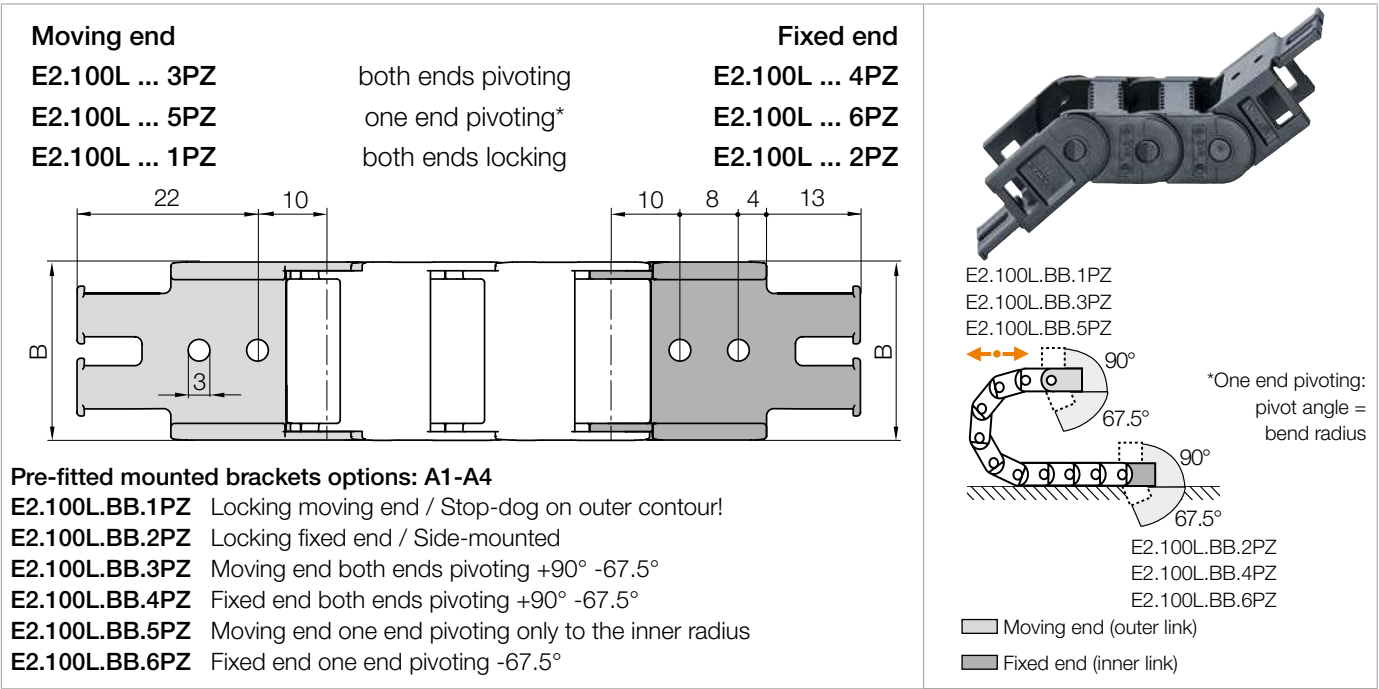


R	018	028	038
H	48	68	88
D	54	64	74
K	100	130	160

The required clearance height: $H_F = H + 10\text{mm}$ (with 0.2kg/m fill weight)

Available from stock
Upon request

Mounting brackets, polymer | Pivoting | Locking



Width index	Part No. Full set	Part No. Full set	Part No. Full set	A [mm]	B [mm]	Bi [mm]
	Both ends pivoting with tiewrap plates	One end pivoting* with tiewrap plates	Both ends locking with tiewrap plates			
06.	E2.100L.06.34PZ	E2.100L.06.56PZ	E2.100.06.12PZ	–	10.7	1
10.	E2.100L.10.34PZ	E2.100L.10.56PZ	E2.100.10.12PZ	–	14.7	1
16.	E2.100L.16.34PZ	E2.100L.16.56PZ	E2.100.16.12PZ	–	20.7	2
20.	E2.100L.20.34PZ	E2.100L.20.56PZ	E2.100.20.12PZ	–	24.7	2
30.	E2.100L.30.34PZ	E2.100L.30.56PZ	E2.100.30.12PZ	22	34.7	3

*One end only pivots towards the inner radius - whether fitted A1 or A4.

e-chain® order key

E2C.10L.30.018.0

Series / Type	Inner height	Width index	Bend radius	Colour index
---------------	--------------	-------------	-------------	--------------

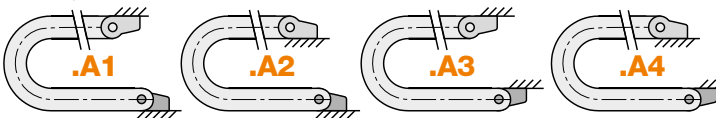
Example:
Complete Part No. with the required radius **R**. Example:
E2C.10L.30.018.0 = one-piece, non-openable
Order index for colour options ► www.igus.eu/info-colours

Mounting bracket order key

E2.100L.30.34PZB.A2

Series	Width index	Full set	With integrated strain relief tiewrap plates	Pre-fitted
--------	-------------	----------	--	------------

Note: To receive pre-fitted mounting brackets without strain relief, please add index **.A**. For pre-fitted variant with strain relief please add index **.A1**, **.A2**, **.A3** or **.A4**.



Product range



Part No. Openable along the inner radius	Part No. Openable along the outer radius	Part No. One-piece, non-openable	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Weight [kg/m]
E2I.10.06.□.0*	E2.10.06.□.0*	E2C.10.06.□.0*	6	13.4	≈ 0.13
E2I.10.10.□.0*	E2.10.10.□.0*	E2C.10.10.□.0*	10	17.4	≈ 0.14
E2I.10.16.□.0	E2.10.16.□.0	E2C.10.16.□.0	16	23.4	≈ 0.16
E2I.10.20.□.0	E2.10.20.□.0	E2C.10.20.□.0	20	27.4	≈ 0.17
E2I.10.30.□.0	E2.10.30.□.0	E2C.10.30.□.0	30	37.4	≈ 0.19
E2I.10.40.□.0	E2.10.40.□.0	E2C.10.40.□.0	40	47.4	≈ 0.22
E2I.10.50.□.0	E2.10.50.□.0	E2C.10.50.□.0	50	57.4	≈ 0.25

Available bend radii *R* [mm] | 018 | 028 | 038 |

*Interior separation not possible.

Order key

E2.10.20.038.0

Series / Type	Inner height	Width index	Bend radius	Colour index

Example:

Complete Part No. with the required radius *R*. Example:

E2I.10.20.038.0 = crossbars openable along the inner radius, from both sides

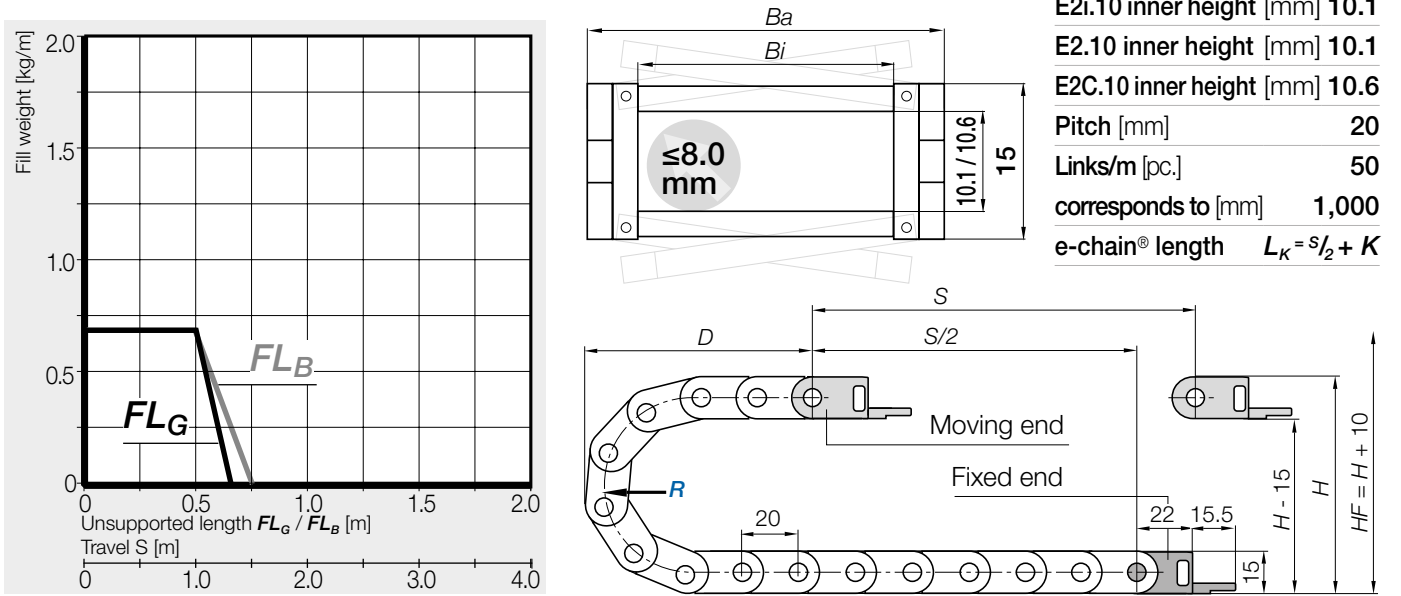
E2.10.20.038.0 = crossbars openable along the outer radius, from both sides

E2C.10.20.038.0 = one-piece, non-openable

Order index for colour options ► www.igus.eu/info-colours

Available from stock
Upon request

Unsupported applications | Short travels

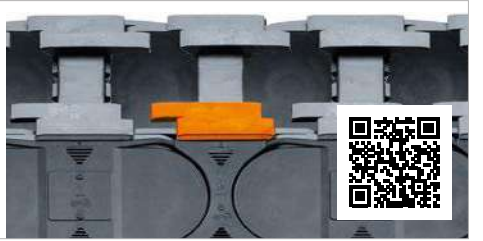


<i>R</i>	018	028	038
<i>H</i>	51	71	91
<i>D</i>	56	66	76
<i>K</i>	100	130	160

The required clearance height: $H_F = H + 10\text{mm}$ (with 0.2kg/m fill weight)

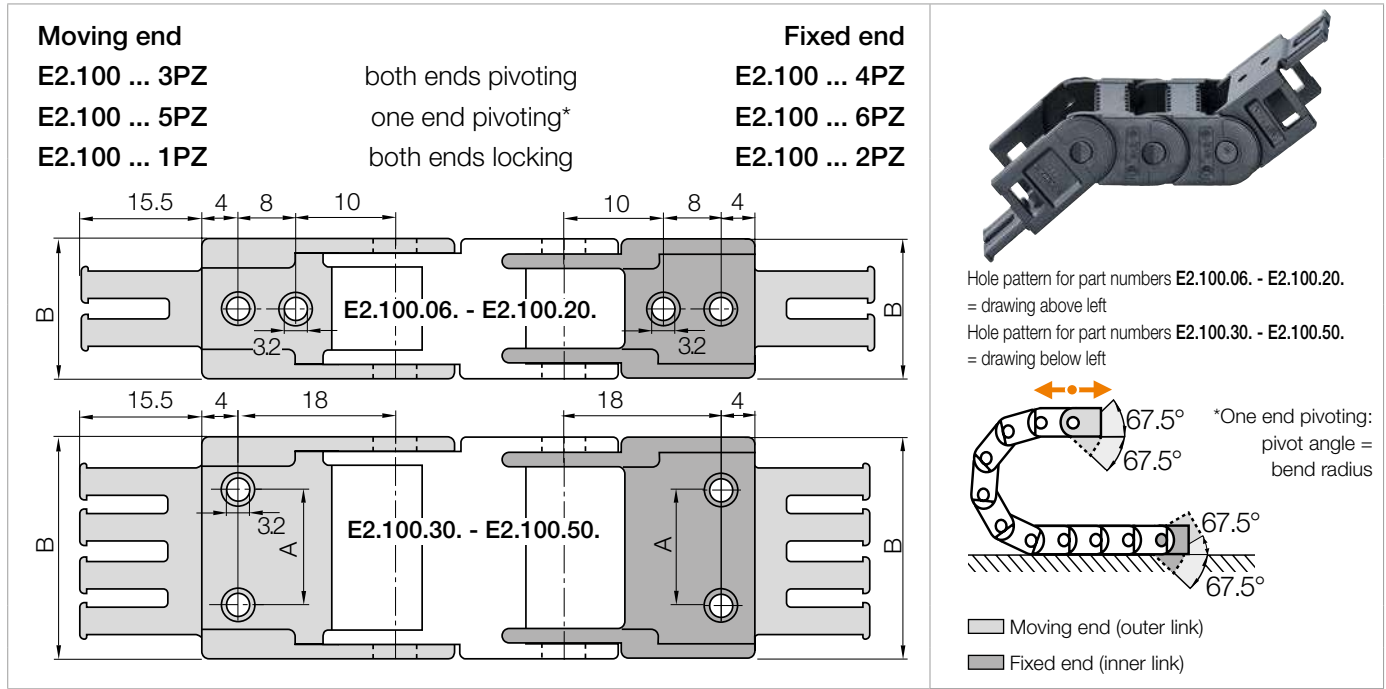
Glide pads for energy chains on long travels

- Low-friction and low-wear gliding elements increase the service life of igus® e-chains® in gliding applications
- For travel speeds from 1 to 3m/s
- Especially in an environment where abrasive media are present
- Easy to retrofit



Available from stock
Upon request

Mounting brackets, polymer | Pivoting | Locking



Width index	Part No. Full set	Part No. Full set	Part No. Full set	A [mm]	B [mm]	Bi [mm]
	Both ends pivoting with tiewrap plates	One end pivoting* with tiewrap plates	Both ends locking with tiewrap plates			
06.	E2.100.06.34PZ	E2.100.06.56PZ	E2.100.06.12PZ	–	13.4	1
10.	E2.100.10.34PZ	E2.100.10.56PZ	E2.100.10.12PZ	–	17.4	1
16.	E2.100.16.34PZ	E2.100.16.56PZ	E2.100.16.12PZ	–	23.4	2
20.	E2.100.20.34PZ	E2.100.20.56PZ	E2.100.20.12PZ	–	27.4	2
30.	E2.100.30.34PZ	E2.100.30.56PZ	E2.100.30.12PZ	22	37.4	3
40.	E2.100.40.34PZ	E2.100.40.56PZ	E2.100.40.12PZ	32	47.4	4
50.	E2.100.50.34PZ	E2.100.50.56PZ	E2.100.50.12PZ	42	57.4	5

*One end only pivots towards the inner radius - whether fitted A1 or A4.

Order key
E2.100.20.34ZB.A1

Series

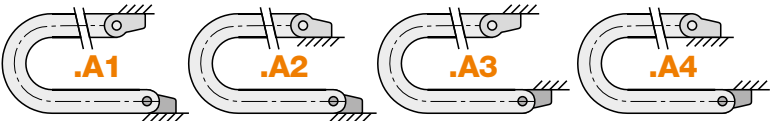
Width index

Full set

With integrated strain relief tiewrap plates

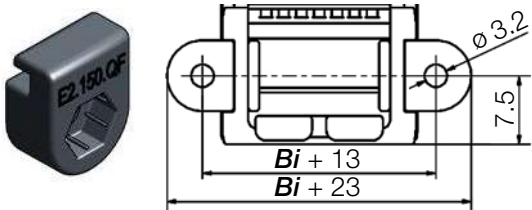
Pre-fitted

Note: Possible variations for assembled mounting brackets.
To receive mounting brackets with **pre-fitted** option please add index **.A1**, **.A2**, **.A3** or **.A4**.

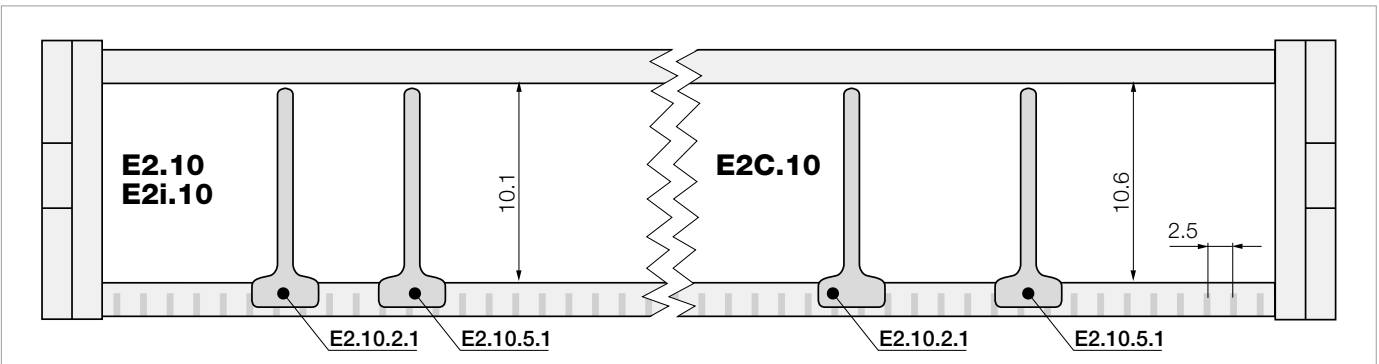


Additional features | Quickflange

The quickflange can be clipped-in to all mounting brackets. Contains a housing for hexagon nut and socket cap bolt M3. **Single Part No.:** E2.100.QF or Part No. incl. mounting bracket: E2.100.20.34PZ.QF



Interior separation | Increase cable service life



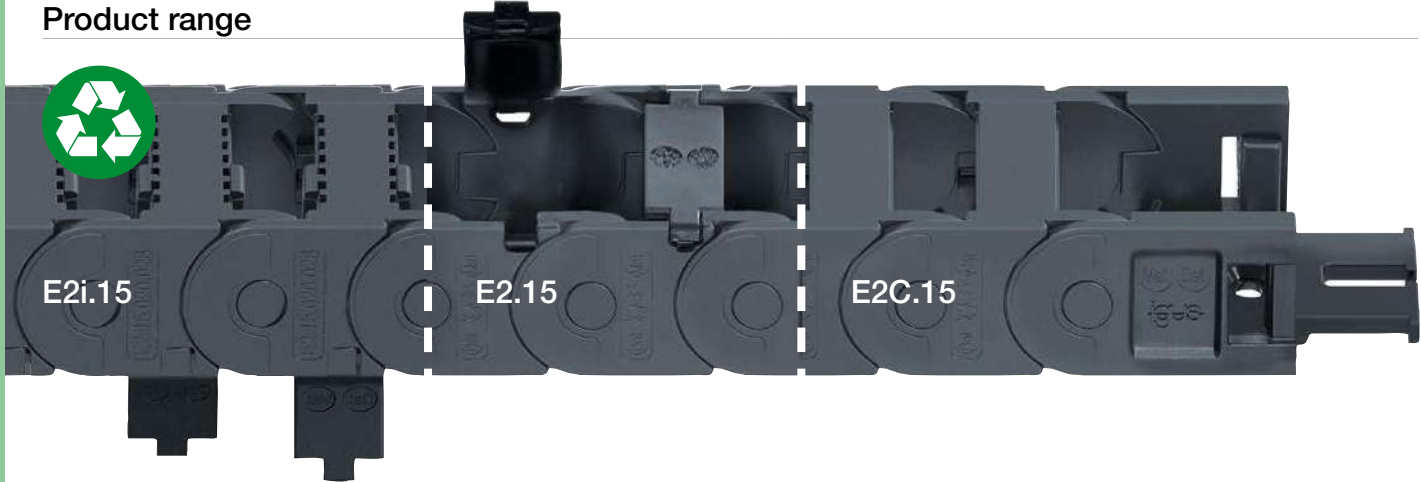
Note: for one-piece, non-openable e-chain® links please assemble the interior separation before fitting the e-chain®!
As standard separators are fitted every 2nd e-chain® link!

	Part No. Separator* unassembled E2.10.2 assembled E2.10.2.1	Standard - for any application For easy vertical separation in e-chains®. Separators can be arranged in any position in the cross-section. Without notches, freely movable.
	Part No. Notch separator* unassembled E2.10.5 assembled E2.10.5.1	Locks securely in preset increments Notch separator for exact positioning. Recommended for side-mounted applications.

Note: *interior separation not suitable for inner widths Bi 06 and 10!

Available from stock
Upon request

Product range



Part No. Openable along the inner radius	Part No. Openable along the outer radius	Part No. One-piece, non-openable	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Weight [kg/m]
E2I.15.10.0	E2.15.10.0	E2C.15.10.0	10	17.8	≈ 0.18
E2I.15.13.0	E2.15.13.0	E2C.15.13.0	13	20.8	≈ 0.19
E2I.15.16.0	E2.15.16.0	E2C.15.16.0	16	23.8	≈ 0.20
E2I.15.20.0	E2.15.20.0	E2C.15.20.0	20	27.8	≈ 0.21
E2I.15.30.0	E2.15.30.0	E2C.15.30.0	30	37.8	≈ 0.24
E2I.15.40.0*	E2.15.40.0*	E2C.15.40.0*	40	47.8	≈ 0.26
E2I.15.50.0*	E2.15.50.0*	E2C.15.50.0	50	57.8	≈ 0.29

Available bend radii *R* [mm] | 028 | 038 | 048 | 075* |

*Radius 075 only available for these series.

Order key

E2.15.50.038.0

Series / Type	Inner height	Width index	Bend radius	Colour index

Example:

Complete Part No. with the required radius *R*. Example:

E2I.15.50.038.0 = crossbars openable along the inner radius, from both sides

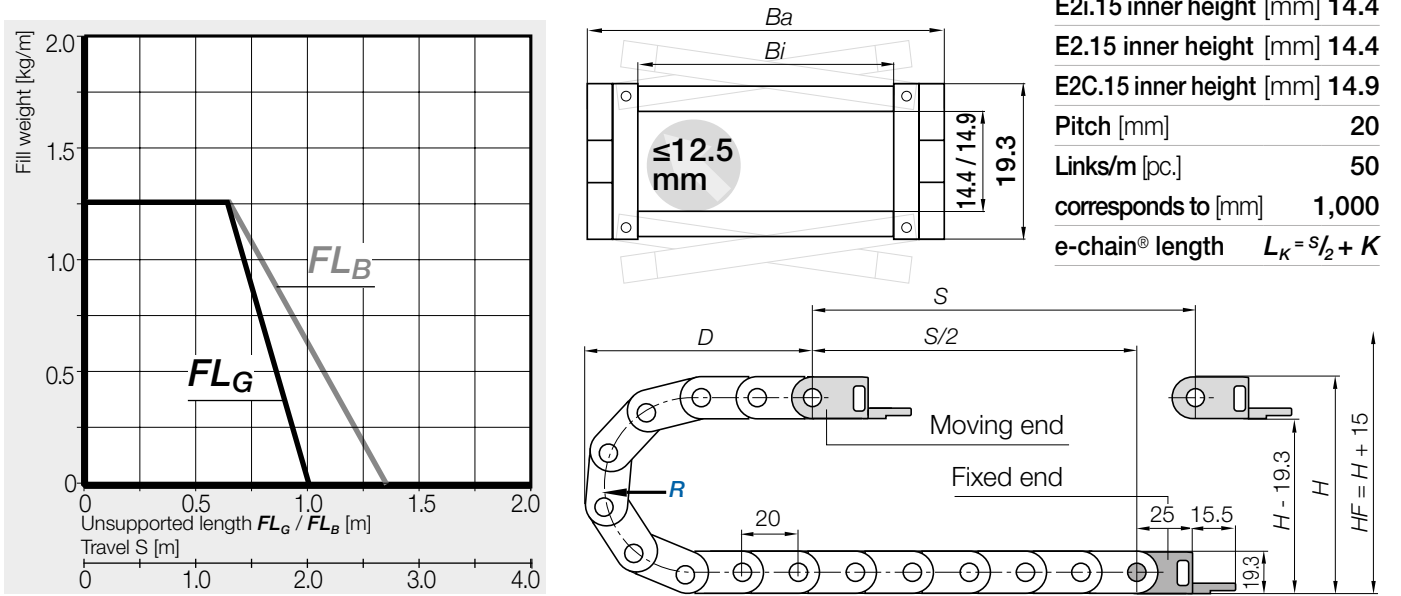
E2.15.50.038.0 = crossbars openable along the outer radius, from both sides

E2C.15.50.038.0 = one-piece, non-openable

Order index for colour options ► www.igus.eu/info-colours

Available from stock
Upon request

Unsupported applications | Short travels

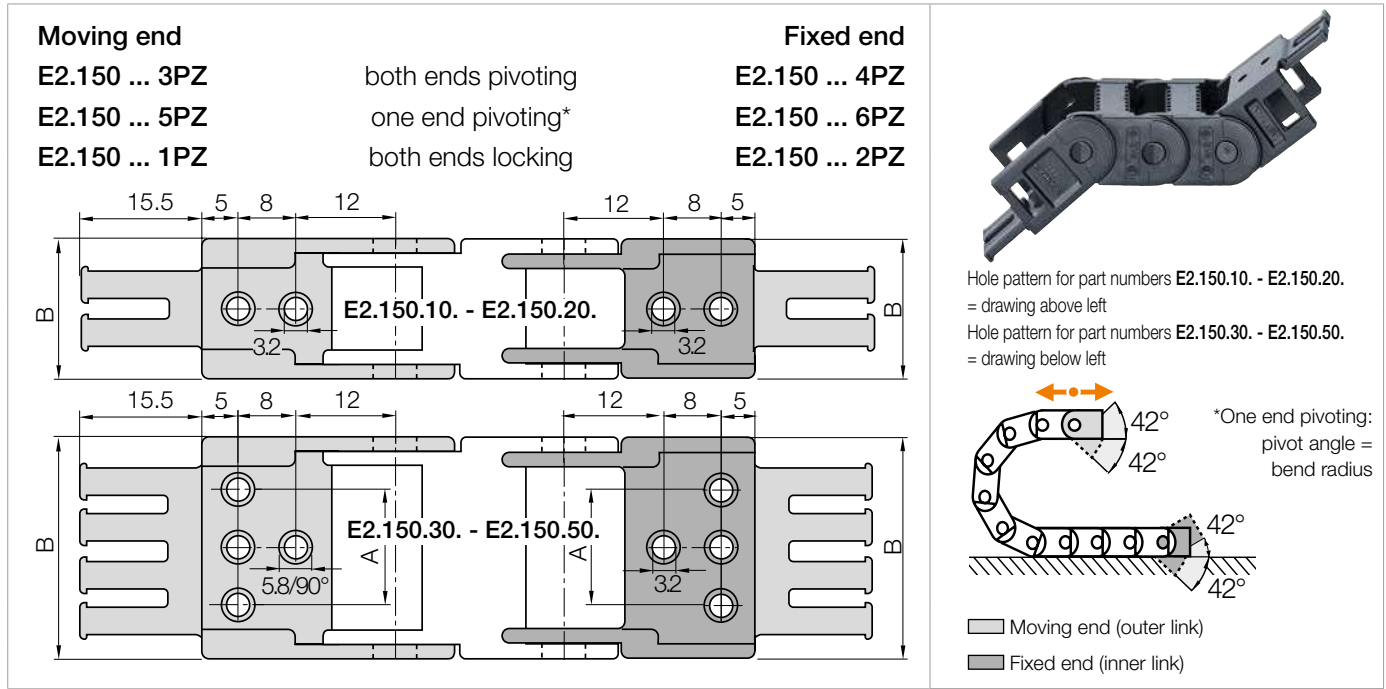


<i>R</i>	028	038	048	075*
<i>H</i>	75	95	115	169
<i>D</i>	68	78	88	115
<i>K</i>	130	160	195	280

The required clearance height: $H_F = H + 15\text{mm}$ (with 0.3kg/m fill weight)

Available from stock
Upon request

Mounting brackets, polymer | Pivoting | Locking



Width index	Part No. Full set	Part No. Full set	Part No. Full set	A [mm]	B [mm]	Bi [mm]
	Both ends pivoting with tiewrap plates	One end pivoting* with tiewrap plates	Both ends locking with tiewrap plates			
10.	E2.150.10.34PZ	E2.150.10.56PZ	E2.150.10.12PZ	–	17.8	1
13.	E2.150.13.34PZ	E2.150.13.56PZ	E2.150.13.12PZ	–	20.8	1
16.	E2.150.16.34PZ	E2.150.16.56PZ	E2.150.16.12PZ	–	23.8	2
20.	E2.150.20.34PZ	E2.150.20.56PZ	E2.150.20.12PZ	–	27.8	2
30.	E2.150.30.34PZ	E2.150.30.56PZ	E2.150.30.12PZ	22	37.8	3
40.	E2.150.40.34PZ	E2.150.40.56PZ	E2.150.40.12PZ	32	47.8	4
50.	E2.150.50.34PZ	E2.150.50.56PZ	E2.150.50.12PZ	42	57.8	5

*One end only pivots towards the inner radius - whether fitted A1 or A4.

Order key

E2.150.50 . 34ZB .A1

Series

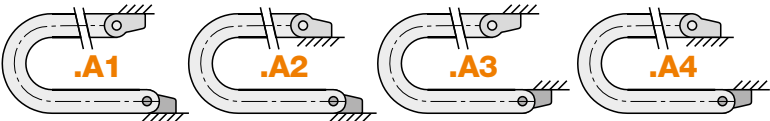
Width index

Full set

With integrated strain relief tiewrap plates

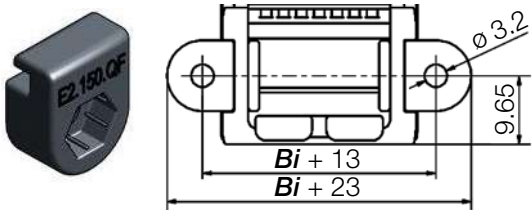
Pre-fitted

Note: Possible variations for assembled mounting brackets.
To receive mounting brackets with **pre-fitted** option please add index **.A1**, **.A2**, **.A3** or **.A4**.

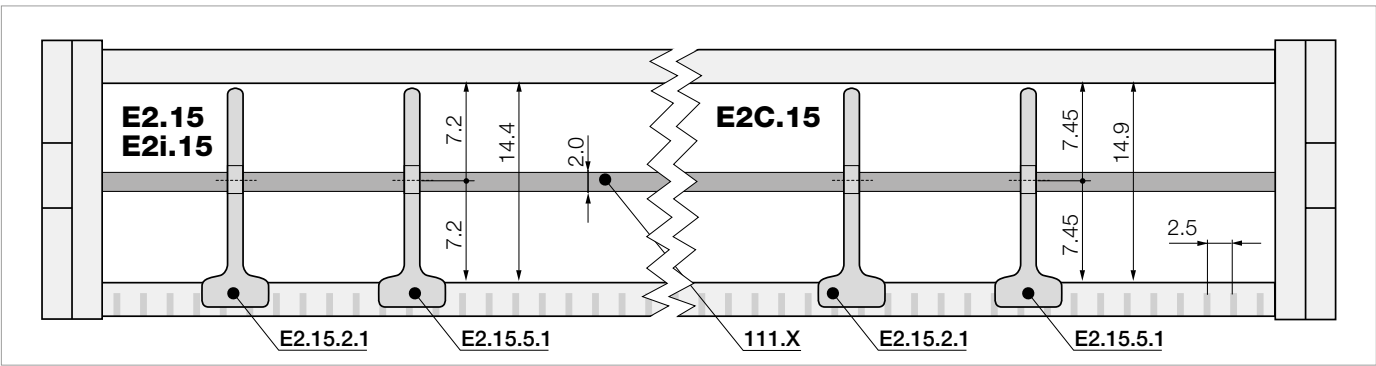


Additional features | Quickflange

The quickflange can be clipped-in to all mounting brackets. Contains a housing for hexagon nut and socket cap bolt M3. **Single Part No.:** E2.150.QF or Part No. incl. mounting bracket: E2.150.20.34PZ.QF



Interior separation | Increase cable service life



Note: for one-piece, non-openable e-chain® links please assemble the interior separation before fitting the e-chain®!
As standard separators are fitted every 2nd e-chain® link!

		Part No. Separator unassembled E2.15.2 assembled E2.15.2.1	Standard - for any application For easy vertical separation in e-chains®. Separators can be arranged in any position in the cross-section. Without notches, freely movable.
		Part No. Notch separator unassembled E2.15.5 assembled E2.15.5.1	Locks securely in preset increments Notch separator for exact positioning. Recommended for side-mounted applications.
		Part No. Full-width shelf unassembled 110.X assembled 111.X	Full-width shelf This option is for applications with many small cables with similar diameters. For full-width separation.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
010	110.10	111.10	016	110.16	111.16	030	110.30	111.30	050	110.50	111.50
013	110.13	111.13	020	110.20	111.20	040	110.40	111.40			

Available from stock
Upon request

Product range



Part No. Openable along the inner radius	Part No. Openable along the outer radius	Part No. One-piece, non-openable	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Weight [kg/m]
E2I.17.015.0	E2.17.015.0	E2C.17.015.0*	15	26.1	≈ 0.34
E2I.17.025.0	E2.17.025.0	E2C.17.025.0	25	36.1	≈ 0.37
E2I.17.038.0	E2.17.038.0	E2C.17.038.0	38	49.1	≈ 0.41
E2I.17.050.0	E2.17.050.0	E2C.17.050.0	50	61.1	≈ 0.45
E2I.17.063.0	E2.17.063.0	E2C.17.063.0	63	74.1	≈ 0.50
E2I.17.080.0	E2.17.080.0	E2C.17.080.0*	80	91.1	≈ 0.55
E2I.17.100.0*	E2.17.100.0*	E2C.17.100.0*	100	111.1	≈ 0.62

Available bend radii *R* [mm] | 028 | 038 | 048 | 063 | 075 | 100 | 110 | 125 | 145 |

*Width available upon request, please consult igus® for delivery time.

Order key

E2.17.050.100.0

Series / Type	Inner height	Width index	Bend radius	Colour index

Example:

Complete Part No. with the required radius *R*. Example:

E2I.17.050.100.0 = crossbars openable along the inner radius, from both sides

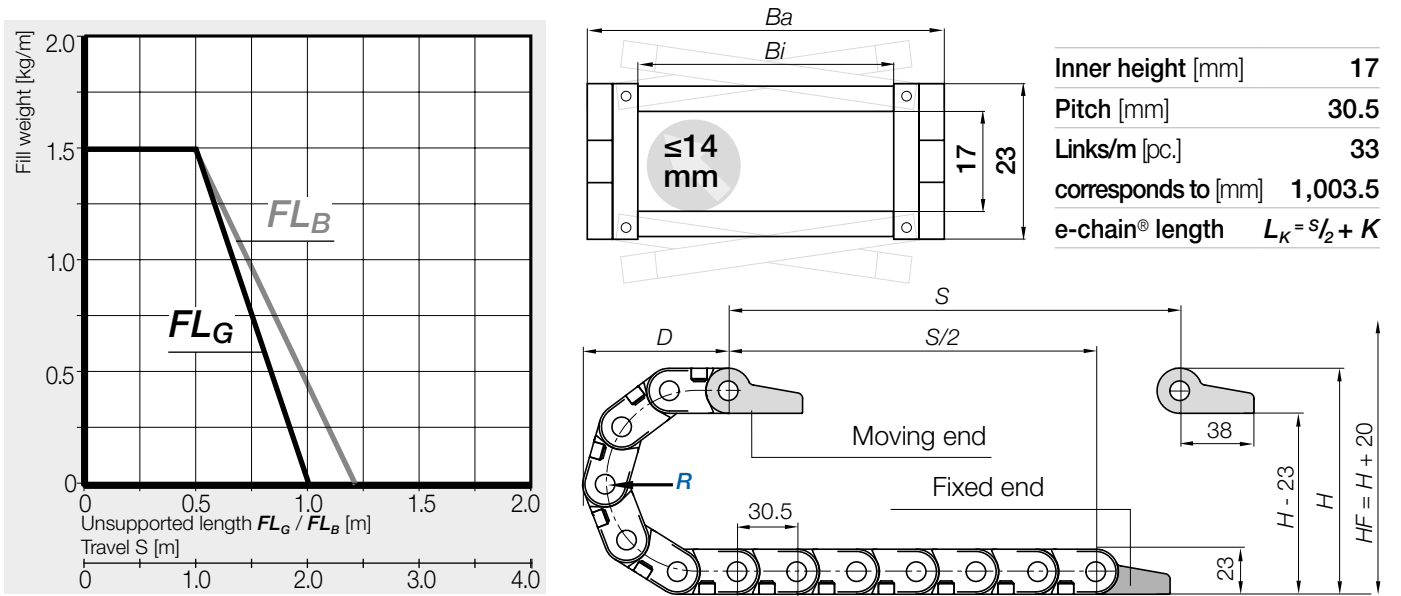
E2.17.050.100.0 = crossbars openable along the outer radius, from both sides

E2C.17.050.100.0 = one-piece, non-openable

Order index for colour options ► www.igus.eu/info-colours

Available from stock
Upon request

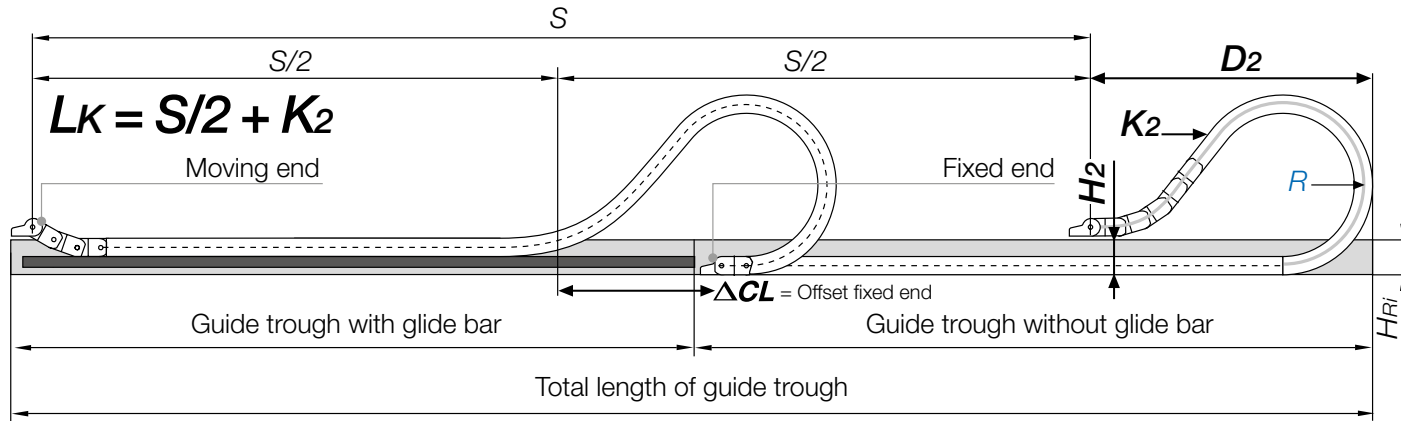
Unsupported applications | Short travels



<i>R</i>	028	038	048	063	075	100	110	125	145
<i>H</i>	79	99	119	149	173	223	243	273	313
<i>D</i>	85	95	105	120	132	157	167	182	202
<i>K</i>	150	185	215	260	300	380	410	455	520

The required clearance height: $H_F = H + 20\text{mm}$ (with 0.5kg/m fill weight)

Gliding applications | For travel lengths from 8m to max. 40m



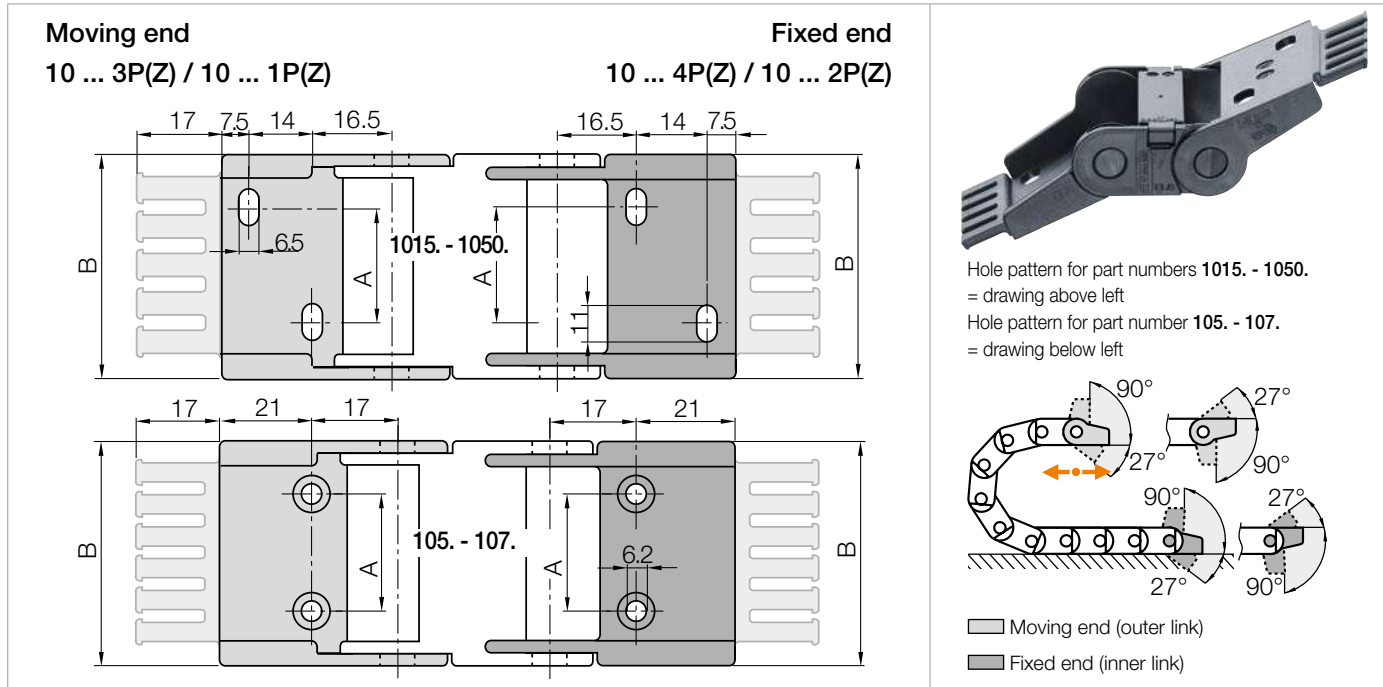
<i>R</i>	028	038	048	063	075	100	110	125	145
<i>H</i> ₂	56	76	96	100	100	100	–	–	–
<i>D</i> ₂ +25	93	103	113	183	255	340	–	–	–
<i>K</i> ₂	153	183	214	336	427	580	–	–	–
Δ <i>CL</i>	–	–	–	70	130	190	–	–	–

Note: Before using series E2i.17 on long travels please consult igus®.

For long travels, igus® recommends series E2.17 or E2C.17.

Available from stock
Upon request

Mounting brackets, polymer | Pivoting | Locking

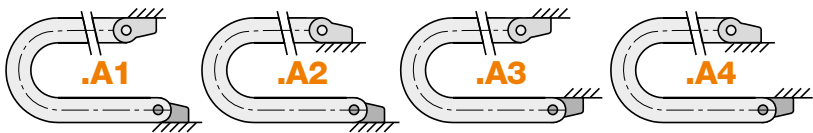


Width index	Part No. Full set		Part No. Full set		A [mm]	B [mm]	Number of teeth
	Pivoting with tiewrap plates	Pivoting without tiewrap plates	Locking with tiewrap plates	Locking without tiewrap plates			
015.	1015.34PZ	1015.34P	1015.12PZ	1015.12P	–	25.5	2
025.	1025.34PZ	1025.34P	1025.12PZ	1025.12P	10	35.5	3
038.	1038.34PZ	1038.34P	1038.12PZ	1038.12P	23	48.5	4
050.	1050.34PZ	1050.34P	1050.12PZ	1050.12P	35	60.5	5
063.	105.34PZ	105.34P	105.12PZ	105.12P	48	75.0	6
080.	106.34PZ	106.34P	106.12PZ	106.12P	65	92.0	8
100.	107.34PZ	107.34P	107.12PZ	107.12P	85	112.0	10

Order key
1050.34PZ.A2

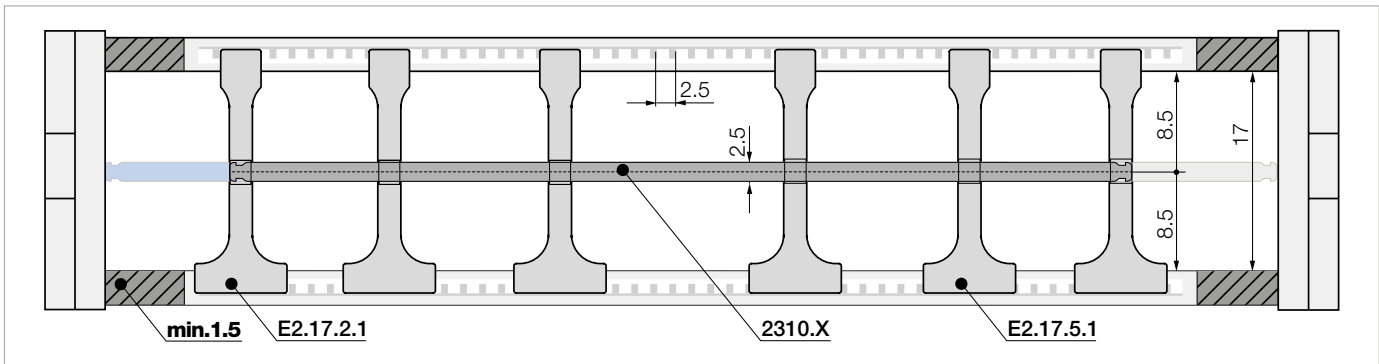
Series	Full set	With integrated strain relief tiewrap plates	Pre-fitted

Note: Possible variations for assembled mounting brackets.
To receive mounting brackets with **pre-fitted** option please add index **.A1**, **.A2**, **.A3** or **.A4**.



Available from stock
Upon request

Interior separation | Increase cable service life



Note: Please be aware of the minimum lateral gap to the side links! **e-chain®: 1.5mm**
As standard separators are fitted every 2nd e-chain® link!

		Part No. Separator, narrow top unassembled E2.17.2 assembled E2.17.2.1	For even faster installation Wide on one side for high holding force, narrow on opposite side for easy cable fitting.
		Part No. Notch separator unassembled E2.17.5 assembled E2.17.5.1	Locks securely in preset increments Notch separator for exact positioning. Recommended for side-mounted applications.
		Part No. Shelf unassembled 2300.X assembled 2310.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
015	2300.015	2310.015	057	2300.057	2310.057	077	2300.077	2310.077	110	2300.110	2310.110
025	2300.025	2310.025	060	2300.060	2310.060	080	2300.080	2310.080	120	2300.120	2310.120
030	2300.030	2310.030	062	2300.062	2310.062	087	2300.087	2310.087	125	2300.125	2310.125
038	2300.038	2310.038	065	2300.065	2310.065	090	2300.090	2310.090			
040	2300.040	2310.040	070	2300.070	2310.070	100	2300.100	2310.100			
050	2300.050	2310.050	075	2300.075	2310.075	103	2300.103	2310.103			

Available from stock
Upon request

Universal connection:
many mounting options with
or without strain relief

Easy to open:
openable along the inner
and outer radius, from
both sides (left or right)

Cable-friendly:
very smooth
contours ensure the
longest cable life

Economical:
E2.1 is lighter and offers
more inner height than the
E2/000 system with the
same outer dimensions

Quiet operation:
optimised integrated
brake reduces noise

Long service life:
due to integrated
gliding surfaces even
on long travels

High strength:
large pin/bore and
crossbar with high
locking force

Since the second quarter
of 2025, all sizes of the
E2.1 series (inner height
10mm to 48mm) are
made of the new recycled
material igumid® CG LW

The strong all-rounder, easy to open - E2.1

The proven E2/000 e-chain system® has been the worldwide standard in machinery since the year 2000. All the product improvements of previous years have now been combined into the new generation of series E2.1, and with it a new standard has been set. More useable space while the same outer dimensions are the same and quieter with a longer service life and increased strength.

Benefits

- More useable interior space while the outer height is the same as the E2/000 e-chains®
- Easy to open - openable along the inner and outer radius, from both sides (left or right)
- Greater strength for unsupported applications
- Longer service life for gliding applications
- Integrated grid for interior separation in 2.5mm steps
- Cable-friendly due to smooth interior
- Quiet operation due to integrated brake
- igus® e-chain® opener for rapid opening available
- Complete interior separation range

Typical application areas

- Machine tools
- Woodworking machines
- General machinery or in all other areas

Selection table

Part No.	Inner height <i>hi</i> [mm]	Outer height <i>ha</i> [mm]	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Bend radius <i>R</i> [mm]	Unsupported length ≤ [m]	Page
----------	--------------------------------	--------------------------------	-------------------------------	-------------------------------	------------------------------	-----------------------------	------

E2i.1 - two-piece e-chains®, crossbars openable along the inner radius, from both sides

E2i.21	21.2	28	15 - 125	28.8 - 138.8	035 - 180	1.75	134
E2i.26	26	35	25 - 125	42 - 142	048 - 250	2.25	140
E2i.38	38	50	50 - 175	67 - 192	063 - 250	2.75	146
E2i.48	48	64	50 - 250	72 - 272	075 - 300	3.00	152

E2.1 - two-piece e-chains®, crossbars openable along the outer radius, from both sides

E2.21	21.2	28	15 - 125	28.8 - 138.8	035 - 180	1.75	134
E2.26	26	35	25 - 125	42 - 142	048 - 250	2.25	140
E2.38	38	50	50 - 175	67 - 192	063 - 250	2.75	146
E2.48	48	64	50 - 250	72 - 272	075 - 300	3.00	152

E2C.1 - one-piece e-chains®, non-openable

E2C.21	21.2	28	25 - 100	38.8 - 113.8	035 - 180	1.75	134
E2C.26	26	35	38 - 125	55 - 142	048 - 200	2.25	140
E2C.38	38	50	75 - 125	92 - 142	063 - 200	2.75	146

Technical data

General properties

Speed gliding ¹⁾ / acceleration gliding ¹⁾	≤ 10m/s / ≤ 50m/s²
Speed <i>FL_G</i> /acceleration <i>FL_G</i>	≤ 20m/s / ≤ 200m/s²
Speed <i>FL_B</i> /acceleration <i>FL_B</i>	≤ 3m/s / ≤ 6m/s²
igumid® CG LW material - permitted temperature °C	-40°C/+120°C
Flammability class, igumid® CG LW	VDE 0304 IIC UL94-HB

1) For openable series along the inner radius in gliding applications, please consult igus®

Installation types, maximum travel lengths

Series	Unsupported	Gliding ¹⁾	Vertical hanging	Vertical standing	Side mounted, unsupported	Rotary	Zig-zag
E2.21	≤ 3.9m	≤ 75m	≤ 20m	≤ 2.0m	≤ 0.7m	with rework	upon request
E2.26	≤ 4.25m	≤ 100m	≤ 40m	≤ 3.0m	≤ 1.0m	with rework	upon request
E2.38	≤ 5.5m	≤ 120m	≤ 50m	≤ 3.0m	≤ 1.0m	with rework	upon request
E2.48	≤ 6.0m	≤ 150m	≤ 80m	≤ 3.0m	≤ 1.0m	with rework	upon request

1) For openable series along the inner radius in gliding applications, please consult igus®

Product range



Part No. Openable along the inner radius	Part No. Openable along the outer radius	Part No. One-piece, non-openable	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Weight [kg/m]
E2I.21.015.□.0	E2.21.015.□.0	E2C.21.015.□.0*	15	28.8	≈ 0.56
E2I.21.020.□.0	E2.21.020.□.0	E2C.21.020.□.0*	20	33.8	≈ 0.58
E2I.21.025.□.0	E2.21.025.□.0	E2C.21.025.□.0	25	38.8	≈ 0.60
E2I.21.038.□.0	E2.21.038.□.0	E2C.21.038.□.0	38	51.8	≈ 0.65
E2I.21.050.□.0	E2.21.050.□.0	E2C.21.050.□.0	50	63.8	≈ 0.69
E2I.21.068.□.0	E2.21.068.□.0	E2C.21.068.□.0	68	81.8	≈ 0.75
E2I.21.080.□.0	E2.21.080.□.0	E2C.21.080.□.0	80	93.8	≈ 0.81
E2I.21.100.□.0	E2.21.100.□.0	E2C.21.100.□.0	100	113.8	≈ 0.88
E2I.21.125.□.0	E2.21.125.□.0	E2C.21.125.□.0*	125	138.8	≈ 0.97
Available bend radii <i>R</i> [mm] 035 038 048 063 075 100 125 145 180					

*Width available upon request, please consult igus® for delivery time.

Order key

E2.21.038.180.0

Series / Type	Inner height	Width index	Bend radius	Colour index

Order example:

Complete Part No. with the required radius *R*. Example:

E2I.21.038.180.0 = crossbars openable along the inner radius, from both sides

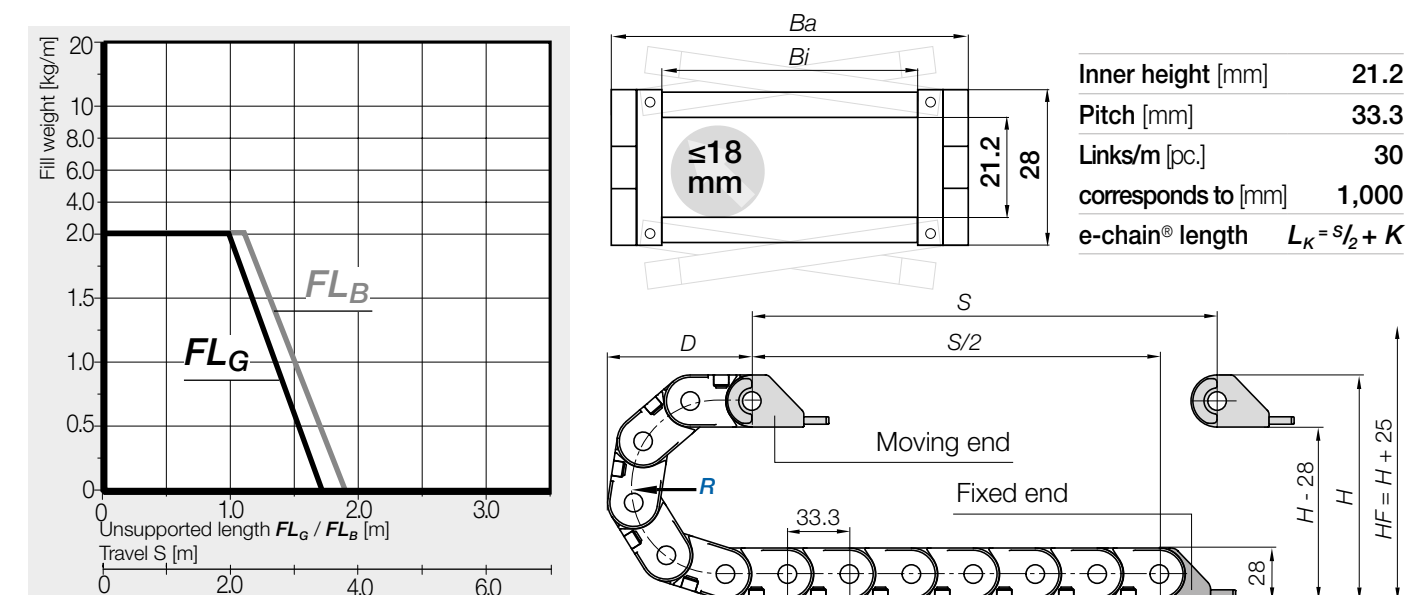
E2.21.038.180.0 = crossbars openable along the outer radius, from both sides

E2C.21.038.180.0 = one-piece, non-openable

Order index for colour options ► www.igus.eu/info-colours

Available from stock
Upon request

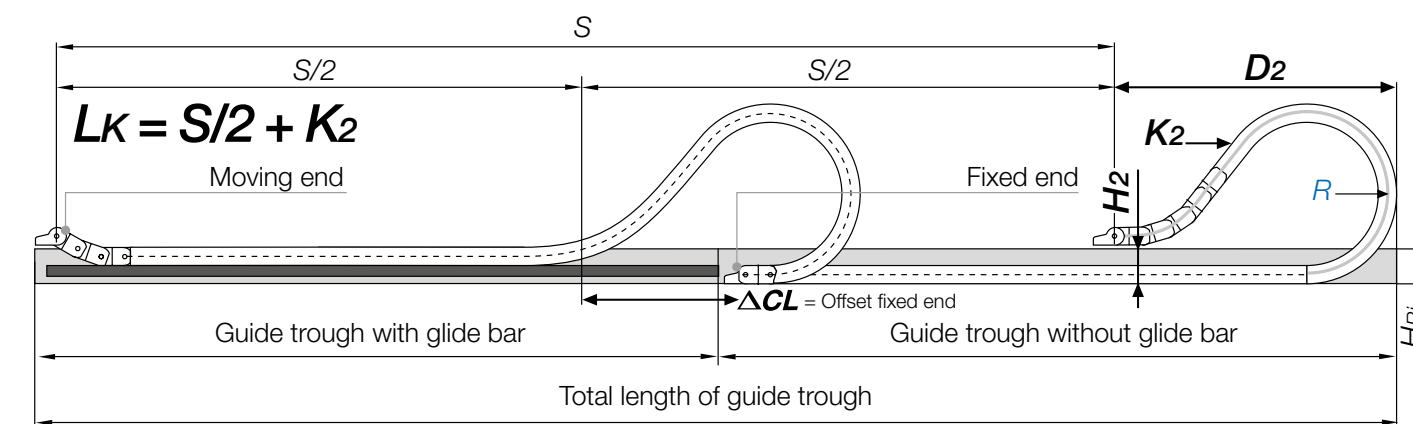
Unsupported applications | Short travels



<i>R</i>	035	038	048	063	075	100	125	145	180
<i>H</i>	098	104	124	154	178	228	278	318	388
<i>D</i>	099	102	112	127	139	164	189	209	244
<i>K</i>	180	190	220	265	305	385	460	525	635

The required clearance height: $H_F = H + 25\text{mm}$ (with 1.5kg/m fill weight)

Gliding applications | For long travel lengths from 10m to max. 75m



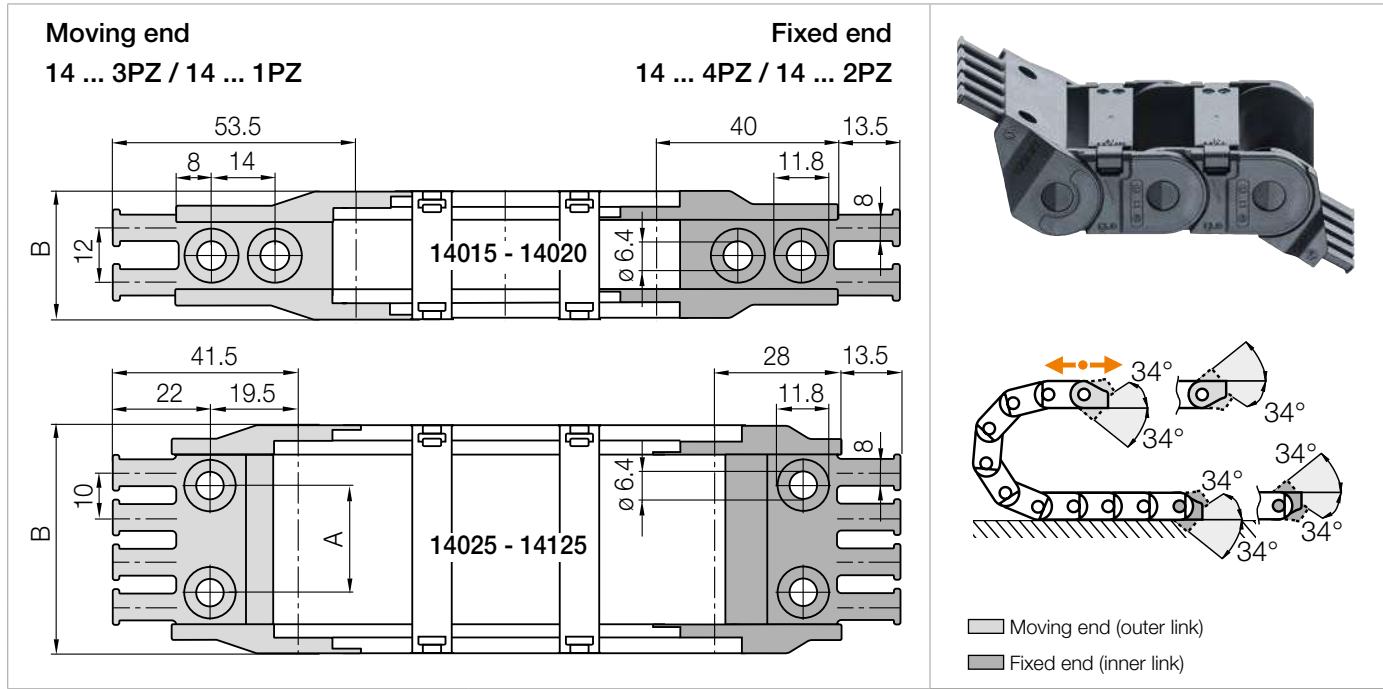
<i>R</i>	035	038	048	063	075	100	125	145	180
<i>H</i> ₂	070	076	096	100	100	100	100	100	100
<i>D</i> ₂ +25	100	102	112	208	255	345	490	550	745
<i>K</i> ₂	167	200	233	333	433	600	800	933	1,200
ΔCL	–	–	–	087	122	187	307	347	507

Note: Before using series E2i on long travels please consult igus®.

In case of travels between 4 and 10m we recommend an e-chain® with a longer unsupported length.

Available from stock
Upon request

Mounting brackets, polymer | Pivoting | Locking



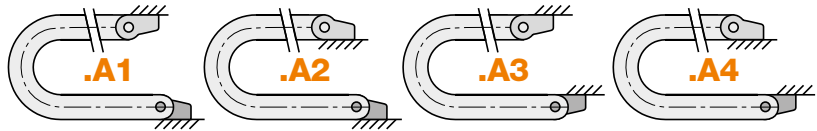
Width index	Part No. Full set		Part No. Full set		A [mm]	B [mm]	Number of teeth
	Pivoting with tiewrap plates	Pivoting without tiewrap plates	Locking with tiewrap plates	Locking without tiewrap plates			
015.	14015.34PZ	–	14015.12PZ	–	–	28.5	2
020.	14020.34PZ	–	14020.12PZ	–	–	33.5	2
025.	14025.34PZ	–	14025.12PZ	–	13	38.5	2
038.	14038.34PZ	–	14038.12PZ	–	24	51.5	4
050.	14050.34PZ	–	14050.12PZ	–	36	63.5	5
068.	14068.34PZ	–	14068.12PZ	–	54	81.5	7
080.	14080.34PZ	–	14080.12PZ	–	66	93.5	8
100.	14100.34PZ	–	14100.12PZ	–	86	113.5	10
125.	14125.34PZ	–	14125.12PZ	–	111	138.5	13

Order key

14038.34PZ.A2

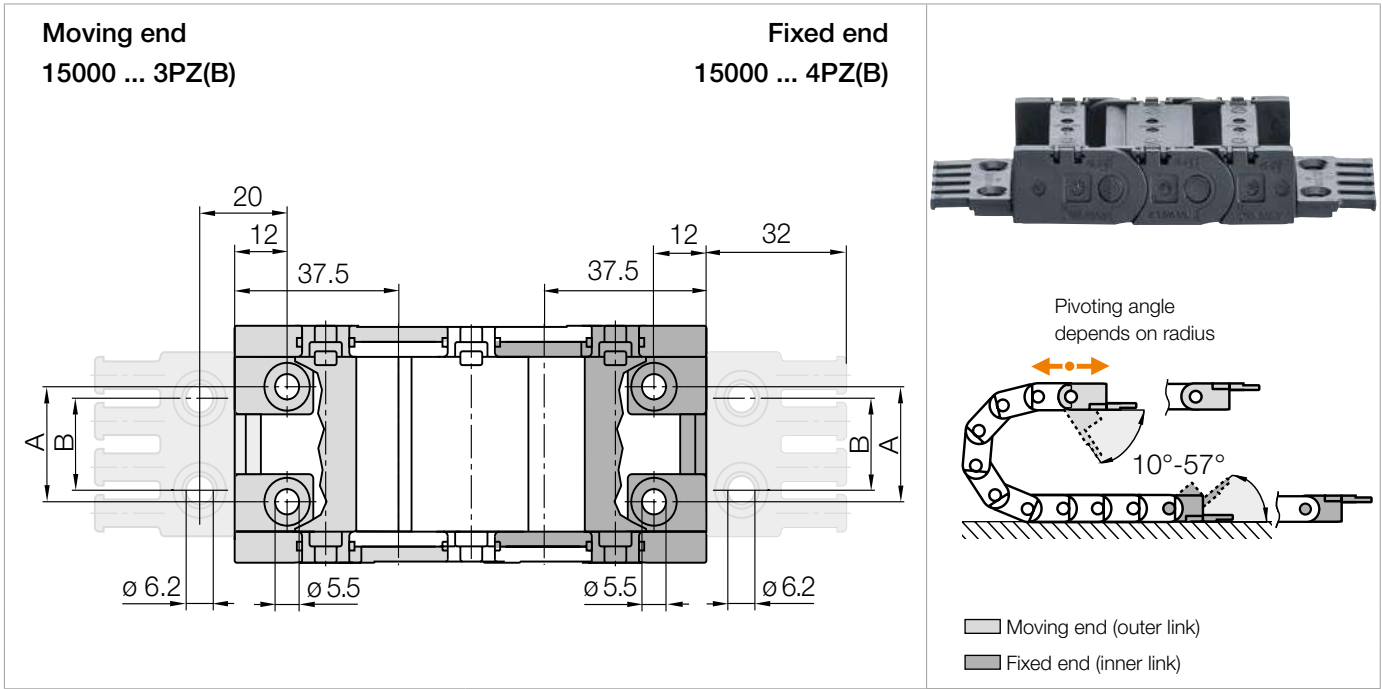
Series	Full set	With integrated strain relief tiewrap plates	Pre-fitted
--------	----------	--	------------

Note: Possible variations for assembled mounting brackets.
To receive mounting brackets with **pre-fitted** option please add index **.A1**, **.A2**, **.A3** or **.A4**.



Available from stock
Upon request

Mounting brackets, polymer | Pivoting



Width index	Part No. Full set		Part No. Full set		A [mm]	B [mm]	Number of teeth
	Pivoting with tiewrap plates	Pivoting without tiewrap plates	Locking with tiewrap plates	Locking without tiewrap plates			
015.	–	–	–	–	–	–	–
020.	–	–	–	–	–	–	–
025.	15000.025.34PZB	15000.025.34Z	–	–	12	15	3
038.	15000.038.34PZB	15000.038.34Z	–	–	25	20	4
050.	15000.050.34PZB	15000.050.34Z	–	–	37	30	5
068.	15000.068.34PZB	15000.068.34Z	–	–	55	40	6
080.	15000.080.34PZB	15000.080.34Z	–	–	67	60	8
100.	15000.100.34PZB	15000.100.34Z	–	–	87	80	10
125.	15000.125.34PZB*	15000.125.34Z*	–	–	112	100	12

*Tiewrap plate (consists of 2x2050.ZB) does not snap on but needs to be bolted down separately.

Note: Mounting brackets not to assemble at the gable end.

Order key

15000.038.34PZB.A2

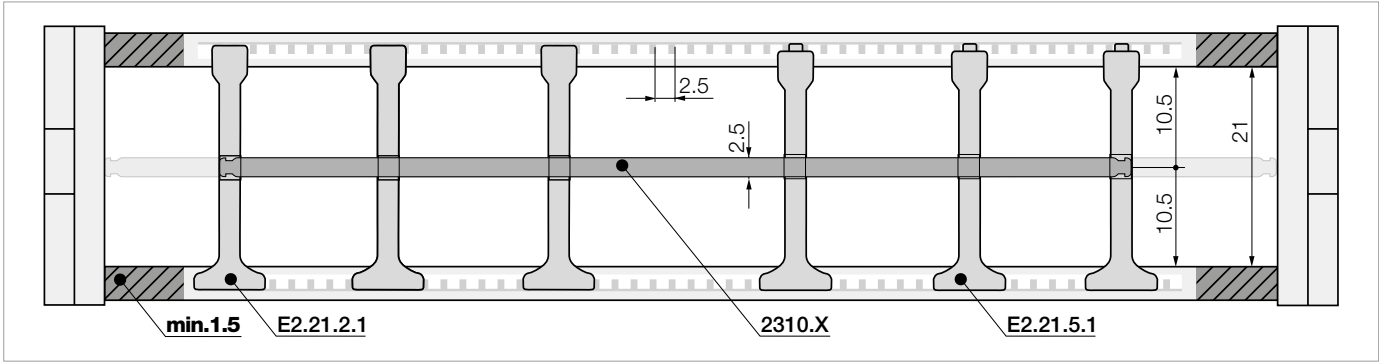
Series	Width index	Full set	With integrated strain relief tiewrap plates	Pre-fitted
--------	-------------	----------	--	------------

Note: To receive pre-fitted mounting brackets **without strain relief**, please add index **.A**. For pre-fitted variant **with strain relief** please add index **.A1**, **.A2**, **.A3** or **.A4**.



Available from stock
Upon request

Interior separation | Increase cable service life



Note: Please be aware of the minimum lateral gap to the side links! **e-chain®: 1.5mm**
As standard separators are fitted every 2nd e-chain® link!

	Part No. Separator, narrow top unassembled E2.21.2 assembled E2.21.2.1	For even faster installation Wide on one side for high holding force, narrow on opposite side for easy cable fitting.
	Part No. Notch separator unassembled E2.21.5 assembled E2.21.5.1	Locks securely in preset increments Notch separator for exact positioning. Recommended for side-mounted applications.
	Part No. Shelf unassembled 2300.X assembled 2310.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
015	2300.015	2310.015	057	2300.057	2310.057	077	2300.077	2310.077	110	2300.110	2310.110
025	2300.025	2310.025	060	2300.060	2310.060	080	2300.080	2310.080	120	2300.120	2310.120
030	2300.030	2310.030	062	2300.062	2310.062	087	2300.087	2310.087	125	2300.125	2310.125
038	2300.038	2310.038	065	2300.065	2310.065	090	2300.090	2310.090			
040	2300.040	2310.040	070	2300.070	2310.070	100	2300.100	2310.100			
050	2300.050	2310.050	075	2300.075	2310.075	103	2300.103	2310.103			

Product range



Part No. Openable along the inner radius	Part No. Openable along the outer radius	Part No. One-piece, non-openable	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Weight [kg/m]
E2I.26.025.0	E2.26.025.0	E2C.26.025.0*	25	42	≈ 0.77
E2I.26.038.0	E2.26.038.0	E2C.26.038.0	38	55	≈ 0.84
E2I.26.057.0	E2.26.057.0	E2C.26.057.0	57	74	≈ 0.92
E2I.26.077.0	E2.26.077.0	E2C.26.077.0	77	94	≈ 0.99
E2I.26.089.0	E2.26.089.0	E2C.26.089.0	89	106	≈ 1.03
E2I.26.103.0	E2.26.103.0	E2C.26.103.0*	103	120	≈ 1.10
E2I.26.125.0	E2.26.125.0	E2C.26.125.0	125	142	≈ 1.19

Available bend radii *R* [mm] | 048 | 055 | 075 | 100 | 125** | 150 | 175** | 200 | 225** | 250** |

*Width available upon request, please consult igus® for delivery time.

**Only for E2C.26: radius available upon request, please consult igus® for delivery time.

Order key

E2.26.038.048.0

Series / Type	Inner height	Width index	Bend radius	Colour index
---------------	--------------	-------------	-------------	--------------

Order example:

Complete Part No. with the required radius *R*. Example:

E2I.26.038.048.0 = crossbars openable along the inner radius, from both sides

E2.26.038.048.0 = crossbars openable along the outer radius, from both sides

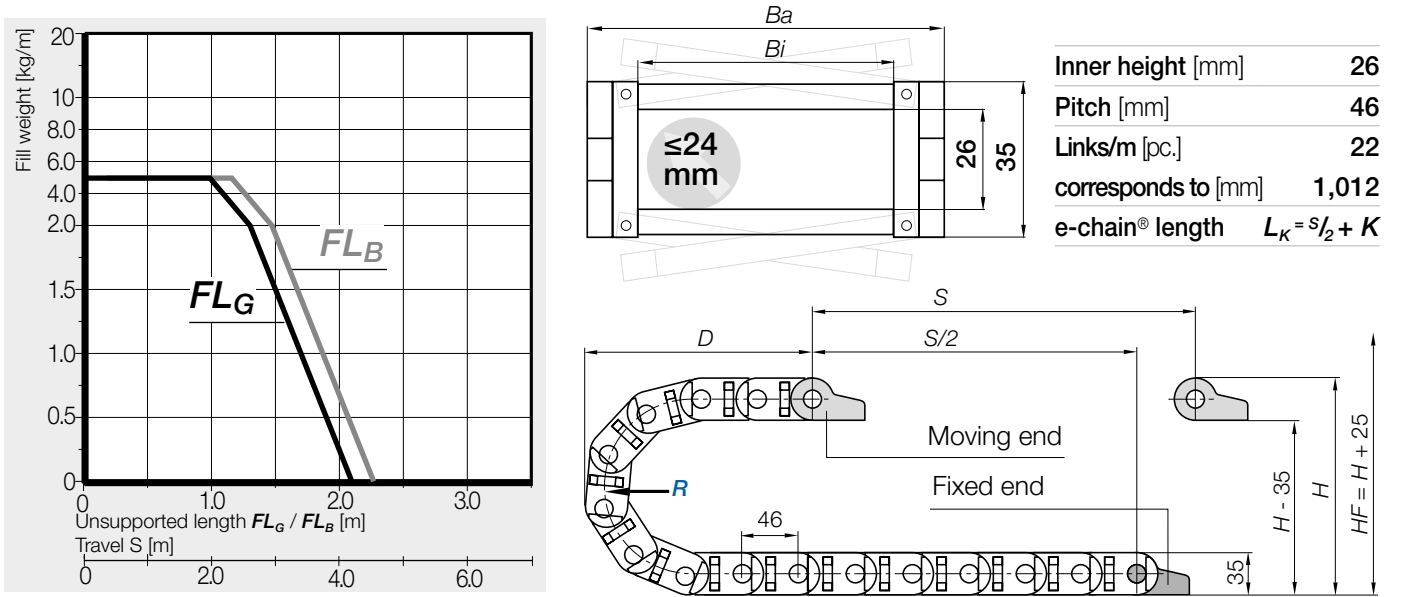
E2C.26.038.048.0 = one-piece, non-openable

Order index for colour options ► www.igus.eu/info-colours

Available from stock
Upon request



Unsupported applications | Short travels

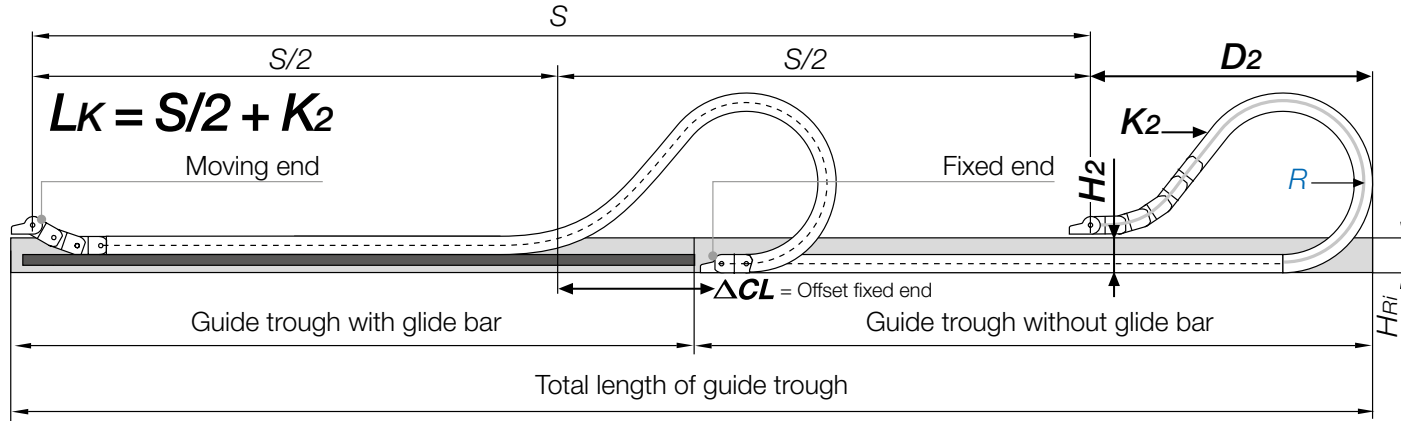


<i>R</i>	048	055	075	100	125**	150	175**	200	225**	250**
<i>H</i>	131	145	185	235	285	335	385	435	485	535
<i>D</i>	135	142	162	187	212	237	262	287	312	337
<i>K</i>	245	265	330	410	485	565	645	725	800	880

The required clearance height: $H_F = H + 25\text{mm}$ (with 1.5kg/m fill weight)

**Only for E2C.26: radius available upon request, please consult igus® for delivery time.

Gliding applications | For travel lengths from 10m to max. 100m



<i>R</i>	048	055	075	100	125**	150	175**	200	225**	250**
<i>H</i> ₂	096	110	150	100	100	100	100	100	100	100
<i>D</i> ₂ ⁺²⁵	135	145	162	380	440	590	755	950	1,040	1,130
<i>K</i> ₂	245	265	330	644	736	1,012	1,242	1,472	1,610	1,794
ΔCL	–	–	–	204	244	364	504	674	754	804

Note: Before using series E2i on long travels please consult igus®.

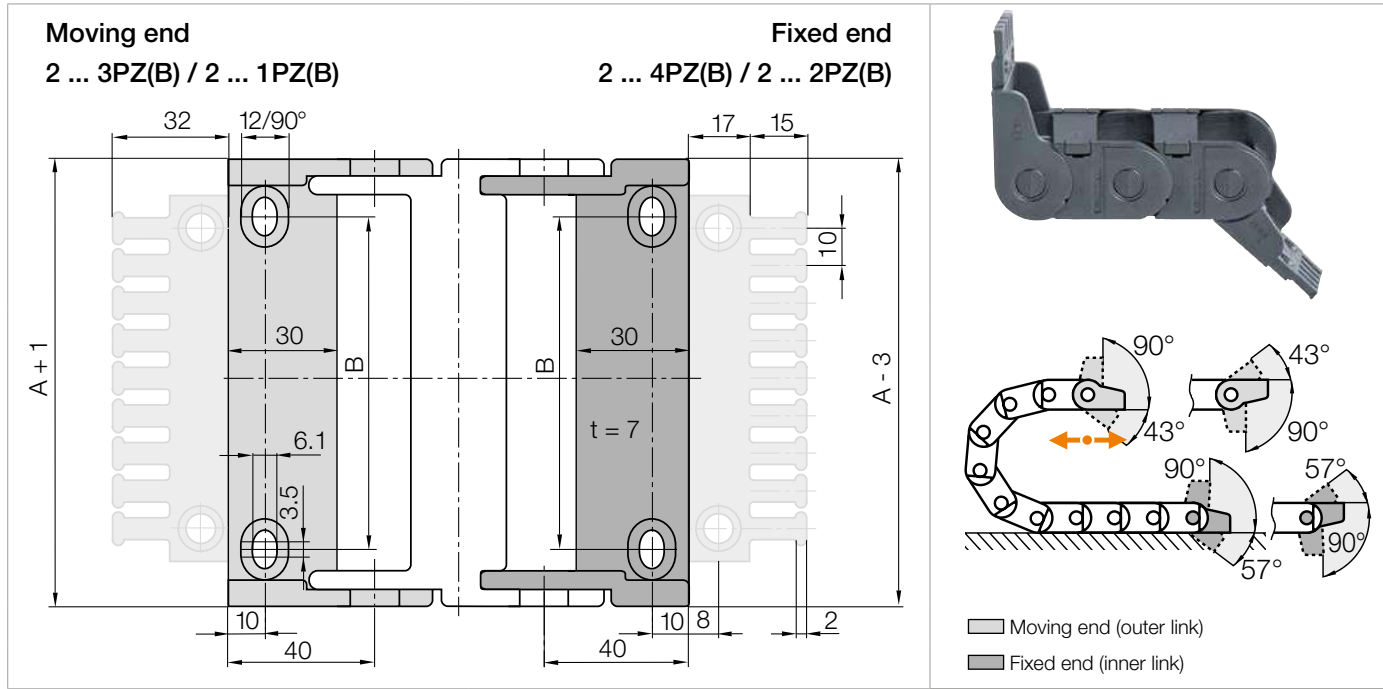
In case of travels between 4 and 10m we recommend an e-chain® with a longer unsupported length.

**Only for E2C.26: radius available upon request, please consult igus® for delivery time.

Available from stock
Upon request



Mounting brackets, polymer | Pivoting | Locking



Width index	Part No. Full set		Part No. Full set		A [mm]	B [mm]	Number of teeth
	Pivoting with tiewrap plates	Pivoting without tiewrap plates	Locking with tiewrap plates	Locking without tiewrap plates			
025.	2020.34PZB	2020.34PZ	2020.12PZB	2020.12PZ	41	12	3
038.	2030.34PZB	2030.34PZ	2030.12PZB	2030.12PZ	54	25	4
057.	2050.34PZB	2050.34PZ	2050.12PZB	2050.12PZ	73	44	6
077.	2070.34PZB	2070.34PZ	2070.12PZB	2070.12PZ	93	64	8
089.	2090.34PZB	2090.34PZ	2090.12PZB	2090.12PZ	105	77	9
103.	2100.34PZB	2100.34PZ	2100.12PZB	2100.12PZ	119	90	10
125.	2125.34PZB	2125.34PZ	2125.12PZB	2125.12PZ	141	112	12

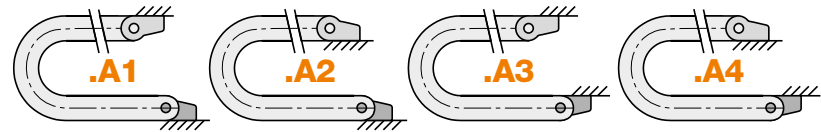
Full set with tiewrap plate + 10 cable tiewraps, please add index **K1**. Example: **2020.34PZBK1**

Order key

2030.34PZB.A2

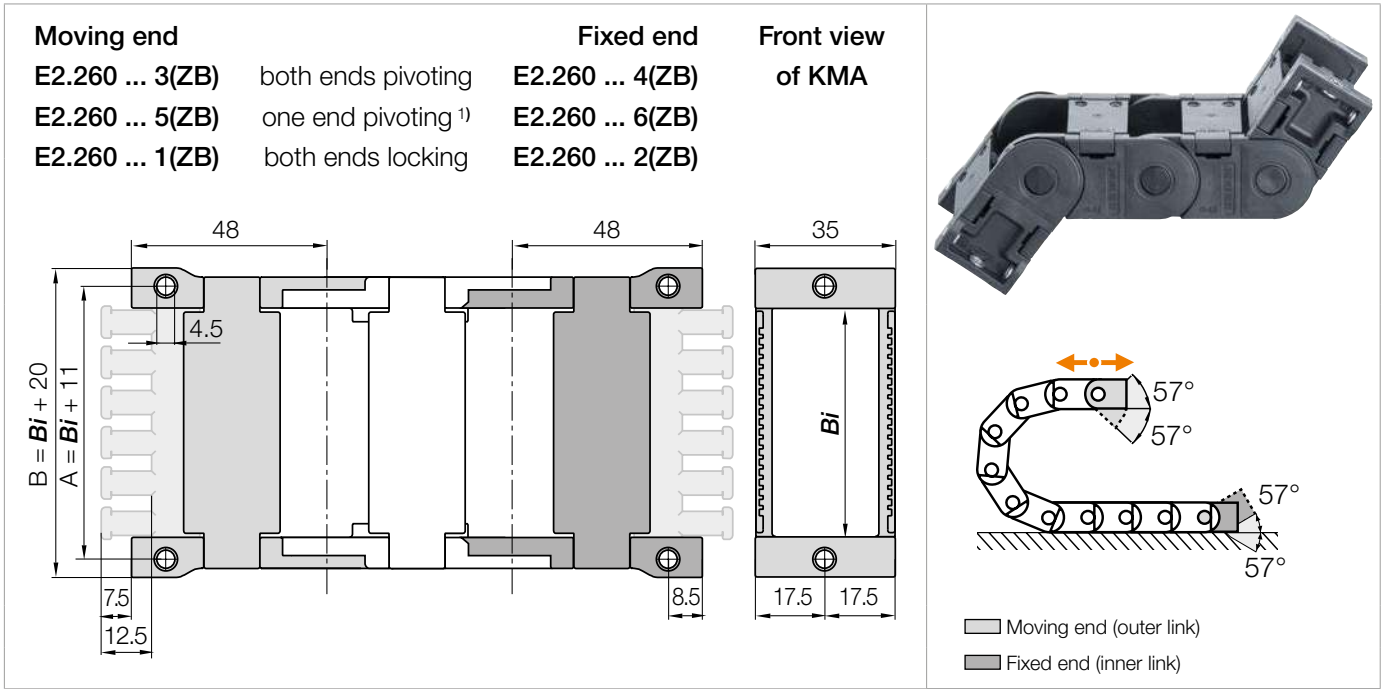
Series	Full set	With integrated strain relief tiewrap plates	Pre-fitted
--------	----------	--	------------

Note: Possible variations for assembled mounting brackets. To receive mounting brackets with **pre-fitted** option please add index **.A1**, **.A2**, **.A3** or **.A4**.



Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting | Locking



Width index	Part No. Full set		Part No. Full set		Part No. Full set		A [mm]	B [mm]	Bi [mm]	Number of teeth
	Both ends pivoting with tiewrap plates	One end pivoting ¹⁾ with tiewrap plates	Both ends locking with tiewrap plates	Both ends locking with tiewrap plates	Both ends locking with tiewrap plates	Both ends locking with tiewrap plates				
025.	E2.260.025.34ZB	E2.260.025.56ZB	E2.260.025.12ZB	E2.260.025.12ZB	E2.260.025.12ZB	E2.260.025.12ZB	36	45	25	3
038.	E2.260.038.34ZB	E2.260.038.56ZB	E2.260.038.12ZB	E2.260.038.12ZB	E2.260.038.12ZB	E2.260.038.12ZB	49	58	38	4
057.	E2.260.057.34ZB	E2.260.057.56ZB	E2.260.057.12ZB	E2.260.057.12ZB	E2.260.057.12ZB	E2.260.057.12ZB	68	77	57	6
077.	E2.260.077.34ZB	E2.260.077.56ZB	E2.260.077.12ZB	E2.260.077.12ZB	E2.260.077.12ZB	E2.260.077.12ZB	88	97	77	8
089.	E2.260.089.34ZB	E2.260.089.56ZB	E2.260.089.12ZB	E2.260.089.12ZB	E2.260.089.12ZB	E2.260.089.12ZB	100	109	89	9
103.	E2.260.103.34ZB	E2.260.103.56ZB	E2.260.103.12ZB	E2.260.103.12ZB	E2.260.103.12ZB	E2.260.103.12ZB	114	123	103	10
125.	E2.260.125.34ZB	E2.260.125.56ZB	E2.260.125.12ZB	E2.260.125.12ZB	E2.260.125.12ZB	E2.260.125.12ZB	136	145	125	12

1) One end pivoting only to the inner radius.

For a variant without tiewrap plates, please state part number without index **ZB**! (KMA = plastic-metal mounting bracket)

Order key

E2.260.038. 34ZB .A2

Series	Width index	Full set	With integrated strain relief tiewrap plates	Pre-fitted
--------	-------------	----------	--	------------

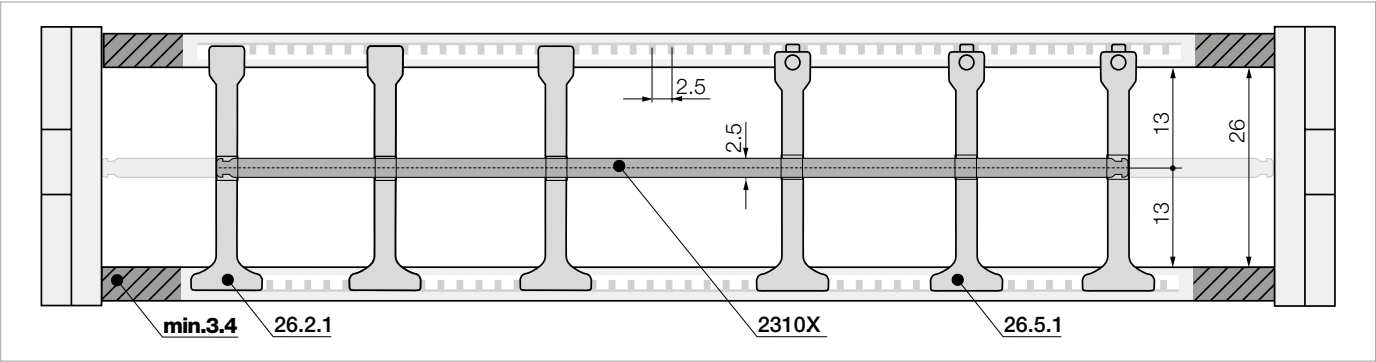
Note: Possible orientations for KMA mounting brackets. For mounting brackets pre-fitted **without strain relief**, please add index **.A**. For types pre-fitted **with strain relief** please add index **.A1**, **.A2**, **.A3** or **.A4**.



Available from stock
Upon request

E2.1 | Series E2i.26 / E2.26 / E2C.26

Interior separation | Increase cable service life



Note: Please be aware of the minimum lateral gap to the side links! **e-chain®: 3.4mm**
As standard separators are fitted every 2nd e-chain® link!

	Part No. Separator, narrow top unassembled 26.2 assembled 26.2.1	For even faster installation Wide on one side for high holding force, narrow on opposite side for easy cable fitting.
	Part No. Notch separator unassembled 26.5 assembled 26.5.1	Locks securely in preset increments Notch separator for exact positioning. Recommended for side-mounted applications.
	Part No. Shelf unassembled 2300.X assembled 2310.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width	Part No.	Part No.	Width	Part No.	Part No.	Width	Part No.	Part No.	Width	Part No.	Part No.
[mm]	unassembled	assembled	[mm]	unassembled	assembled	[mm]	unassembled	assembled	[mm]	unassembled	assembled
015	2300.015	2310.015	057	2300.057	2310.057	077	2300.077	2310.077	110	2300.110	2310.110
025	2300.025	2310.025	060	2300.060	2310.060	080	2300.080	2310.080	120	2300.120	2310.120
030	2300.030	2310.030	062	2300.062	2310.062	087	2300.087	2310.087	125	2300.125	2310.125
038	2300.038	2310.038	065	2300.065	2310.065	090	2300.090	2310.090			
040	2300.040	2310.040	070	2300.070	2310.070	100	2300.100	2310.100			
050	2300.050	2310.050	075	2300.075	2310.075	103	2300.103	2310.103			

E2.1 | Application example

Fail-safe energy chain for cable guidance in an innovative bicycle garage



With modular and automated garages in large cities, SERAAB creates new and space-saving parking options for bicycles. The French company SERAAP has developed an innovative bicycle garage to simplify CO₂-free mobility in inner cities. The special feature is a storage and retrieval unit inside the garage picks up the bicycle and places it in a defined place - which can sometimes be several metres high. The machine specialist relies on our E2.1 series energy chain systems for guiding the energy and data cables.

Product range



Part No. Openable along the inner radius	Part No. Openable along the outer radius	Part No. One-piece, non-openable	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Weight [kg/m]
E2I.38.050.0	E2.38.050.0	E2C.38.050.0*	50	67	≈ 1.01
E2I.38.065.0	E2.38.065.0	E2C.38.065.0*	65	82	≈ 1.08
E2I.38.075.0	E2.38.075.0	E2C.38.075.0	75	92	≈ 1.12
E2I.38.090.0	E2.38.090.0	E2C.38.090.0*	90	107	≈ 1.19
E2I.38.100.0	E2.38.100.0	E2C.38.100.0	100	117	≈ 1.22
E2I.38.125.0	E2.38.125.0	E2C.38.125.0	125	142	≈ 1.33
E2I.38.150.0	E2.38.150.0	E2C.38.150.0*	150	167	≈ 1.44
E2I.38.175.0	E2.38.175.0	E2C.38.175.0*	175	192	≈ 1.55
Available bend radii <i>R</i> [mm] 063 075 100 125** 150 175** 200 250**					

*Width available upon request, please consult igus® for delivery time.
**Only for E2C.38: radius available upon request, please consult igus® for delivery time.

Order key
E2.38.065.100.0

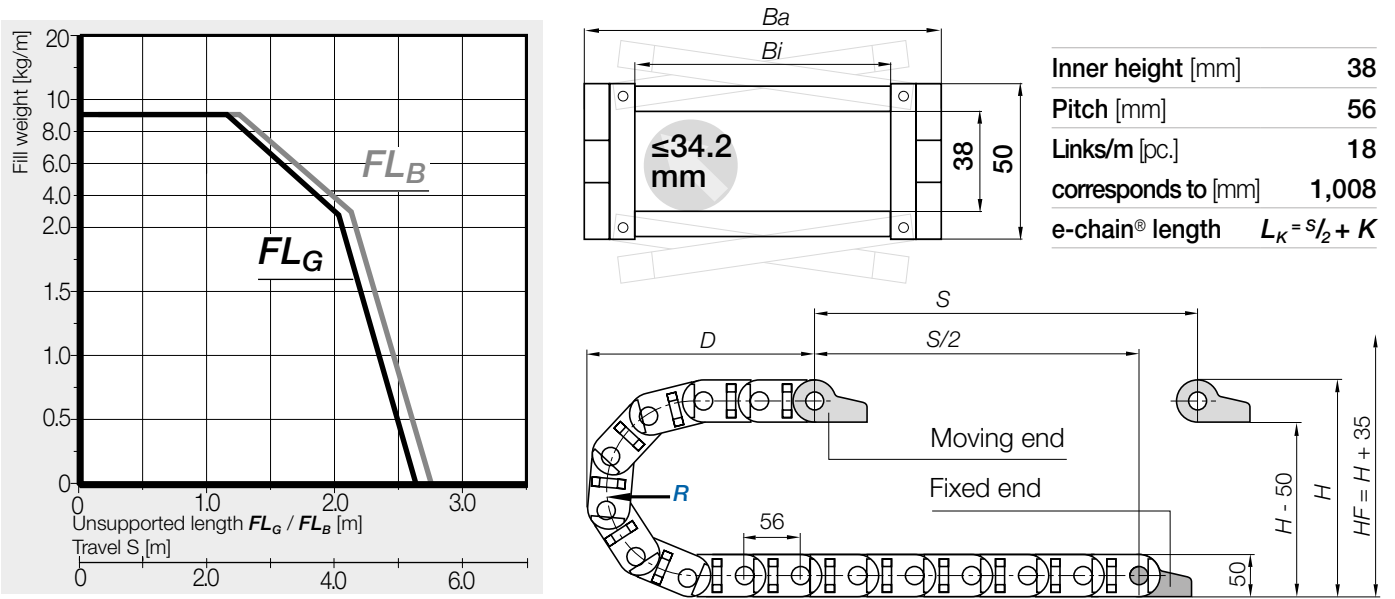
Series / Type	Inner height	Width index	Bend radius	Colour index

Order example:
Complete Part No. with the required radius *R*. Example:
E2I.38.065.100.0 = crossbars openable along the inner radius, from both sides
E2.38.065.100.0 = crossbars openable along the outer radius, from both sides
E2C.38.065.100.0 = one-piece, non-openable
Order index for colour options ► www.igus.eu/info-colours

Available from stock
Upon request



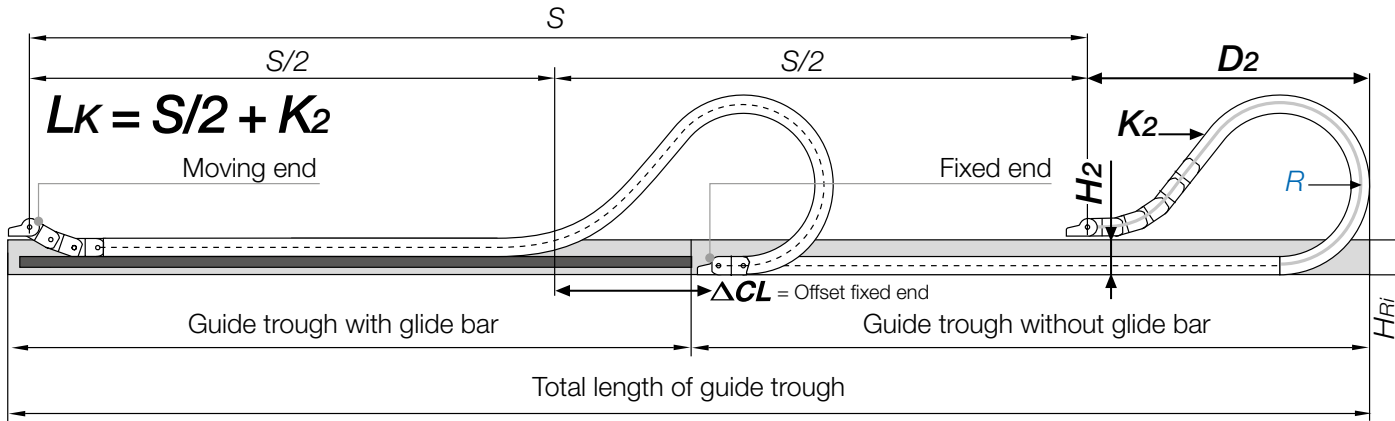
Unsupported applications | Short travels



<i>R</i>	063	075	100	125**	150	175**	200	250**
<i>H</i>	176	200	250	300	350	400	450	550
<i>D</i>	172	184	209	234	259	284	309	359
<i>K</i>	310	350	430	505	585	665	745	900

The required clearance height: $H_F = H + 35\text{mm}$ (with 2.0kg/m fill weight)
**Only for E2C.38: radius available upon request, please consult igus® for delivery time.

Gliding applications | For travel lengths from 10m to max. 120m

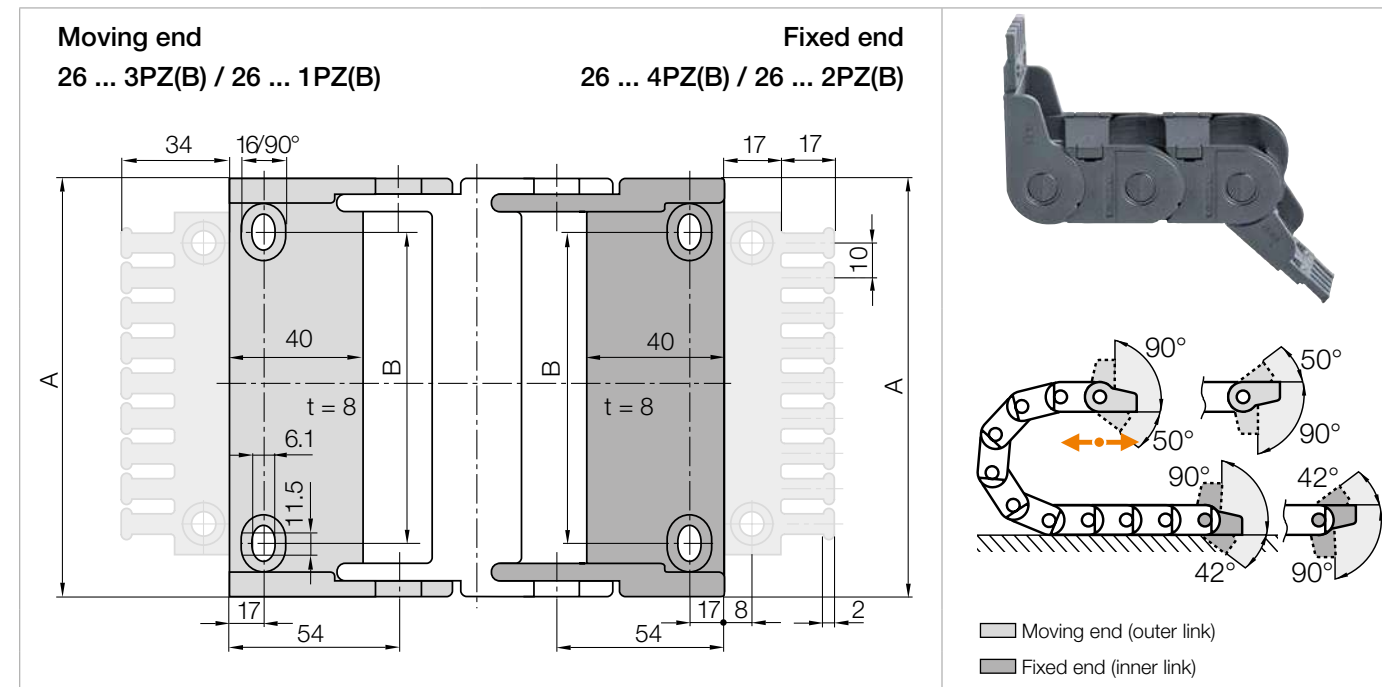


<i>R</i>	063	075	100	125**	150	175**	200	250**
<i>H</i> ₂	176	200	166	166	166	166	166	166
<i>D</i> ₂ ⁺²⁵	172	184	395	510	545	700	805	995
<i>K</i> ₂	310	350	616	784	896	1,120	1,288	1,624
ΔCL	–	–	144	244	244	374	464	594

Note: Before using series E2i on long travels please consult igus®.
In case of travels between 5 and 10m we recommend an e-chain® with a longer unsupported length.
**Only for E2C.38: radius available upon request, please consult igus® for delivery time.

Available from stock
Upon request



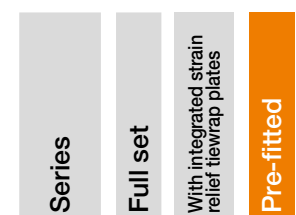


Width index	Part No. Full set		Part No. Full set		A [mm]	B [mm]	Number of teeth
	Pivoting with tiewrap plates	Pivoting without tiewrap plates	Locking with tiewrap plates	Locking without tiewrap plates			
050.	2605.34PZB	2605.34PZ	2605.12PZB	2605.12PZ	68	30	5
065.	2606.34PZB	2606.34PZ	2606.12PZB	2606.12PZ	83	45	5
075.	2607.34PZB	2607.34PZ	2607.12PZB	2607.12PZ	93	55	7
090.	2609.34PZB	2609.34PZ	2609.12PZB	2609.12PZ	108	70	9
100.	2610.34PZB	2610.34PZ	2610.12PZB	2610.12PZ	118	80	10
125.	2612.34PZB	2612.34PZ	2612.12PZB	2612.12PZ	143	105	12
150.	2615.34PZB	2615.34PZ	2615.12PZB	2615.12PZ	168	130	15
175.	2617.34PZB	2617.34PZ	2617.12PZB	2617.12PZ	193	155	17

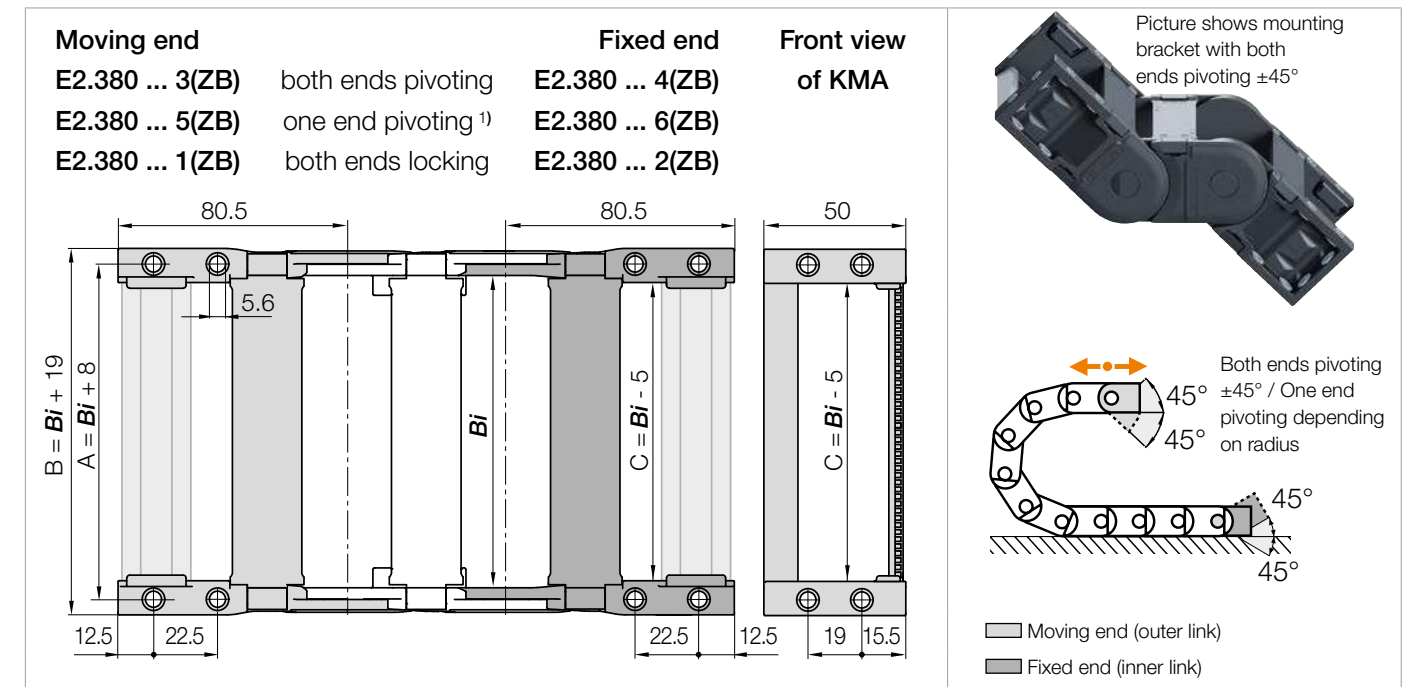
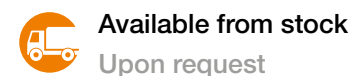
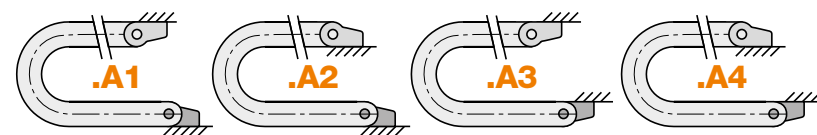
Full set with tiewrap plate + 10 cable tiewraps, please add index **K1**. Example: **2605.34PZBK1**



2605.34PZB.A2



Note: Possible variations for assembled mounting brackets.
To receive mounting brackets with **pre-fitted** option please add index **.A1, .A2, .A3** or **.A4**.



Width index	Part No. Full set	Part No. Full set	Part No. Full set				
	Both ends pivoting	One end pivoting ¹⁾	Both ends locking	A	B	C	Bi
	C-profile option	C-profile option	C-profile option	[mm]	[mm]	[mm]	[mm]
050.	E2.380.050.34.□	E2.380.050.56.□	E2.380.050.12.□	58	69	45	50
065.	E2.380.065.34.□	E2.380.065.56.□	E2.380.065.12.□	73	84	60	65
075.	E2.380.075.34.□	E2.380.075.56.□	E2.380.075.12.□	83	94	70	75
090.	E2.380.090.34.□	E2.380.090.56.□	E2.380.090.12.□	98	109	85	90
100.	E2.380.100.34.□	E2.380.100.56.□	E2.380.100.12.□	108	119	95	100
125.	E2.380.125.34.□	E2.380.125.56.□	E2.380.125.12.□	133	144	120	125
150.	E2.380.150.34.□	E2.380.150.56.□	E2.380.150.12.□	158	169	145	150
175.	E2.380.175.34.□	E2.380.175.56.□	E2.380.175.12.□	183	194	170	175

1) One end pivoting only to the inner radius.

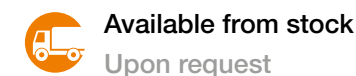
For the C-profile option please add index **.C**. (KMA = polymer metal mounting bracket)



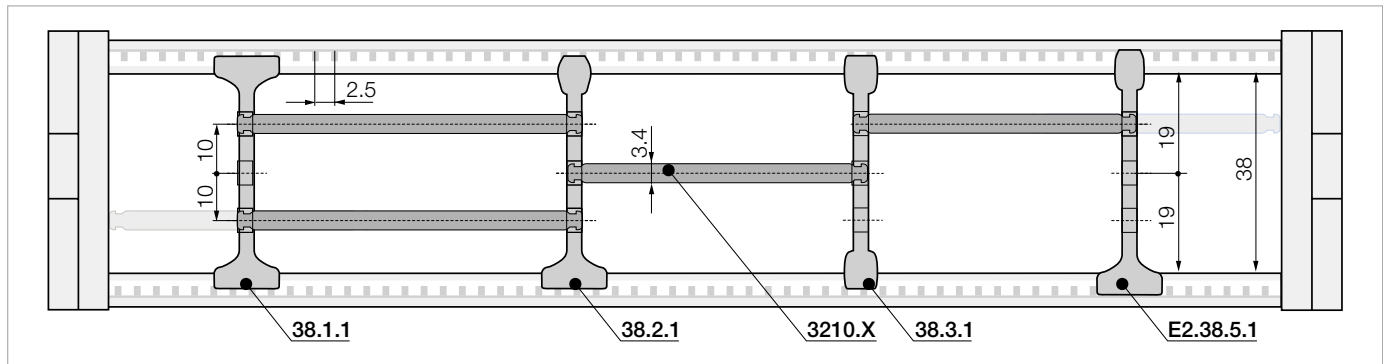
E2.380.050.34.C.A2



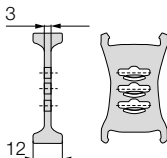
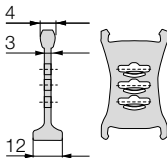
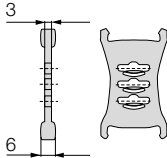
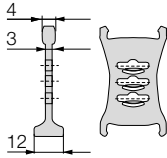
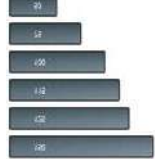
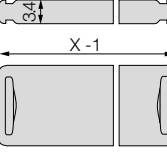
Note: Possible orientations for KMA mounting brackets. For mounting brackets pre-fitted **without C-profile**, please add index **.A**. For types pre-fitted **with C-profile** please add index **.A1**, **.A2**, **.A3** or **.A4**.



Interior separation | Increase cable service life



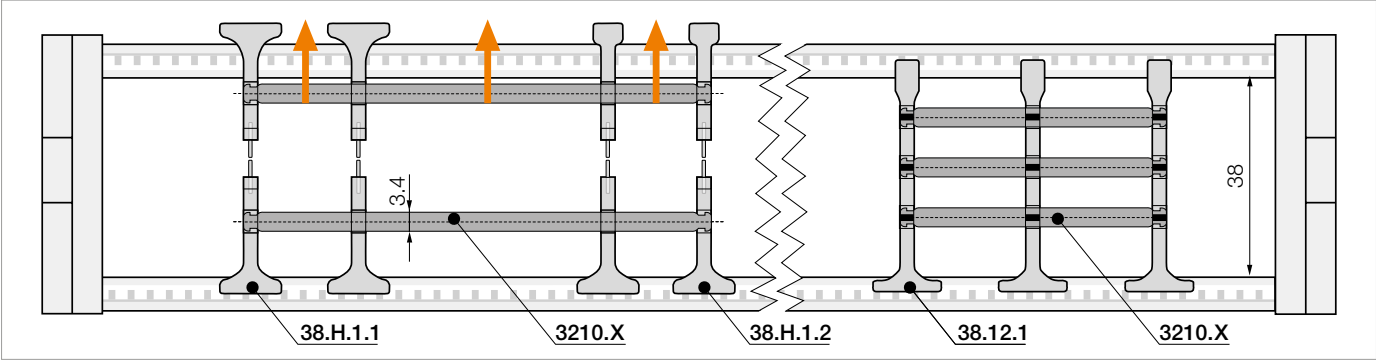
No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-chain® link!

 	Part No. Standard separator unassembled 38.1 assembled 38.1.1	For all applications Standard separator with a wide base for maximum holding force.
 	Part No. Separator, narrow top unassembled 38.2 assembled 38.2.1	For even faster installation Wide on one side for high holding force, narrow on opposite side for easy cable fitting.
 	Part No. Separator, narrow unassembled 38.3 assembled 38.3.1	For a large number of thin cables Separator with a narrow base for a large number of thin cables side by side. Saves space.
 	Part No. Notch separator unassembled E2.38.5 assembled E2.38.5.1	Locks securely in preset increments Notch separator for exact positioning. Recommended for side-mounted applications.
 	Part No. Shelf unassembled 3200.X assembled 3210.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

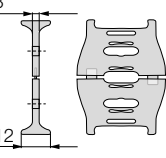
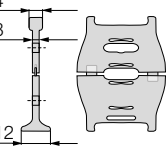
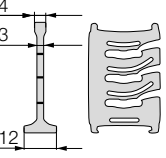
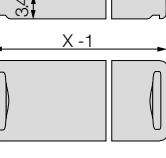
Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	3200.050	3210.050	115	3200.115	3210.115	175	3200.175	3210.175	250	3200.250	3210.250			
075	3200.075	3210.075	125	3200.125	3210.125	200	3200.200	3210.200						
100	3200.100	3210.100	150	3200.150	3210.150	225	3200.225	3210.225						

 Available from stock
Upon request

Interior separation | To allow faster filling



No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-chain® link!

 	Part No. Split separator, wide top unassembled 38.H.1 assembled 38.H.1.1	Split separators In order to fill e-chains® more easily and effectively, these separators can be split in the middle. This allows easier access to middle shelf partitions. Fast assembly and easy retrofit. 2 types available: with wide or narrow top.
 	Part No. Split separator, narrow top unassembled 38.H.2 assembled 38.H.2.1	
 	Part No. Lean separator unassembled 38.12 assembled 38.12.1	Lean separators¹⁾ Quick fitting of shelves in several layers. Enables extremely fast replacement of individual cables in very full e-chains®. Only suitable for e-chains®.
 	Part No. Shelf unassembled 3200.X assembled 3210.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

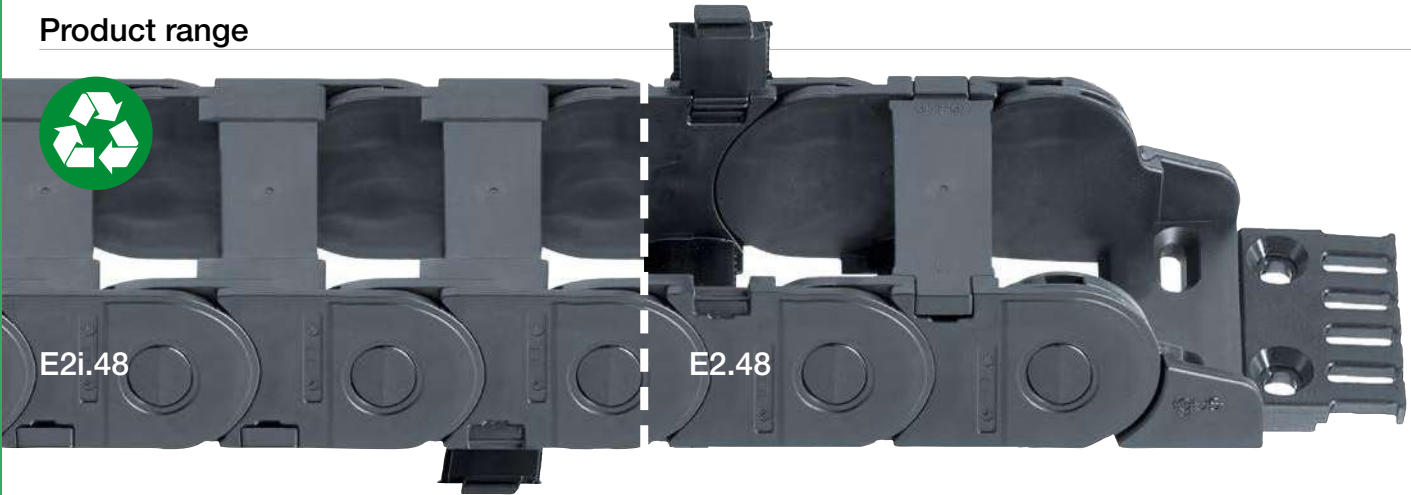
Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	3200.050	3210.050	115	3200.115	3210.115	175	3200.175	3210.175	250	3200.250	3210.250
075	3200.075	3210.075	125	3200.125	3210.125	200	3200.200	3210.200			
100	3200.100	3210.100	150	3200.150	3210.150	225	3200.225	3210.225			



Lean separator for even faster filling: quickly insert several layers of cables into the e-chain® and reduce the installation time by up to 50%. Measured on a 4m long e-chain® fitted with 12 cables. **1) Note:** Please combine a maximum of four lean separators with one shelf. Not suitable for side-mounted e-chains®!

 Available from stock
Upon request

Product range



Part No. Openable along the inner radius	Part No. Openable along the outer radius	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Weight [kg/m]
E2I.48.050.□.0	E2.48.050.□.0	50	72	≈ 1.77
E2I.48.075.□.0	E2.48.075.□.0	75	97	≈ 1.86
E2I.48.100.□.0	E2.48.100.□.0	100	122	≈ 2.00
E2I.48.115.□.0	E2.48.115.□.0	115	137	≈ 2.06
E2I.48.125.□.0	E2.48.125.□.0	125	147	≈ 2.12
E2I.48.150.□.0	E2.48.150.□.0	150	172	≈ 2.24
E2I.48.175.□.0	E2.48.175.□.0	175	197	≈ 2.36
E2I.48.200.□.0	E2.48.200.□.0	200	222	≈ 2.48
E2I.48.225.□.0	E2.48.225.□.0	225	247	≈ 2.60
E2I.48.250.□.0	E2.48.250.□.0	250	272	≈ 2.72
Available bend radii <i>R</i> [mm] 075 100 125 150 175 200 250 300				

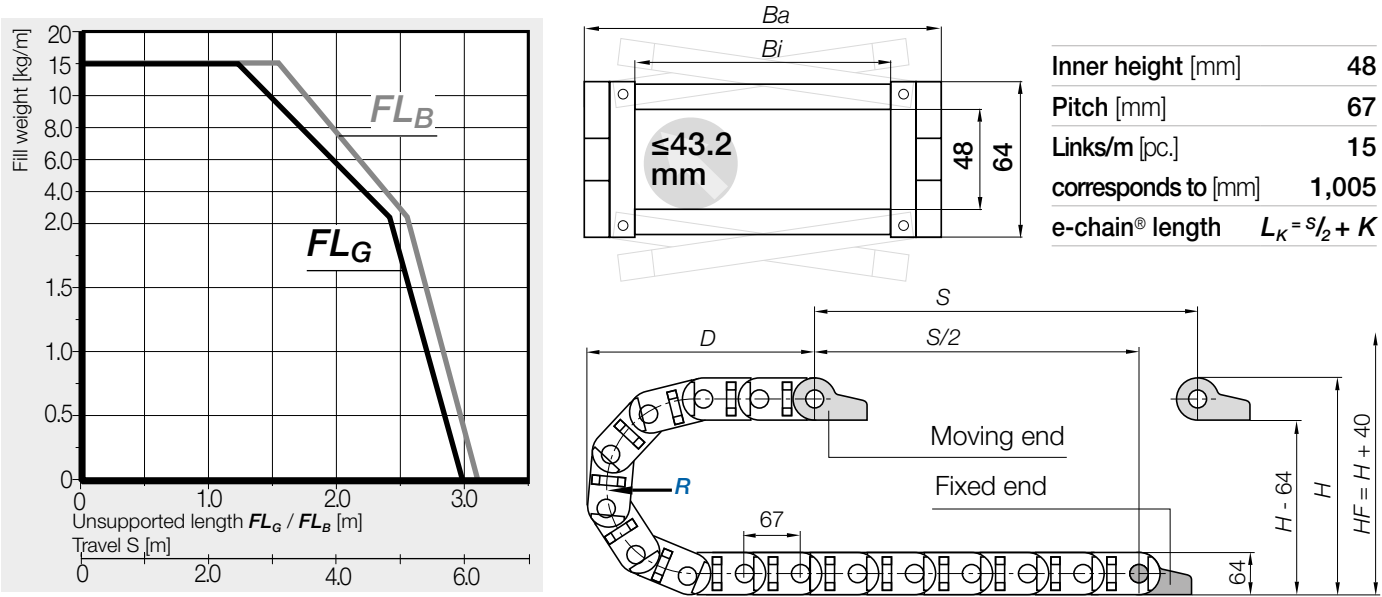
Order key
E2.48.075.075.0

Series / Type	Inner height	Width index	Bend radius	Colour index
---------------	--------------	-------------	-------------	--------------

Order example:
Complete Part No. with the required radius *R*. Example:
E2I.48.075.075.0 = crossbars openable along the inner radius, from both sides
E2.48.075.075.0 = crossbars openable along the outer radius, from both sides
Order index for colour options ► www.igus.eu/info-colours

Available from stock
Upon request

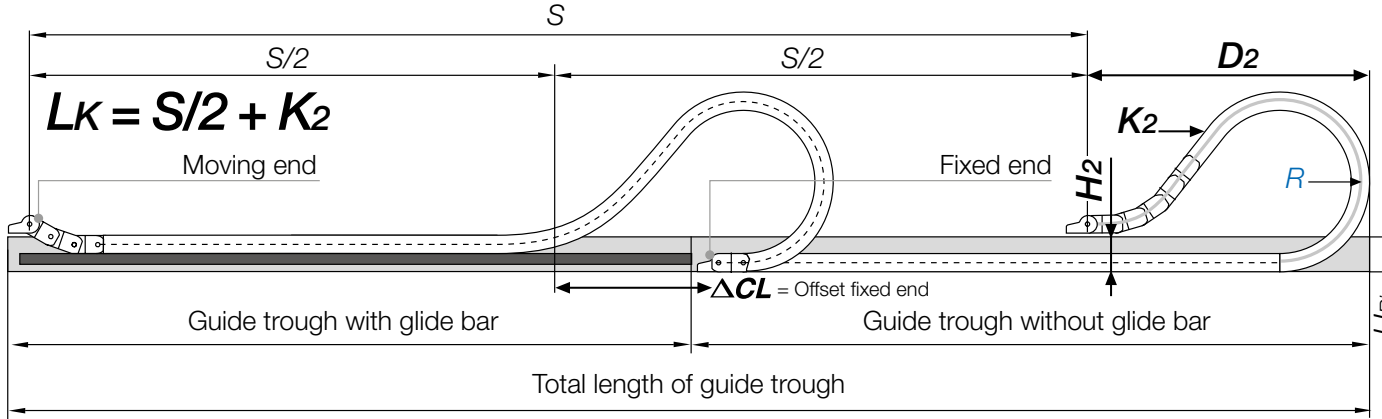
Unsupported applications | Short travels



<i>R</i>	075	100	125	150	175	200	250	300
<i>H</i>	214	264	314	364	414	464	564	664
<i>D</i>	208	233	258	283	308	333	383	433
<i>K</i>	370	450	530	610	685	765	920	1,080

The required clearance height: $H_F = H + 40\text{mm}$ (with 2.5kg/m fill weight)

Gliding applications | For travel lengths from 10m to max. 150m

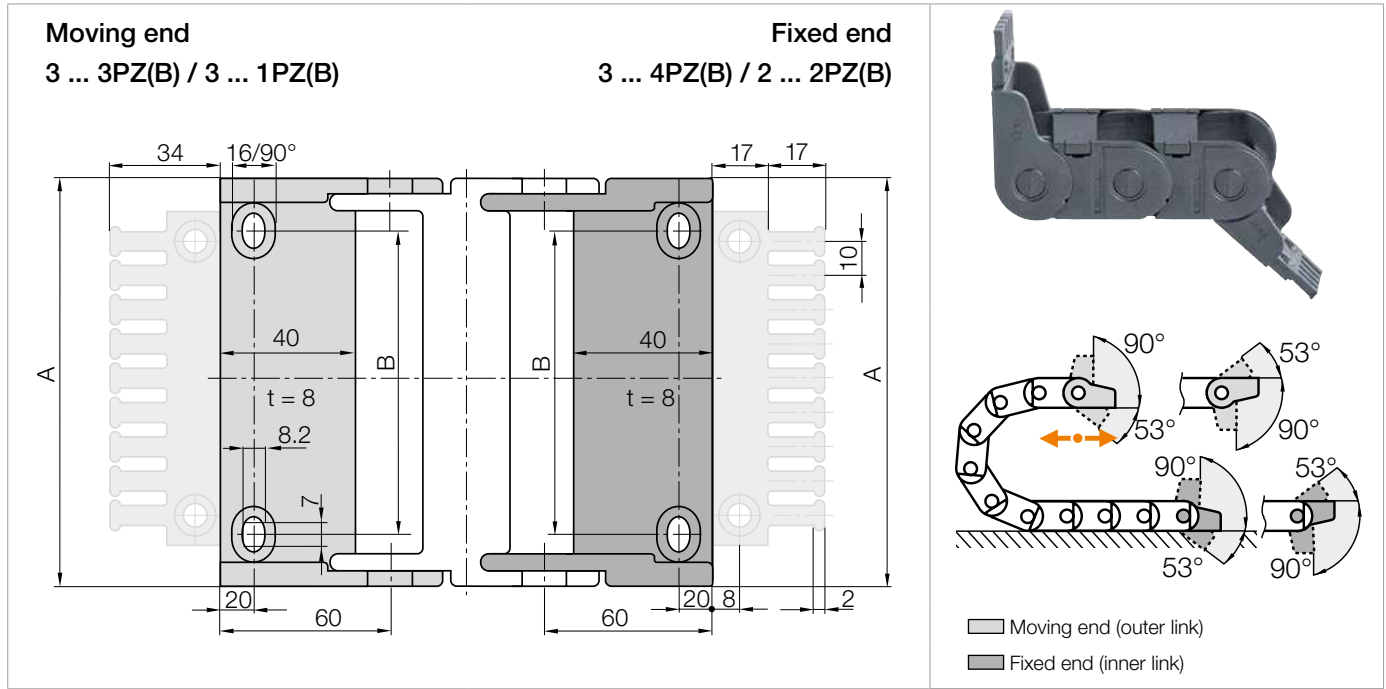


<i>R</i>	075	100	125	150	175	200	250	300
<i>H</i> ₂	214	264	186	186	186	186	186	186
<i>D</i> ₂ ⁺²⁵	208	233	475	570	725	780	1,010	1,150
<i>K</i> ₂	370	450	804	1,005	1,072	1,340	1,675	1,943
Δ <i>CL</i>	–	–	233	303	433	463	643	733

Note: Before using series E2i on long travels please consult igus®.
In case of travels between 6 and 10m we recommend an e-chain® with a longer unsupported length.

Available from stock
Upon request

Mounting brackets, polymer | Pivoting | Locking



Width index	Part No. Full set		Part No. Full set		A [mm]	B [mm]	Number of teeth
	Pivoting with tiewrap plates	Pivoting without tiewrap plates	Locking with tiewrap plates	Locking without tiewrap plates			
050.	3050.34PZB	3050.34PZ	3050.12PZB	3050.12PZ	71	28	5
075.	3075.34PZB	3075.34PZ	3075.12PZB	3075.12PZ	96	53	7
100.	3100.34PZB	3100.34PZ	3100.12PZB	3100.12PZ	121	78	10
115.	3115.34PZB	3115.34PZ	3115.12PZB	3115.12PZ	136	93	11
125.	3125.34PZB	3125.34PZ	3125.12PZB	3125.12PZ	146	103	12
150.	3150.34PZB	3150.34PZ	3150.12PZB	3150.12PZ	171	128	15
175.	3175.34PZB	3175.34PZ	3175.12PZB	3175.12PZ	196	153	17
200.	3200.34PZB	3200.34PZ	3200.12PZB	3200.12PZ	221	178	20
225.	3225.34PZB	3225.34PZ	3225.12PZB	3225.12PZ	246	203	22
250.	3250.34PZB	3250.34PZ	3250.12PZB	3250.12PZ	271	228	25

Full set with tiewrap plate + 10 cable tiewraps, please add index **K1**. Example: **3275.34PZBK1**

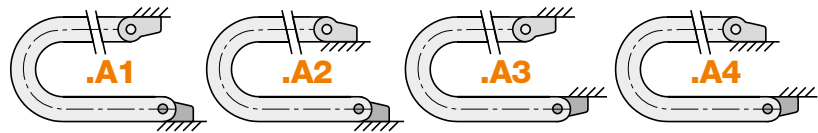


Order key

3075.34PZB.**A2**

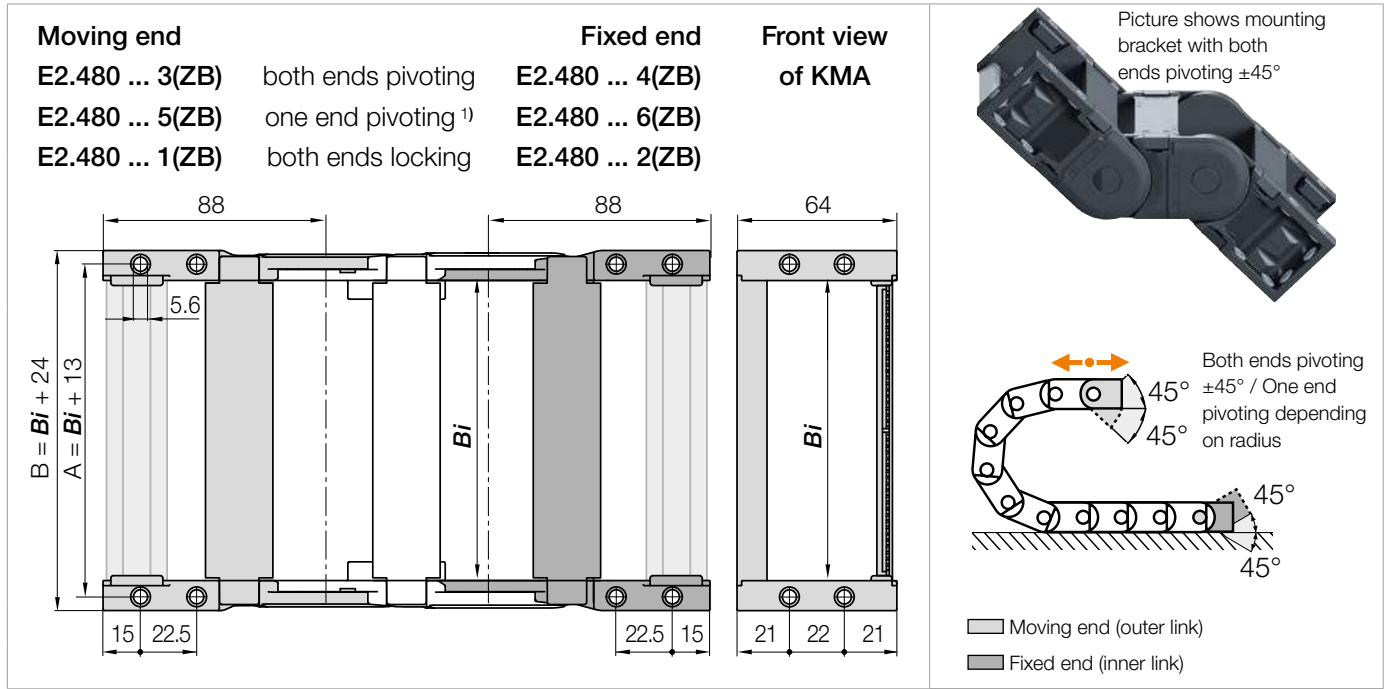
Series
Full set
With integrated strain relief tiewrap plates
Pre-fitted

Note: Possible variations for assembled mounting brackets. To receive mounting brackets with **pre-fitted** option please add index **.A1**, **.A2**, **.A3** or **.A4**.



Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting | Locking



Width index	Part No. Full set		Part No. Full set		Part No. Full set		A [mm]	B [mm]	Bi [mm]
	Both ends pivoting C-profile option	One end pivoting ¹⁾ C-profile option	Both ends locking C-profile option						
050.	E2.480.050.34.□	E2.480.050.56.□	E2.480.050.12.□				63	74	50
075.	E2.480.075.34.□	E2.480.075.56.□	E2.480.075.12.□				88	99	75
100.	E2.480.100.34.□	E2.480.100.56.□	E2.480.100.12.□				113	124	100
115.	E2.480.115.34.□	E2.480.115.56.□	E2.480.115.12.□				128	139	115
125.	E2.480.125.34.□	E2.480.125.56.□	E2.480.125.12.□				138	149	125
150.	E2.480.150.34.□	E2.480.150.56.□	E2.480.150.12.□				163	174	150
175.	E2.480.175.34.□	E2.480.175.56.□	E2.480.175.12.□				188	199	175
200.	E2.480.200.34.□	E2.480.200.56.□	E2.480.200.12.□				213	224	200
225.	E2.480.225.34.□	E2.480.225.56.□	E2.480.225.12.□				238	249	225
250.	E2.480.250.34.□	E2.480.250.56.□	E2.480.250.12.□				263	274	250

1) One end pivoting only to the inner radius.

For the C-profile option please add index **.C**. (KMA = polymer metal mounting bracket)



Order key

E2.480.075.34.**C.A2**

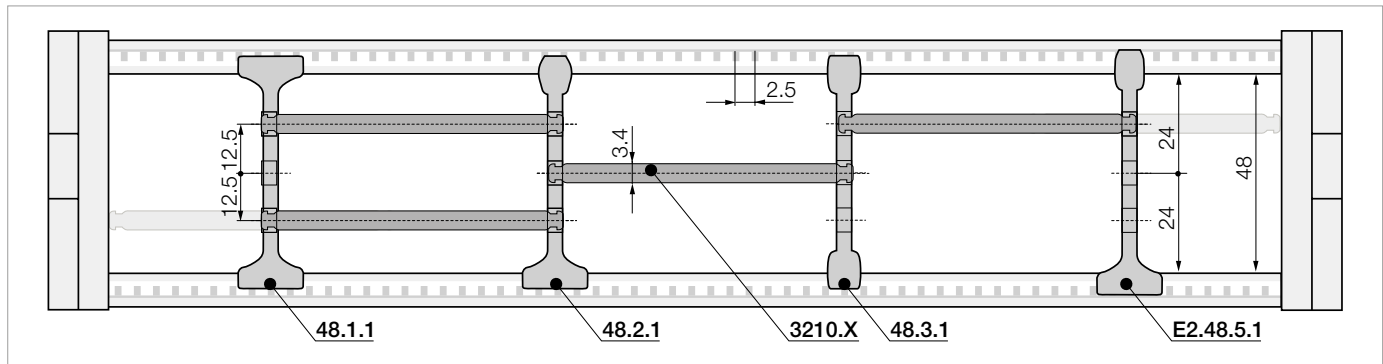
Series
Width index
Full set
C-profile option
Pre-fitted

Note: Possible orientations for KMA mounting brackets. For mounting brackets pre-fitted **without C-profile**, please add index **.A**. For types pre-fitted **with C-profile** please add index **.A1**, **.A2**, **.A3** or **.A4**.

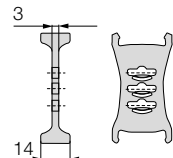
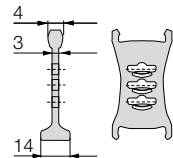
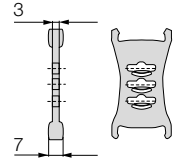
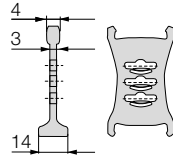
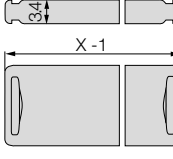


Available from stock
Upon request

Interior separation | Increase cable service life



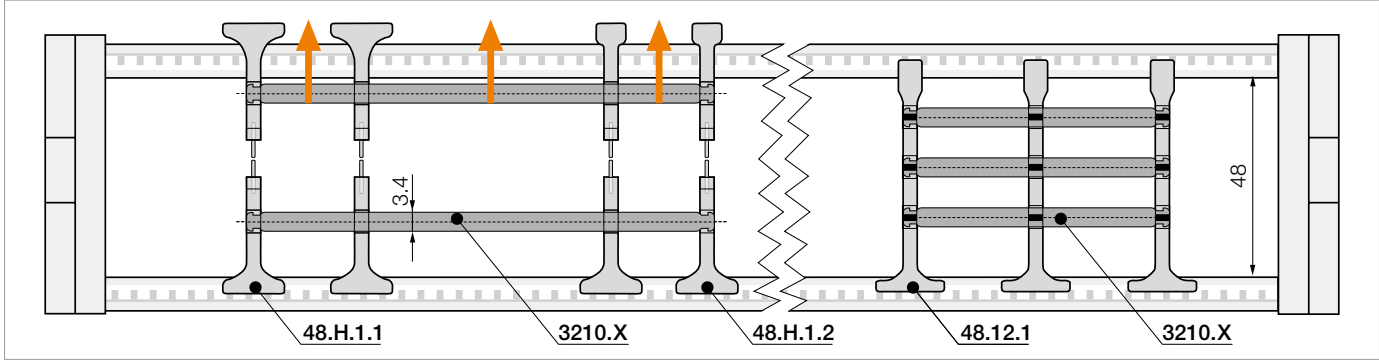
No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-chain® link!

 	Part No. Standard separator unassembled 48.1 assembled 48.1.1	For all applications Standard separator with a wide base for maximum holding force.
 	Part No. Separator, narrow top unassembled 48.2 assembled 48.2.1	For even faster installation Wide on one side for high holding force, narrow on opposite side for easy cable fitting.
 	Part No. Separator, narrow unassembled 48.3 assembled 48.3.1	For a large number of thin cables Separator with a narrow base for a large number of thin cables side by side. Saves space.
 	Part No. Notch separator unassembled E2.48.5 assembled E2.48.5.1	Locks securely in preset increments Notch separator for exact positioning. Recommended for side-mounted applications.
 	Part No. Shelf unassembled 3200.X assembled 3210.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

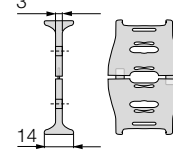
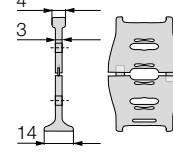
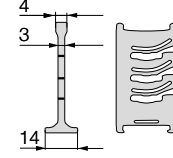
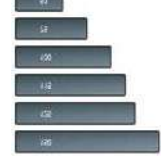
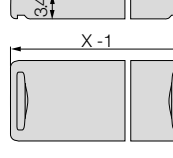
Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	3200.050	3210.050	115	3200.115	3210.115	175	3200.175	3210.175	250	3200.250	3210.250			
075	3200.075	3210.075	125	3200.125	3210.125	200	3200.200	3210.200						
100	3200.100	3210.100	150	3200.150	3210.150	225	3200.225	3210.225						

 Available from stock
Upon request

Interior separation | To allow faster filling



No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-chain® link!

 	Part No. Split separator, wide top unassembled 48.H.1 assembled 48.H.1.1	Split separators In order to fill e-chains® more easily and effectively, these separators can be split in the middle. This allows easier access to middle shelf partitions. Fast assembly and easy retrofit. 2 types available: with wide or narrow top.
 	Part No. Split separator, narrow top unassembled 48.H.2 assembled 48.H.2.1	
 	Part No. Lean separator unassembled 48.12 assembled 48.12.1	Lean separators¹⁾ Quick fitting of shelves in several layers. Enables extremely fast replacement of individual cables in very full e-chains®. Only suitable for e-chains®.
 	Part No. Shelf unassembled 3200.X assembled 3210.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	3200.050	3210.050	115	3200.115	3210.115	175	3200.175	3210.175	250	3200.250	3210.250
075	3200.075	3210.075	125	3200.125	3210.125	200	3200.200	3210.200			
100	3200.100	3210.100	150	3200.150	3210.150	225	3200.225	3210.225			



Lean separator for even faster filling: quickly insert several layers of cables into the e-chain® and reduce the installation time by up to 50%. Measured on a 4m long e-chain® fitted with 12 cables. **1) Note:** Please combine a maximum of four lean separators with one shelf. Not suitable for side-mounted e-chains®!

 Available from stock
Upon request

Sealed and universal:
enclosed KMA mounting
bracket with attachment
from any side

Edge-free:
smooth design, swarf
cannot get stuck

Fast assembly:
lids openable along the
inner or outer radius,
from both sides

Integrated
separator
notches:
recommended
for side-mount-
ed applications

Protected:
covered pin/
bore connection

Light with a
large inner height:
good ratio of outer to
inner dimensions

Quiet operation:
due to integrated brake

Strong:
double stop-dog
system for long
unsupported lengths

Protection against dust and dirt ingress and easily openable - R2.1

Cost-effective, robust e-tubes with an inner height of 26, 40, 48 or 75mm. Openable and removable lids along inner or outer radius, openable from both sides. Designed to provide a tight seal, with strong double stop-dogs for high fill weights and unsupported lengths.

Benefits

- Very light, ideal for high dynamics
- Large inner height and therefore cost-effective
- Cables are protected from swarf
- Easy to fill, lids openable from both sides along the inner or outer radius
- Low noise operation due to integrated brake
- Integrated separator, recommended for side-mounted applications

Typical application areas

- Machine tools
- Woodworking machines
- Textile machines
- General machinery, etc.
- In all areas with dirt and swarf

Selection table

Part No.	Inner height <i>hi</i> [mm]	Outer height <i>ha</i> [mm]	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Bend radius <i>R</i> [mm]	Unsupported length ≤ [m]	Page
R2i.1 - lids openable along the inner radius, from both sides							
R2i.26	26	36	25 - 130	41 - 146	060 - 250	2.00	160
R2i.40	40	54	50 - 175	66.2 - 191.2	080 - 250	2.75	164
R2i.48	48	64	100 - 250	120 - 270	100 - 300	2.75	168

R2.1 - lids openable along the outer radius, from both sides

R2.26	26	36	38 - 130	54 - 146	060 - 250	2,00	160
R2.40	40	54	50 - 175	66.2 - 191.2	080 - 250	2,75	164
R2.48	48	64	75 - 250	95 - 270	100 - 300	2,75	168
R2.75	75	90	111 - 200	135 - 224	130 - 250	3,00	172

Technical data

General properties

Speed gliding ¹⁾ / acceleration gliding ¹⁾	upon request
Speed <i>FL_G</i> /acceleration <i>FL_G</i>	≤ 10m/s / ≤ 100m/s ²
Speed <i>FL_B</i> /acceleration <i>FL_B</i>	≤ 3m/s / ≤ 6m/s ²
igumid® G LW material - permitted temperature °C	-40°C/+120°C
Flammability class, igumid® G LW	VDE 0304 IIC UL94-HB

1) If a gliding application is required for a long travel, please consult igus®.

Installation types, maximum travel lengths

Series	Unsupported	Vertical hanging	Vertical standing	Side mounted, unsupported
R2.26	≤ 4.0m	≤ 30m	≤ 2.0m	≤ 0.7m
R2.40	≤ 5.5m	≤ 40m	≤ 3.0m	≤ 1.0m
R2.48	≤ 5.5m	≤ 50m	≤ 3.0m	≤ 1.0m
R2.75	≤ 6.0m	≤ 50m	≤ 5.0m	≤ 2.0m

1) For openable series along the inner radius in gliding applications, please consult igus®

Product range



Part No. Openable along the inner radius	Part No. Openable along the outer radius	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Weight [kg/m]
R2I.26.025. .0	R2.26.025. .0*	25	41	≈ 0.870
R2I.26.038. .0	R2.26.038. .0	38	54	≈ 0.957
R2I.26.050. .0	R2.26.050. .0	50	66	≈ 1.044
R2I.26.075. .0	R2.26.075. .0	75	91	≈ 1.218
R2I.26.100. .0	R2.26.100. .0	100	116	≈ 1.392
R2I.26.130. .0	R2.26.130. .0	130	146	≈ 1.600

Available bend radii *R* [mm] | 060 | 075 | 100 | 125 | 150 | 175 | 200 | 250 |

*Width available upon request, please consult igus® for delivery time.

 Order key

R2.26.050.075.0

Series / Type	Inner height	Width index	Bend radius	Colour index
---------------	--------------	-------------	-------------	--------------

Example:

Complete Part No. with the required radius R. Example:

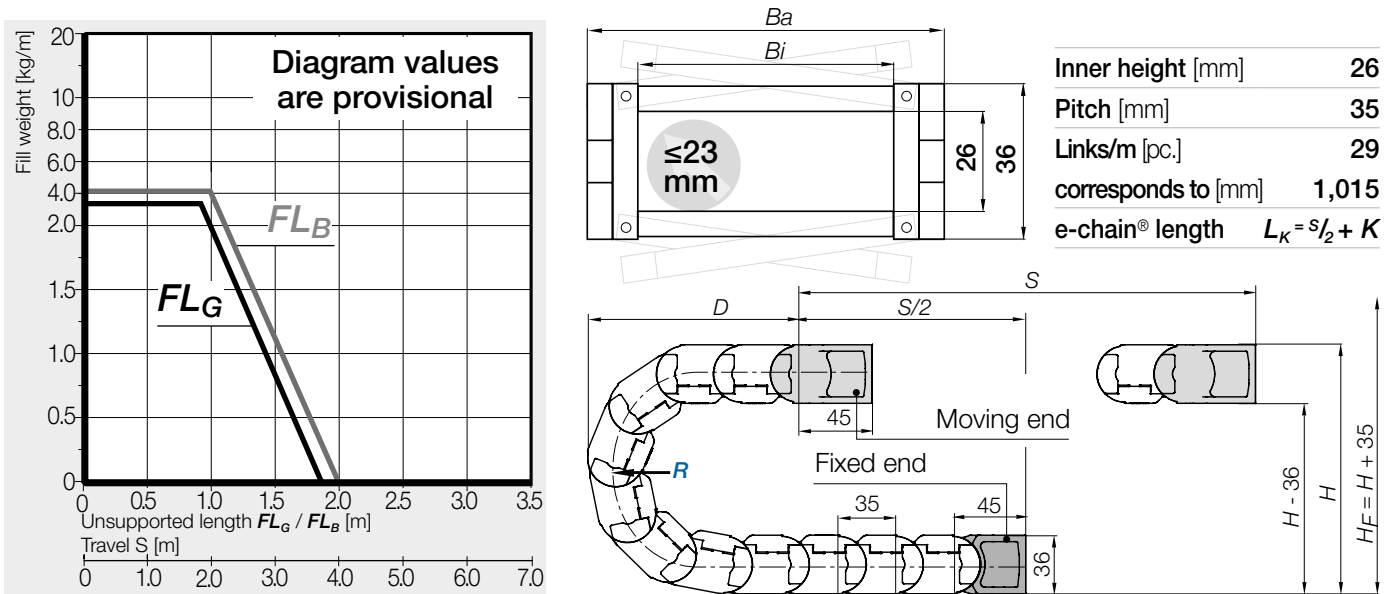
R2I.26.050.075.0 = lids openable along the inner radius, from both sides

R2.26.050.075.0 = lids openable along the outer radius, from both sides

Order index for colour options ► www.igus.eu/info-colours

 Available from stock
Upon request

Unsupported applications | Short travels



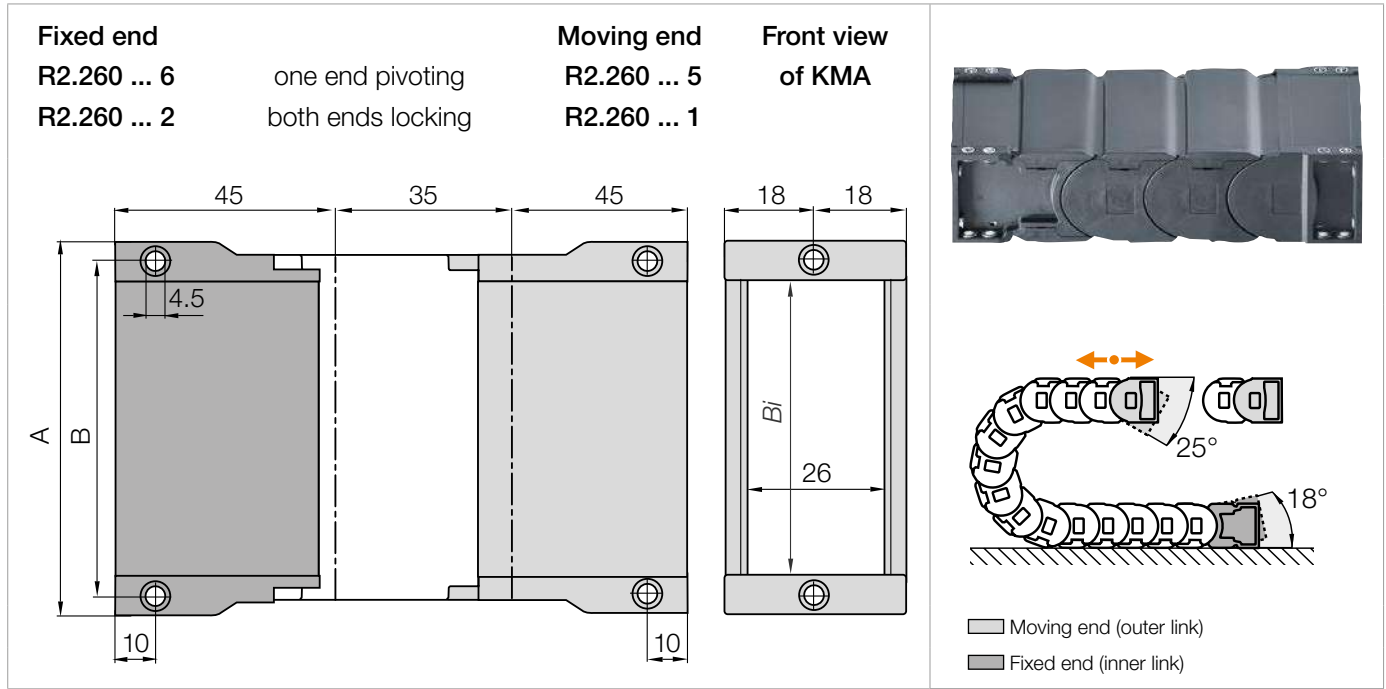
<i>R</i>	060	075	100	125	150	175	200	250
<i>H</i>	156	186	236	286	336	386	436	536
<i>D</i>	130.5	145.5	170.5	195.5	220.5	245.5	270	320.5
<i>K</i>	260	310	385	465	545	620	700	860

The required clearance height: $H_F = H + 35\text{mm}$ (with 1.5kg/m fill weight)

 **Note:** If a gliding application is required for a long travel, please consult igus®.

 Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting | Locking



Width index	Part No. Full set	Part No. Full set	A [mm]	B [mm]	Bi [mm]
	KMA one end pivoting	KMA both ends locking			
025.	R2.260.025.56	R2.260.025.12	43	34.5	25
038.	R2.260.038.56	R2.260.038.12	56	47.5	38
050.	R2.260.050.56	R2.260.050.12	68	59.5	50
075.	R2.260.075.56	R2.260.075.12	93	84.5	75
100.	R2.260.100.56	R2.260.100.12	118	109.5	100
130.	R2.260.130.56	R2.260.130.12	148	139.5	130

(KMA = polymer metal mounting bracket)

Order key

R2.260.050.56.A

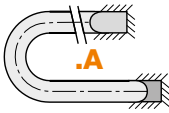
Series

Width index

Full set

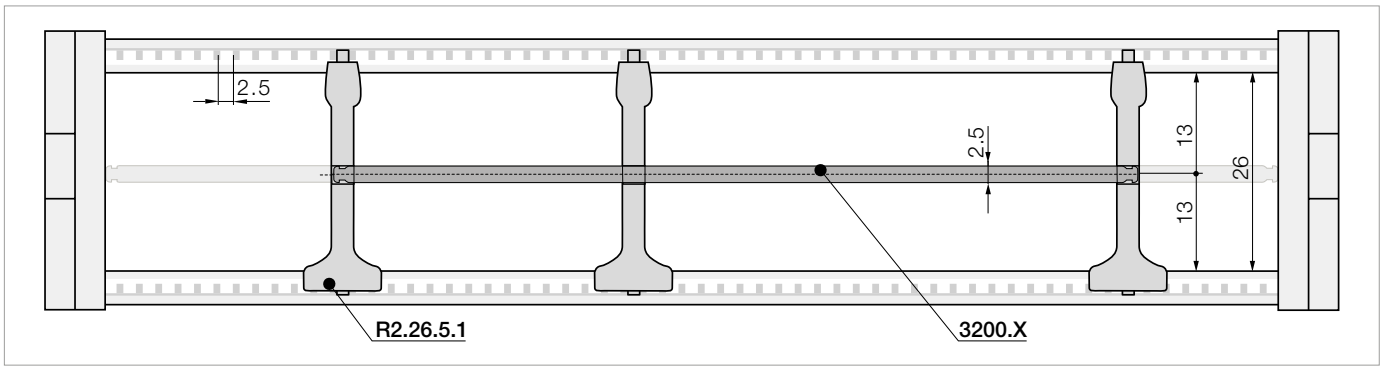
Pre-fitted

Note: The bracket orientations are set automatically when using an igus® KMA mounting bracket with attachment from any side. To receive a KMA mounting bracket pre-fitted please add index **.A**.



Available from stock
Upon request

Interior separation | Increase cable service life



No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-chain® link!

Part No.

Notch separator

unassembled R2.26.5

assembled R2.26.5.1

Locks securely in preset increments

Notch separator for exact positioning.
Recommended for side-mounted applications.

Part No.

Shelf

unassembled 3200.X

assembled 3210.X

Horizontal separation

Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	3200.050	3210.050	115	3200.115	3210.115	175	3200.175	3210.175	250	3200.250	3210.250
075	3200.075	3210.075	125	3200.125	3210.125	200	3200.200	3210.200			
100	3200.100	3210.100	150	3200.150	3210.150	225	3200.225	3210.225			

Available from stock
Upon request

Product range



Part No. Openable along the inner radius	Part No. Openable along the outer radius	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Weight [kg/m]
R2I.40.050. .0	R2.40.050. .0	50	66.2	≈ 1.25
R2I.40.075. .0	R2.40.075. .0	75	91.2	≈ 1.50
R2I.40.100. .0	R2.40.100. .0	100	116.2	≈ 1.75
R2I.40.125. .0	R2.40.125. .0	125	141.2	≈ 2.00
R2I.40.150. .0	R2.40.150. .0	150	166.2	≈ 2.25
R2I.40.175. .0	R2.40.175. .0	175	191.2	≈ 2.50
R2I.40.200. .0*	R2.40.20. .0*	200	216.2	≈ 2.75
Available bend radii <i>R</i> [mm] 080 100 125 150 175 200 250				

*Width available upon request, please consult igus® for delivery time.

 Order key

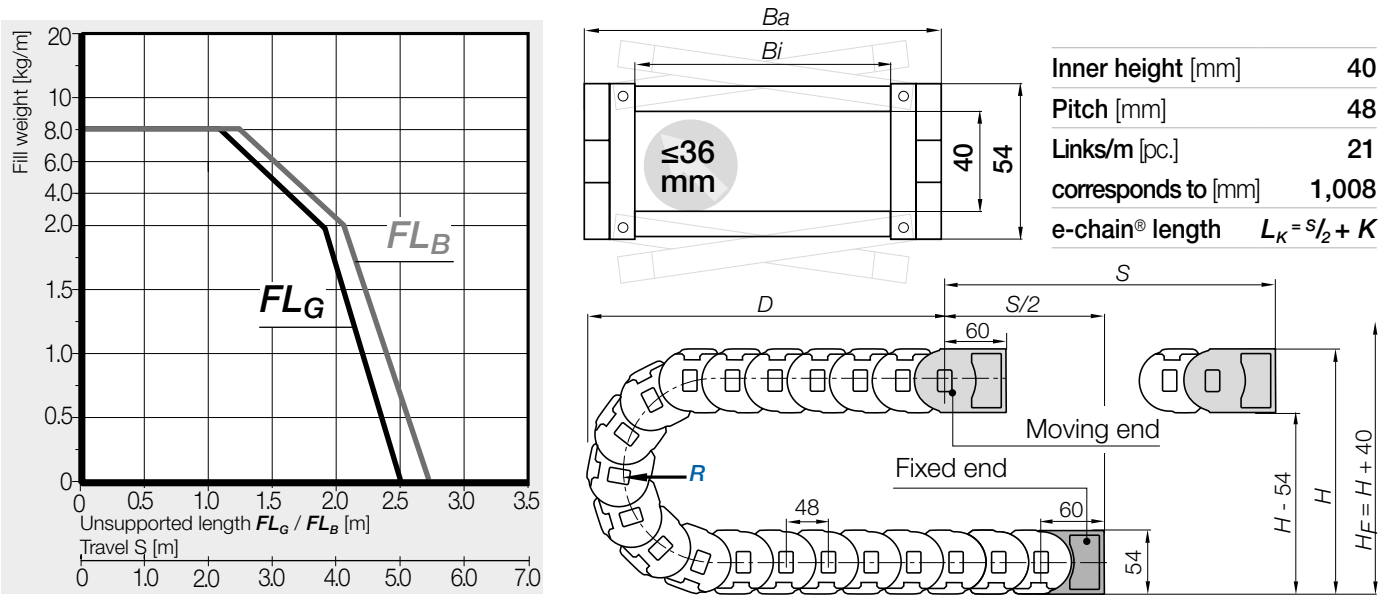
R2.40.075.100.0

Series / Type	Inner height	Width index	Bend radius	Colour index
---------------	--------------	-------------	-------------	--------------

Example:
Complete Part No. with the required radius R. Example:
R2I.40.075.100.0 = lids openable along the inner radius, from both sides
R2.40.075.100.0 = lids openable along the outer radius, from both sides
Order index for colour options ► www.igus.eu/info-colours

 Available from stock
Upon request

Unsupported applications | Short travels



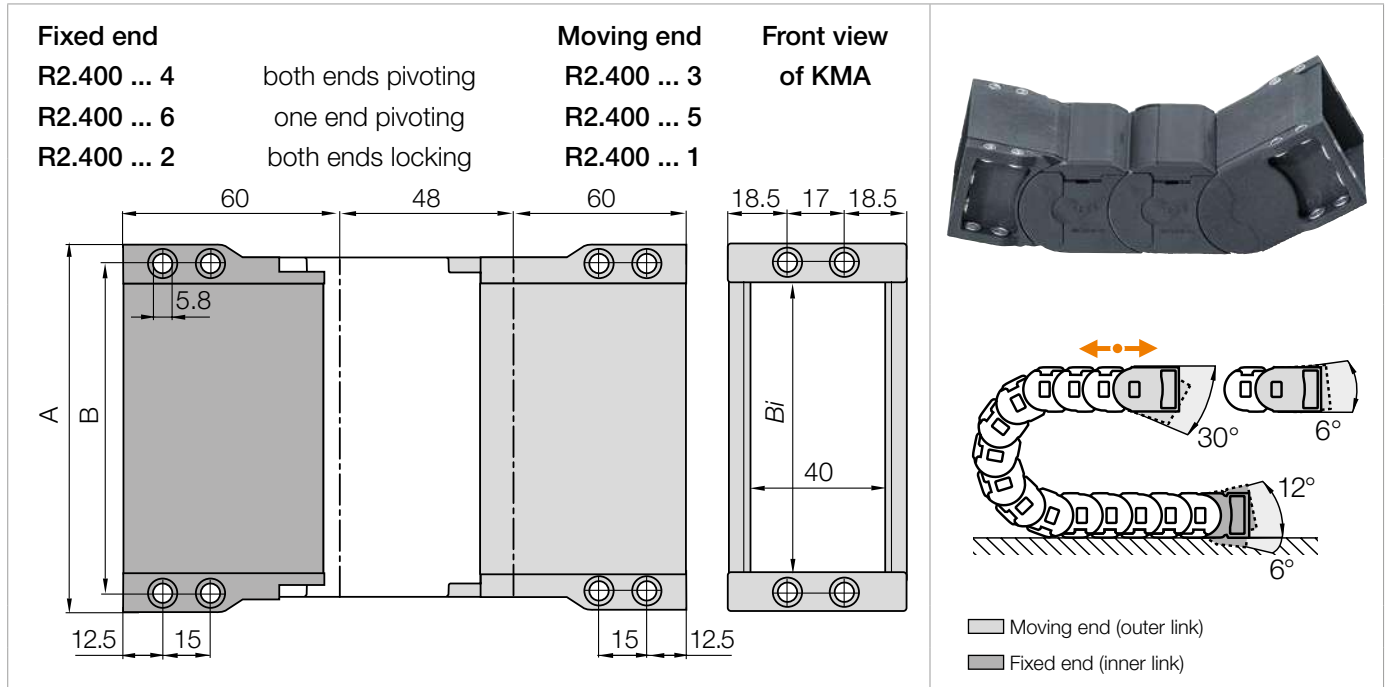
<i>R</i>	080	100	125	150	175	200	250
<i>H</i>	214	254	304	354	404	454	554
<i>D</i>	179	199	224	249	274	299	349
<i>K</i>	350	415	490	570	650	725	885

The required clearance height: $H_F = H + 40\text{mm}$ (with 2.0kg/m fill weight)

 **Note:** If a gliding application is required for a long travel, please consult igus®.

 Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting | Locking



Width index	Part No. Full set	Part No. Full set	Part No. Full set	A [mm]	B [mm]	Bi [mm]
	KMA both ends pivoting	KMA one end pivoting	KMA both ends locking			
050.	R2.400.050.34	R2.400.050.56	R2.400.050.12	74	62	50
075.	R2.400.075.34	R2.400.075.56	R2.400.075.12	99	87	75
100.	R2.400.100.34	R2.400.100.56	R2.400.100.12	124	112	100
125.	R2.400.125.34	R2.400.125.56	R2.400.125.12	149	137	125
150.	R2.400.150.34	R2.400.150.56	R2.400.150.12	174	162	150
175.	R2.400.175.34	R2.400.175.56	R2.400.175.12	199	187	175
200.	R2.400.200.34*	R2.400.200.56*	R2.400.200.12*	224	212	200

*Width available upon request, please consult igus® for delivery time.

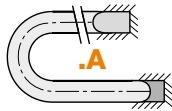
(KMA = polymer metal mounting bracket)

Order key

R2.400.075.34.A

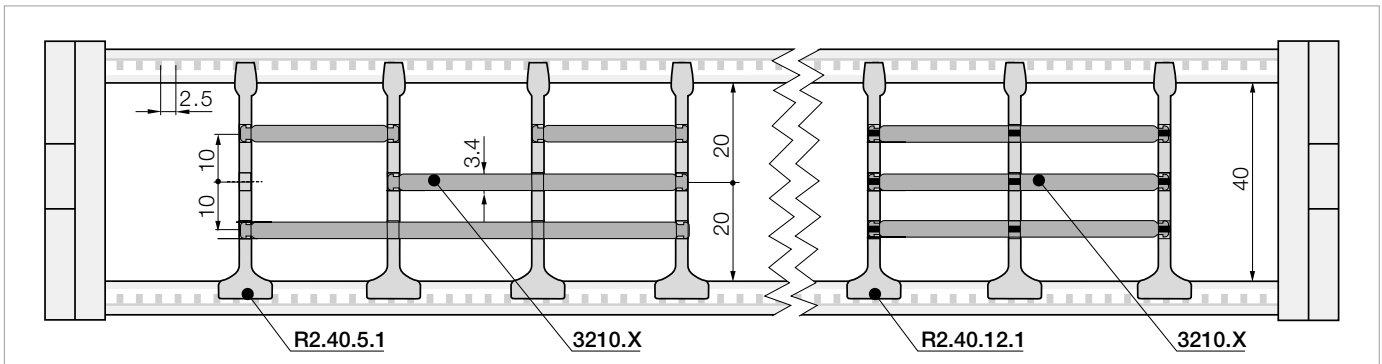
Series	Width index	Full set	Pre-fitted
--------	-------------	----------	------------

Note: The bracket orientations are set automatically when using an igus® KMA mounting bracket with attachment from any side. To receive a KMA mounting bracket pre-fitted please add index .A.



Available from stock
Upon request

Interior separation | Increase cable service life



No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-chain® link!

		Part No. Notch separator unassembled R2.40.5 assembled R2.40.5.1	Locks securely in preset increments Notch separator for exact positioning. Recommended for side-mounted applications.
		Part No. Lean separator unassembled R2.40.12 assembled R2.40.12.1	Lean separators¹⁾ Quick fitting of shelves in several layers. Enables extremely fast replacement of individual cables in very full e-chains®.
		Part No. Shelf unassembled 3200.X assembled 3210.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	3200.050	3210.050	115	3200.115	3210.115	175	3200.175	3210.175	250	3200.250	3210.250
075	3200.075	3210.075	125	3200.125	3210.125	200	3200.200	3210.200			
100	3200.100	3210.100	150	3200.150	3210.150	225	3200.225	3210.225			

Interior separation | To allow faster filling



Lean separator for even faster filling: quickly insert several layers of cables into the e-chain® and reduce the installation time by up to 50%. Measured on a 4m long e-chain® fitted with 12 cables. **1) Note:** Please combine a maximum of four lean separators with one shelf. Not suitable for side-mounted e-chains®!

Available from stock
Upon request

Product range



Part No. Openable along the inner radius	Part No. Openable along the outer radius	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Weight [kg/m]
R2I.48.050.□.0*	R2.48.050.□.0*	50	70	≈ 1,92
R2I.48.075.□.0*	R2.48.075.□.0	75	95	≈ 2,23
R2I.48.100.□.0	R2.48.100.□.0	100	120	≈ 2,55
R2I.48.115.□.0	R2.48.115.□.0	115	135	≈ 2,74
R2I.48.125.□.0	R2.48.125.□.0*	125	145	≈ 2,86
R2I.48.150.□.0*	R2.48.150.□.0*	150	170	≈ 3,18
R2I.48.175.□.0*	R2.48.175.□.0*	175	195	≈ 3,49
R2I.48.200.□.0	R2.48.200.□.0*	200	220	≈ 3,81
R2I.48.225.□.0*	R2.48.225.□.0*	225	245	≈ 4,05
R2I.48.250.□.0	R2.48.250.□.0	250	270	≈ 4,44

Available bend radii *R* [mm] | 100 | 125 | 150 | 175 | 200 | 225 | 250 | 300 |

*Width available upon request, please consult igus® for delivery time.

Order key

R2.48.100.100.0

Series / Type	Inner height	Width index	Bend radius	Colour index
			100	

Example:

Complete Part No. with the required radius *R*. Example:

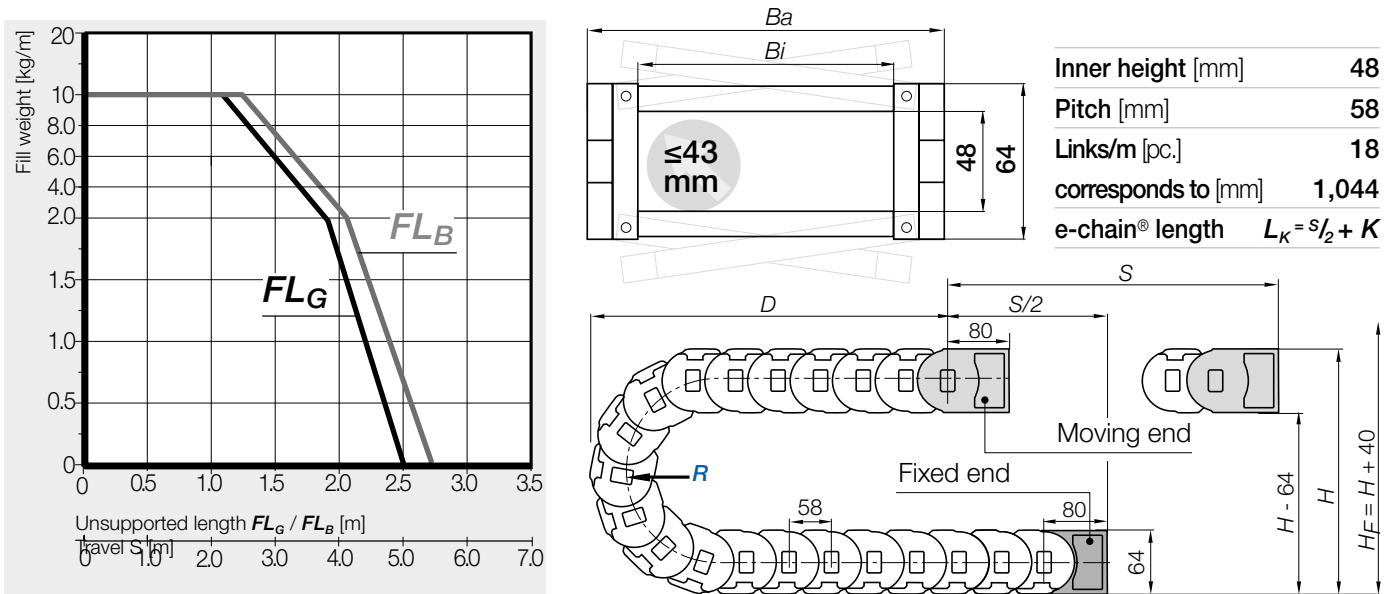
R2I.48.100.100.0 = lids openable along the inner radius, from both sides

R2.48.100.100.0 = lids openable along the outer radius, from both sides

Order index for colour options ► www.igus.eu/info-colours

Available from stock
Upon request

Unsupported applications | Short travels



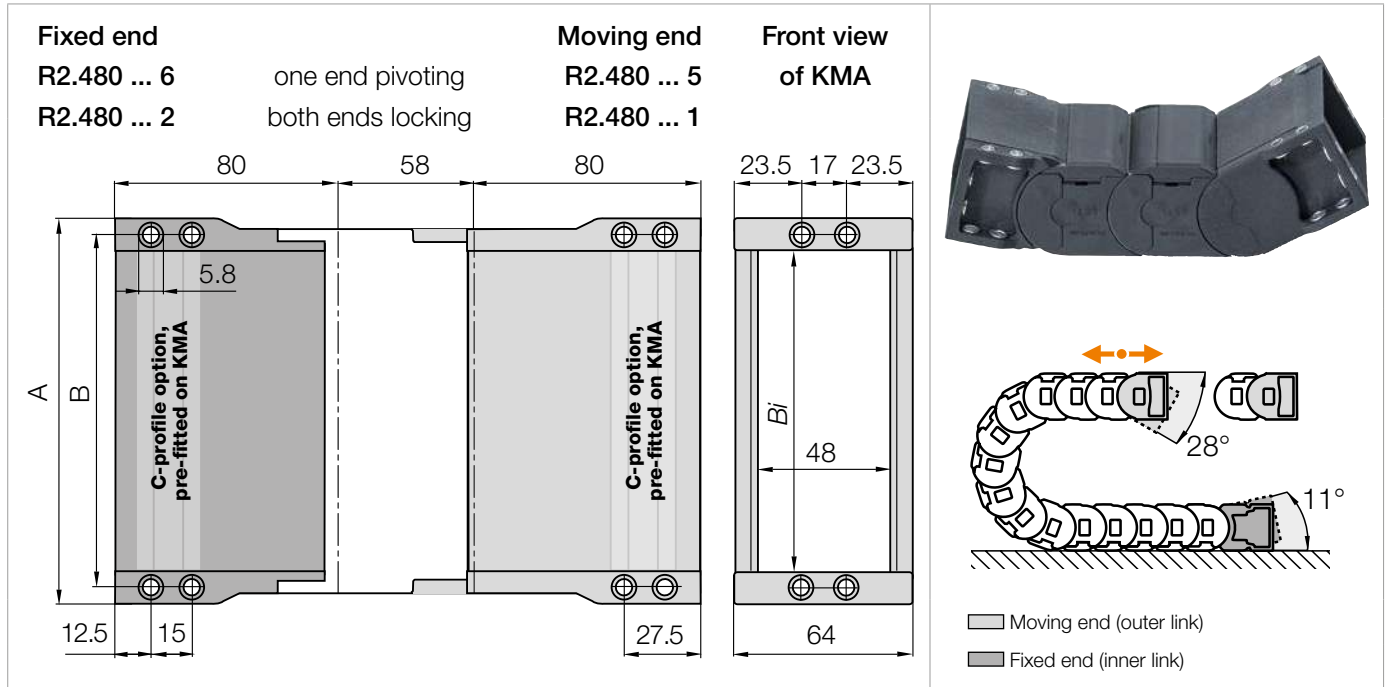
<i>R</i>	100	125	150	175	200	225	250	300
<i>H</i>	264	314	364	414	464	514	564	664
<i>D</i>	219	244	269	294	319	344	369	419
<i>K</i>	435	510	590	670	745	825	905	1,060

The required clearance height: $H_F = H + 40\text{mm}$ (with 2.0kg/m fill weight)

Note: If a gliding application is required for a long travel, please consult igus®.

Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting | Locking



Width index	Part No. Full set		Part No. Full set		A [mm]	B [mm]	Bi [mm]
	KMA one end pivoting		KMA both ends locking				
	With C-profile	Without C-profile	With C-profile	Without C-profile			
050.	R2.480.050.56.□*	R2.480.050.56*	R2.480.050.12.□*	R2.480.050.12*	74	62	50
075.	R2.480.075.56.□	R2.480.075.56	R2.480.075.12.□	R2.480.075.12	99	87	75
100.	R2.480.100.56.□	R2.480.100.56	R2.480.100.12.□	R2.480.100.12	124	112	100
115.	R2.480.115.56.□	R2.480.115.56	R2.480.115.12.□	R2.480.115.12	139	127	115
125.	R2.480.125.56.□	R2.480.125.56	R2.480.125.12.□	R2.480.125.12	149	137	125
150.	R2.480.150.56.□*	R2.480.150.56*	R2.480.150.12.□*	R2.480.150.12*	174	162	150
175.	R2.480.175.56.□*	R2.480.175.56*	R2.480.175.12.□*	R2.480.175.12*	199	187	175
200.	R2.480.200.56.□	R2.480.200.56	R2.480.200.12.□	R2.480.200.12	224	212	200
225.	R2.480.225.56.□*	R2.480.225.56*	R2.480.225.12.□*	R2.480.225.12*	249	237	225
250.	R2.480.250.56.□	R2.480.250.56	R2.480.250.12.□	R2.480.250.12	274	262	250

*Width available upon request, please consult igus® for delivery time.
For the C-profile option please add index .C. (KMA = polymer metal mounting bracket)

Order key

R2.480.100.56.C.A2

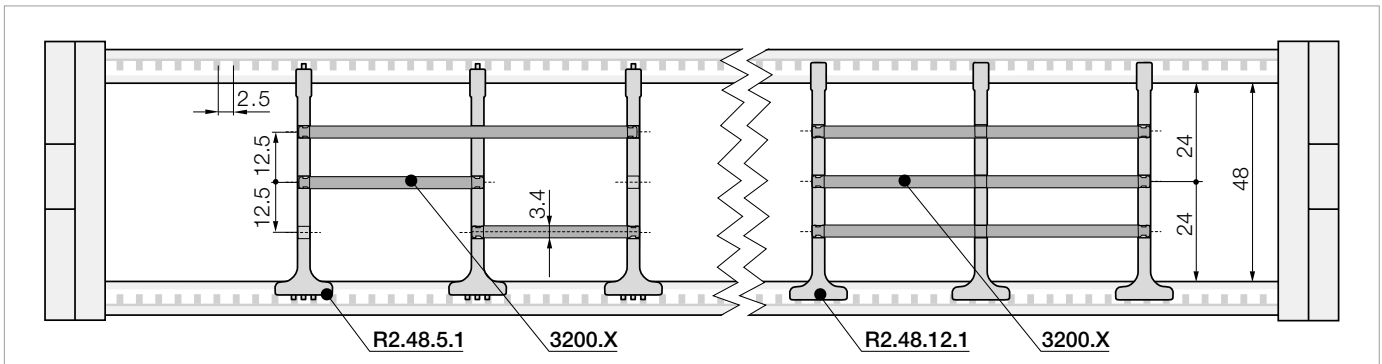
Series	Width index	Full set	C-profile option	Pre-fitted

Note: Possible orientations for KMA mounting brackets. For mounting brackets pre-fitted **without C-profile**, please add index .A. For types pre-fitted **with C-profile** please add index .A1, .A2, .A3 or .A4.



Available from stock
Upon request

Interior separation | Increase cable service life



No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-chain® link!

		Part No. Notch separator unassembled R2.48.5 assembled R2.48.5.1	Locks securely in preset increments Notch separator for exact positioning. Recommended for side-mounted applications.
		Part No. Lean separator unassembled R2.48.12 assembled R2.48.12.1	Lean separators¹⁾ Quick fitting of shelves in several layers. Enables extremely fast replacement of individual cables in very full e-chains®.
		Part No. Shelf unassembled 3200.X assembled 3210.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	3200.050	3210.050	115	3200.115	3210.115	175	3200.175	3210.175	250	3200.250	3210.250
075	3200.075	3210.075	125	3200.125	3210.125	200	3200.200	3210.200			
100	3200.100	3210.100	150	3200.150	3210.150	225	3200.225	3210.225			

Interior separation | To allow faster filling



Lean separator for even faster filling: quickly insert several layers of cables into the e-chain® and reduce the installation time by up to 50%. Measured on a 4m long e-chain® fitted with 12 cables. **1) Note: Please combine a maximum of four lean separators with one shelf. Not suitable for side-mounted e-chains®!**

Available from stock
Upon request

Product range



Part No. Openable along the outer radius	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Weight [kg/m]
R2.75.111.0	111	135	≈ 3.175
R2.75.163.0	163	187	≈ 3.672
R2.75.200.0	200	224	≈ 4.012

Available bend radii *R* [mm] | 130 | 150 | 200 | 250 |

Order key

R2.75.200.200.0

Series / Type

Inner height

Width index

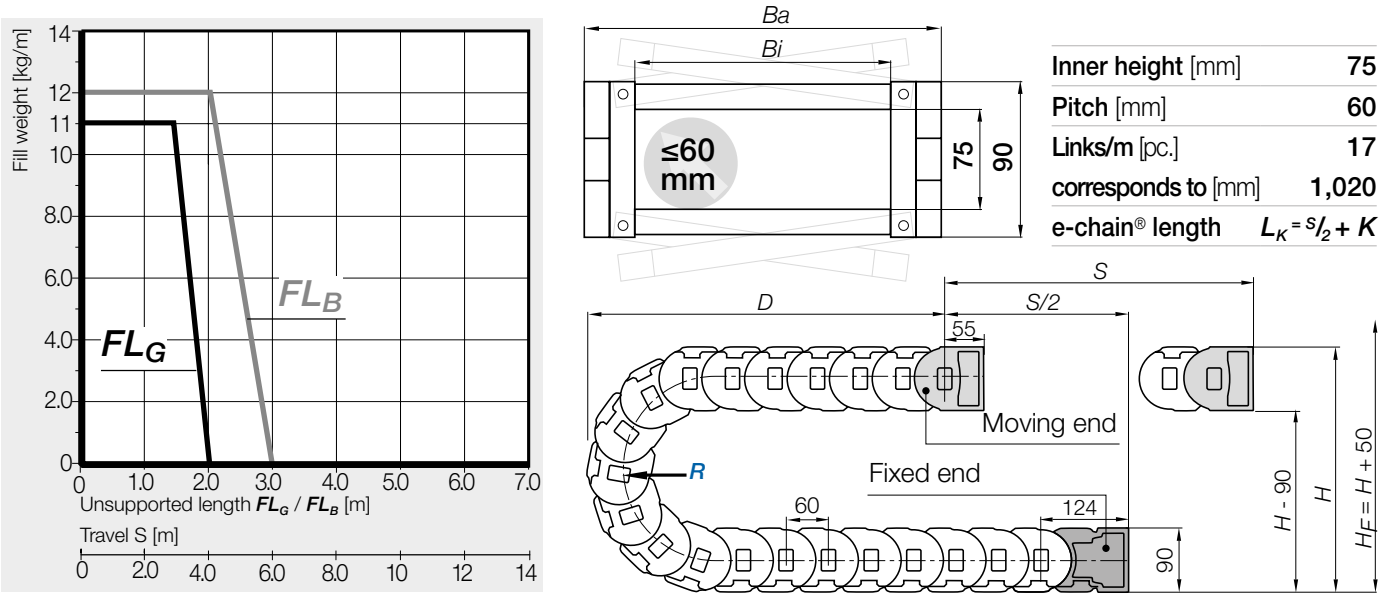
Bend radius

Colour index

Example:
Complete Part No. with the required radius *R*. Example:
R2.75.200.200.0 = lids openable along the outer radius, from both sides
Order index for colour options ► www.igus.eu/info-colours

Available from stock
Upon request

Unsupported applications | Short travels



Inner height [mm]	75
Pitch [mm]	60
Links/m [pc.]	17
corresponds to [mm]	1,020
e-chain® length	$L_K = S/2 + K$

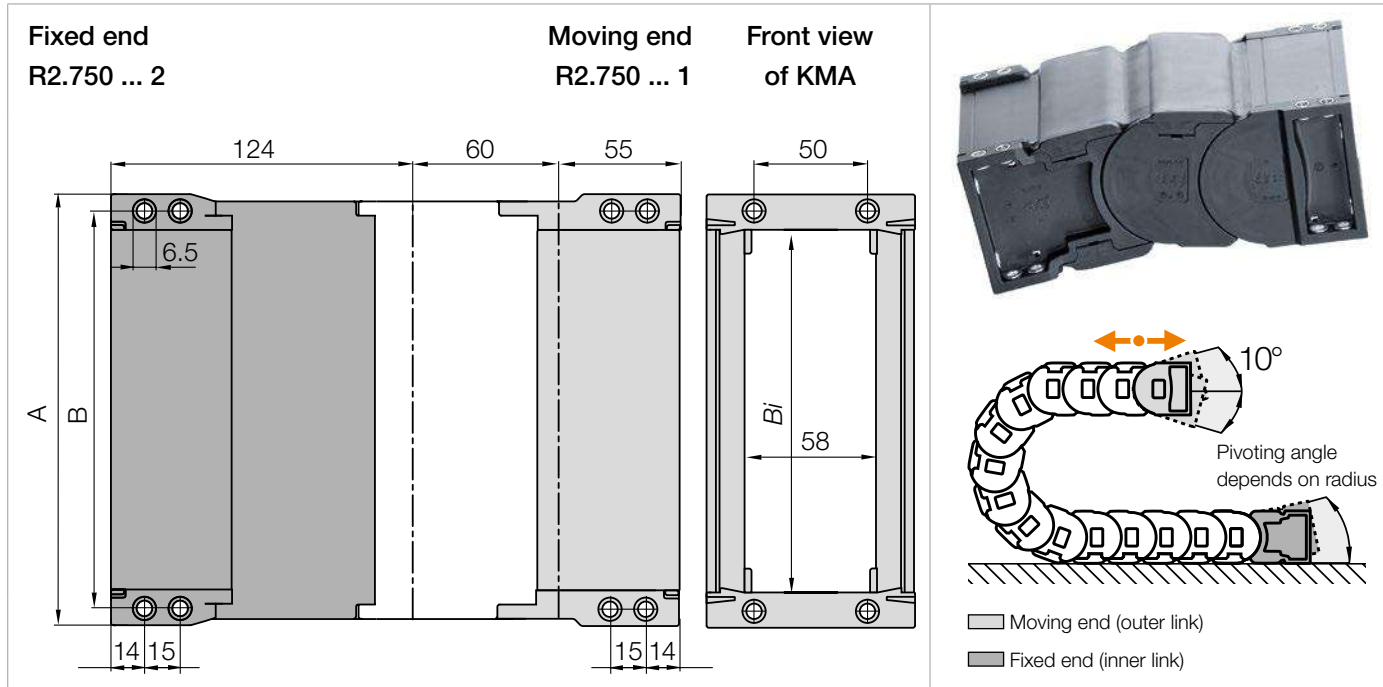
<i>R</i>	130	150	200	250
<i>H</i>	350	390	490	590
<i>D</i>	265	285	335	385
<i>K</i>	530	595	750	910

The required clearance height: $H_F = H + 50\text{mm}$ (with 3.0kg/m fill weight)

Note: If a gliding application is required for a long travel, please consult igus®.

Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting



Width index	Part No. Full set		
	KMA	A	B
	both ends pivoting	[mm]	[mm]
111.	R2.750.111.12	141	127
163.	R2.750.163.12	193	179
200.	R2.750.200.12	230	216

(KMA = polymer metal mounting bracket)

Order key
R2.750.111.12.A

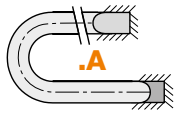
Series

Width index

Full set

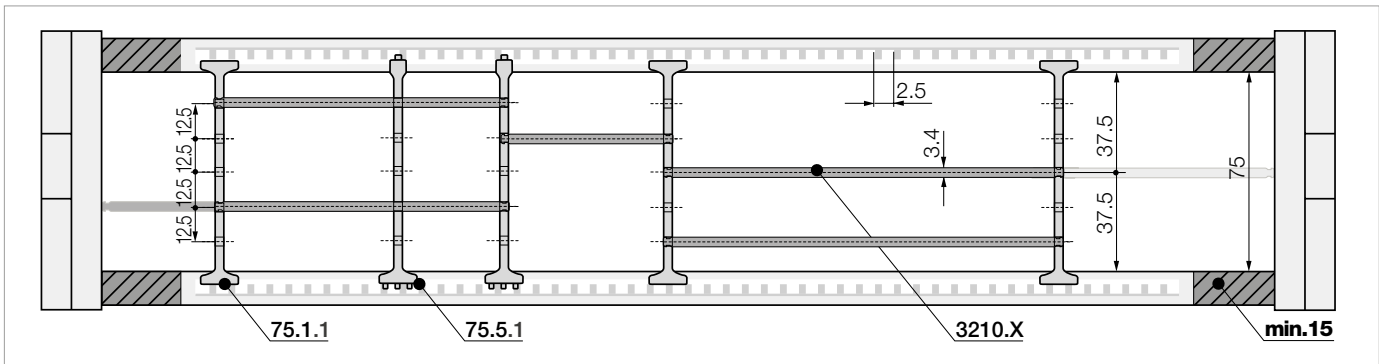
Pre-fitted

Note: The bracket orientations are set automatically when using an igus® KMA mounting bracket with attachment from any side. To receive a KMA mounting bracket pre-fitted please add index **.A**.



Available from stock
Upon request

Interior separation | Increase cable service life

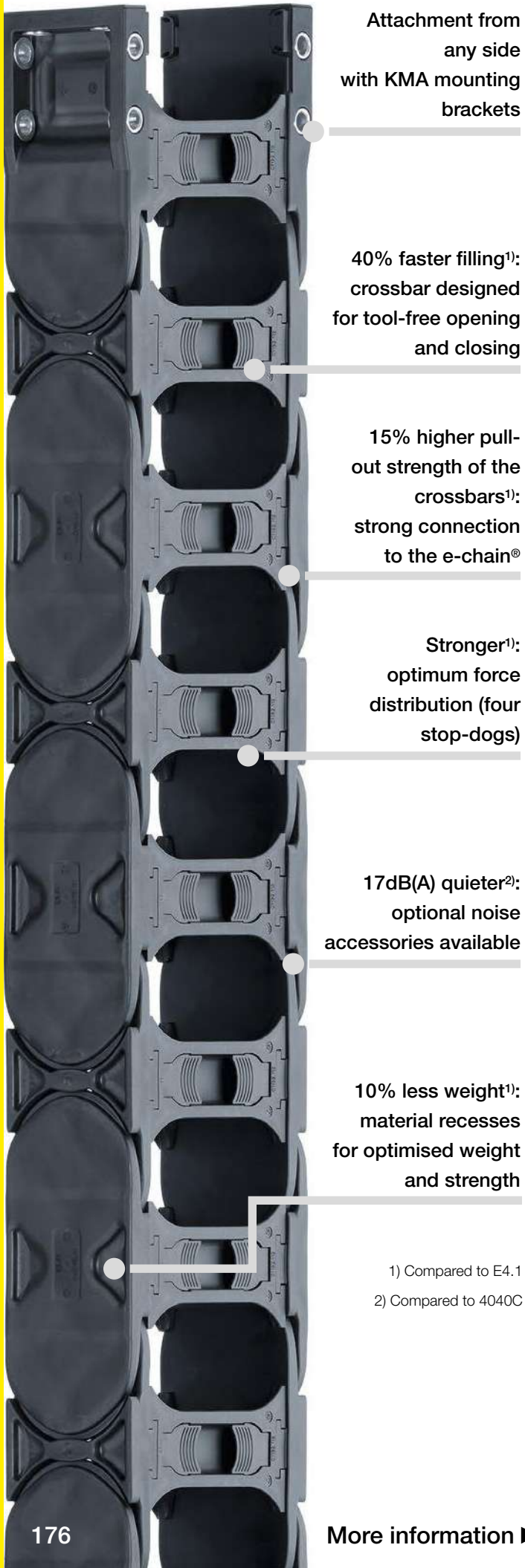


Note: Please be aware of the minimum lateral gap to the side links! **e-tubes: 15mm**
As standard separators are fitted every 2nd e-chain® link!

		Part No. Standard separator unassembled 75.1 assembled 75.1.1	For all applications Standard separator with a wide base for maximum holding force.
		Part No. Notch separator unassembled 75.5 assembled 75.5.1	Locks securely in preset increments Notch separator for exact positioning. Recommended for side-mounted applications.
		Part No. Shelf unassembled 3200.X assembled 3210.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	3200.050	3210.050	115	3200.115	3210.115	175	3200.175	3210.175	250	3200.250	3210.250
075	3200.075	3210.075	125	3200.125	3210.125	200	3200.200	3210.200			
100	3200.100	3210.100	150	3200.150	3210.150	225	3200.225	3210.225			

Available from stock
Upon request



Attachment from any side with KMA mounting brackets

40% faster filling¹: crossbar designed for tool-free opening and closing

15% higher pull-out strength of the crossbars¹: strong connection to the e-chain®

Stronger¹: optimum force distribution (four stop-dogs)

17dB(A) quieter²: optional noise accessories available

10% less weight¹: material recesses for optimised weight and strength

1) Compared to E4.1
2) Compared to 4040C

The next generation of easy-to-assemble e-chains® - E4Q

Easy opening and closing, without tools.
The latest E4Q e-chains® generation combines proven design features of the 12-year old, robust E4.1 e-chains® standard with new bionic design elements and a novel opening mechanism. This gives the E4Q an even longer service life and significantly improved ease of installation.

- Benefits**
- Tool-free opening and closing
 - Sustainability - 10% less material means 10% less energy consumption during production
 - Short cross-bar pickup for even easier filling of the e-chain®
 - Optimised interior geometry for longer cable service life
 - Integrated grid structure on crossbars for fixed interior separation with narrower separators
 - Inner/outer link principle for straight run
 - Undercut design ensures the best hold as well as high lateral and torsion strength

- Typical application areas**
- Machine tools
 - Crane systems
 - Automation systems

Selection table

Part No.	Inner height <i>hi</i> [mm]	Outer height <i>ha</i> [mm]	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Bend radius <i>R</i> [mm]	Unsupported length ≤ [m]	Page
----------	--------------------------------	--------------------------------	-------------------------------	-------------------------------	------------------------------	--------------------------	------

E4Q - e-chains® with crossbars every link
The all-rounder, for heavy-duty applications.

E4Q.34	34	54	75 - 400	98 - 423	063 - 300	3.60	178
E4Q.44	44	64	75 - 400	101 - 426	075 - 350	4.00	184
E4Q.58	58	84	100 - 500	134 - 534	135 - 500	5.00	190
E4Q.82	82	108	100 - 500	150 - 550	150 - 1.000	6.20	196

H4Q - e-chains® with crossbars every 2nd link
The cost-effective, easy-to-install alternative for almost any application.

H4Q.34	34	54	75 - 400	98 - 423	063 - 300	3.60	178
H4Q.44	44	64	75 - 400	101 - 426	075 - 350	4.00	184
H4Q.58	58	84	100 - 500	134 - 534	135 - 500	5.00	190
H4Q.82	82	108	100 - 500	150 - 550	150 - 1.000	6.20	196

Technical data

General properties	
Speed gliding / acceleration gliding	≤ 10m/s / ≤ 50m/s²
Speed <i>FL_G</i> /acceleration <i>FL_G</i>	≤ 20m/s / ≤ 200m/s²
Speed <i>FL_B</i> /acceleration <i>FL_B</i>	≤ 3m/s / ≤ 6m/s²
igumid® G LW material - permitted temperature °C	-40°C/+120°C
Flammability class, igumid® G LW	VDE 0304 IIC UL94-HB

Installation types, maximum travel lengths

Series	Unsupported	Gliding	Vertical hanging	Vertical standing	Side mounted, unsupported
E4Q.34 / H4Q.34	≤ 7.2m	≤ 200m	≤ 80m	≤ 5.0m	≤ 1.5m
E4Q.44 / H4Q.44	≤ 8.0m	≤ 300m	≤ 100m	≤ 6.0m	≤ 2.0m
E4Q.58 / H4Q.58	≤ 10.0m	≤ 400m	≤ 100m	≤ 6.0m	≤ 2.5m
E4Q.82 / H4Q.82	≤ 12.4m	≤ 400m	≤ 120m	≤ 6.0m	≤ 3.0m

Product range



Part No. e-chains® with crossbars every link	Part No. e-chains® with crossbars every 2nd link	<i>Bi</i> [mm]	<i>Ba</i> [mm]	E4Q.34 [kg/m]	H4Q.34 [kg/m]
E4Q.34.075.0	H4Q.34.075.0	75	98	≈ 1.61	≈ 1.43
E4Q.34.087.0	H4Q.34.087.0	87	111	≈ 1.65	≈ 1.45
E4Q.34.100.0	H4Q.34.100.0	100	123	≈ 1.70	≈ 1.47
E4Q.34.108.0	H4Q.34.108.0	108	131	≈ 1.73	≈ 1.49
E4Q.34.112.0	H4Q.34.112.0	112	136	≈ 1.74	≈ 1.49
E4Q.34.125.0	H4Q.34.125.0	125	148	≈ 1.79	≈ 1.52
E4Q.34.137.0	H4Q.34.137.0	137	161	≈ 1.83	≈ 1.54
E4Q.34.150.0	H4Q.34.150.0	150	173	≈ 1.96	≈ 1.60
E4Q.34.162.0	H4Q.34.162.0	162	186	≈ 2.00	≈ 1.63
E4Q.34.168.0	H4Q.34.168.0	168	191	≈ 2.03	≈ 1.64
E4Q.34.175.0	H4Q.34.175.0	175	198	≈ 2.06	≈ 1.65
E4Q.34.187.0	H4Q.34.187.0	187	211	≈ 2.10	≈ 1.67
E4Q.34.200.0	H4Q.34.200.0	200	223	≈ 2.15	≈ 1.70
E4Q.34.212.0	H4Q.34.212.0	212	236	≈ 2.19	≈ 1.72
E4Q.34.225.0	H4Q.34.225.0	225	248	≈ 2.24	≈ 1.74

Part No. e-chains® with crossbars every link	Part No. e-chains® with crossbars every 2nd link	<i>Bi</i> [mm]	<i>Ba</i> [mm]	E4Q.34 [kg/m]	H4Q.34 [kg/m]
E4Q.34.237.0	H4Q.34.237.0	237	261	≈ 2.28	≈ 1.76
E4Q.34.250.0	H4Q.34.250.0	250	273	≈ 2.32	≈ 1.78
E4Q.34.262.0	H4Q.34.262.0	262	286	≈ 2.36	≈ 1.81
E4Q.34.275.0	H4Q.34.275.0	275	298	≈ 2.41	≈ 1.83
E4Q.34.287.0	H4Q.34.287.0	287	311	≈ 2.46	≈ 1.85
E4Q.34.300.0	H4Q.34.300.0	300	323	≈ 2.51	≈ 1.88
E4Q.34.312.0*	H4Q.34.312.0*	312	336	≈ 2.55	≈ 1.90
E4Q.34.325.0*	H4Q.34.325.0*	325	348	≈ 2.60	≈ 1.92
E4Q.34.337.0*	H4Q.34.337.0*	337	361	≈ 2.64	≈ 1.94
E4Q.34.350.0	H4Q.34.350.0	350	373	≈ 2.69	≈ 1.97
E4Q.34.362.0*	H4Q.34.362.0*	362	386	≈ 2.73	≈ 1.99
E4Q.34.375.0	H4Q.34.375.0	375	398	≈ 2.78	≈ 2.01
E4Q.34.387.0	H4Q.34.387.0	387	411	≈ 2.82	≈ 2.03
E4Q.34.400.0	H4Q.34.400.0	400	423	≈ 2.90	≈ 2.08

Available bend radii *R* [mm] | 063 | 075 | 100 | 125 | 150 | 175 | 200 | 220 | 250 | 300 |

*Width available upon request, please consult igus® for delivery time.



Order key

E4Q.34.150.150.0

Series / Type	Inner height	Width index	Bend radius	Colour index

Order example:

Complete Part No. with the required radius *R*. Example:

E4Q.34.150.150.0 = crossbars removable along the inner and outer radius

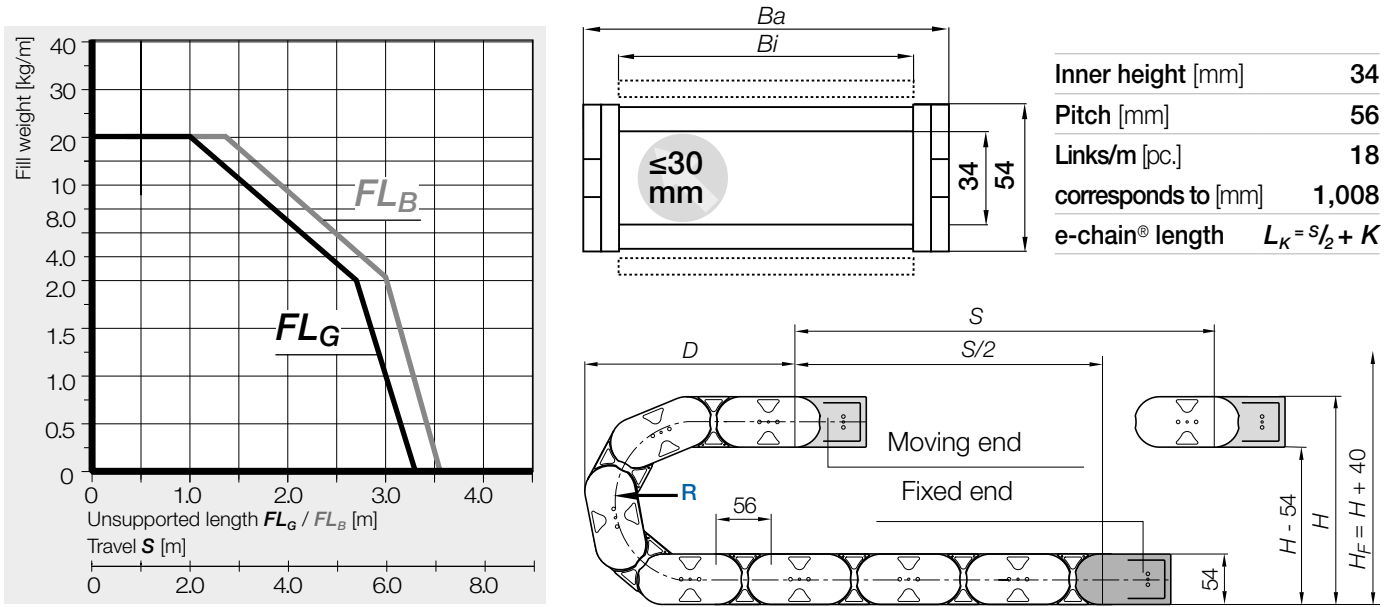
H4Q.34.150.150.0 = crossbars removable along the inner and outer radius

Order index for colour options ► www.igus.eu/info-colours



Available from stock
Upon request

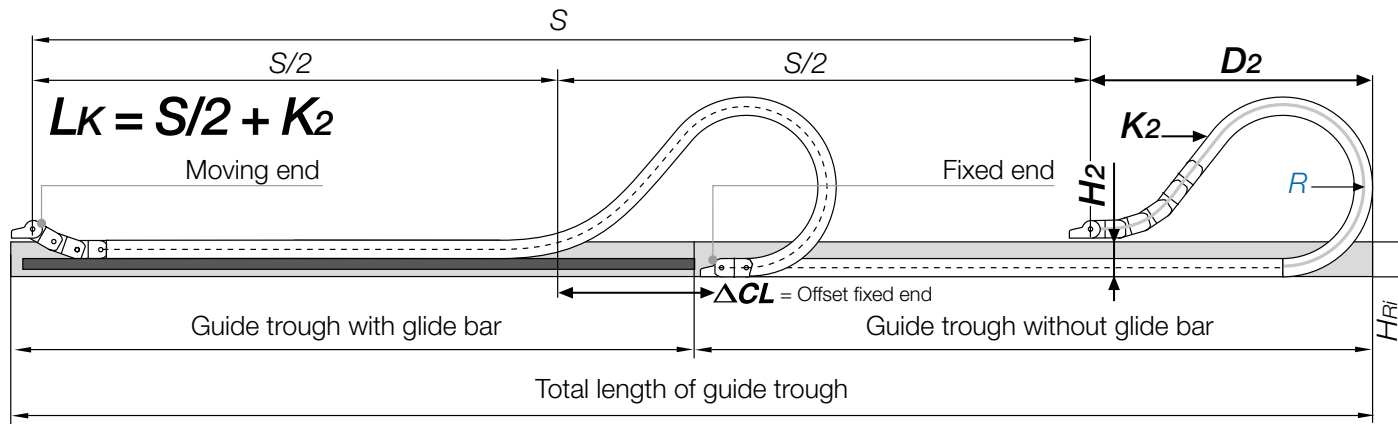
Unsupported applications | Short travels



<i>R</i>	063	075	100	125	150	175	200	220	250	300
<i>H</i> ⁺²⁰ ₀	180	204	254	304	354	404	454	494	554	654
<i>D</i>	174	186	211	236	261	286	311	331	361	411
<i>K</i>	310	350	430	505	585	665	745	805	900	1,055

The required clearance height: *H_F* = *H* + 40mm (with 2.0kg/m fill weight)

Gliding applications | For travel lengths from 10m to max. 200m



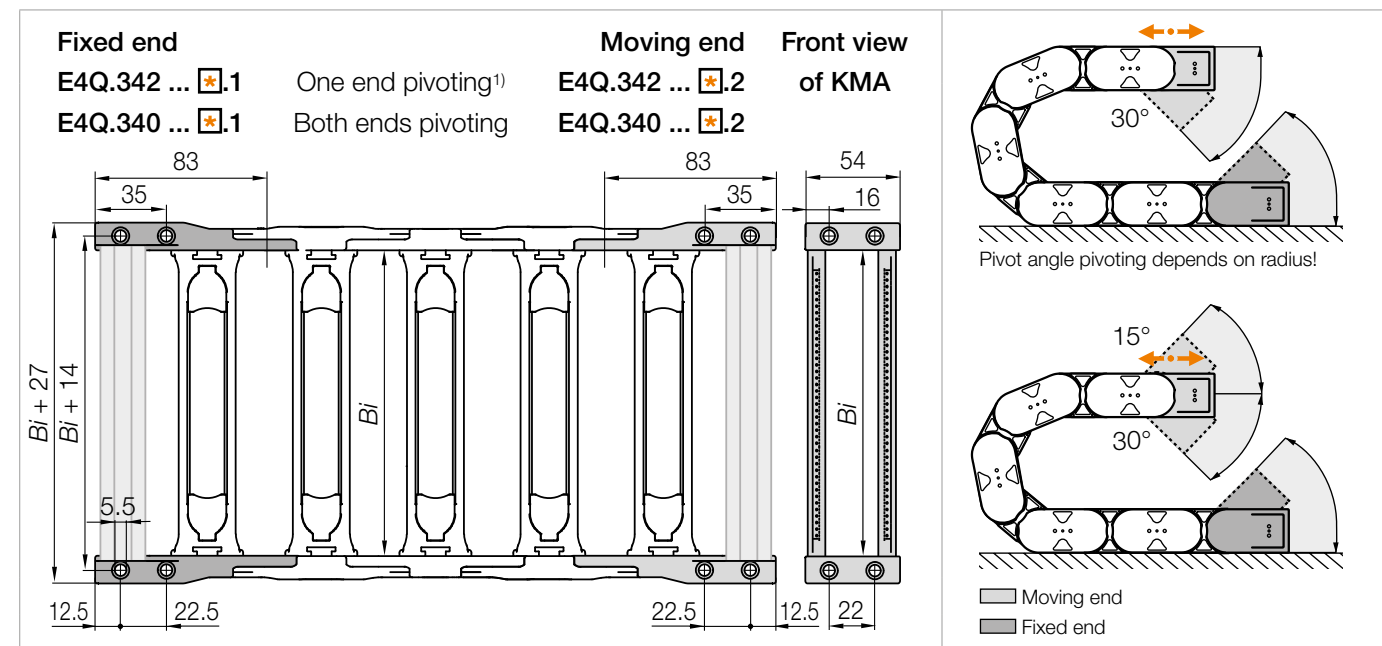
<i>R</i>	063	075	100	125	150	175	200	220	250	300
<i>H</i> ₂	126	150	166	166	166	166	166	166	166	166
<i>D</i> ₂ ⁺²⁵	146	158	370	470	500	655	770	900	930	1,100
<i>K</i> ₂	310	350	616	784	896	1,120	1,288	1,456	1,568	1,904
Δ <i>CL</i>	–	–	160	210	240	370	460	540	570	690

Note: In case of travels between 7 and 10m we recommend an e-chain® with a longer unsupported length.



Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting | Locking



Width index	KMA full set			Width index	KMA full set		
	Part No. one end pivoting ¹⁾	Part No. both ends pivoting	<i>Bi</i> [mm]		Part No. one end pivoting ¹⁾	Part No. both ends pivoting	<i>Bi</i> [mm]
075.	E4Q.342.075.  .12. 	E4Q.340.075.  .12. 	75	237.	E4Q.342.237.  .12. 	E4Q.340.237.  .12. 	237
087.	E4Q.342.087.  .12. 	E4Q.340.087.  .12. 	87	250.	E4Q.342.250.  .12. 	E4Q.340.250.  .12. 	250
100.	E4Q.342.100.  .12. 	E4Q.340.100.  .12. 	100	262.	E4Q.342.262.  .12. 	E4Q.340.262.  .12. 	262
108.	E4Q.342.108.  .12. 	E4Q.340.108.  .12. 	108	275.	E4Q.342.275.  .12. 	E4Q.340.275.  .12. 	275
112.	E4Q.342.112.  .12. 	E4Q.340.112.  .12. 	112	287.	E4Q.342.287.  .12. 	E4Q.340.287.  .12. 	287
125.	E4Q.342.125.  .12. 	E4Q.340.125.  .12. 	125	300.	E4Q.342.300.  .12. 	E4Q.340.300.  .12. 	300
137.	E4Q.342.137.  .12. 	E4Q.340.137.  .12. 	137	312.	E4Q.342.312.  .12.  *	E4Q.340.312.  .12.  *	312
150.	E4Q.342.150.  .12. 	E4Q.340.150.  .12. 	150	325.	E4Q.342.325.  .12.  *	E4Q.340.325.  .12.  *	325
162.	E4Q.342.162.  .12. 	E4Q.340.162.  .12. 	162	337.	E4Q.342.337.  .12.  *	E4Q.340.337.  .12.  *	337
168.	E4Q.342.168.  .12. 	E4Q.340.168.  .12. 	168	350.	E4Q.342.350.  .12. 	E4Q.340.350.  .12. 	350
175.	E4Q.342.175.  .12. 	E4Q.340.175.  .12. 	175	362.	E4Q.342.362.  .12.  *	E4Q.340.362.  .12.  *	362
187.	E4Q.342.187.  .12. 	E4Q.340.187.  .12. 	187	375.	E4Q.342.375.  .12. 	E4Q.340.375.  .12. 	375
200.	E4Q.342.200.  .12. 	E4Q.340.200.  .12. 	200	387.	E4Q.342.387.  .12. 	E4Q.340.387.  .12. 	387
212.	E4Q.342.212.  .12. 	E4Q.340.212.  .12. 	212	400.	E4Q.342.400.  .12. 	E4Q.340.400.  .12. 	400
225.	E4Q.342.225.  .12. 	E4Q.340.225.  .12. 	225				

1) One end pivoting - standard for E4Q mounting brackets.

*Width available upon request, please consult igus® for delivery time.

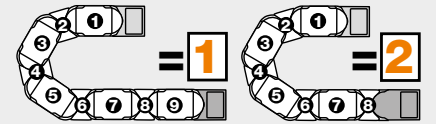
(KMA = polymer metal mounting bracket)



Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting | Locking

Note : The e-chains® may end with either an inner or an outer side link. An outer side link should always be the first e-chain® link at the moving end. Please specify the index  (for odd) or  (for even) depending on an even or odd number of links required.



Order key

E4Q.342.150.**2**.12.C.A2

Series
Width index
Even number of links
Full set
C-profile option
Pre-fitted

Note: Possible orientations for KMA mounting brackets. For mounting brackets pre-fitted **without strain relief**, please add index **.A**. For types pre-fitted **with strain relief** please add index **.A1**, **.A2**, **.A3** or **.A4**.

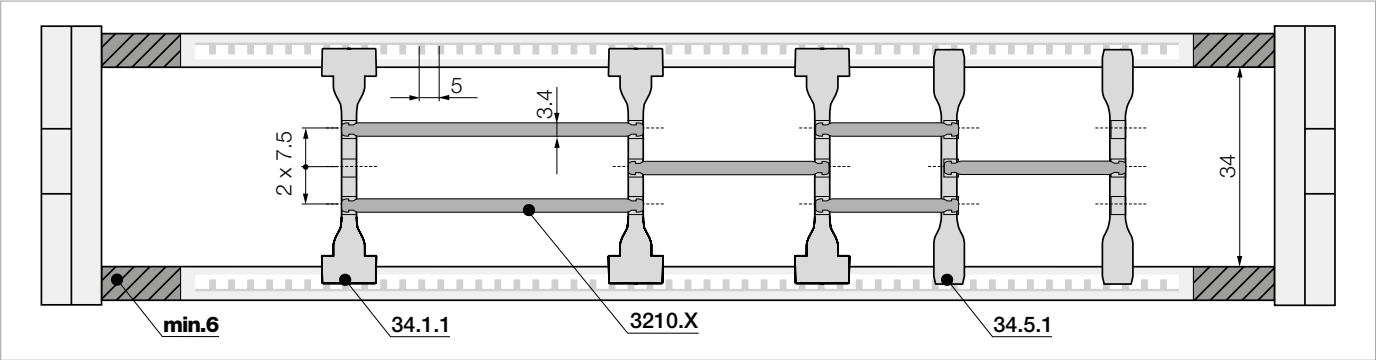


For the C-profile option please add index **.C**.

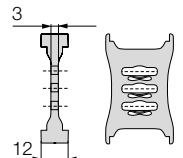
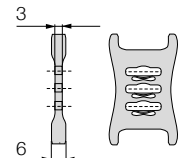
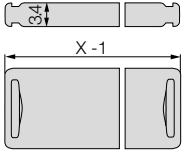


Available from stock
Upon request

Interior separation | Increase cable service life



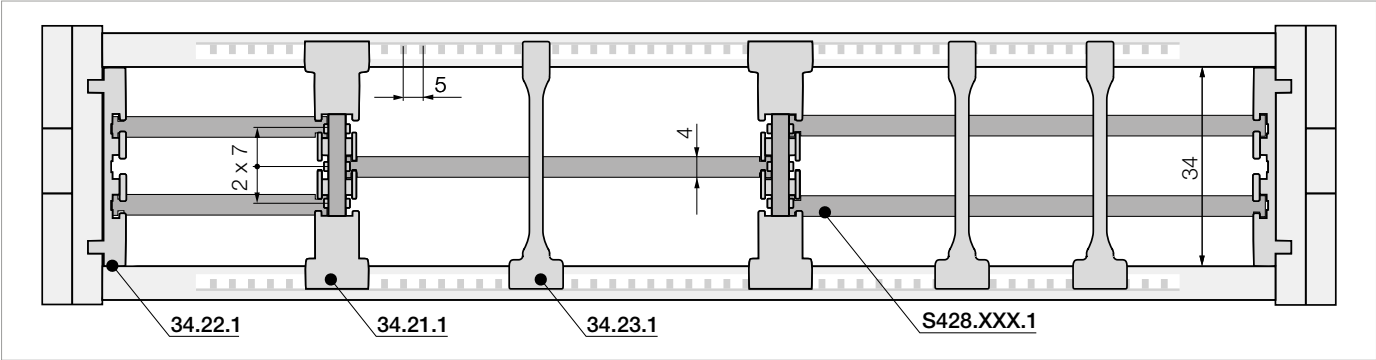
Note: Please be aware of the minimum lateral gap to the side links! **e-chain®: 6mm**
As standard separators are fitted every 2nd e-chain® link!

		Part No. Standard separator unassembled 34.1 assembled 34.1.1	For all applications Standard separator with a wide base for maximum holding force.
		Part No. Notch separator unassembled 34,5 assembled 34.5.1	Locks securely in preset increments Notch separator for exact positioning. Recommended for side-mounted applications.
		Part No. Shelf unassembled 3200.X assembled 3210.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

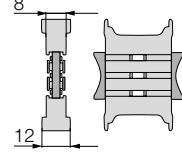
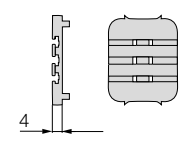
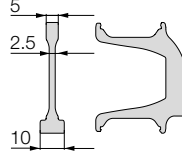
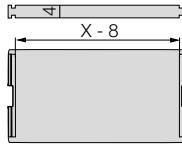
Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	3200.050	3210.050	115	3200.115	3210.115	175	3200.175	3210.175	250	3200.250	3210.250
075	3200.075	3210.075	125	3200.125	3210.125	200	3200.200	3210.200			
100	3200.100	3210.100	150	3200.150	3210.150	225	3200.225	3210.225			

 Available from stock
Upon request

Universal interior separation | Modular shelving for complete flexibility



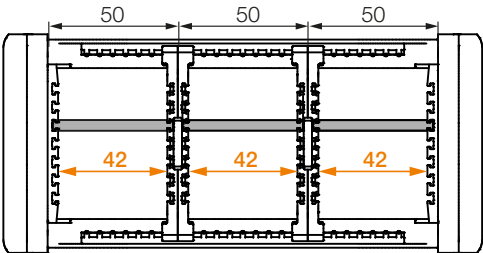
No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-chain® link!

		Part No. Universal middle plate unassembled 34.21 assembled 34.21.1	Universal middle plates The shelves can be inserted from both sides. The shelves are locked in place by means of the integrated slider and automatically when the crossbar is fitted.
		Part No. Universal side plate unassembled 34.22 assembled 34.22.1	Universal side plates Allow modular shelving right up to the side links. Shelves can be inserted from both sides.
		Part No. Separator unassembled 34.23 assembled 34.23.1	Separators for universal interior separation For additional vertical partitioning of the system. When using the separator, the shelves can only be removed in one direction.
		Part No. Partial shelf¹⁾ unassembled S428.XXX assembled S428.XXX.1	Separators¹⁾ for universal interior separation Shelves of various widths can be arranged in steps of 7mm

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
018	S428.018	S428.018.1	050	S428.050	S428.050.1	083	S428.083	S428.083.1	175	S428.175	S428.175.1
023*	S428.023	S428.023.1	058	S428.058	S428.058.1	087	S428.087	S428.087.1	200	S428.200	S428.200.1
025	S428.025	S428.025.1	062	S428.062	S428.062.1	100	S428.100	S428.100.1	208*	S428.208	S428.208.1
028*	S428.028	S428.028.1	068	S428.068	S428.068.1	108	S428.108	S428.108.1			
033	S428.033	S428.033.1	070	S428.070	S428.070.1	125	S428.125	S428.125.1			
044	S428.044	S428.044.1	075	S428.075	S428.075.1	150	S428.150	S428.150.1			

* Available upon request, please consult igus® for delivery time.

1) Note: The available width of the shelf S428.XXX deviates by 8mm from the width stated in the Part No. With the shelf S428.050, e.g. the space between the separators is 42mm.



Product range



Part No. e-chains® with crossbars every link	Part No. e-chains® with crossbars every 2nd link	<i>Bi</i> [mm]	<i>Ba</i> [mm]	E4Q.44 [kg/m]	H4Q.44 [kg/m]
E4Q.44.075.□.0	H4Q.44.075.□.0	75	101	≈ 1.61	≈ 1.43
E4Q.44.087.□.0	H4Q.44.087.□.0	87	114	≈ 1.65	≈ 1.45
E4Q.44.100.□.0	H4Q.44.100.□.0	100	126	≈ 1.70	≈ 1.47
E4Q.44.108.□.0	H4Q.44.108.□.0	108	134	≈ 1.73	≈ 1.49
E4Q.44.112.□.0	H4Q.44.112.□.0	112	139	≈ 1.74	≈ 1.49
E4Q.44.125.□.0	H4Q.44.125.□.0	125	151	≈ 1.79	≈ 1.52
E4Q.44.137.□.0	H4Q.44.137.□.0	137	164	≈ 1.83	≈ 1.54
E4Q.44.150.□.0	H4Q.44.150.□.0	150	176	≈ 1.96	≈ 1.60
E4Q.44.162.□.0	H4Q.44.162.□.0	162	189	≈ 2.00	≈ 1.63
E4Q.44.168.□.0	H4Q.44.168.□.0	168	194	≈ 2.03	≈ 1.64
E4Q.44.175.□.0	H4Q.44.175.□.0	175	201	≈ 2.06	≈ 1.65
E4Q.44.187.□.0	H4Q.44.187.□.0	187	214	≈ 2.10	≈ 1.67
E4Q.44.200.□.0	H4Q.44.200.□.0	200	226	≈ 2.15	≈ 1.70
E4Q.44.212.□.0	H4Q.44.212.□.0	212	239	≈ 2.19	≈ 1.72
E4Q.44.225.□.0	H4Q.44.225.□.0	225	251	≈ 2.24	≈ 1.74

Part No. e-chains® with crossbars every link	Part No. e-chains® with crossbars every 2nd link	<i>Bi</i> [mm]	<i>Ba</i> [mm]	E4Q.44 [kg/m]	H4Q.44 [kg/m]
E4Q.44.237.□.0	H4Q.44.237.□.0	237	264	≈ 2.28	≈ 1.76
E4Q.44.250.□.0	H4Q.44.250.□.0	250	276	≈ 2.32	≈ 1.78
E4Q.44.262.□.0	H4Q.44.262.□.0	262	289	≈ 2.36	≈ 1.81
E4Q.44.275.□.0	H4Q.44.275.□.0	275	301	≈ 2.41	≈ 1.83
E4Q.44.287.□.0	H4Q.44.287.□.0	287	314	≈ 2.46	≈ 1.85
E4Q.44.300.□.0	H4Q.44.300.□.0	300	326	≈ 2.51	≈ 1.88
E4Q.44.312.□.0*	H4Q.44.312.□.0*	312	339	≈ 2.55	≈ 1.90
E4Q.44.325.□.0*	H4Q.44.325.□.0*	325	351	≈ 2.60	≈ 1.92
E4Q.44.337.□.0*	H4Q.44.337.□.0*	337	364	≈ 2.64	≈ 1.94
E4Q.44.350.□.0	H4Q.44.350.□.0	350	376	≈ 2.69	≈ 1.97
E4Q.44.362.□.0*	H4Q.44.362.□.0*	362	389	≈ 2.73	≈ 1.99
E4Q.44.375.□.0	H4Q.44.375.□.0	375	401	≈ 2.78	≈ 2.01
E4Q.44.387.□.0	H4Q.44.387.□.0	387	414	≈ 2.82	≈ 2.03
E4Q.44.400.□.0	H4Q.44.400.□.0	400	426	≈ 2.90	≈ 2.08

Available bend radii *R* [mm] | 075 | 100 | 115 | 125 | 150 | 160 | 175 | 200 | 250 | 300 | 350 |

*Width available upon request, please consult igus® for delivery time.



Order key

E4Q.44.150.150.0

Series / Type	Inner height	Width index	Bend radius	Colour index

Order example:

Complete Part No. with the required radius R. Example:

E4Q.44.150.150.0 = crossbars removable along the inner and outer radius

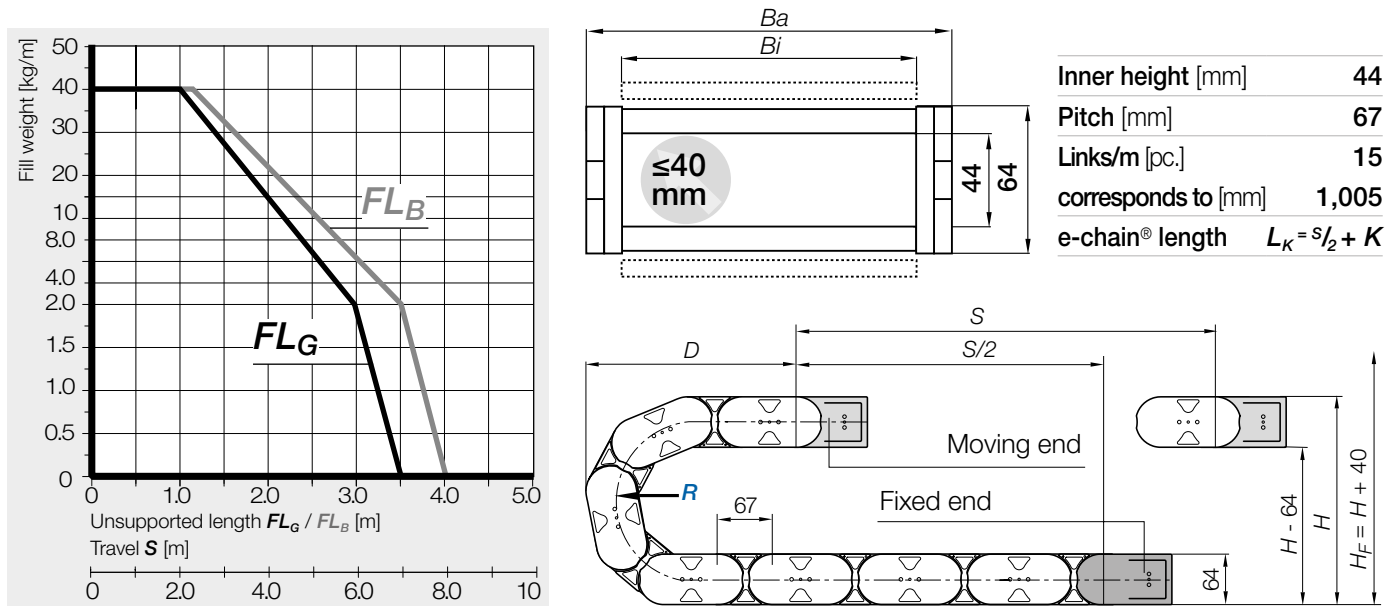
H4Q.44.150.150.0 = crossbars removable along the inner and outer radius

Order index for colour options ► www.igus.eu/info-colours



Available from stock
Upon request

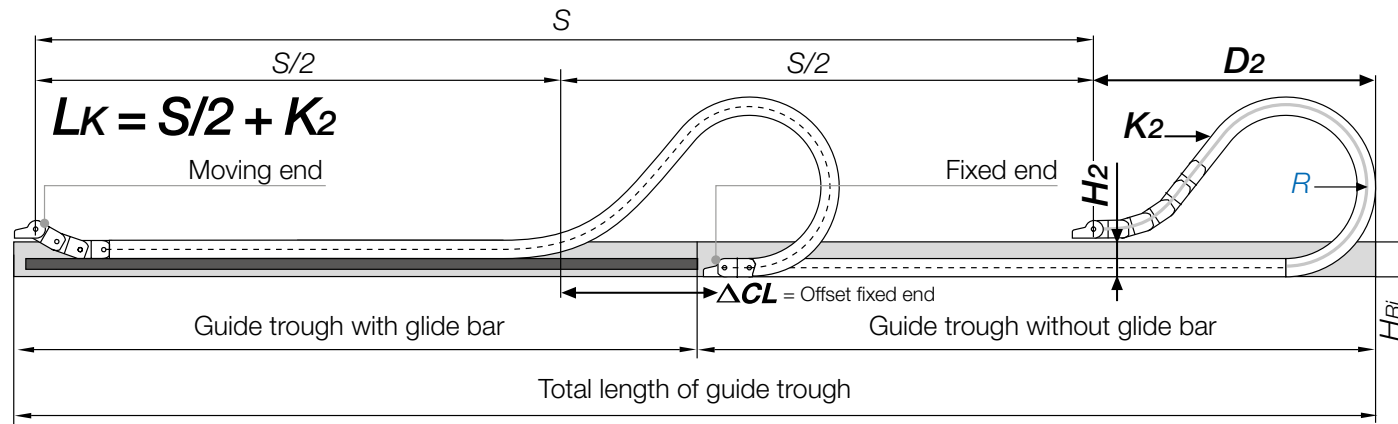
Unsupported applications | Short travels



<i>R</i>	075	100	115	125	150	160	175	200	250	300	350
<i>H</i> ⁻⁰ ₊₂₅	214	264	294	314	364	384	414	464	564	664	764
<i>D</i>	208	233	248	258	283	293	308	333	383	433	483
<i>K</i>	370	450	500	530	610	640	685	765	920	1,080	1,235

The required clearance height: $H_F = H + 40\text{mm}$ (with 3.0kg/m fill weight)

Gliding applications | For travel lengths from 12m to max. 300m



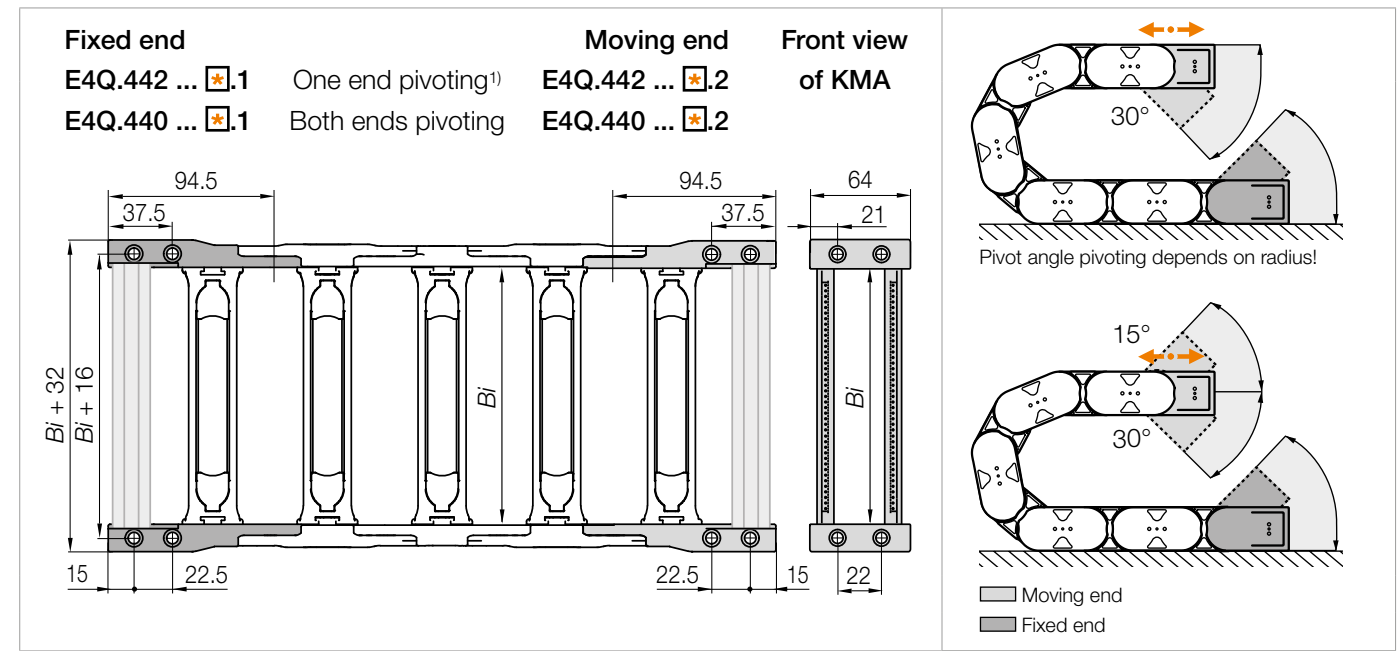
<i>R</i>	075	100	115	125	150	160	175	200	250	300	350
<i>H</i> ₂	150	186	186	186	186	186	186	186	186	186	186
<i>D</i> ₂ ⁺²⁵	174	390	435	475	570	620	675	780	1,030	1,150	1,500
<i>K</i> ₂	370	603	737	804	938	1,072	1,139	1,340	1,675	1,943	2,412
ΔCL	–	170	200	230	300	340	380	460	660	730	1,030

Note: In case of travels between 8 and 12m we recommend an e-chain® with a longer unsupported length.



Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting



Width index	KMA full set			Bi [mm]	Width index	KMA full set			Bi [mm]
	Part No.	Part No.	Part No.			Part No.	Part No.	Part No.	
	one end pivoting ¹⁾	both ends pivoting	both ends pivoting			one end pivoting ¹⁾	both ends pivoting	both ends pivoting	
075.	E4Q.442.075..12.	E4Q.440.075..12.	E4Q.440.075..12.	75	237.	E4Q.442.237..12.	E4Q.440.237..12.	E4Q.440.237..12.	237
087.	E4Q.442.087..12.	E4Q.440.087..12.	E4Q.440.087..12.	87	250.	E4Q.442.250..12.	E4Q.440.250..12.	E4Q.440.250..12.	250
100.	E4Q.442.100..12.	E4Q.440.100..12.	E4Q.440.100..12.	100	262.	E4Q.442.262..12.	E4Q.440.262..12.	E4Q.440.262..12.	262
108.	E4Q.442.108..12.	E4Q.440.108..12.	E4Q.440.108..12.	108	275.	E4Q.442.275..12.	E4Q.440.275..12.	E4Q.440.275..12.	275
112.	E4Q.442.112..12.	E4Q.440.112..12.	E4Q.440.112..12.	112	287.	E4Q.442.287..12.	E4Q.440.287..12.	E4Q.440.287..12.	287
125.	E4Q.442.125..12.	E4Q.440.125..12.	E4Q.440.125..12.	125	300.	E4Q.442.300..12.	E4Q.440.300..12.	E4Q.440.300..12.	300
137.	E4Q.442.137..12.	E4Q.440.137..12.	E4Q.440.137..12.	137	312.	E4Q.442.312..12.*	E4Q.440.312..12.*	E4Q.440.312..12.*	312
150.	E4Q.442.150..12.	E4Q.440.150..12.	E4Q.440.150..12.	150	325.	E4Q.442.325..12.*	E4Q.440.325..12.*	E4Q.440.325..12.*	325
162.	E4Q.442.162..12.	E4Q.440.162..12.	E4Q.440.162..12.	162	337.	E4Q.442.337..12.*	E4Q.440.337..12.*	E4Q.440.337..12.*	337
168.	E4Q.442.168..12.	E4Q.440.168..12.	E4Q.440.168..12.	168	350.	E4Q.442.350..12.	E4Q.440.350..12.	E4Q.440.350..12.	350
175.	E4Q.442.175..12.	E4Q.440.175..12.	E4Q.440.175..12.	175	362.	E4Q.442.362..12.*	E4Q.440.362..12.*	E4Q.440.362..12.*	362
187.	E4Q.442.187..12.	E4Q.440.187..12.	E4Q.440.187..12.	187	375.	E4Q.442.375..12.	E4Q.440.375..12.	E4Q.440.375..12.	375
200.	E4Q.442.200..12.	E4Q.440.200..12.	E4Q.440.200..12.	200	387.	E4Q.442.387..12.	E4Q.440.387..12.	E4Q.440.387..12.	387
212.	E4Q.442.212..12.	E4Q.440.212..12.	E4Q.440.212..12.	212	400.	E4Q.442.400..12.	E4Q.440.400..12.	E4Q.440.400..12.	400
225.	E4Q.442.225..12.	E4Q.440.225..12.	E4Q.440.225..12.	225					

1) One end pivoting - standard for E4Q mounting brackets.
*Width available upon request, please consult igus® for delivery time.
(KMA = polymer metal mounting bracket)

Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting | Locking

Note : The e-chains® may end with either an inner or an outer side link. An outer side link should always be the first e-chain® link at the moving end. Please specify the index (for odd) or (for even) depending on an even or odd number of links required.

= 1

= 2

Order key

E4Q.442.150..12..

Series

Width index

Even number of links

Full set

C-profile option

Pre-fitted

.A

.A1

.A2

.A3

.A4

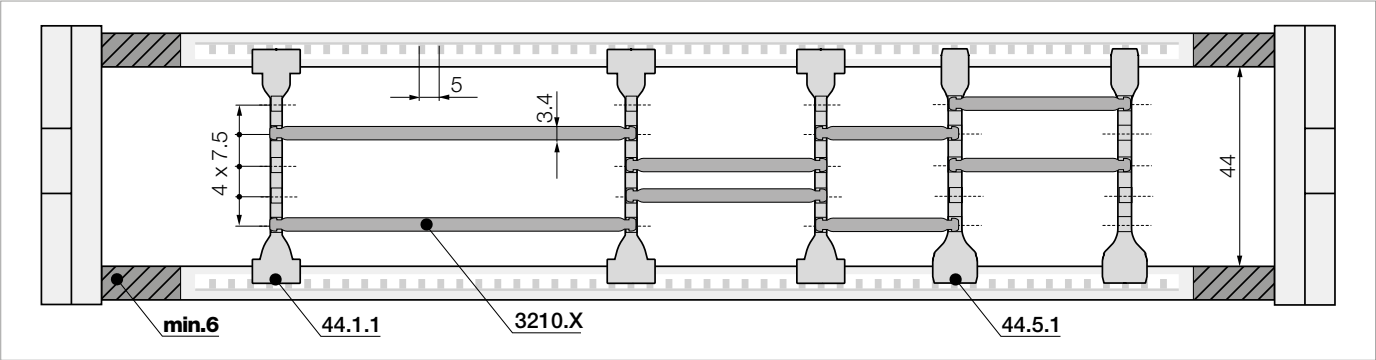
Note: Possible orientations for KMA mounting brackets. For mounting brackets pre-fitted **without strain relief**, please add index **.A**. For types pre-fitted **with strain relief** please add index **.A1**, **.A2**, **.A3** or **.A4**.

For the C-profile option please add index **.C**.

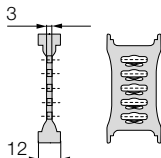
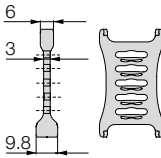
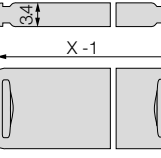
Available from stock
Upon request

3D CAD, online tools and more ► www.igus.eu/E4Q 187

Interior separation | Increase cable service life



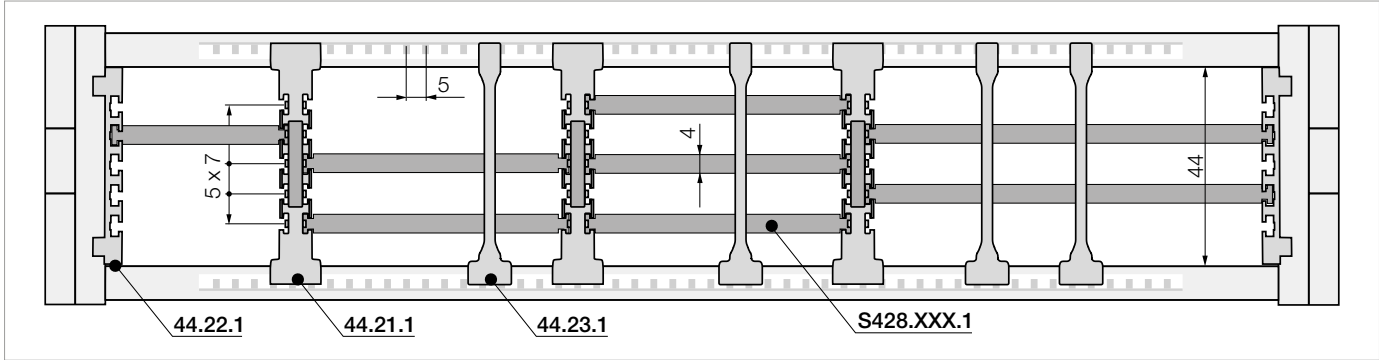
Note: Please be aware of the minimum lateral gap to the side links! **e-chain®: 6mm**
As standard separators are fitted every 2nd e-chain® link!

		Part No. Standard separator unassembled 44.1 assembled 44.1.1	For all applications Standard separator with a wide base for maximum holding force.
		Part No. Notch separator unassembled 44.5 assembled 44.5.1	Locks securely in preset increments Notch separator for exact positioning. Recommended for side-mounted applications.
		Part No. Shelf unassembled 3200.X assembled 3210.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

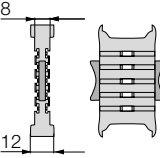
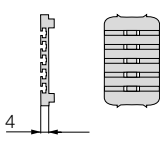
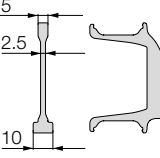
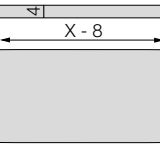
Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	3200.050	3210.050	115	3200.115	3210.115	175	3200.175	3210.175	250	3200.250	3210.250
075	3200.075	3210.075	125	3200.125	3210.125	200	3200.200	3210.200			
100	3200.100	3210.100	150	3200.150	3210.150	225	3200.225	3210.225			

 Available from stock
Upon request

Universal interior separation | Modular shelving for complete flexibility



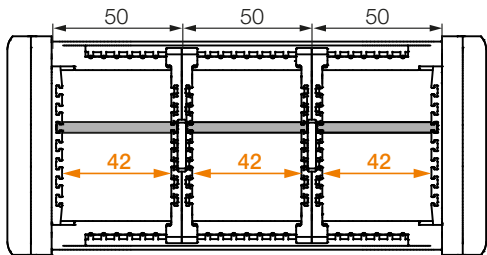
No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-chain® link!

		Part No. Universal middle plate unassembled 44.21 assembled 44.21.1	Universal middle plates The shelves can be inserted from both sides. The shelves are locked in place by means of the integrated slider and automatically when the crossbar is fitted.
		Part No. Universal side plate unassembled 44.22 assembled 44.22.1	Universal side plates Allow modular shelving right up to the side links. Shelves can be inserted from both sides.
		Part No. Separator unassembled 44.23 assembled 44.23.1	Separators for universal interior separation For additional vertical partitioning of the system. When using the separator, the shelves can only be removed in one direction.
		Part No. Partial shelf¹⁾ unassembled S428.XXX assembled S428.XXX.1	Separators¹⁾ for universal interior separation Shelves of various widths can be arranged in steps of 7mm

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
018	S428.018	S428.018.1	050	S428.050	S428.050.1	083	S428.083	S428.083.1	175	S428.175	S428.175.1
023*	S428.023	S428.023.1	058	S428.058	S428.058.1	087	S428.087	S428.087.1	200	S428.200	S428.200.1
025	S428.025	S428.025.1	062	S428.062	S428.062.1	100	S428.100	S428.100.1	208*	S428.208	S428.208.1
028*	S428.028	S428.028.1	068	S428.068	S428.068.1	108	S428.108	S428.108.1			
033	S428.033	S428.033.1	070	S428.070	S428.070.1	125	S428.125	S428.125.1			
044	S428.044	S428.044.1	075	S428.075	S428.075.1	150	S428.150	S428.150.1			

* Available upon request, please consult igus® for delivery time.

1) Note: The available width of the shelf S428.XXX deviates by 8mm from the width stated in the Part No. With the shelf S428.050, e.g. the space between the separators is 42mm.



Product range



Part No. e-chains® with crossbars every link	Part No. e-chains® with crossbars every 2nd link	<i>Bi</i> [mm]	<i>Ba</i> [mm]	E4Q.58 [kg/m]	H4Q.58 [kg/m]
E4Q.58.100.□.0	H4Q.58.100.□.0	100	134	≈ 3.66	≈ 3.31
E4Q.58.112.□.0	H4Q.58.112.□.0	112	147	≈ 3.72	≈ 3.34
E4Q.58.125.□.0	H4Q.58.125.□.0	125	159	≈ 3.75	≈ 3.36
E4Q.58.137.□.0	H4Q.58.137.□.0	137	172	≈ 3.80	≈ 3.39
E4Q.58.150.□.0	H4Q.58.150.□.0	150	184	≈ 3.89	≈ 3.43
E4Q.58.162.□.0	H4Q.58.162.□.0	162	197	≈ 3.95	≈ 3.46
E4Q.58.175.□.0	H4Q.58.175.□.0	175	209	≈ 3.98	≈ 3.48
E4Q.58.187.□.0	H4Q.58.187.□.0	187	222	≈ 4.02	≈ 3.50
E4Q.58.200.□.0	H4Q.58.200.□.0	200	234	≈ 4.14	≈ 3.55
E4Q.58.212.□.0	H4Q.58.212.□.0	212	247	≈ 4.19	≈ 3.58
E4Q.58.225.□.0	H4Q.58.225.□.0	225	259	≈ 4.21	≈ 3.59
E4Q.58.237.□.0	H4Q.58.237.□.0	237	272	≈ 4.24	≈ 3.61
E4Q.58.250.□.0	H4Q.58.250.□.0	250	284	≈ 4.30	≈ 3.63
E4Q.58.262.□.0	H4Q.58.262.□.0	262	297	≈ 4.33	≈ 3.65
E4Q.58.275.□.0	H4Q.58.275.□.0	275	309	≈ 4.41	≈ 3.69
E4Q.58.287.□.0	H4Q.58.287.□.0	287	322	≈ 4.44	≈ 3.71
E4Q.58.300.□.0	H4Q.58.300.□.0	300	334	≈ 4.52	≈ 3.74
E4Q.58.312.□.0	H4Q.58.312.□.0	312	347	≈ 4.57	≈ 3.77
E4Q.58.325.□.0	H4Q.58.325.□.0	325	359	≈ 4.63	≈ 3.80

Part No. e-chains® with crossbars every link	Part No. e-chains® with crossbars every 2nd link	<i>Bi</i> [mm]	<i>Ba</i> [mm]	E4Q.58 [kg/m]	H4Q.58 [kg/m]
E4Q.58.337.□.0	H4Q.58.337.□.0	337	372	≈ 4.68	≈ 3.82
E4Q.58.350.□.0	H4Q.58.350.□.0	350	384	≈ 4.73	≈ 3.85
E4Q.58.362.□.0	H4Q.58.362.□.0	362	397	≈ 4.79	≈ 3.88
E4Q.58.375.□.0	H4Q.58.375.□.0	375	409	≈ 4.84	≈ 3.90
E4Q.58.387.□.0	H4Q.58.387.□.0	387	422	≈ 4.90	≈ 3.93
E4Q.58.400.□.0	H4Q.58.400.□.0	400	434	≈ 4.95	≈ 3.96
E4Q.58.412.□.0	H4Q.58.412.□.0	412	447	≈ 5.01	≈ 3.99
E4Q.58.425.□.0	H4Q.58.425.□.0	425	459	≈ 5.07	≈ 4.02
E4Q.58.437.□.0*	H4Q.58.437.□.0*	437	472	≈ 5.12	≈ 4.04
E4Q.58.450.□.0	H4Q.58.450.□.0	450	484	≈ 5.17	≈ 4.07
E4Q.58.462.□.0*	H4Q.58.462.□.0*	462	497	≈ 5.22	≈ 4.10
E4Q.58.475.□.0*	H4Q.58.475.□.0*	475	509	≈ 5.28	≈ 4.12
E4Q.58.487.□.0*	H4Q.58.487.□.0*	487	522	≈ 5.34	≈ 4.15
E4Q.58.500.□.0	H4Q.58.500.□.0	500	534	≈ 5.39	≈ 4.18
E4Q.58.512.□.0*	H4Q.58.512.□.0*	512	547	≈ 5.44	≈ 4.21
E4Q.58.525.□.0*	H4Q.58.525.□.0*	525	559	≈ 5.50	≈ 4.23
E4Q.58.537.□.0*	H4Q.58.537.□.0*	537	572	≈ 5.55	≈ 4.26
E4Q.58.550.□.0*	H4Q.58.550.□.0*	550	584	≈ 5.61	≈ 4.29
E4Q.58.600.□.0*	H4Q.58.600.□.0*	600	634	≈ 5.81	≈ 4.39

Available bend radii *R* [mm] | 135 | 150 | 175 | 200 | 240 | 250 | 300 | 350 | 400 | 450 | 500 |

*Width available upon request, please consult igus® for delivery time.



Order key

E4Q.58.150.150.0

Series / Type	Inner height	Width index	Bend radius	Colour index

Order example:

Complete Part No. with the required radius *R*. Example:

E4Q.58.150.150.0 = crossbars removable along the inner and outer radius

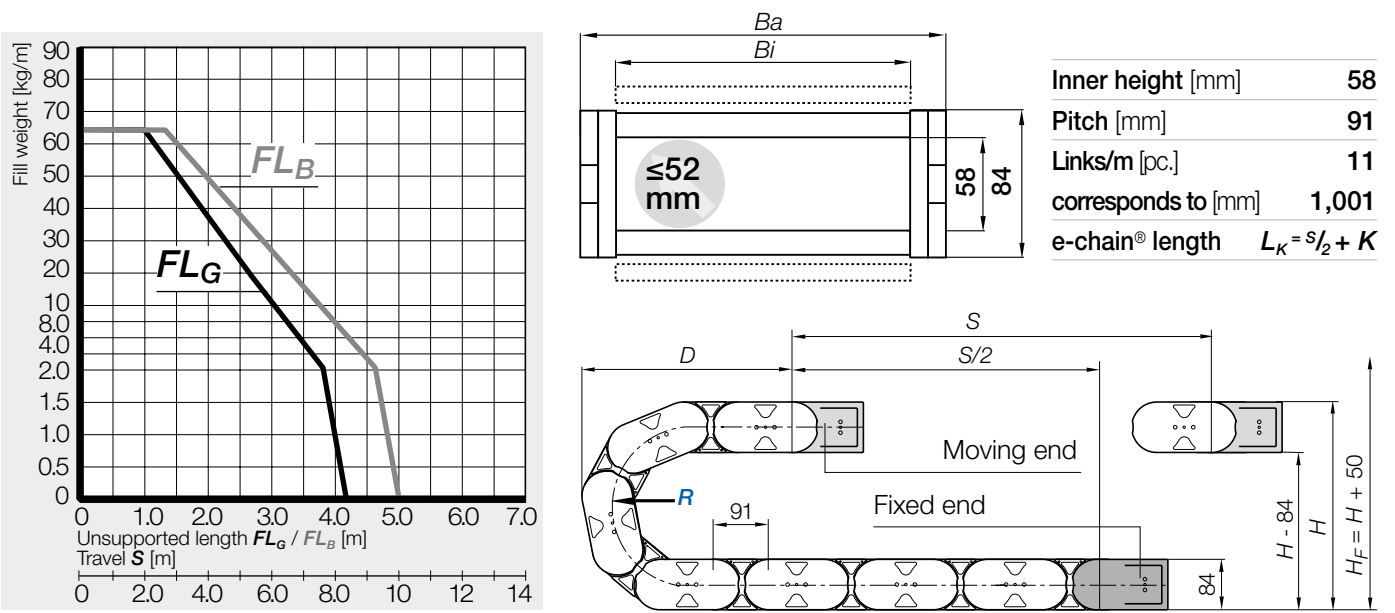
H4Q.58.150.150.0 = crossbars removable along the inner and outer radius

Order index for colour options ► www.igus.eu/info-colours



Available from stock
Upon request

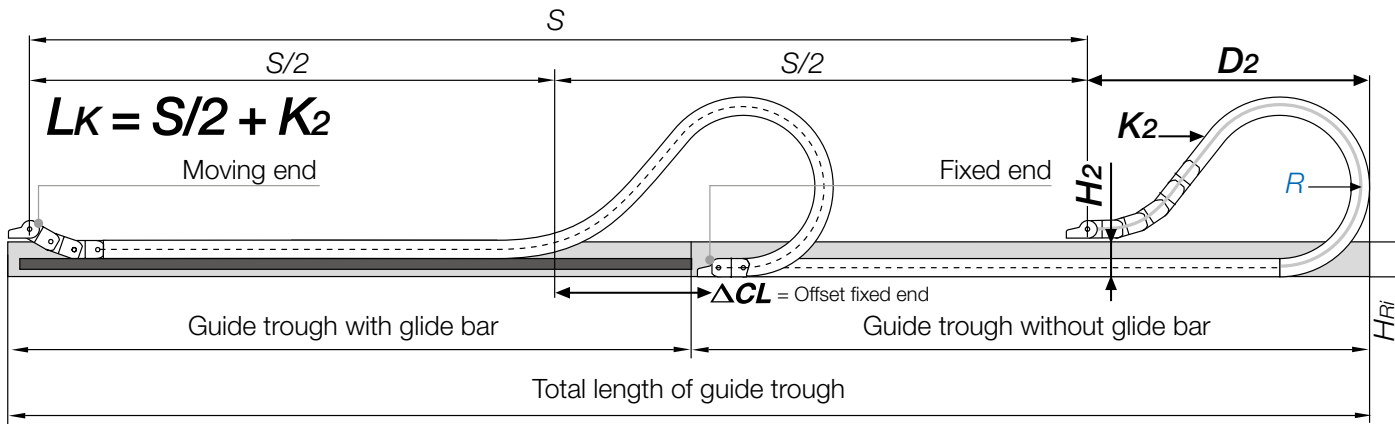
Unsupported applications | Short travels



<i>R</i>	135	150	175	200	240	250	300	350	400	450	500
<i>H</i> ^{-0 +25}	354	384	434	484	564	584	684	784	884	984	1,084
<i>D</i>	314	329	354	379	419	429	479	529	579	629	679
<i>K</i>	610	655	735	815	940	970	1,125	1,285	1,440	1,600	1.755

The required clearance height: *H_F* = *H* + 50mm (with 3.0kg/m fill weight)

Gliding applications | For travel lengths from 12m to max. 400m



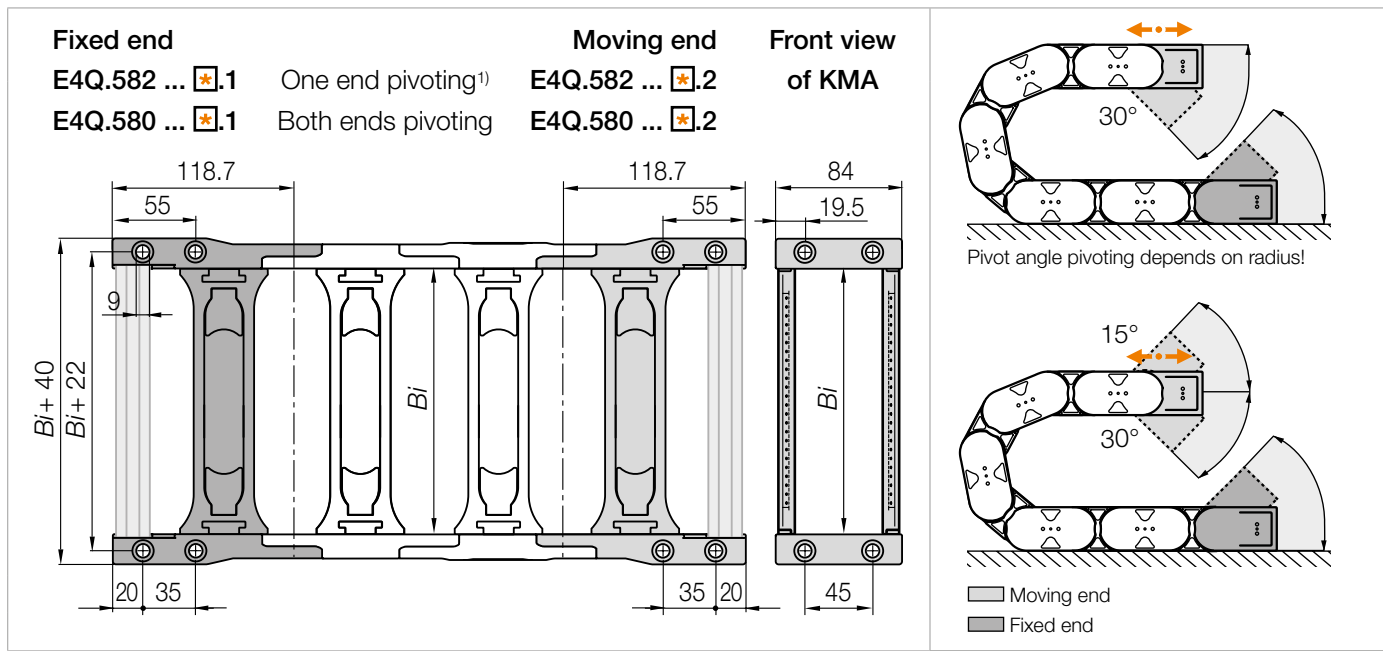
<i>R</i>	135	150	175	200	240	250	300	350	400	450	500
<i>H₂</i>	270	266	266	266	266	266	266	266	266	266	266
<i>D₂</i> ⁺⁵⁰	268	450	580	710	900	980	1,180	1,440	1,530	1,700	1,850
<i>K₂</i>	610	819	1,092	1,274	1,547	1,638	2,002	2,275	2,548	2,912	3,276
<i>ΔCL</i>	–	159	259	359	509	559	709	909	959	1,059	1,159

Note: In case of travels between 10 and 12m we recommend an e-chain® with a longer unsupported length.



Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting



Width index	KMA full set		
	Part No. one end pivoting ¹⁾	Part No. both ends pivoting	Bi [mm]
100.	E4Q.582.100..12.	E4Q.580.100..12.	100
112.	E4Q.582.112..12.	E4Q.580.112..12.	112
125.	E4Q.582.125..12.	E4Q.580.125..12.	125
137.	E4Q.582.137..12.	E4Q.580.137..12.	137
150.	E4Q.582.150..12.	E4Q.580.150..12.	150
162.	E4Q.582.162..12.	E4Q.580.162..12.	162
175.	E4Q.582.175..12.	E4Q.580.175..12.	175
187.	E4Q.582.187..12.	E4Q.580.187..12.	187
200.	E4Q.582.200..12.	E4Q.580.200..12.	200
212.	E4Q.582.212..12.	E4Q.580.212..12.	212
225.	E4Q.582.225..12.	E4Q.580.225..12.	225
237.	E4Q.582.237..12.	E4Q.580.237..12.	237
250.	E4Q.582.250..12.	E4Q.580.250..12.	250
262.	E4Q.582.262..12.	E4Q.580.262..12.	262
275.	E4Q.582.275..12.	E4Q.580.275..12.	275
287.	E4Q.582.287..12.	E4Q.580.287..12.	287
300.	E4Q.582.300..12.	E4Q.580.300..12.	300
312.	E4Q.582.312..12.	E4Q.580.312..12.	312
325.	E4Q.582.325..12.	E4Q.580.325..12.	325

Width index	KMA full set		
	Part No. one end pivoting ¹⁾	Part No. both ends pivoting	Bi [mm]
337.	E4Q.582.337..12.	E4Q.580.337..12.	337
350.	E4Q.582.350..12.	E4Q.580.350..12.	350
362.	E4Q.582.362..12.	E4Q.580.362..12.	362
375.	E4Q.582.375..12.	E4Q.580.375..12.	375
387.	E4Q.582.387..12.	E4Q.580.387..12.	387
400.	E4Q.582.400..12.	E4Q.580.400..12.	400
412.	E4Q.582.412..12.	E4Q.580.412..12.	412
425.	E4Q.582.425..12.	E4Q.580.425..12.	425
437.	E4Q.582.437..12.	E4Q.580.437..12.	437
450.	E4Q.582.450..12.	E4Q.580.450..12.	450
462.	E4Q.582.462..12.	E4Q.580.462..12.	462
475.	E4Q.582.475..12.	E4Q.580.475..12.	475
487.	E4Q.582.487..12.	E4Q.580.487..12.	487
500.	E4Q.582.500..12.	E4Q.580.500..12.	500
512.	E4Q.582.512..12.	E4Q.580.512..12.	512
525.	E4Q.582.525..12.	E4Q.580.525..12.	525
537.	E4Q.582.537..12.	E4Q.580.537..12.	537
550.	E4Q.582.550..12.	E4Q.580.550..12.	550
600.	E4Q.582.600..12.	E4Q.580.600..12.	600

1) One end pivoting - standard for E4Q mounting brackets.
*Width available upon request, please consult igus® for delivery time.
(KMA = polymer metal mounting bracket)

Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting | Locking

Note : The e-chains® may end with either an inner or an outer side link. An outer side link should always be the first e-chain® link at the moving end. Please specify the index .1 (for odd) or .2 (for even) depending on an even or odd number of links required.

Order key

E4Q.582.150..12..C..A2

Series

Width index

Even number of links

Full set

C-profile option

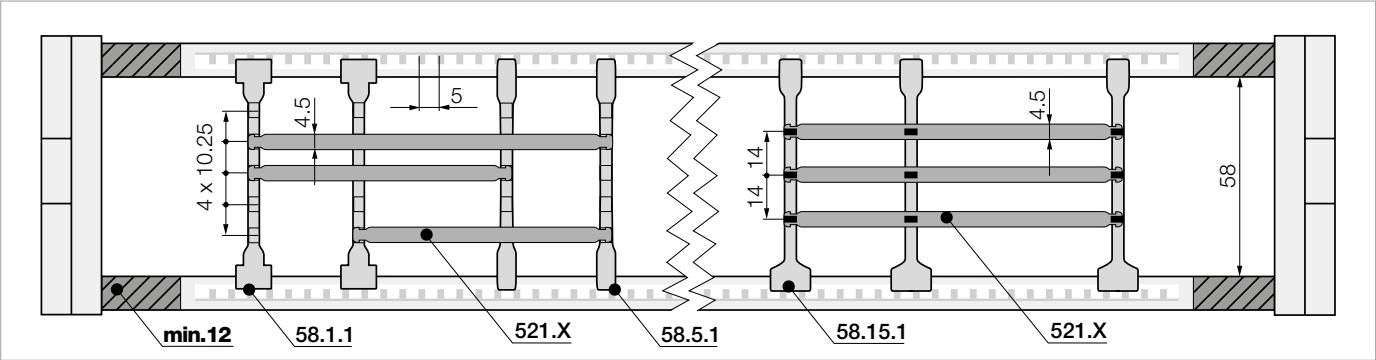
Pre-fitted

Note: Possible orientations for KMA mounting brackets. For mounting brackets pre-fitted **without strain relief**, please add index .A. For types pre-fitted **with strain relief** please add index .A1, .A2, .A3 or .A4.

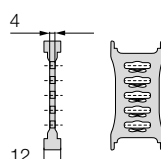
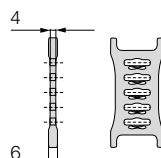
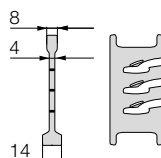
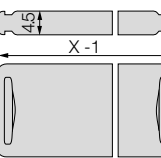
For the C-profile option please add index .C.

Available from stock
Upon request

Interior separation | Increase cable service life



 **Note:** Please be aware of the minimum lateral gap to the side links! **e-chain®: 12mm**
As standard separators are fitted every 2nd e-chain® link!

 	Part No. Standard separator unassembled 58.1 assembled 58.1.1	For all applications Standard separator with a wide base for maximum holding force.
 	Part No. Notch separator unassembled 58.5 assembled 58.5.1	Locks securely in preset increments Notch separator for exact positioning. Recommended for side-mounted applications.
 	Part No. Lean notch separator unassembled 58.15 assembled 58.15.1	Lean notch separators¹⁾ Quick fitting of shelves in several layers. Snaps securely into the crossbar in 5mm steps to be positioned securely.
 	Part No. Shelf unassembled 520.X assembled 521.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

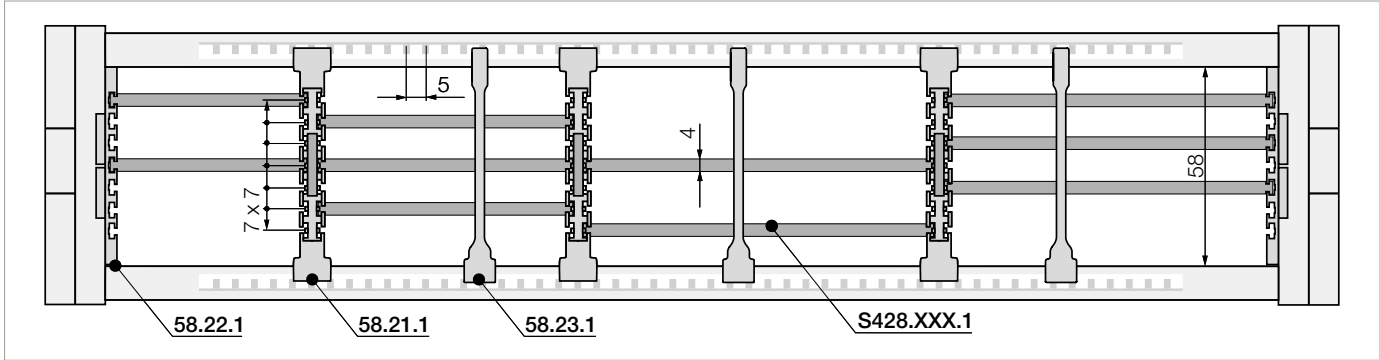
Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	520.050	521.050	125	520.125	521.125	225	520.225	521.225	375	520.375	521.375
065	520.065	521.065	150	520.150	521.150	250	520.250	521.250	387	520.387	521.387
075	520.075	521.075	175	520.175	521.175	300	520.300	521.300	450	520.450	521.450
100	520.100	521.100	200	520.200	521.200	350	520.350	521.350			



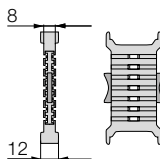
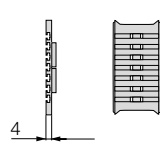
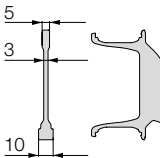
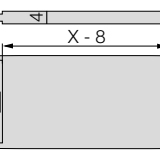
Lean notch separator for even faster filling: quickly insert several layers of cables into the e-chain® and reduce the installation time by up to 50%. Measured on a 4m long e-chain® fitted with 12 cables. **1) Note:** Please combine a maximum of four lean notch separators with one shelf. Not suitable for side-mounted e-chains®!

 Available from stock
Upon request

Universal interior separation | Modular shelving for complete flexibility



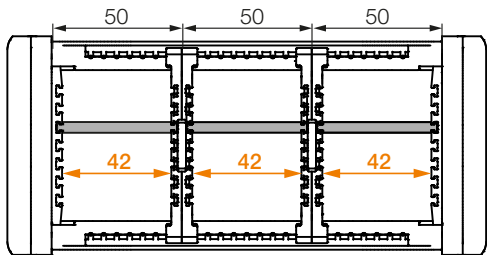
No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-chain® link!

 	Part No. Universal middle plate unassembled 58.21 assembled 58.21.1	Universal middle plates The shelves can be inserted from both sides. The shelves are locked in place by means of the integrated slider and automatically when the crossbar is fitted.
 	Part No. Universal side plate unassembled 58.22 assembled 58.22.1	Universal side plates Allow modular shelving right up to the side links. Shelves can be inserted from both sides.
 	Part No. Separator unassembled 58.23 assembled 58.23.1	Separators for universal interior separation For additional vertical partitioning of the system. When using the separator, the shelves can only be removed in one direction.
 	Part No. Partial shelf¹⁾ unassembled S428.XXX assembled S428.XXX.1	Separators¹⁾ for universal interior separation Shelves of various widths can be arranged in steps of 7mm

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
018	S428.018	S428.018.1	050	S428.050	S428.050.1	083	S428.083	S428.083.1	175	S428.175	S428.175.1
023*	S428.023	S428.023.1	058	S428.058	S428.058.1	087	S428.087	S428.087.1	200	S428.200	S428.200.1
025	S428.025	S428.025.1	062	S428.062	S428.062.1	100	S428.100	S428.100.1	208*	S428.208	S428.208.1
028*	S428.028	S428.028.1	068	S428.068	S428.068.1	108	S428.108	S428.108.1			
033	S428.033	S428.033.1	070	S428.070	S428.070.1	125	S428.125	S428.125.1			
044	S428.044	S428.044.1	075	S428.075	S428.075.1	150	S428.150	S428.150.1			

* Available upon request, please consult igus® for delivery time.

1) Note: The available width of the shelf S428.XXX deviates by 8mm from the width stated in the Part No. With the shelf S428.050, e.g. the space between the separators is 42mm.



Product range



Part No. e-chains® with crossbars every link	Part No. e-chains® with crossbars every 2nd link	<i>Bi</i> [mm]	<i>Ba</i> [mm]	E4Q.82 [kg/m]	H4Q.82 [kg/m]
E4Q.82.100.□.0	H4Q.82.100.□.0	100	150	≈ 6.05	≈ 5.77
E4Q.82.112.□.0	H4Q.82.112.□.0	112	163	≈ 6.10	≈ 5.79
E4Q.82.125.□.0	H4Q.82.125.□.0	125	175	≈ 6.12	≈ 5.81
E4Q.82.137.□.0	H4Q.82.137.□.0	137	188	≈ 6.17	≈ 5.83
E4Q.82.150.□.0	H4Q.82.150.□.0	150	200	≈ 6.24	≈ 5.87
E4Q.82.162.□.0	H4Q.82.162.□.0	162	213	≈ 6.29	≈ 5.89
E4Q.82.175.□.0	H4Q.82.175.□.0	175	225	≈ 6.32	≈ 5.90
E4Q.82.187.□.0	H4Q.82.187.□.0	187	238	≈ 6.35	≈ 5.92
E4Q.82.200.□.0	H4Q.82.200.□.0	200	250	≈ 6.44	≈ 5.97
E4Q.82.212.□.0	H4Q.82.212.□.0	212	263	≈ 6.49	≈ 5.99
E4Q.82.225.□.0	H4Q.82.225.□.0	225	275	≈ 6.50	≈ 6.00
E4Q.82.237.□.0	H4Q.82.237.□.0	237	288	≈ 6.53	≈ 6.01
E4Q.82.250.□.0	H4Q.82.250.□.0	250	300	≈ 6.57	≈ 6.03
E4Q.82.262.□.0	H4Q.82.262.□.0	262	313	≈ 6.62	≈ 6.05
E4Q.82.275.□.0	H4Q.82.275.□.0	275	325	≈ 6.66	≈ 6.08
E4Q.82.287.□.0	H4Q.82.287.□.0	287	338	≈ 6.71	≈ 6.10
E4Q.82.300.□.0	H4Q.82.300.□.0	300	350	≈ 6.75	≈ 6.12
E4Q.82.312.□.0	H4Q.82.312.□.0	312	363	≈ 6.80	≈ 6.14
E4Q.82.325.□.0	H4Q.82.325.□.0	325	375	≈ 6.84	≈ 6.17

Part No. e-chains® with crossbars every link	Part No. e-chains® with crossbars every 2nd link	<i>Bi</i> [mm]	<i>Ba</i> [mm]	E4Q.82 [kg/m]	H4Q.82 [kg/m]
E4Q.82.337.□.0	H4Q.82.337.□.0	337	388	≈ 6.89	≈ 6.19
E4Q.82.350.□.0	H4Q.82.350.□.0	350	400	≈ 6.93	≈ 6.21
E4Q.82.362.□.0	H4Q.82.362.□.0	362	413	≈ 6.97	≈ 6.23
E4Q.82.375.□.0	H4Q.82.375.□.0	375	425	≈ 7.02	≈ 6.25
E4Q.82.387.□.0	H4Q.82.387.□.0	387	438	≈ 7.07	≈ 6.28
E4Q.82.400.□.0	H4Q.82.400.□.0	400	450	≈ 7.11	≈ 6.30
E4Q.82.412.□.0	H4Q.82.412.□.0	412	463	≈ 7.15	≈ 6.32
E4Q.82.425.□.0	H4Q.82.425.□.0	425	475	≈ 7.20	≈ 6.35
E4Q.82.437.□.0*	H4Q.82.437.□.0*	437	488	≈ 7.24	≈ 6.37
E4Q.82.450.□.0	H4Q.82.450.□.0	450	500	≈ 7.29	≈ 6.39
E4Q.82.462.□.0*	H4Q.82.462.□.0*	462	513	≈ 7.33	≈ 6.41
E4Q.82.475.□.0*	H4Q.82.475.□.0*	475	525	≈ 7.38	≈ 6.43
E4Q.82.487.□.0*	H4Q.82.487.□.0*	487	538	≈ 7.42	≈ 6.46
E4Q.82.500.□.0	H4Q.82.500.□.0	500	550	≈ 7.47	≈ 6.48
E4Q.82.512.□.0*	H4Q.82.512.□.0*	512	563	≈ 7.51	≈ 6.50
E4Q.82.525.□.0*	H4Q.82.525.□.0*	525	575	≈ 7.56	≈ 6.52
E4Q.82.537.□.0*	H4Q.82.537.□.0*	537	588	≈ 7.60	≈ 6.54
E4Q.82.550.□.0*	H4Q.82.550.□.0*	550	600	≈ 7.65	≈ 6.57
E4Q.82.600.□.0*	H4Q.82.600.□.0*	600	650	≈ 7.74	≈ 6.61

Available bend radii *R* [mm] | 150 | 175 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 1.000 |

*Width available upon request, please consult igus® for delivery time.



Order key

E4Q.82.150.150.0

Series / Type	Inner height	Width index	Bend radius	Colour index

Order example:

Complete Part No. with the required radius *R*. Example:

E4Q.82.150.150.0 = crossbars removable along the inner and outer radius

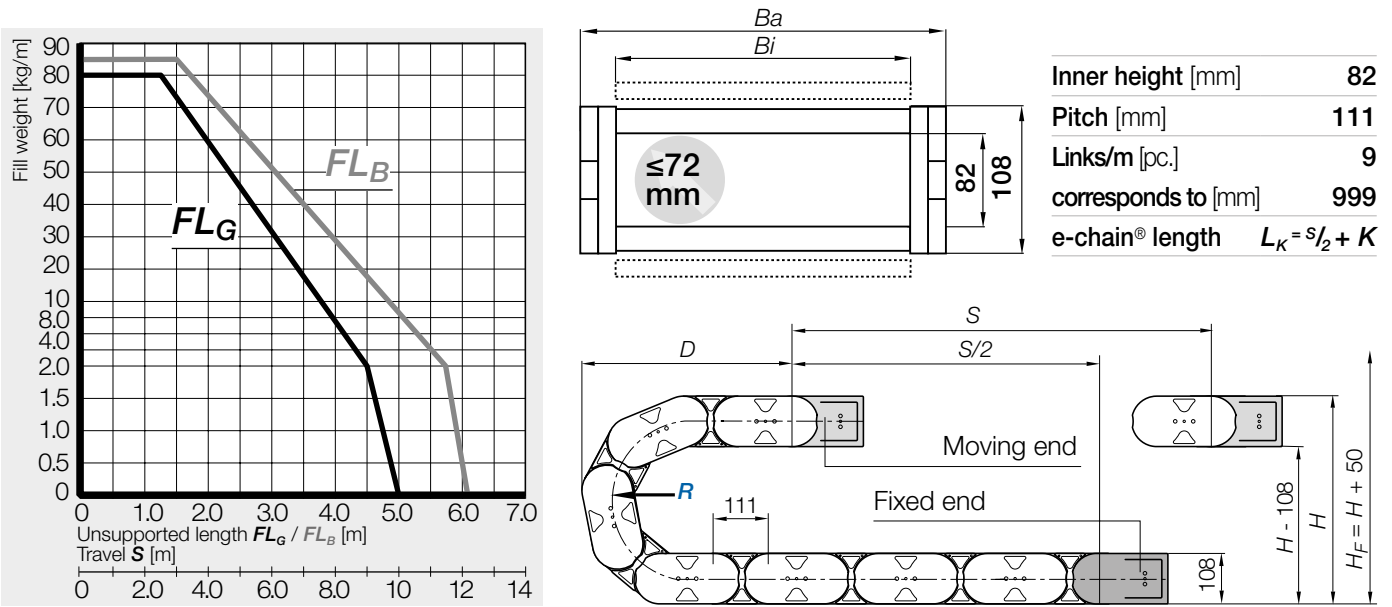
H4Q.82.150.150.0 = crossbars removable along the inner and outer radius

Order index for colour options ► www.igus.eu/info-colours



Available from stock
Upon request

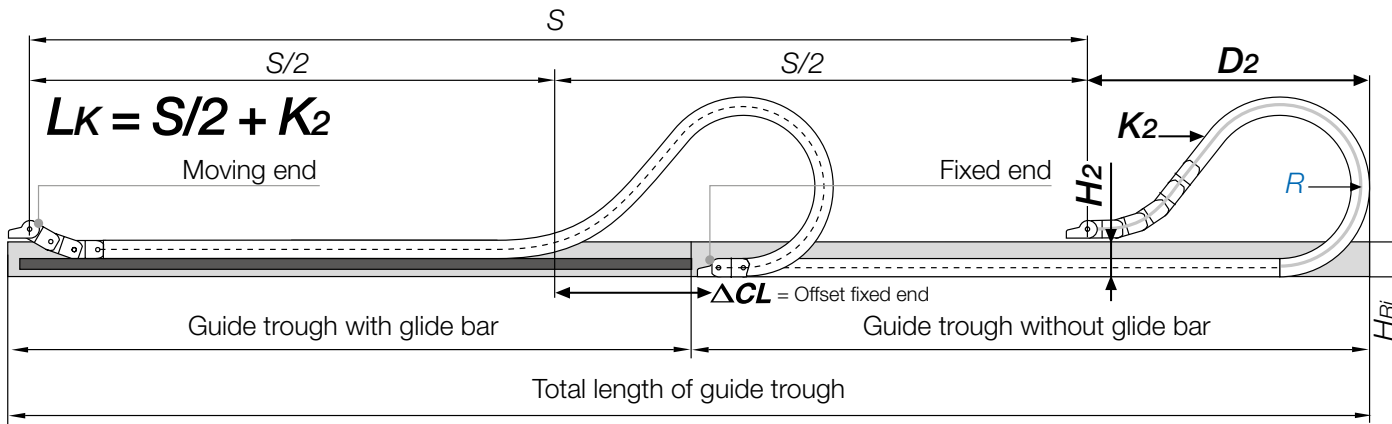
Unsupported applications | Short travels



<i>R</i>	150	175	200	250	300	350	400	450	500	550	600	1,000
<i>H</i>	408	458	508	608	708	808	908	1,008	1,108	1,208	1,308	2,108
<i>D</i>	371	396	421	471	521	571	621	671	721	771	821	1,221
<i>K</i>	695	775	855	1,010	1,165	1,325	1,480	1,640	1,795	1,950	2,110	3,365

The required clearance height: $H_F = H + 50\text{mm}$ (with 3.0kg/m fill weight)

Gliding applications | For travel lengths from 12m to max. 400m



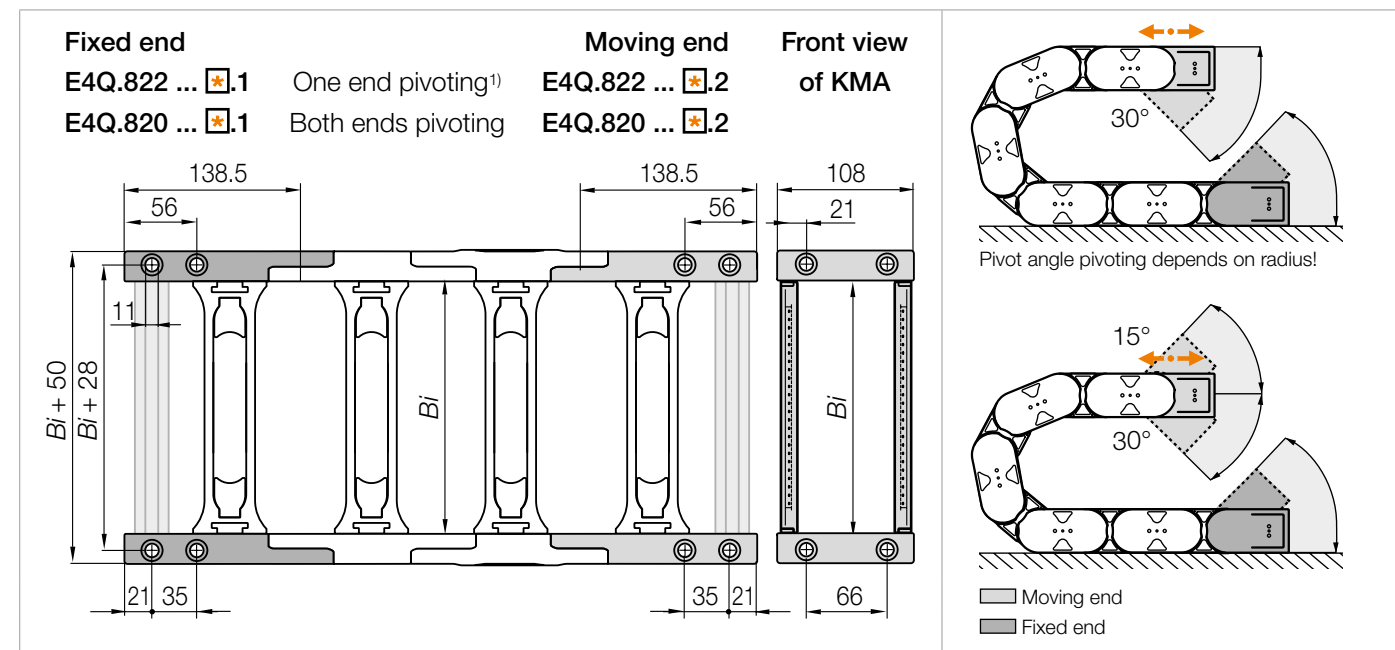
<i>R</i>	150	175	200	250	300	350	400	450	500	550	600	1,000
<i>H</i> ₂	242	242	242	242	242	242	242	242	242	–	–	–
<i>D</i> ₂ ⁺⁵⁰	550	675	800	1,000	1,200	1,450	1,600	1,850	2,100	–	–	–
<i>K</i> ₂	890	1,000	1,330	1,665	2,000	2,330	2,660	3,000	3,440	–	–	–
ΔCL	189	289	389	539	689	889	989	1,189	1,389	–	–	–

Note: In case of travels between 10 and 12m we recommend an e-chain® with a longer unsupported length.



Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting



Width index	KMA full set		
	Part No. one end pivoting ¹⁾	Part No. both ends pivoting	Bi [mm]
100.	E4Q.822.100. 1 .12.	E4Q.820.100. 2 .12.	100
112.	E4Q.822.112. 1 .12.	E4Q.820.112. 2 .12.	112
125.	E4Q.822.125. 1 .12.	E4Q.820.125. 2 .12.	125
137.	E4Q.822.137. 1 .12.	E4Q.820.137. 2 .12.	137
150.	E4Q.822.150. 1 .12.	E4Q.820.150. 2 .12.	150
162.	E4Q.822.162. 1 .12.	E4Q.820.162. 2 .12.	162
175.	E4Q.822.175. 1 .12.	E4Q.820.175. 2 .12.	175
187.	E4Q.822.187. 1 .12.	E4Q.820.187. 2 .12.	187
200.	E4Q.822.200. 1 .12.	E4Q.820.200. 2 .12.	200
212.	E4Q.822.212. 1 .12.	E4Q.820.212. 2 .12.	212
225.	E4Q.822.225. 1 .12.	E4Q.820.225. 2 .12.	225
237.	E4Q.822.237. 1 .12.	E4Q.820.237. 2 .12.	237
250.	E4Q.822.250. 1 .12.	E4Q.820.250. 2 .12.	250
262.	E4Q.822.262. 1 .12.	E4Q.820.262. 2 .12.	262
275.	E4Q.822.275. 1 .12.	E4Q.820.275. 2 .12.	275
287.	E4Q.822.287. 1 .12.	E4Q.820.287. 2 .12.	287
300.	E4Q.822.300. 1 .12.	E4Q.820.300. 2 .12.	300
312.	E4Q.822.312. 1 .12.	E4Q.820.312. 2 .12.	312
325.	E4Q.822.325. 1 .12.	E4Q.820.325. 2 .12.	325

1) One end pivoting - standard for E4Q mounting brackets.

*Width available upon request, please consult igus® for delivery time.

(KMA = polymer metal mounting bracket)

Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting | Locking

Note 1: The e-chains® may end with either an inner or an outer side link. An outer side link should always be the first e-chain® link at the moving end. Please specify the index 1 (for odd) or 2 (for even) depending on an even or odd number of links required.

Order key

E4Q.822.150.2.12.C.A2

Series

Width index

Even number of links

Full set

C-profile option

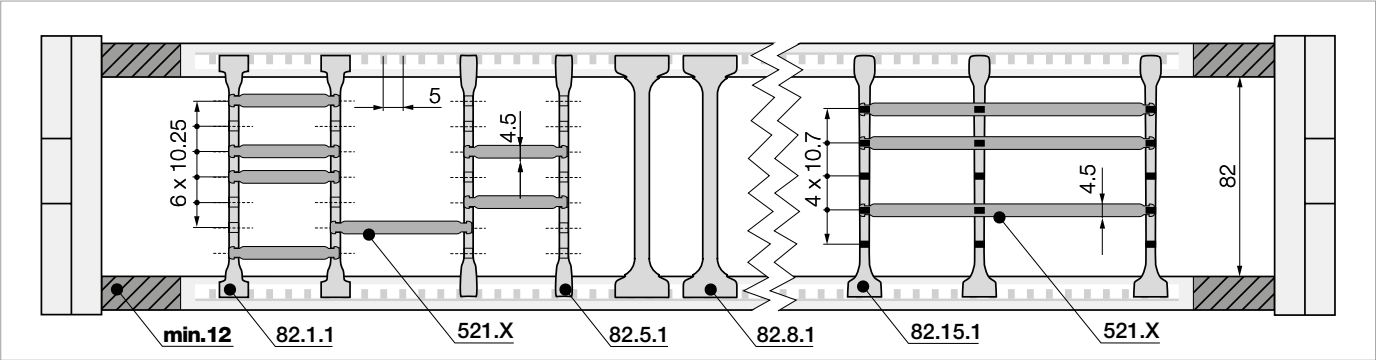
Pre-fitted

Note: Possible orientations for KMA mounting brackets. For mounting brackets pre-fitted **without strain relief**, please add index A. For types pre-fitted **with strain relief** please add index A1, A2, A3 or A4.

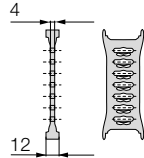
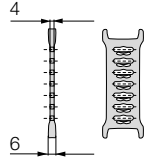
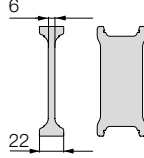
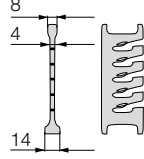
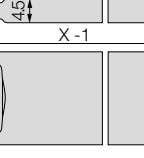
For the C-profile option please add index C.

Available from stock
Upon request

Interior separation | Increase cable service life



Note: Please be aware of the minimum lateral gap to the side links! **e-chain®: 12mm**
As standard separators are fitted every 2nd e-chain® link!

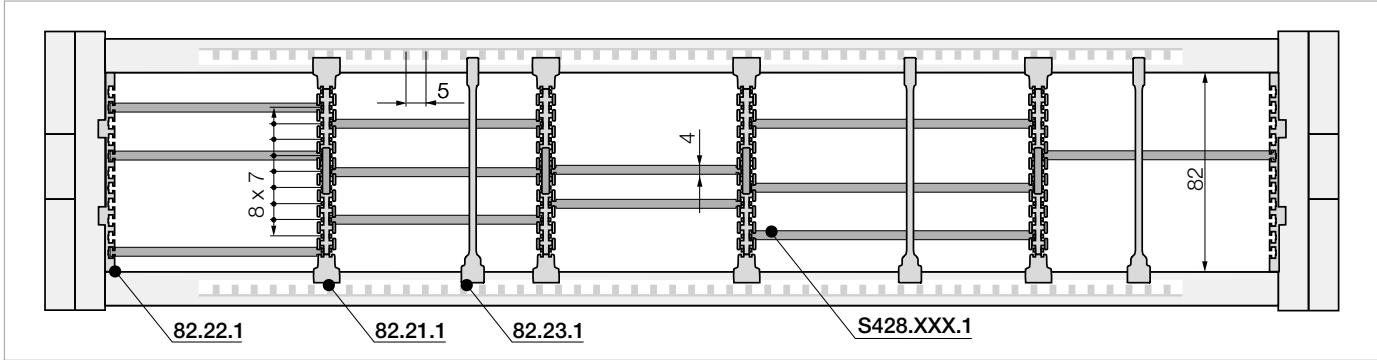
		Part No. Standard separator unassembled 82.1 assembled 82.1.1	For all applications Standard separator with a wide base for maximum holding force.
		Part No. Notch separator unassembled 82.5 assembled 85.5.1	Locks securely in preset increments Notch separator for exact positioning. Recommended for side-mounted applications.
		Part No. Locking separator unassembled 82.8 assembled 82.8.1	Locking separator for increased holding force Locking separators offer higher crossbar opening forces for high humidity and/or large hydraulic hoses.
		Part No. Lean notch separator unassembled 82.15 assembled 82.15.1	Lean notch separators¹⁾ Quick fitting of shelves in several layers. Snaps securely into the crossbar in 5mm steps to be positioned securely.
		Part No. Shelf unassembled 520.X assembled 521.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	520.050	521.050	125	520.125	521.125	225	520.225	521.225	375	520.375	521.375
065	520.065	521.065	150	520.150	521.150	250	520.250	521.250	387	520.387	521.387
075	520.075	521.075	175	520.175	521.175	300	520.300	521.300	450	520.450	521.450
100	520.100	521.100	200	520.200	521.200	350	520.350	521.350			

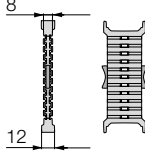
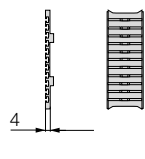
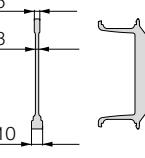
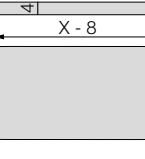


Lean notch separator for even faster filling: quickly insert several layers of cables into the e-chain® and reduce the installation time by up to 50%. Measured on a 4m long e-chain® fitted with 12 cables. **1) Note:** Please combine a maximum of four lean notch separators with one shelf. Not suitable for side-mounted e-chains®!

Universal interior separation | Modular shelving for complete flexibility



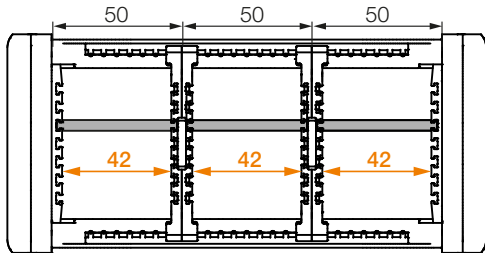
No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-chain® link!

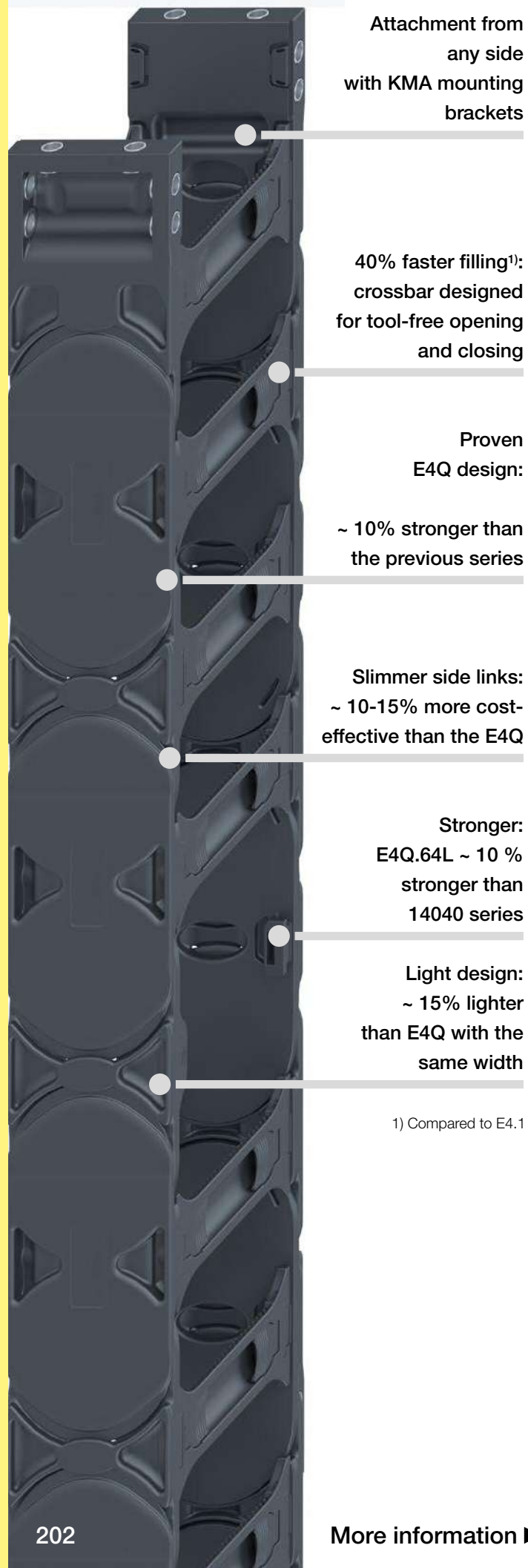
		Part No. Universal middle plate unassembled 82.21 assembled 82.21.1	Universal middle plates The shelves can be inserted from both sides. The shelves are locked in place by means of the integrated slider and automatically when the crossbar is fitted.
		Part No. Universal side plate unassembled 82.22 assembled 82.22.1	Universal side plates Allow modular shelving right up to the side links. Shelves can be inserted from both sides.
		Part No. Separator unassembled 82.23 assembled 82.23.1	Separators for universal interior separation For additional vertical partitioning of the system. When using the separator, the shelves can only be removed in one direction.
		Part No. Partial shelf¹⁾ unassembled S428.XXX assembled S428.XXX.1	Separators¹⁾ for universal interior separation Shelves of various widths can be arranged in steps of 7mm

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
018	S428.018	S428.018.1	050	S428.050	S428.050.1	083	S428.083	S428.083.1	175	S428.175	S428.175.1
023*	S428.023	S428.023.1	058	S428.058	S428.058.1	087	S428.087	S428.087.1	200	S428.200	S428.200.1
025	S428.025	S428.025.1	062	S428.062	S428.062.1	100	S428.100	S428.100.1	208*	S428.208	S428.208.1
028*	S428.028	S428.028.1	068	S428.068	S428.068.1	108	S428.108	S428.108.1			
033	S428.033	S428.033.1	070	S428.070	S428.070.1	125	S428.125	S428.125.1			
044	S428.044	S428.044.1	075	S428.075	S428.075.1	150	S428.150	S428.150.1			

* Available upon request, please consult igus® for delivery time.

1) Note: The available width of the shelf S428.XXX deviates by 8mm from the width stated in the Part No. With the shelf S428.050, e.g. the space between the separators is 42mm.





1) Compared to E4.1

Large inner height, lightweight, assembly-friendly e-chains® - E4Q.L

The best combination of strength and low weight. Highly dynamic, save up to 40% installation time, can be opened by hand. Based on the successful E4Q, there is now an L variant with an inner height of 64mm. Benefit from the advantages of the E4Q. The new E4Q.64L shines in applications with medium loads (such as machine tools) and features high strength, long service life and low weight. The E4Q's proven quick-opening crossbar allows intuitive, tool-free opening and closing. The complete range of widths, from an inner width of 100mm to 500mm, is available from stock.

Benefits

- Tool-free opening and closing
- Sustainability - 10% less material means 10% less energy consumption during production
- Short cross-bar pickup for even easier filling of the e-chain®
- Optimised interior geometry for longer cable service life
- Integrated grid structure on crossbars for fixed interior separation with narrower separators
- Inner/outer link principle for straight run
- Undercut design ensures the best hold as well as high lateral and torsion strength

Typical application areas

- Washing systems
- Machine tools
- Woodworking
- Passenger boarding bridges

Selection table

Part No.	Inner height <i>hi</i> [mm]	Outer height <i>ha</i> [mm]	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Bend radius <i>R</i> [mm]	Unsupported length ≤ [m]	Page
E4Q.L - e-chains® with crossbars every link The all-rounder, for heavy-duty applications.							
E4Q.64L	64	90	100 - 500	126 - 526	135 - 500	4.50	204
H4Q.L - e-chains® with crossbars every 2nd link The cost-effective, easy-to-install alternative for almost any application.							
H4Q.64L	64	90	100 - 500	126 - 526	135 - 500	4.50	204

Technical data

General properties	
Speed gliding / acceleration gliding	≤ 10m/s / ≤ 50m/s²
Speed <i>FL_G</i> /acceleration <i>FL_G</i>	≤ 20m/s / ≤ 200m/s²
Speed <i>FL_B</i> /acceleration <i>FL_B</i>	≤ 3m/s / ≤ 6m/s²
igumid® G LW material - permitted temperature °C	-40°C/+120°C
Flammability class, igumid® G LW	VDE 0304 IIC UL94-HB

Installation types, maximum travel lengths

Series	Unsupported	Gliding	Vertical hanging	Vertical standing	Side mounted, unsupported
E4Q.64L / H4Q.64L	≤ 9.0m	upon request	≤ 80m	≤ 6.0m	upon request

E4QL

LARGE
LIGHTWEIGHT
LEAN DESIGN
LONG SERVICE LIFE
LOW-COST
LIGHTNING FAST OPENING

Product range



Part No. e-chains® with crossbars every link	Part No. e-chains® with crossbars every 2nd link	Bi [mm]	Ba [mm]	E4Q.64L [kg/m]	H4Q.64L [kg/m]
E4Q.64L.100.□.0	H4Q.64L.100.□.0	100	126	≈ 2.92	≈ 2.61
E4Q.64L.112.□.0	H4Q.64L.112.□.0	112.5	138.5	≈ 2.97	≈ 2.63
E4Q.64L.125.□.0	H4Q.64L.125.□.0	125	151	≈ 3.00	≈ 2.65
E4Q.64L.137.□.0	H4Q.64L.137.□.0	137.5	163.5	≈ 3.05	≈ 2.67
E4Q.64L.150.□.0	H4Q.64L.150.□.0	150	176	≈ 3.13	≈ 2.71
E4Q.64L.162.□.0	H4Q.64L.162.□.0	162.5	188.5	≈ 3.18	≈ 2.74
E4Q.64L.175.□.0	H4Q.64L.175.□.0	175	201	≈ 3.21	≈ 2.75
E4Q.64L.187.□.0	H4Q.64L.187.□.0	187.5	213.5	≈ 3.25	≈ 2.77
E4Q.64L.200.□.0	H4Q.64L.200.□.0	200	226	≈ 3.36	≈ 2.82
E4Q.64L.212.□.0	H4Q.64L.212.□.0	212.5	238.5	≈ 3.35	≈ 2.82
E4Q.64L.225.□.0	H4Q.64L.225.□.0	225	251	≈ 3.42	≈ 2.86
E4Q.64L.237.□.0	H4Q.64L.237.□.0	237.5	263.5	≈ 3.45	≈ 2.87
E4Q.64L.250.□.0	H4Q.64L.250.□.0	250	276	≈ 3.50	≈ 2.90
E4Q.64L.262.□.0	H4Q.64L.262.□.0	262.5	288.5	≈ 3.53	≈ 2.91
E4Q.64L.275.□.0	H4Q.64L.275.□.0	275	301	≈ 3.60	≈ 2.95
E4Q.64L.287.□.0	H4Q.64L.287.□.0	287.5	313.5	≈ 3.63	≈ 2.96
E4Q.64L.300.□.0	H4Q.64L.300.□.0	300	326	≈ 3.70	≈ 3.00

Part No. e-chains® with crossbars every link	Part No. e-chains® with crossbars every 2nd link	Bi [mm]	Ba [mm]	E4Q.64L [kg/m]	H4Q.64L [kg/m]
E4Q.64L.312.□.0	H4Q.64L.312.□.0	312.5	338.5	≈ 3.75	≈ 3.02
E4Q.64L.325.□.0	H4Q.64L.325.□.0	325	351	≈ 3.80	≈ 3.05
E4Q.64L.337.□.0	H4Q.64L.337.□.0	337.5	363.5	≈ 3.85	≈ 3.07
E4Q.64L.350.□.0	H4Q.64L.350.□.0	350	376	≈ 3.89	≈ 3.09
E4Q.64L.362.□.0	H4Q.64L.362.□.0	362.5	388.5	≈ 3.94	≈ 3.12
E4Q.64L.375.□.0	H4Q.64L.375.□.0	375	401	≈ 3.99	≈ 3.14
E4Q.64L.387.□.0	H4Q.64L.387.□.0	387.5	413.5	≈ 4.05	≈ 3.17
E4Q.64L.400.□.0	H4Q.64L.400.□.0	400	426	≈ 4.09	≈ 3.19
E4Q.64L.412.□.0	H4Q.64L.412.□.0	412.5	438.5	≈ 4.14	≈ 3.22
E4Q.64L.425.□.0	H4Q.64L.425.□.0	425	451	≈ 4.20	≈ 3.25
E4Q.64L.437.□.0	H4Q.64L.437.□.0	437.5	463.5	≈ 4.24	≈ 3.27
E4Q.64L.450.□.0	H4Q.64L.450.□.0	450	476	≈ 4.29	≈ 3.29
E4Q.64L.462.□.0	H4Q.64L.462.□.0	462.5	488.5	≈ 4.34	≈ 3.32
E4Q.64L.475.□.0	H4Q.64L.475.□.0	475	501	≈ 4.39	≈ 3.34
E4Q.64L.487.□.0	H4Q.64L.487.□.0	487.5	513.5	≈ 4.44	≈ 3.37
E4Q.64L.500.□.0	H4Q.64L.500.□.0	500	526	≈ 4.49	≈ 3.39

Available bend radii *R* [mm] | 135 | 150 | 175 | 200 | 240 | 250 | 300 | 350 | 400 | 450 | 500 |



Order key

E4Q.64L.150.150.0

Series / Type	Inner height	Width index	Bend radius	Colour index
---------------	--------------	-------------	-------------	--------------

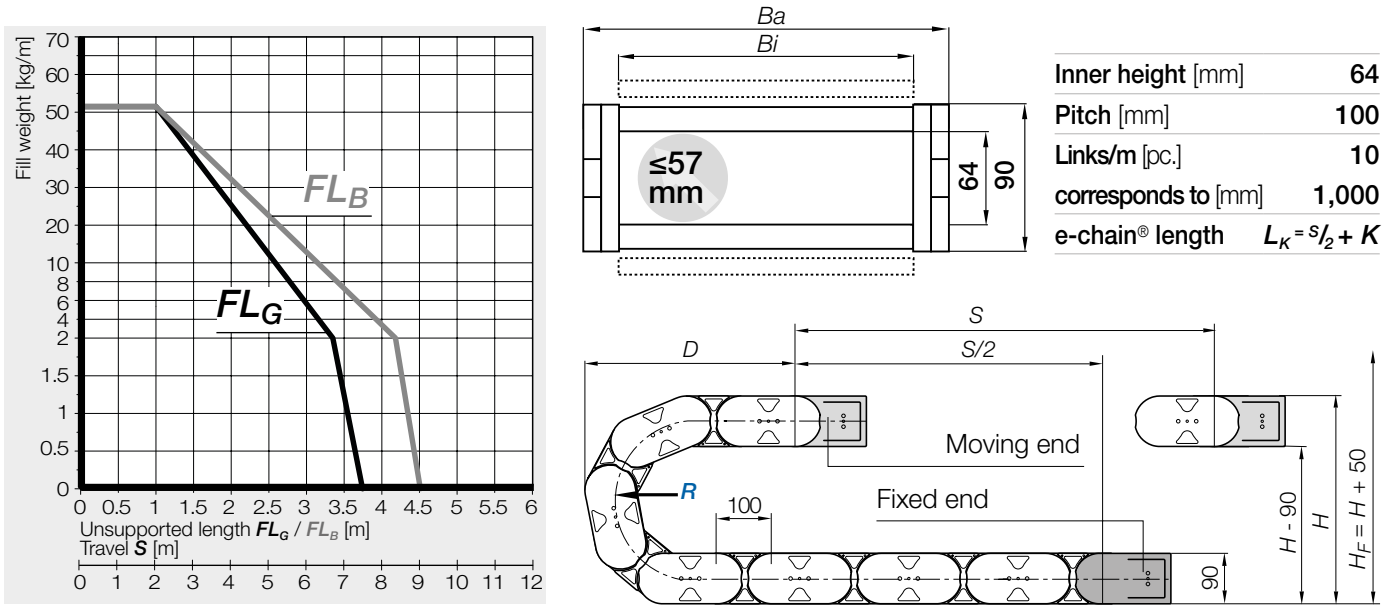
Note:

Complete Part No. with the required radius *R*. Example:
E4Q.64L.150.150.0 = crossbars removable along the inner and outer radius
H4Q.64L.150.150.0 = crossbars removable along the inner and outer radius
Order index for colour options ► www.igus.eu/info-colours



Available from stock
Upon request

Unsupported applications | Short travels



<i>R</i>	135	150	175	200	240	250	300	350	400	500
<i>H</i> ⁻⁰ ₊₂₅	358	388	438	488	568	588	688	788	888	988
<i>D</i>	329	344	369	394	434	444	494	544	594	644
<i>K</i>	625	675	750	830	955	990	1145	1,300	1460	1615

The required clearance height: *H_F* = *H* + 50mm (with 2.0kg/m fill weight)

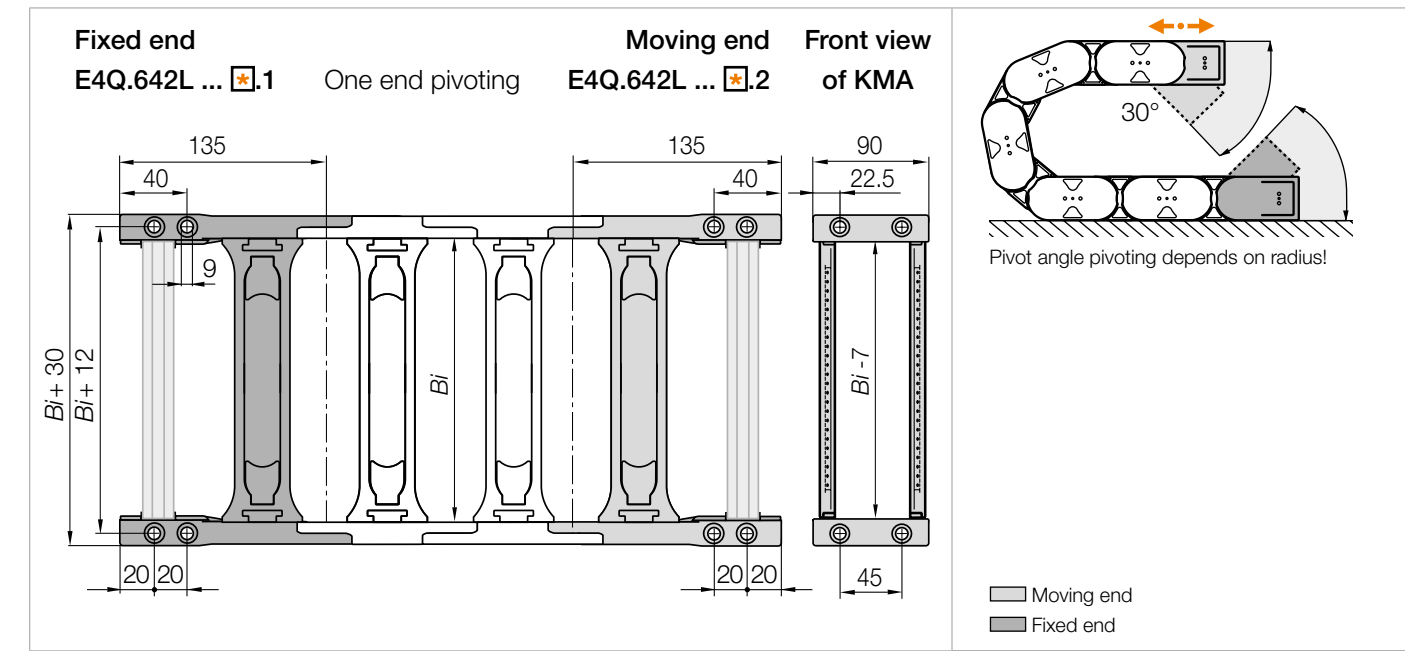


Note: If a gliding application is required for a long travel, please consult igus®.



Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting



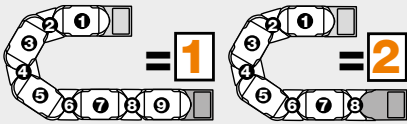
Width index	KMA full set	
	Part No. one end pivoting	<i>Bi</i> [mm]
100.	E4Q.642L.100..12.	100
112.	E4Q.642L.112..12.	112.5
125.	E4Q.642L.125..12.	125
137.	E4Q.642L.137..12.	137.5
150.	E4Q.642L.150..12.	150
162.	E4Q.642L.162..12.	162.5
175.	E4Q.642L.175..12.	175
187.	E4Q.642L.187..12.	187.5
200.	E4Q.642L.200..12.	200
212.	E4Q.642L.212..12.	212.5
225.	E4Q.642L.225..12.	225
237.	E4Q.642L.237..12.	237.5
250.	E4Q.642L.250..12.	250
262.	E4Q.642L.262..12.	262.5
275.	E4Q.642L.275..12.	275
287.	E4Q.642L.287..12.	287.5
300.	E4Q.642L.300..12.	300

(KMA = polymer metal mounting bracket)

Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting

Note : The e-chains® may end with either an inner or an outer side link. An outer side link should always be the first e-chain® link at the moving end. Please specify the index 1 (for odd) or 2 (for even) depending on an even or odd number of links required.



Order key

E4Q.642L.150..12..C..A2

Series	Width index	Even number of links	Full set	C-profile option	Pre-fitted
--------	-------------	----------------------	----------	------------------	------------

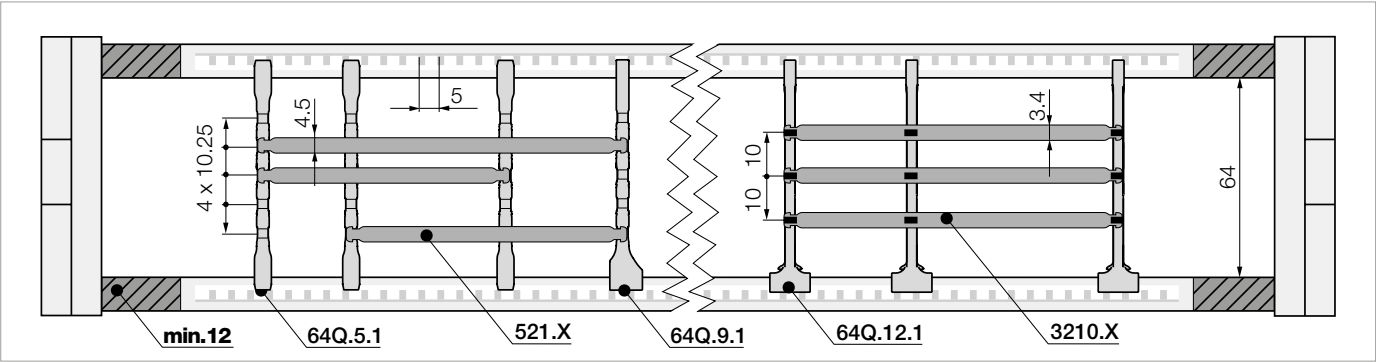
Note: Possible orientations for KMA mounting brackets. For mounting brackets pre-fitted **without strain relief**, please add index .A. For types pre-fitted **with strain relief** please add index .A1, .A2, .A3 or .A4.



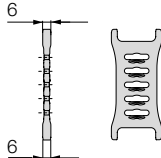
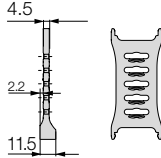
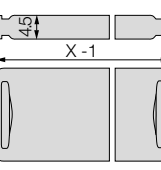
For the C-profile option please add index .C.

Available from stock
Upon request

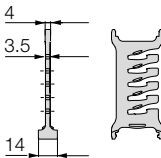
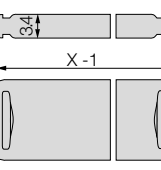
Interior separation | Increase cable service life



 **Note:** Please be aware of the minimum lateral gap to the side links! **e-chain®: 12mm**
As standard separators are fitted every 2nd e-chain® link!

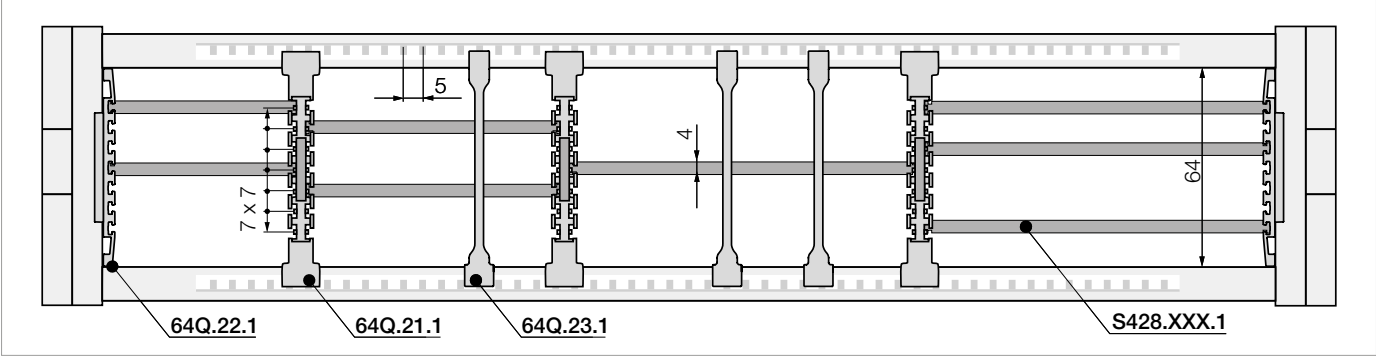
		Part No. Notch separator unassembled 64Q.5 assembled 64Q.5.1	Locks securely in preset increments Notch separator for exact positioning. Recommended for side-mounted applications.
		Part No. Separator, asymmetrical unassembled 64Q.9 assembled 64Q.9.1	For side-mounted applications Asymmetrical separator, for defined gap distance. No additional spacers required.
		Part No. Shelf unassembled 3200.X assembled 3210.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	520.050	521.050	125	520.125	521.125	225	520.225	521.225	375	520.375	521.375
065	520.065	521.065	150	520.150	521.150	250	520.250	521.250	387	520.387	521.387
075	520.075	521.075	175	520.175	521.175	300	520.300	521.300	450	520.450	521.450
100	520.100	521.100	200	520.200	521.200	350	520.350	521.350			

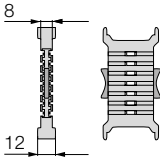
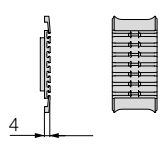
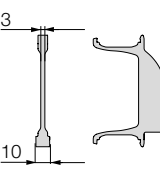
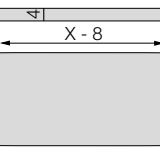
		Part No. Lean separator unassembled 64Q.12 assembled 64Q.12.1	Lean separators¹⁾ Quick fitting of shelves in several layers. Enables extremely fast replacement of individual cables in very full e-chains®. Only suitable for e-chains®.
		Part No. Shelf unassembled 3200.X assembled 3210.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	3200.050	3210.050	115	3200.115	3210.115	175	3200.175	3210.175	250	3200.250	3210.250
075	3200.075	3210.075	125	3200.125	3210.125	200	3200.200	3210.200			
100	3200.100	3210.100	150	3200.150	3210.150	225	3200.225	3210.225			

Universal interior separation | Modular shelving for complete flexibility



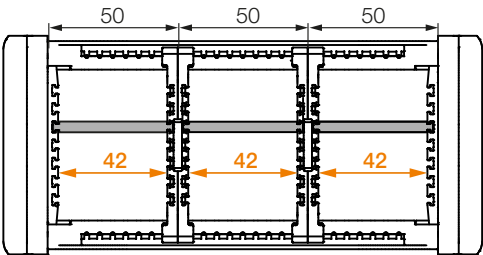
No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-chain® link!

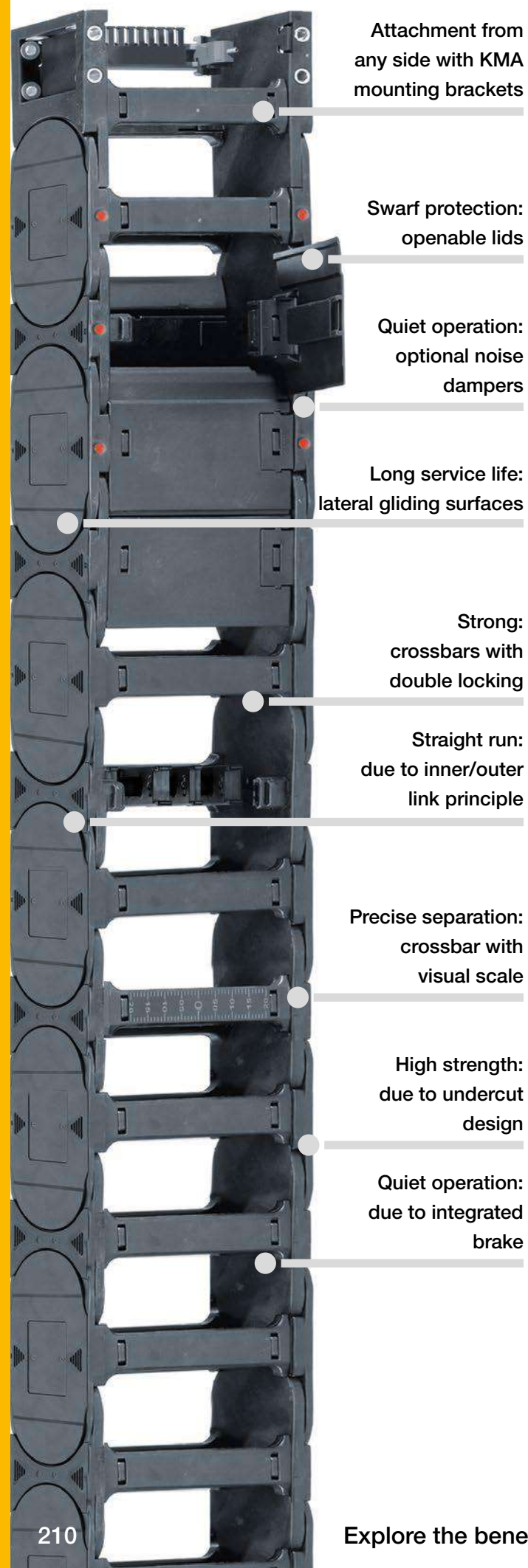
		Part No. Universal middle plate unassembled 64Q.21 assembled 64Q.21.1	Universal middle plates The shelves can be inserted from both sides. The shelves are locked in place by means of the integrated slider and automatically when the crossbar is fitted.
		Part No. Universal side plate unassembled 64Q.22 assembled 64Q.22.1	Universal side plates Allow modular shelving right up to the side links. Shelves can be inserted from both sides.
		Part No. Separator unassembled 64Q.23 assembled 64Q.23.1	Separators for universal interior separation For additional vertical partitioning of the system. When using the separator, the shelves can only be removed in one direction.
		Part No. Partial shelf¹⁾ unassembled S428.XXX assembled S428.XXX.1	Separators¹⁾ for universal interior separation Shelves of various widths can be arranged in steps of 7mm

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
018	S428.018	S428.018.1	050	S428.050	S428.050.1	083	S428.083	S428.083.1	175	S428.175	S428.175.1
023*	S428.023	S428.023.1	058	S428.058	S428.058.1	087	S428.087	S428.087.1	200	S428.200	S428.200.1
025	S428.025	S428.025.1	062	S428.062	S428.062.1	100	S428.100	S428.100.1	208*	S428.208	S428.208.1
028*	S428.028	S428.028.1	068	S428.068	S428.068.1	108	S428.108	S428.108.1			
033	S428.033	S428.033.1	070	S428.070	S428.070.1	125	S428.125	S428.125.1			
044	S428.044	S428.044.1	075	S428.075	S428.075.1	150	S428.150	S428.150.1			

* Available upon request, please consult igus® for delivery time.

1) Note: The available width of the shelf S428.XXX deviates by 8mm from the width stated in the Part No. With the shelf S428.050, e.g. the space between the separators is 42mm.





Large modular system for almost any application - E4.1

The E4.1 system combines all the advantages of its three predecessors. The E4.1 series is stronger with the same or even smaller dimensions than previous versions. Almost all accessories and mounting dimensions are identical. You can increase the service life of your application with the igus® system E4.1 whilst reducing cost.

Benefits

- Undercut design for high lateral stability
- High push/pull strength for long travels and unsupported lengths
- Well suited for side-mounted applications
- Noise-reducing brake and optional noise dampers
- Inner and outer links for quick assembly, with or without pretension

Typical application areas

- Cranes/indoor cranes
- Composting plants
- Wastewater and sewage treatment plants
- Machine tools
- General mechanical engineering
- Material handling
- Cooling technology
- Construction machinery
- Wood working
- Robots and material handling

Selection table

Part No.	Inner height h_i [mm]	Outer height h_a [mm]	Inner width B_i [mm]	Outer width B_a [mm]	Bend radius R [mm]	Unsupported length $\leq$ [m]	Page
----------	----------------------------	----------------------------	---------------------------	---------------------------	-------------------------	-------------------------------	------

E4.1 - e-chains® with crossbars every link. The all-rounder, for heavy-duty applications.

E4.21	21	28	30 - 140	44 - 154	038 - 200	2.50	212
E4.28	28	42	40 - 300	60 - 320	055 - 250	2.50	218
E4.32	32	54	50 - 400	73 - 423	063 - 300	3.30	224
E4.42	42	64	50 - 400	76 - 426	075 - 350	4.00	230
E4.56	56	84	50 - 600	84 - 634	100 - 500	5.00	236
E4.80	80	108	50 - 600	100 - 650	150 - 1.000	6.20	242
E4.112	112	140	50 - 600	102 - 652	200 - 1.000	6.50	248
E4.162	162	195	200 - 600	256 - 656	250 - 1.000	6.75	254
800	200	236	200 - 600	260 - 660	325 - 1.000	8.00	258
840	204	236	100 - 563	160 - 623	325 - 1.000	8.00	262
E4.350	350	450	400 - 800	540 - 940	500 - 1.000	6.20	266

H4.1 - e-chains® with crossbars every 2nd link. The cost-effective alternative for almost any application.

H4.32	32	54	50 - 400	73 - 423	063 - 300	3.30	224
H4.42	42	64	50 - 400	76 - 426	075 - 350	4.00	230
H4.56	56	84	50 - 600	84 - 634	100 - 500	5.00	236
H4.80	80	108	50 - 600	100 - 650	150 - 1.000	6.20	242

R4.1 - closed e-tubes. Lightweight, excellent cable protection.

R4.28	28	42	50 - 300	70 - 320	075 - 250	2.50	218
R4.32	32	54	50 - 300	73 - 323	125 - 300	3.30	224
R4.42	42	64	50 - 300	76 - 326	125 - 350	4.00	230
R4.56	56	84	75 - 462	109 - 497	100 - 500	5.00	236
R4.80	80	108	100 - 462	150 - 513	200 - 1.000	6.20	242
R4.112	108	140	200 - 500	252 - 552	250 - 1.000	6.50	248

Technical data

General properties

Speed gliding / acceleration gliding

$\leq 10\text{m/s} / \leq 50\text{m/s}^2$

Speed FL_G /acceleration FL_G

$\leq 20\text{m/s} / \leq 200\text{m/s}^2$

Speed FL_B /acceleration FL_B

$\leq 3\text{m/s} / \leq 6\text{m/s}^2$

igumid® G LW material - permitted temperature °C

-40°C/+120°C

Flammability class, igumid® G LW

VDE 0304 IIC UL94-HB

Installation types, maximum travel lengths

Series	Unsupported	Gliding ¹⁾	Vertical hanging	Vertical standing	Side mounted, unsupported	Rotary	Zig-zag
E4.21	$\leq 5.0\text{m}$	$\leq 120\text{m}$	≤ 40	$\leq 3.0\text{m}$	≤ 1.0	with rework	upon request
E4.28	$\leq 5.0\text{m}$	$\leq 200\text{m}$	≤ 80	$\leq 5.0\text{m}$	≤ 1.2	with rework	upon request
E4.32	$\leq 6.6\text{m}$	$\leq 200\text{m}$	≤ 80	$\leq 5.0\text{m}$	≤ 1.5	with rework	upon request
E4.42	$\leq 8.0\text{m}$	$\leq 300\text{m}$	≤ 100	$\leq 6.0\text{m}$	≤ 2.0	with rework	upon request
E4.56	$\leq 10.0\text{m}$	$\leq 400\text{m}$	≤ 100	$\leq 6.0\text{m}$	≤ 2.5	with rework	upon request
E4.80	$\leq 12.4\text{m}$	$\leq 400\text{m}$	≤ 120	$\leq 6.0\text{m}$	≤ 3.0	with rework	upon request
E4.112	$\leq 13.0\text{m}$	$\leq 450\text{m}$	≤ 120	$\leq 6.0\text{m}$	≤ 3.0	with rework	upon request
E4.162	$\leq 13.5\text{m}$	$\leq 450\text{m}$	≤ 120	$\leq 6.0\text{m}$	upon request	with rework	upon request
800/840	$\leq 16.0\text{m}$	$\leq 450\text{m}$	≤ 120	$\leq 6.0\text{m}$	≤ 6.0	with rework	upon request
E4.350	$\leq 13.0\text{m}$	upon request	upon request	upon request	with rework	with rework	upon request

Product range



Part No. e-chains® with crossbars every link	<i>Bi</i> [mm]	<i>Ba</i> [mm]	E4.21 [kg/m]
E4.21.030.□.0	30	44	≈ 0.60
E4.21.040.□.0	40	54	≈ 0.64
E4.21.050.□.0	50	64	≈ 0.67
E4.21.060.□.0	60	74	≈ 0.71
E4.21.070.□.0	70	84	≈ 0.74
E4.21.080.□.0	80	94	≈ 0.78

Part No. e-chains® with crossbars every link	<i>Bi</i> [mm]	<i>Ba</i> [mm]	E4.21 [kg/m]
E4.21.090.□.0	90	104	≈ 0.82
E4.21.100.□.0	100	114	≈ 0.85
E4.21.110.□.0	110	124	≈ 0.89
E4.21.120.□.0	120	134	≈ 0.92
E4.21.140.□.0	140	154	≈ 0.99

Available bend radii *R* [mm] | 038 | 048 | 063 | 075 | 100 | 150 | 200 |



Order key

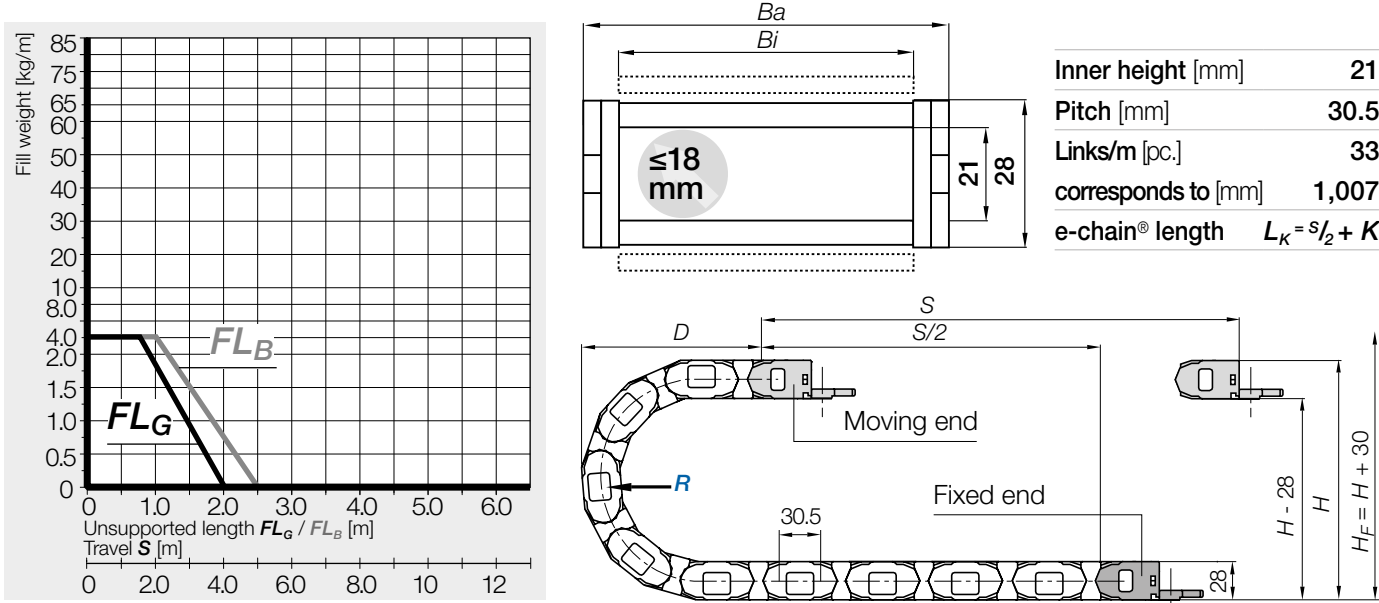
E4.21.030.150.0

Series / Type	Inner height	Width index	Bend radius	Colour index

Order example:
Complete Part No. with the required radius *R*. Example:
E4.21.030.150.0 = crossbars removable along the inner and outer radius
Order index for colour options ► www.igus.eu/info-colours

 Available from stock
Upon request

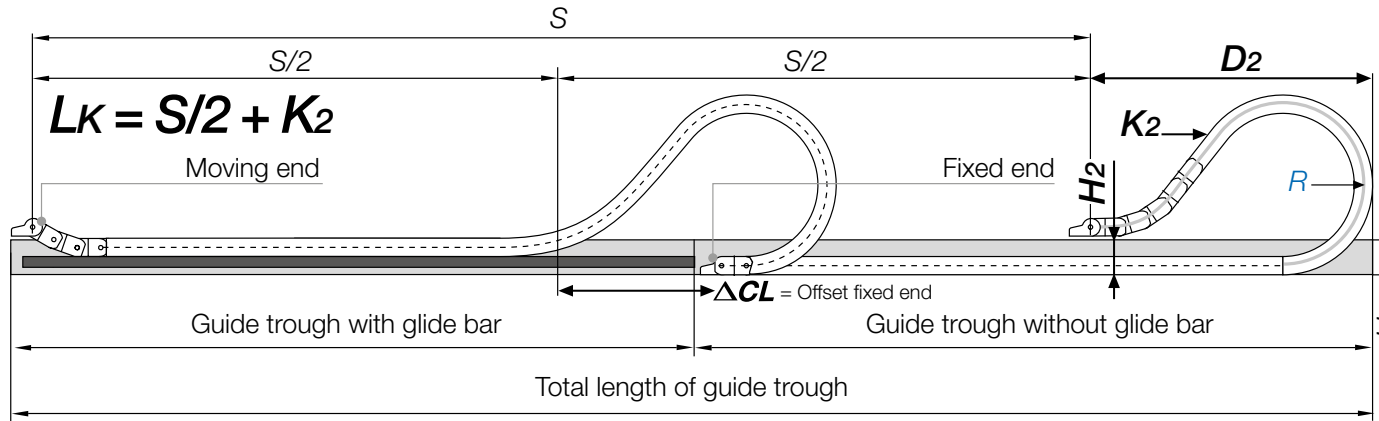
Unsupported applications | Short travels



<i>R</i>	038	048	063	075	100	150	200
<i>H</i>	104	124	154	178	228	328	428
<i>D</i>	098	108	123	135	160	210	260
<i>K</i>	185	215	260	300	380	535	690

The required clearance height: $H_F = H + 30\text{mm}$ (with 1.5kg/m fill weight)

Gliding applications | For travel lengths from 10m to max. 120m

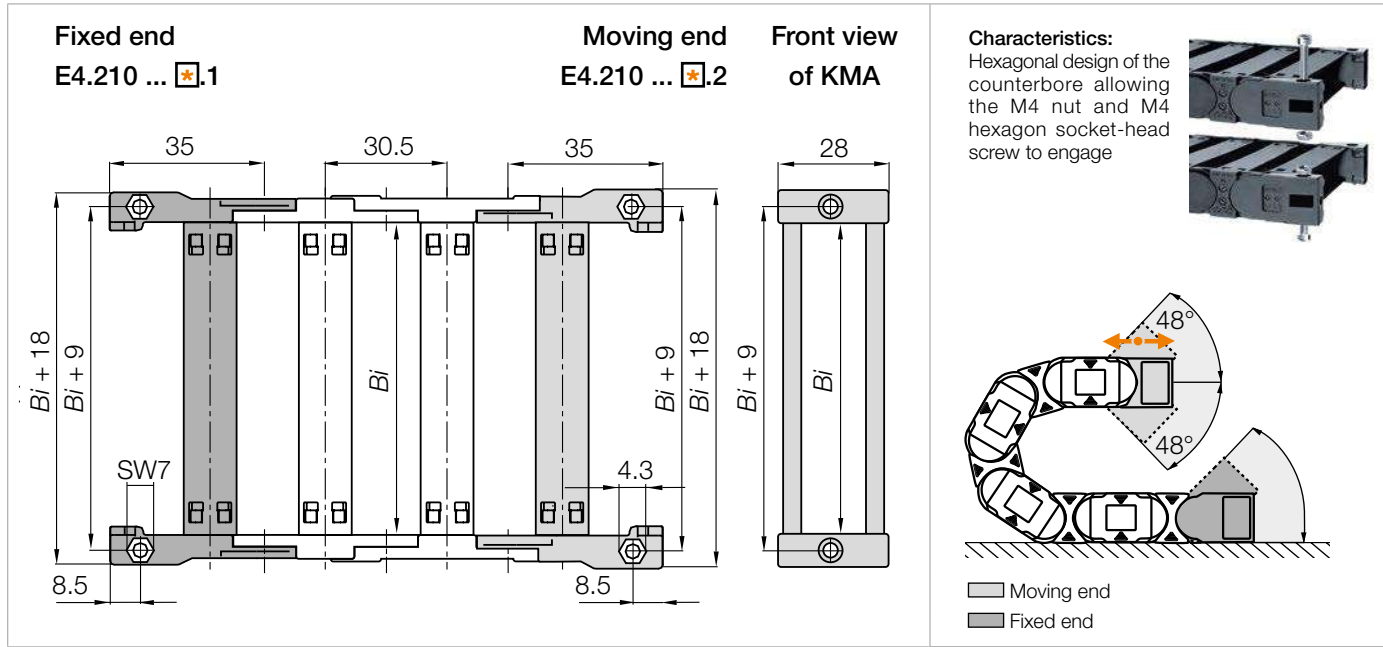


<i>R</i>	038	048	063	075	100	150	200
<i>H</i> ₂	076	096	126	152	135	135	135
<i>D</i> ₂ ⁺²⁵	085	095	110	120	430	580	730
<i>K</i> ₂	185	215	260	300	640.5	945.5	1,250.5
ΔCL	-	-	-	-	270	370	470

Note: In case of travels between 4 and 10m we recommend an e-chain® with a longer unsupported length.

 Available from stock
Upon request

KMA mounting brackets | Pivoting



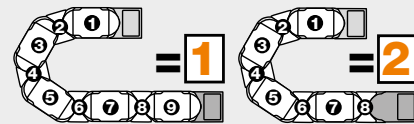
KMA full set		
Width index	Part No.	Bi [mm]
	pivoting	
030.	E4.210.030. * 12.	30
040.	E4.210.040. * 12.	40
050.	E4.210.050. * 12.	50
060.	E4.210.060. * 12.	60
070.	E4.210.070. * 12.	70
080.	E4.210.080. * 12.	80

(KMA = polymer metal mounting bracket)

 Available from stock
Upon request

KMA mounting brackets | Pivoting

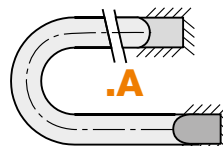
Note *: The e-chains® may end with either an inner or an outer side link. An outer side link should always be the first e-chain® link at the moving end. Please specify the index 1 (for odd) or 2 (for even) depending on an even or odd number of links required.



 **Order key**

E4.210.030.2.12.**A**

Note: The bracket orientations are set automatically when using this igus® KMA mounting bracket. To receive a KMA mounting bracket pre-fitted please add index **.A**.



Series

Width index

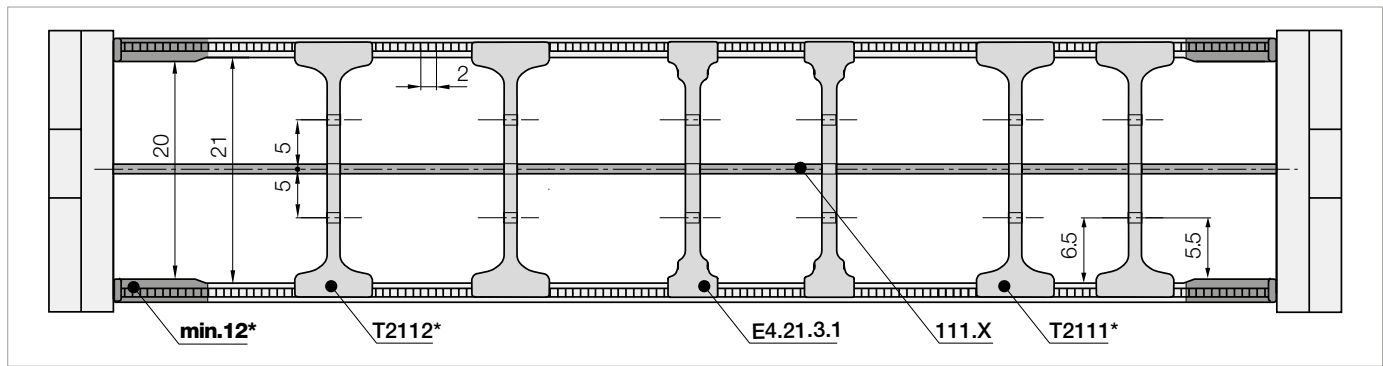
Even number of links

Full set

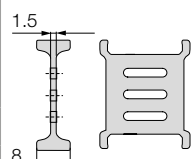
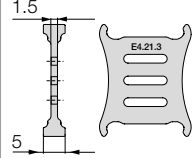
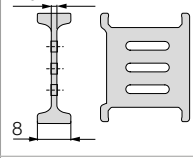
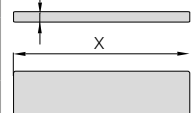
Pre-fitted

 Available from stock
Upon request

Interior separation | Increase cable service life



Note T2102 and T2101*: Please be aware of the minimum lateral gap to the side links! **e-chain® = 12mm**
As standard separators are fitted every 2nd e-chain® link!

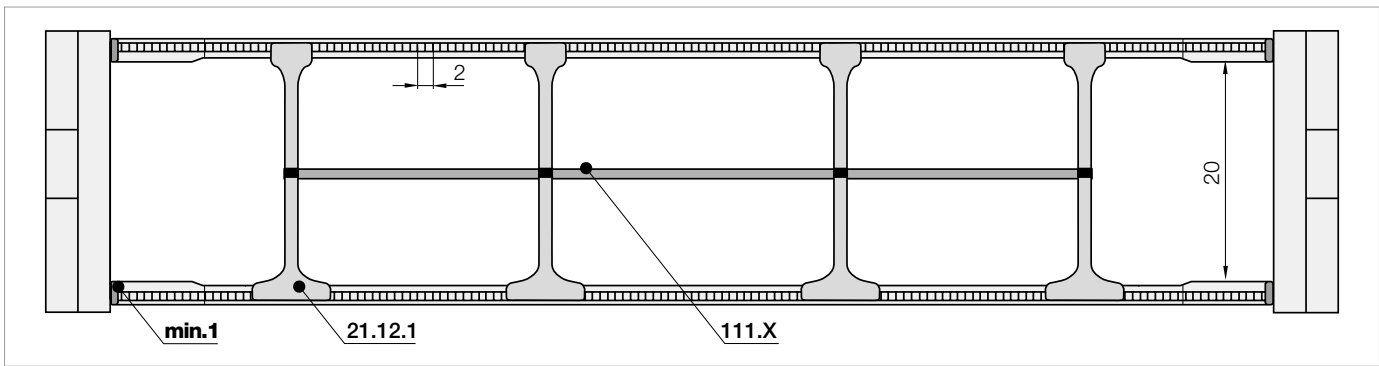
 	Part No. Slotted separator* unassembled T2102 assembled T2112	Slotted separator¹⁾ For a vertical subdivision. The slot allows basic vertical/horizontal shelving arrangements.
 	Part No. Separator, narrow unassembled E4.21.3 assembled E4.21.3.1	For a large number of thin cables Separator with a narrow base for a large number of thin cables side by side. Saves space.
 	Part No. Notch separator* unassembled T2101 assembled T2111	Slotted notch separator¹⁾ Can be locked/fixed securely on the crossbars of the e-chain®. The separator cannot slide sideways during operation.
 	Part No. Full-width shelf unassembled 110.X assembled 111.X	Full-width shelf This option is for applications with many small cables with similar diameters. For full-width separation.

Note: 1) NOT suitable for *Bi* 030.

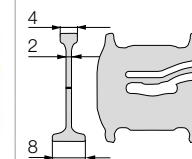
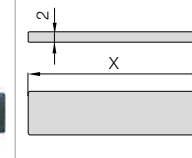
Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
030	110.30	111.30	060	110.60	111.60	090	110.90	111.90	120	110.120	111.120
040	110.40	111.40	070	110.70	111.70	100	110.100	111.100			
050	110.50	111.50	080	110.80	111.80	110	110.110	111.110			

 Available from stock
Upon request

Interior separation | To allow faster filling



Note: Please be aware of the minimum lateral gap to the side links! **e-chain® = 1mm**
As standard separators are fitted every 2nd e-chain® link!

 	Part No. Lean separator unassembled 21.12* assembled 21.12.1*	Lean separators¹⁾ Quick fitting of shelves in several layers. Enables extremely fast replacement of individual cables in very full e-chains®. Only suitable for e-chains®.
 	Part No. Full-width shelf unassembled 110.X assembled 111.X	Full-width shelf This option is for applications with many small cables with similar diameters. For full-width separation.

* Available upon request, please consult igus® for delivery time.

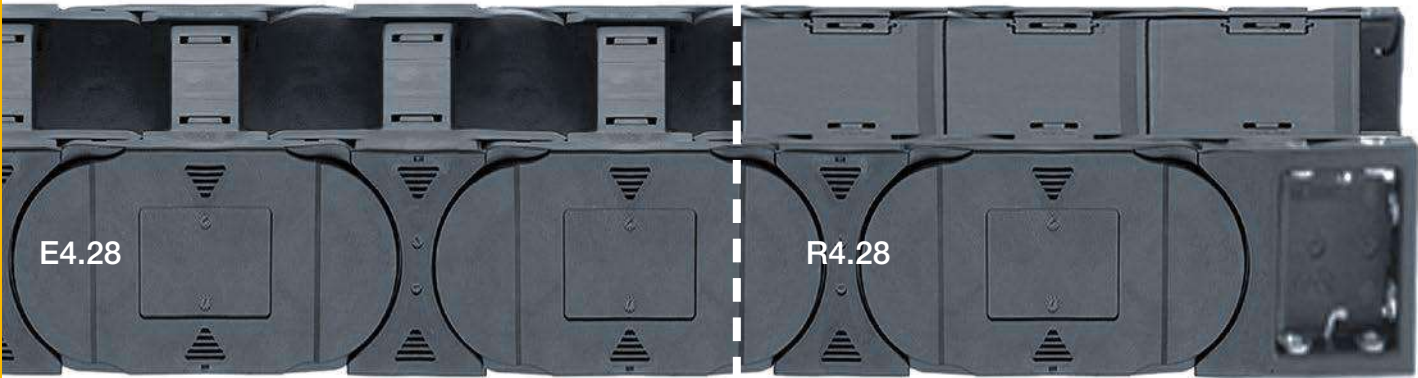
Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
030	110.30	111.30	060	110.60	111.60	090	110.90	111.90	120	110.120	111.120
040	110.40	111.40	070	110.70	111.70	100	110.100	111.100			
050	110.50	111.50	080	110.80	111.80	110	110.110	111.110			



Lean separator for even faster filling: quickly insert several layers of cables into the e-chain® and reduce the installation time by up to 50%. Measured on a 4m long e-chain® fitted with 12 cables. **1) Note:** Please combine a maximum of four lean separators with one shelf. Not suitable for side-mounted e-chains®!

 Available from stock
Upon request

Product range



Part No. e-chains® with crossbars every link	Part No. e-tubes closed	Bi [mm]	Ba [mm]	E4.28 [kg/m]	R4.28 [kg/m]
E4.28.040.□.0	–	40	60	≈ 1.06	–
E4.28.050.□.0	R4.28.050.□.0	50	70	≈ 1.11	≈ 2.20
E4.28.052.□.0	–	52	72	≈ 1.13	–
E4.28.062.□.0	–	62	82	≈ 1.17	–
E4.28.070.□.0	–	70	90	≈ 1.20	–
E4.28.075.□.0	R4.28.075.□.0	75	95	≈ 1.23	≈ 2.32
E4.28.087.□.0	–	87	107	≈ 1.28	–
E4.28.100.□.0	R4.28.100.□.0	100	120	≈ 1.37	≈ 2.54

Part No. e-chains® with crossbars every link	Part No. e-tubes closed	Bi [mm]	Ba [mm]	E4.28 [kg/m]	R4.28 [kg/m]
E4.28.125.□.0	R4.28.125.□.0	125	145	≈ 1.51	≈ 2.78
E4.28.150.□.0	R4.28.150.□.0	150	170	≈ 1.61	≈ 3.02
E4.28.175.□.0	R4.28.175.□.0	175	195	≈ 1.71	≈ 3.26
E4.28.200.□.0	R4.28.200.□.0	200	220	≈ 1.84	≈ 3.50
E4.28.225.□.0	R4.28.225.□.0	225	245	≈ 1.99	≈ 3.82
E4.28.250.□.0	R4.28.250.□.0	250	270	≈ 2.14	≈ 3.98
E4.28.275.□.0	–	275	295	≈ 2.27	–
E4.28.300.□.0	R4.28.300.□.0	300	320	≈ 2.39	≈ 4.46

Available bend radii R [mm] | 055* | 063* | 075 | 100 | 125 | 150 | 175 | 200 | 250 |

*Radius not available for e-tubes.

Order key

E4.28.100.150.0

Series / Type	Inner height	Width index	Bend radius	Colour index

Order example:

Complete Part No. with the required radius R . Example:

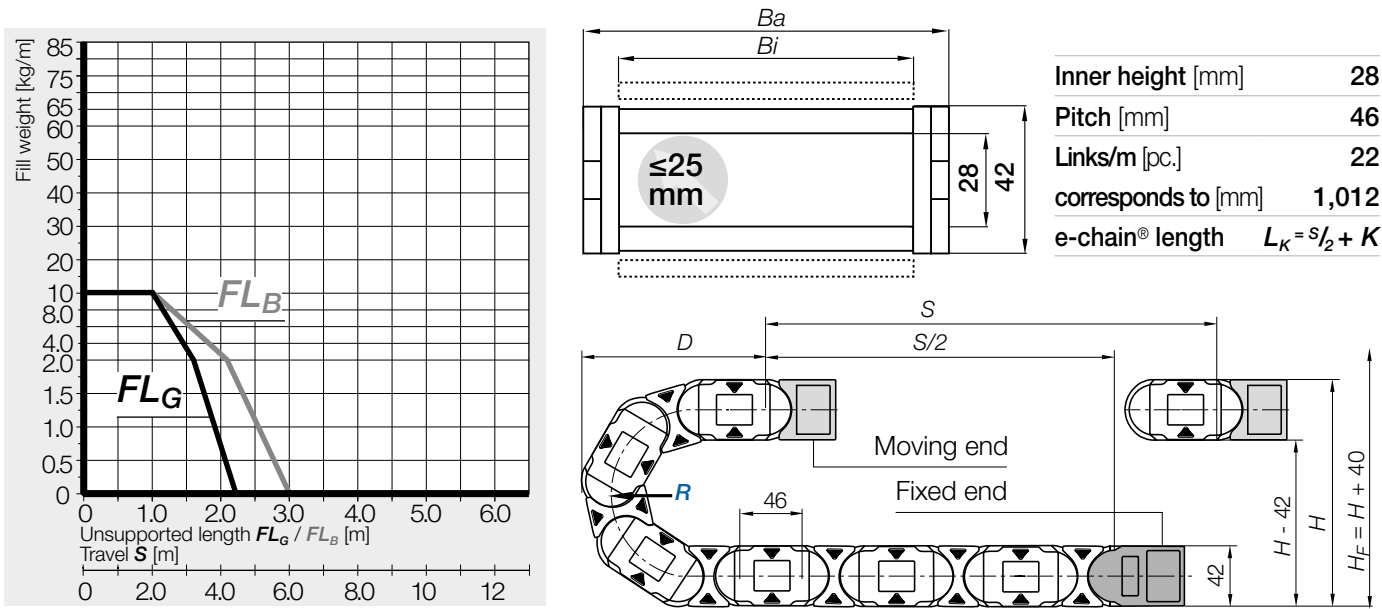
E4.28.100.150.0 = crossbars removable along the inner and outer radius

R4.28.100.150.0 = lids openable along the outer radius from one side

Order index for colour options ► www.igus.eu/info-colours

Available from stock
Upon request

Unsupported applications | Short travels

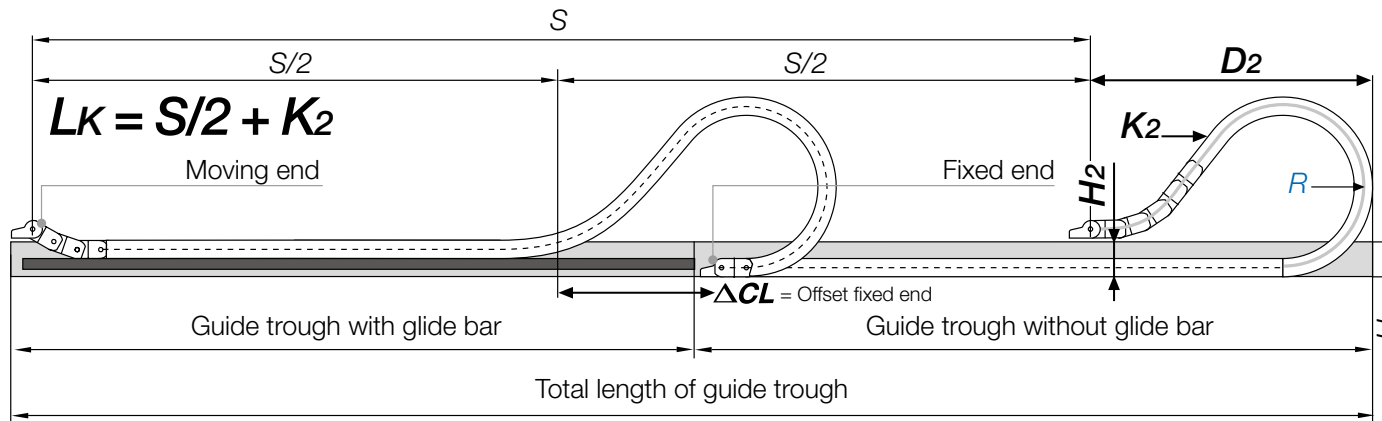


R	055*	063*	075	100	125	150	175	200	250
H	152	168	192	242	292	342	392	442	542
D	145	153	165	190	215	240	265	290	340
K	265	290	330	410	485	565	645	725	880

The required clearance height: $H_F = H + 40\text{mm}$ (with 1.0kg/m fill weight)

*Radius not available for e-tubes

Gliding applications | For travel lengths from 10m to max. 200m



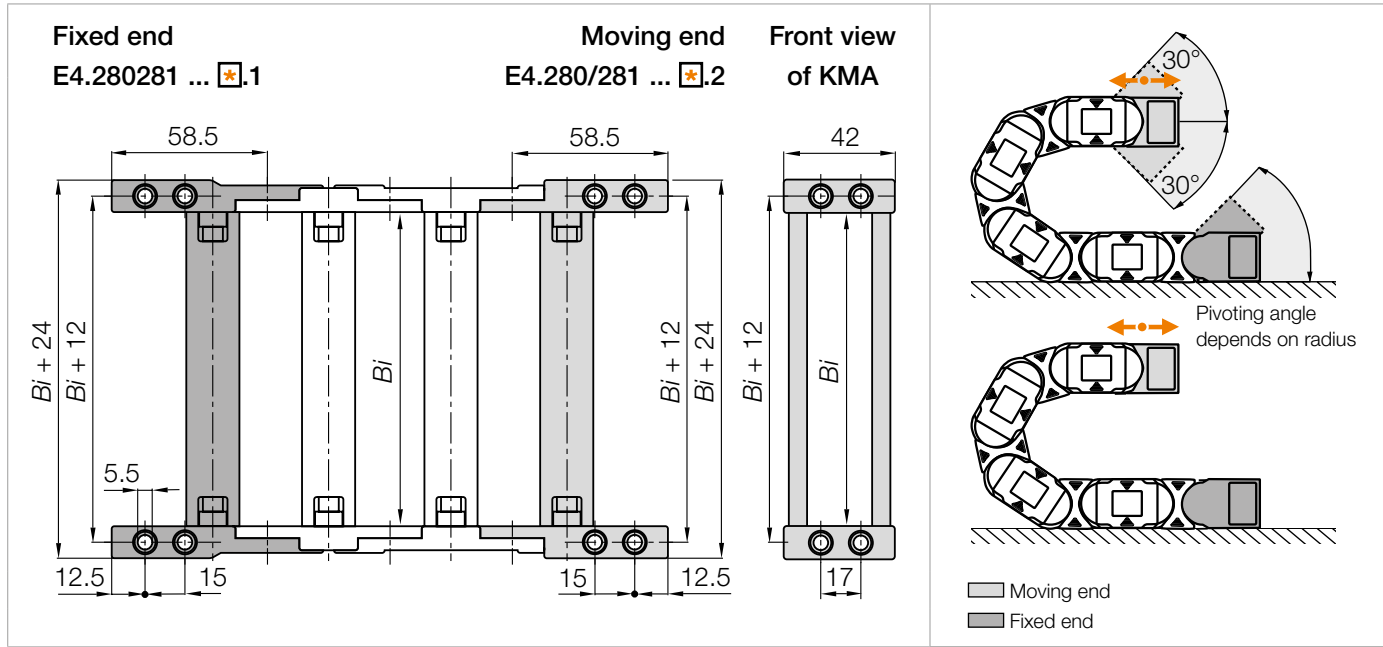
R	055*	063*	075	100	125	150	175	200	250
H_2	110	126	150	158	158	158	158	158	158
D_2^{+50}	122	130	142	350	490	530	665	730	935
K_2	265	290	330	598	782	920	1,104	1,242	1,610
ΔCL	–	–	–	150	270	300	400	450	600

Note: In case of travels between 5 and 10m we recommend an e-chain® with a longer unsupported length.

*Radius not available for e-tubes

Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting | Locking

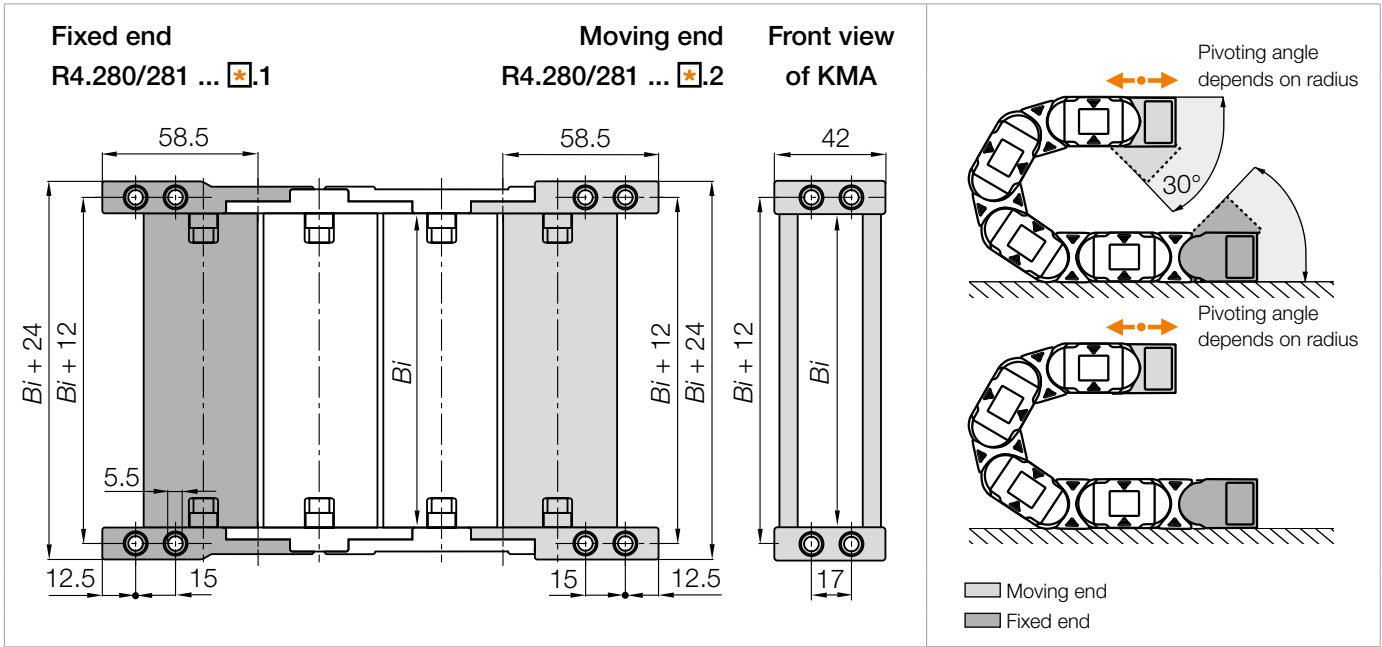


Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
040.	E4.280.040.12.1	E4.281.040.12.1	40
050.	E4.280.050.12.1	E4.281.050.12.1	50
052.	E4.280.052.12.1	E4.281.052.12.1	52
062.	E4.280.062.12.1	E4.281.062.12.1	62
070.	E4.280.070.12.1	E4.281.070.12.1	70
075.	E4.280.075.12.1	E4.281.075.12.1	75
087.	E4.280.087.12.1	E4.281.087.12.1	87
100.	E4.280.100.12.1	E4.281.100.12.1	100

(KMA = polymer metal mounting bracket)

Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
125.	E4.280.125.12.1	E4.281.125.12.1	125
150.	E4.280.150.12.1	E4.281.150.12.1	150
175.	E4.280.175.12.1	E4.281.175.12.1	175
200.	E4.280.200.12.1	E4.281.200.12.1	200
225.	E4.280.225.12.1	E4.281.225.12.1	225
250.	E4.280.250.12.1	E4.281.250.12.1	250
275.	E4.280.275.12.1	E4.281.275.12.1	275
300.	E4.280.300.12.1	E4.281.300.12.1	300

KMA mounting brackets | Attachment from any side | Pivoting | Locking

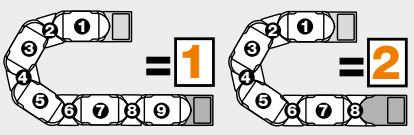


Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
050.	R4.280.050.12.1	R4.281.050.12.1	50
075.	R4.280.075.12.1	R4.281.075.12.1	75
100.	R4.280.100.12.1	R4.281.100.12.1	100
125.	R4.280.125.12.1	R4.281.125.12.1	125
150.	R4.280.150.12.1	R4.281.150.12.1	150

(KMA = polymer metal mounting bracket)

Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
175.	R4.280.175.12.1	R4.281.175.12.1	175
200.	R4.280.200.12.1	R4.281.200.12.1	200
225.	R4.280.225.12.1	R4.281.225.12.1	225
250.	R4.280.250.12.1	R4.281.250.12.1	250
300.	R4.280.300.12.1	R4.281.300.12.1	300

Note 1: The e-chains® may end with either an inner or an outer side link. An outer side link should always be the first e-chain® link at the moving end. Please specify the index 1 (for odd) or 2 (for even) depending on an even or odd number of links required.

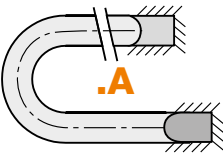


Order key

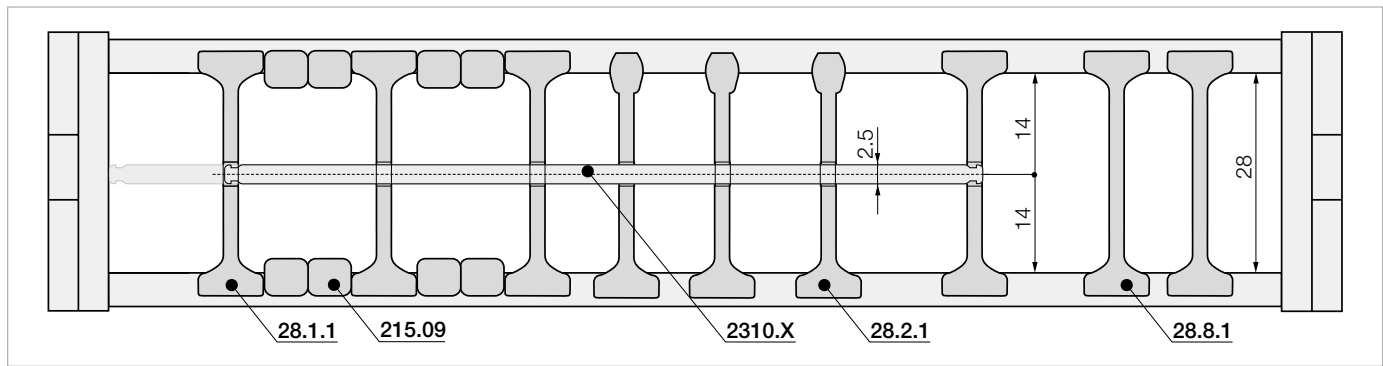
E4.280.100.2.12.A

Series	Width index	Even number of links	Full set	Pre-fitted
--------	-------------	----------------------	----------	------------

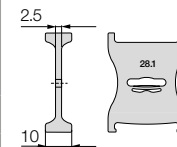
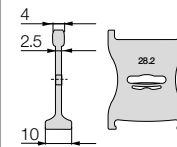
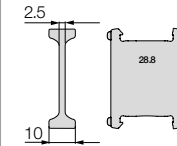
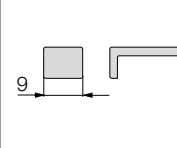
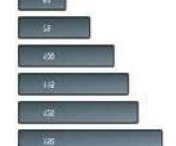
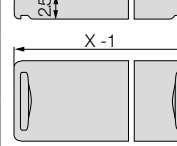
Note: The bracket orientations are set automatically when using this igus® KMA mounting bracket. To receive a KMA mounting bracket pre-fitted please add index .A.



Interior separation | Increase cable service life



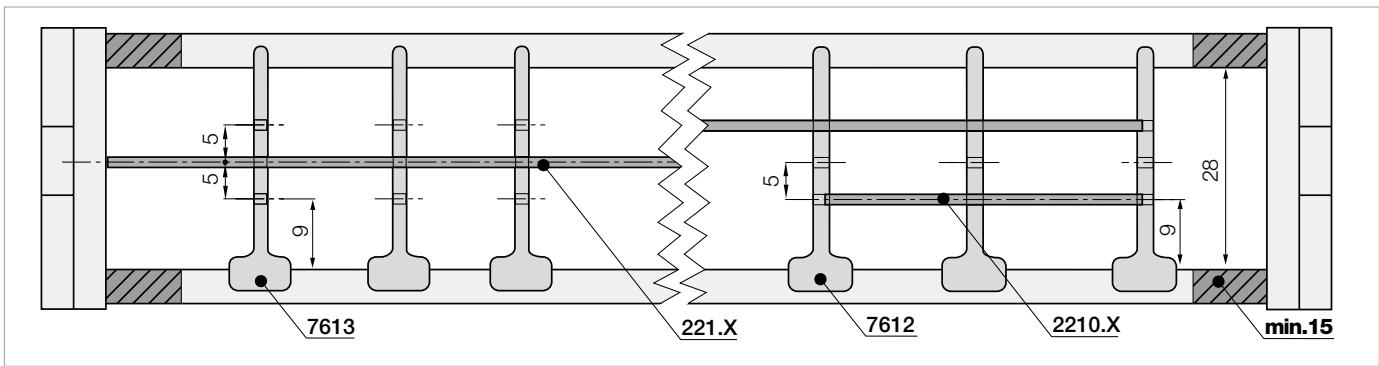
No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-chain® link!

 	Part No. Standard separator unassembled 28.1 assembled 28.1.1	For all applications Standard separator with a wide base for maximum holding force.
 	Part No. Separator, narrow top unassembled 28.2 assembled 28.2.1	For even faster installation Wide on one side for high holding force, narrow on opposite side for easy cable fitting.
 	Part No. Locking separator unassembled 28.8 assembled 28.8.1	Locking separator for increased holding force Locking separators offer higher crossbar opening forces for high humidity and/or large hydraulic hoses.
 	Part No. Spacer unassembled 205.09 assembled 215.09	Spacer for fixing the separator position To avoid reducing the internal height by 2mm, they can also be mounted on the opening crossbar from the outside (not for long travels).
 	Part No. Shelf unassembled 2300.X assembled 2310.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

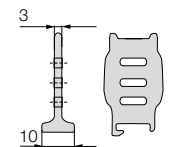
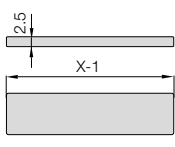
Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
015	2300.015	2310.015	057	2300.057	2310.057	077	2300.077	2310.077	110	2300.110	2310.110
025	2300.025	2310.025	060	2300.060	2310.060	080	2300.080	2310.080	120	2300.120	2310.120
030	2300.030	2310.030	062	2300.062	2310.062	087	2300.087	2310.087	125	2300.125	2310.125
038	2300.038	2310.038	065	2300.065	2310.065	090	2300.090	2310.090			
040	2300.040	2310.040	070	2300.070	2310.070	100	2300.100	2310.100			
050	2300.050	2310.050	075	2300.075	2310.075	103	2300.103	2310.103			

 Available from stock
 Upon request

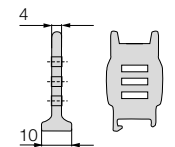
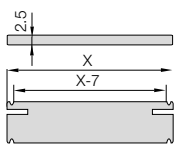
Interior separation | Option 1 | Option 2



 **Note:** Please be aware of the minimum lateral gap to the side links! **e-tubes: 15mm**
As standard separators are fitted every 2nd e-chain® link!

Version 1	 	Part No. Slotted separator unassembled 7603 assembled 7613	Slotted separator The slot allows basic vertical/horizontal shelving arrangements.
	 	Part No. Full-width shelf unassembled 220.X assembled 221.X	Full-width shelf This option is for applications with many small cables with similar diameters. For full-width separation.

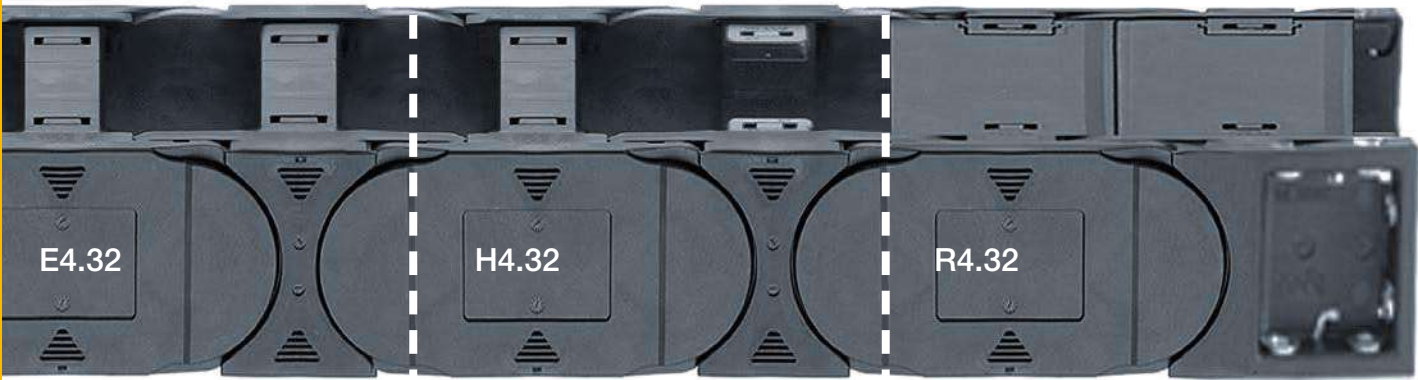
Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
040	220.40	221.40	070	220.70	221.70	100	220.100	221.100	175	220.175	221.175
050	220.50	221.50	075	220.75	221.75	125	220.125	221.125	200	220.200	221.200
062	220.62	221.62	087	220.87	221.87	150	220.150	221.150			

Version 2	 	Part No. Slotted separator unassembled 7602 assembled 7612	Slotted separator Allows modular shelving arrangements.
	 	Part No. Shelf unassembled 2200.X assembled 2210.X	Shelf For applications involving many cables with different diameters, shelves can be fitted at different heights.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
018	2200.18	2210.18	038	2200.38	2210.38	068	2200.68	2210.68	124	2200.124	2210.124
023	2200.23	2210.23	043	2200.43	2210.43	073	2200.73	2210.73	149	2200.149	2210.149
028	2200.28	2210.28	048	2200.48	2210.48	088	2200.88	2210.88			
033	2200.33	2210.33	058	2200.58	2210.58	099	2200.99	2210.99			

 Available from stock
 Upon request

Product range



e-chains® with crossbars every link	e-chains® with crossbars every 2nd link	e-tubes closed		Bi [mm]	Ba [mm]	E4.32 [kg/m]	H4.32 [kg/m]	R4.32 [kg/m]
E4.32.	H4.32.	R4.32 ¹⁾	05.□.0	50	73	≈ 1.68	≈ 1.62	≈ 1.83
E4.32.	H4.32.	–	06.□.0	68	91	≈ 1.81	≈ 1.68	–
E4.32.	H4.32.	R4.32	07.□.0	75	98	≈ 1.85	≈ 1.70	≈ 2.11
E4.32.	H4.32.	–	087.□.0	87	110	≈ 1.92	≈ 1.73	–
E4.32.	H4.32.	–	097.□.0	97	120	≈ 1.98	≈ 1.76	–
E4.32.	H4.32.	R4.32	10.□.0	100	123	≈ 2.00	≈ 1.78	≈ 2.33
E4.32.	H4.32.	R4.32	11.□.0	108	131	≈ 2.06	≈ 1.80	≈ 2.39
E4.32.	H4.32.	–	112.□.0	112	136	≈ 2.07	≈ 1.81	–
E4.32.	H4.32.	R4.32	12.□.0	125	148	≈ 2.18	≈ 1.87	≈ 2.57
E4.32.	H4.32.	–	137.□.0	137	161	≈ 2.24	≈ 1.89	–
E4.32.	H4.32.	R4.32	15.□.0	150	173	≈ 2.33	≈ 1.94	≈ 2.84
E4.32.	H4.32.	–	162.□.0	162	186	≈ 2.36	≈ 1.95	–
E4.32.	H4.32.	R4.32	17.□.0	168	191	≈ 2.44	≈ 1.99	≈ 3.00
E4.32.	H4.32.	–	18.□.0	175	198	≈ 2.46	≈ 2.00	–
E4.32.	H4.32.	–	187.□.0	187	211	≈ 2.51	≈ 2.03	–
E4.32.	H4.32.	R4.32	20.□.0	200	223	≈ 2.63	≈ 2.09	≈ 3.35

e-chains® with crossbars every link	e-chains® with crossbars every 2nd link	e-tubes closed		Bi [mm]	Ba [mm]	E4.32 [kg/m]	H4.32 [kg/m]	R4.32 [kg/m]
E4.32.	H4.32.	–	212.□.0	212	236	≈ 2.68	≈ 2.12	–
E4.32.	H4.32.	–	23.□.0	225	248	≈ 2.78	≈ 2.17	–
E4.32.	H4.32.	–	237.□.0	237	261	≈ 2.81	≈ 2.18	–
E4.32.	H4.32.	R4.32	25.□.0	250	273	≈ 2.95	≈ 2.25	≈ 4.15
E4.32.	H4.32.	–	262.□.0	262	286	≈ 3.03	≈ 2.29	–
E4.32.	H4.32.	–	28.□.0	275	298	≈ 3.10	≈ 2.33	–
E4.32.	H4.32.	–	29.□.0	287	311	≈ 3.14	≈ 2.34	–
E4.32.	H4.32.	R4.32	30.□.0	300	323	≈ 3.27	≈ 2.41	≈ 4.69
E4.32.	H4.32.	–	312.□.0	312	336	≈ 3.29	≈ 2.42	–
E4.32.	H4.32.	–	325.□.0	325	348	≈ 3.39	≈ 2.47	–
E4.32.	H4.32.	–	337.□.0	337	361	≈ 3.45	≈ 2.50	–
E4.32.	H4.32.	–	350.□.0	350	373	≈ 3.68	≈ 2.61	–
E4.32.	H4.32.	–	362.□.0	362	386	≈ 3.78	≈ 2.66	–
E4.32.	H4.32.	–	375.□.0	375	398	≈ 3.85	≈ 2.70	–
E4.32.	H4.32.	–	387.□.0	387	411	≈ 3.92	≈ 2.73	–
E4.32.	H4.32.	–	400.□.0	400	423	≈ 3.98	≈ 2.77	–

Available bend radii *R* [mm] | 063* | 075* | 100* | 125 | 150 | 175 | 200 | 220 | 250 | 300 |

*Radius not available for e-tubes. 1) Lid removable, non-openable



Order key

E4.32.30.150.0

Series / Type	Inner height	Width index	Bend radius	Colour index

Order example:

Complete Part No. with the required radius R. Example:

E4.32.30.150.0 = crossbars removable along the inner and outer radius

H4.32.30.150.0 = crossbars removable along the inner and outer radius

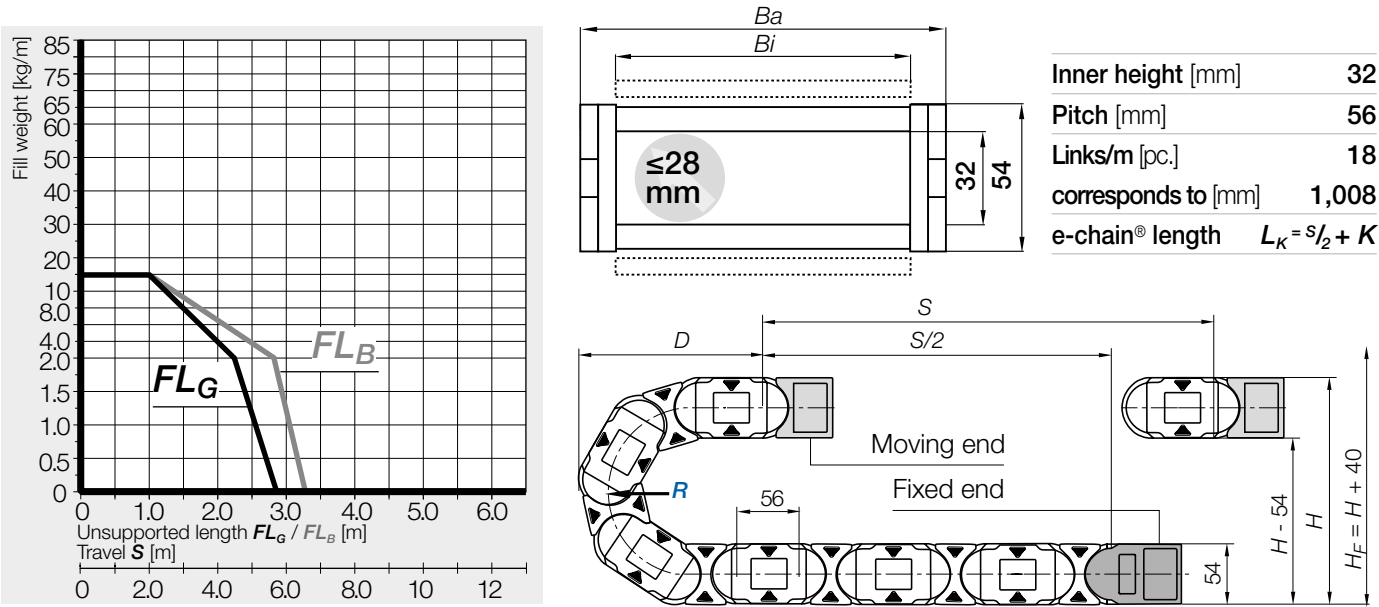
R4.32.30.150.0 = lids openable along the outer radius from one side

Order index for colour options ► www.igus.eu/info-colours



Available from stock
Upon request

Unsupported applications | Short travels

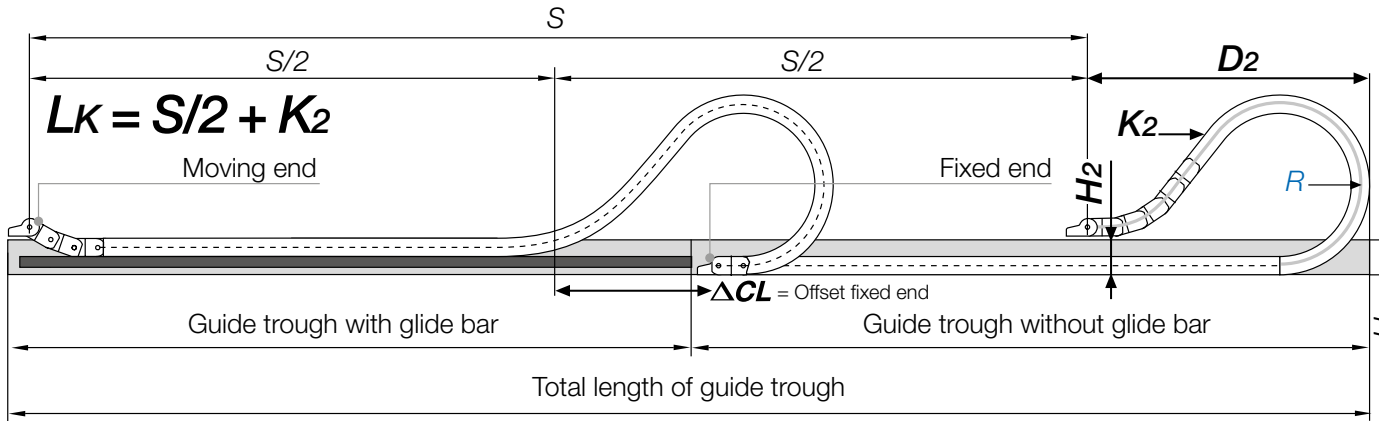


<i>R</i>	063*	075*	100*	125	150	175	200	220	250	300
<i>H</i> ₊₂₅	180	204	254	304	354	404	454	494	554	654
<i>D</i>	174	186	211	236	261	286	311	331	361	411
<i>K</i>	310	350	430	505	585	665	745	805	900	1,055

The required clearance height: *H_F* = *H* + 40mm (with 2.0kg/m fill weight)

*Radius not available for e-tubes

Gliding applications | For travel lengths from 10m to max. 200m



<i>R</i>	063*	075*	100*	125	150	175	200	220	250	300
<i>H</i> ₂	126	150	166	166	166	166	166	166	166	166
<i>D</i> ₂ ⁺²⁵	146	158	370	470	500	655	770	900	930	1,100
<i>K</i> ₂	310	350	616	784	896	1,120	1,288	1,456	1,568	1,904
<i>ΔCL</i>	–	–	160	210	240	370	460	540	570	690

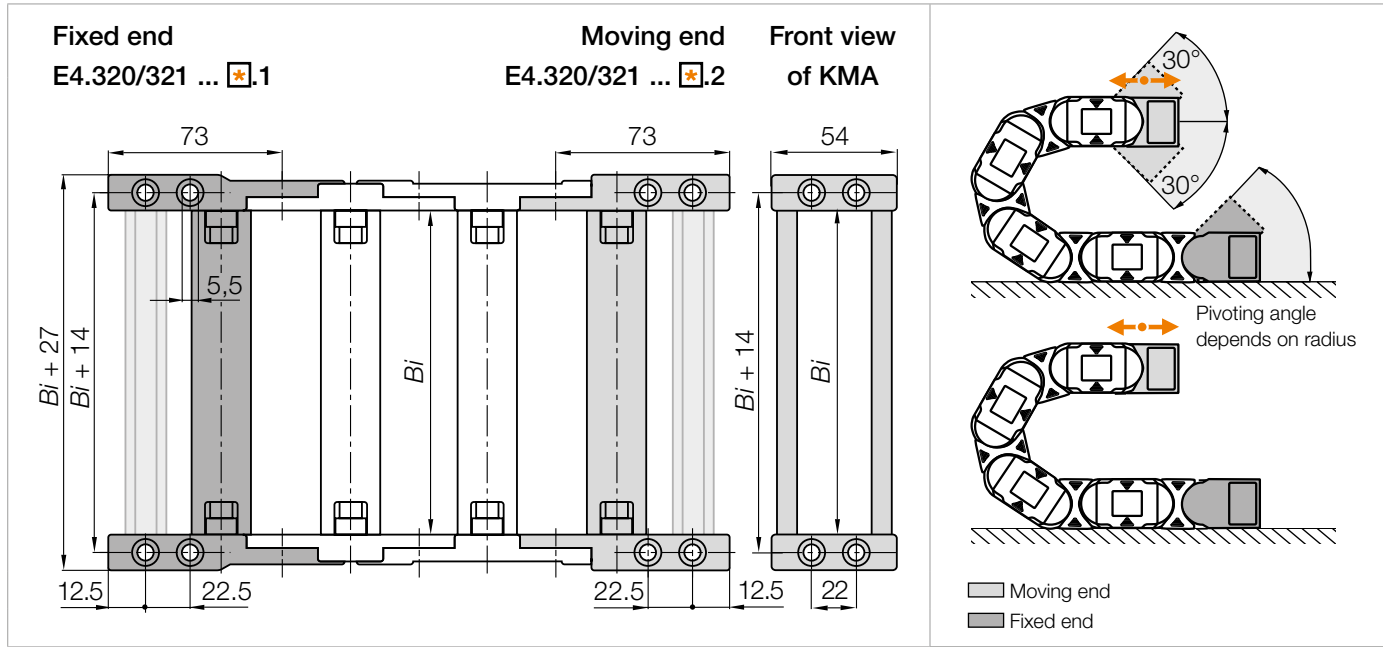
Note: In case of travels between 7 and 10m we recommend an e-chain® with a longer unsupported length.

*Radius not available for e-tubes



Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting | Locking

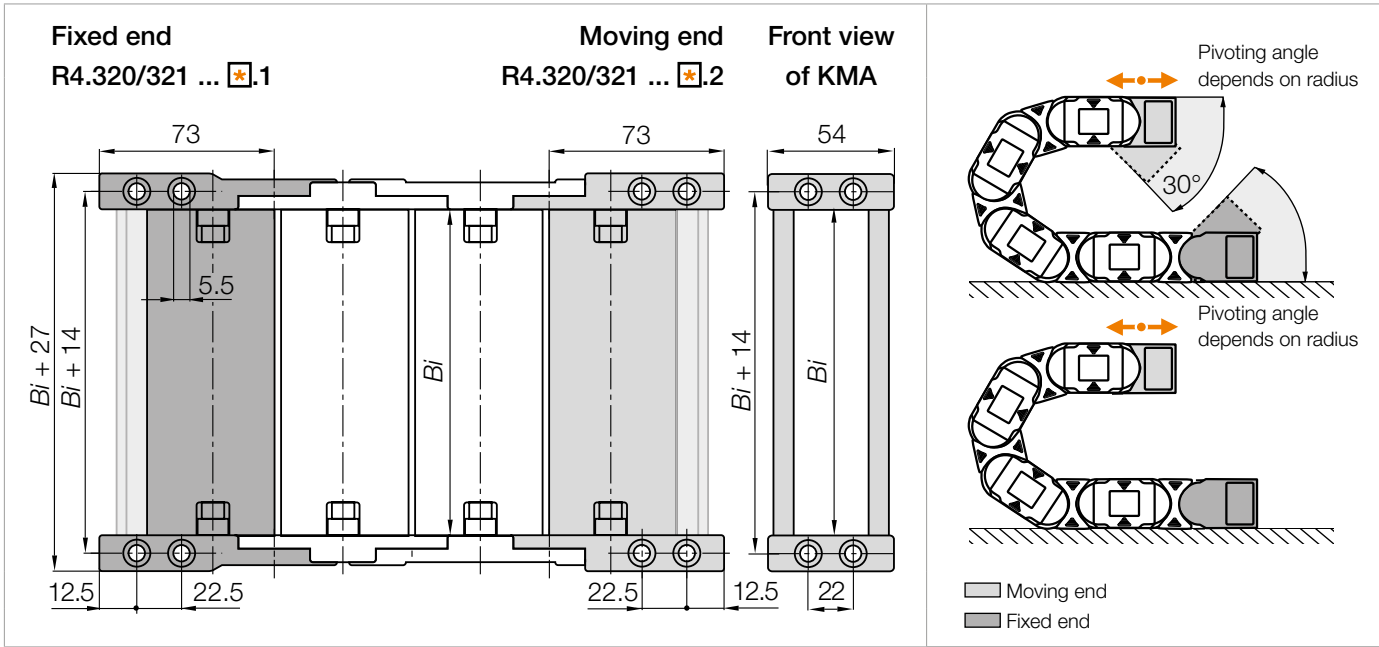


Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
05.	E4.320.05. [12]	E4.321.05. [12]	50
06.	E4.320.06. [12]	E4.321.06. [12]	68
07.	E4.320.07. [12]	E4.321.07. [12]	75
087.	E4.320.087. [12]	E4.321.087. [12]	87
09.	E4.320.09. [12]	E4.321.09. [12]	97
10.	E4.320.10. [12]	E4.321.10. [12]	100
11.	E4.320.11. [12]	E4.321.11. [12]	108
112.	E4.320.112. [12]	E4.321.112. [12]	112
12.	E4.320.12. [12]	E4.321.12. [12]	125
137.	E4.320.137. [12]	E4.321.137. [12]	137
15.	E4.320.15. [12]	E4.321.15. [12]	150
162.	E4.320.162. [12]	E4.321.162. [12]	162
17.	E4.320.17. [12]	E4.321.17. [12]	168
18.	E4.320.18. [12]	E4.321.18. [12]	175
187.	E4.320.187. [12]	E4.321.187. [12]	187
20.	E4.320.20. [12]	E4.321.20. [12]	200

(KMA = polymer metal mounting bracket)

Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
212.	E4.320.212. [12]	E4.321.212. [12]	212
23.	E4.320.23. [12]	E4.321.23. [12]	225
237.	E4.320.237. [12]	E4.321.237. [12]	237
25.	E4.320.25. [12]	E4.321.25. [12]	250
262.	E4.320.262. [12]	E4.321.262. [12]	262
28.	E4.320.28. [12]	E4.321.28. [12]	275
29.	E4.320.29. [12]	E4.321.29. [12]	287
30.	E4.320.30. [12]	E4.321.30. [12]	300
312.	E4.320.312. [12]	E4.321.312. [12]	312
325.	E4.320.325. [12]	E4.321.325. [12]	325
337.	E4.320.337. [12]	E4.321.337. [12]	337
350.	E4.320.350. [12]	E4.321.350. [12]	350
362.	E4.320.362. [12]	E4.321.362. [12]	362
375.	E4.320.375. [12]	E4.321.375. [12]	375
387.	E4.320.387. [12]	E4.321.387. [12]	387
400.	E4.320.400. [12]	E4.321.400. [12]	400

KMA mounting brackets | Attachment from any side | Pivoting | Locking

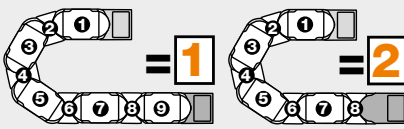


Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
05.	R4.320.05. [12]	R4.321.05. [12]	50
07.	R4.320.07. [12]	R4.321.07. [12]	75
10.	R4.320.10. [12]	R4.321.10. [12]	100
11.	R4.320.11. [12]	R4.321.11. [12]	108
12.	R4.320.12. [12]	R4.321.12. [12]	125

(KMA = polymer metal mounting bracket)

Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
15.	R4.320.15. [12]	R4.321.15. [12]	150
17.	R4.320.17. [12]	R4.321.17. [12]	168
20.	R4.320.20. [12]	R4.321.20. [12]	200
25.	R4.320.25. [12]	R4.321.25. [12]	250
30.	R4.320.30. [12]	R4.321.30. [12]	300

Note [1]: The e-chains® may end with either an inner or an outer side link. An outer side link should always be the first e-chain® link at the moving end. Please specify the index [1] (for odd) or [2] (for even) depending on an even or odd number of links required.



Order key

E4.320.30 [2] 12 .C .A2

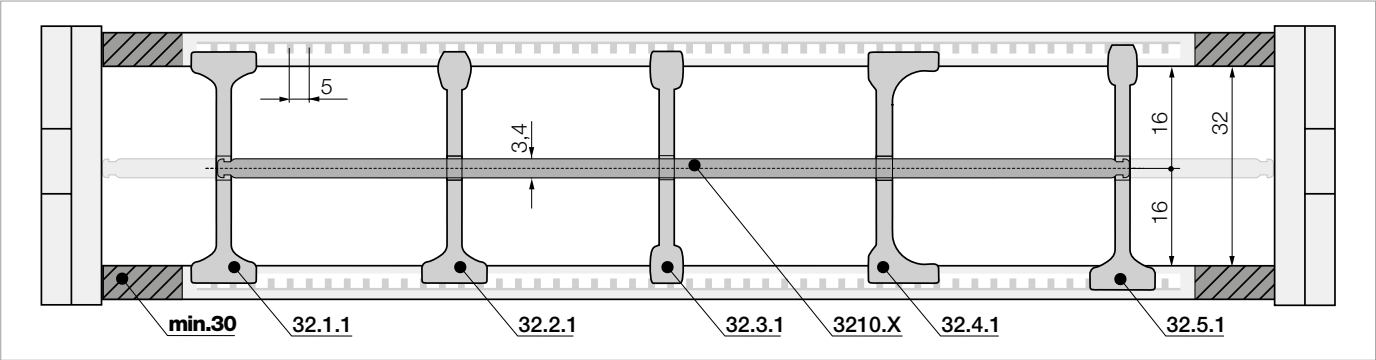
Series	Width index	Even number of links	Full set	C-profile option	Pre-fitted
--------	-------------	----------------------	----------	------------------	------------

Note: Possible orientations for KMA mounting brackets. For mounting brackets pre-fitted **without strain relief**, please add index .A. For types pre-fitted **with strain relief** please add index .A1, .A2, .A3 or .A4.

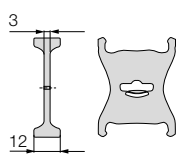
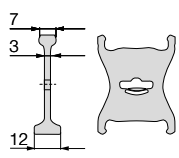
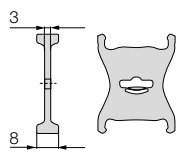
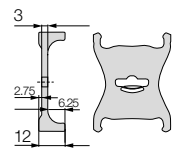
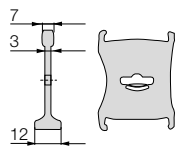
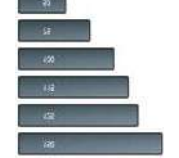
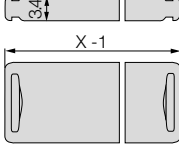


For the C-profile option please add index .C.

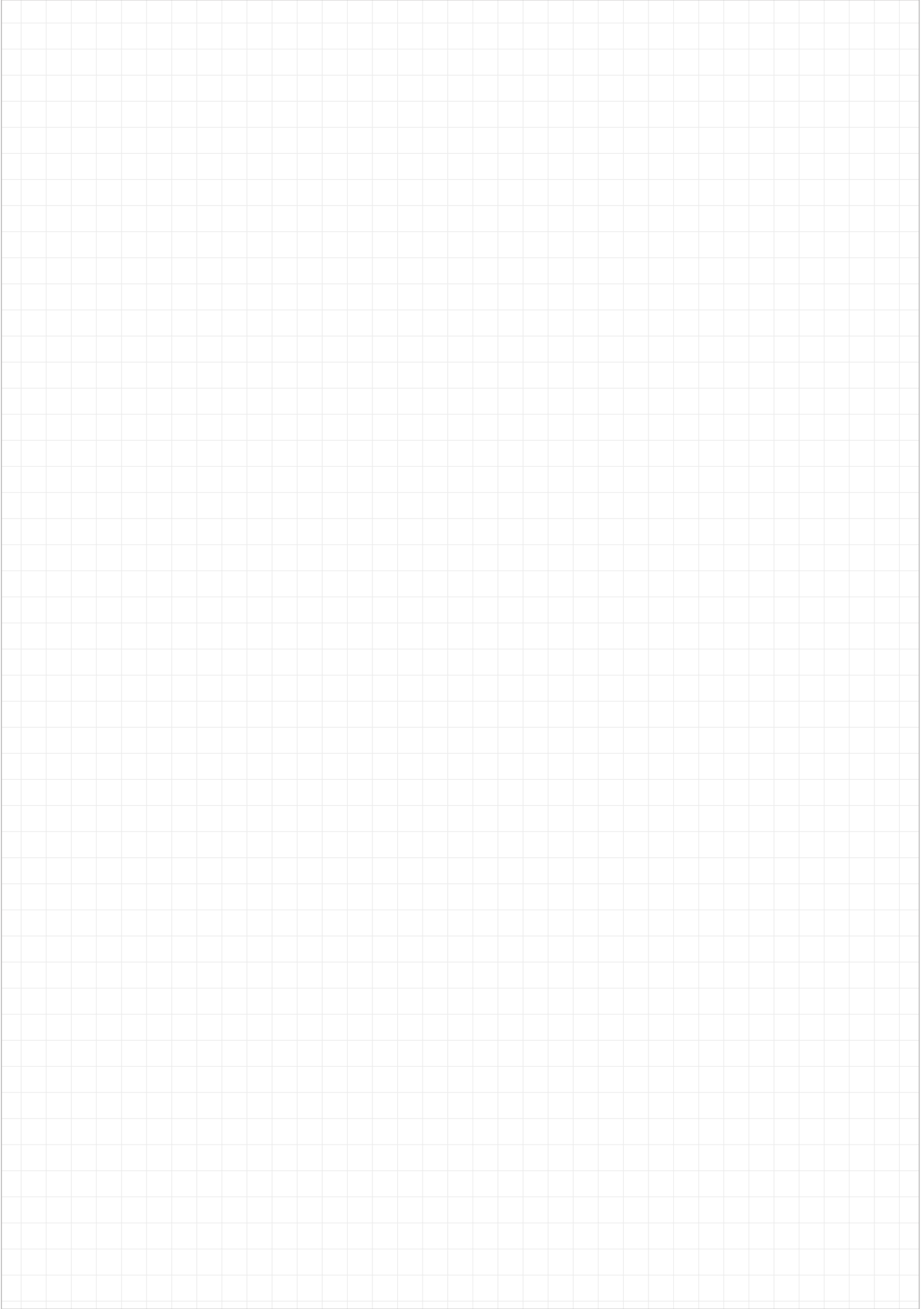
Interior separation | Increase cable service life



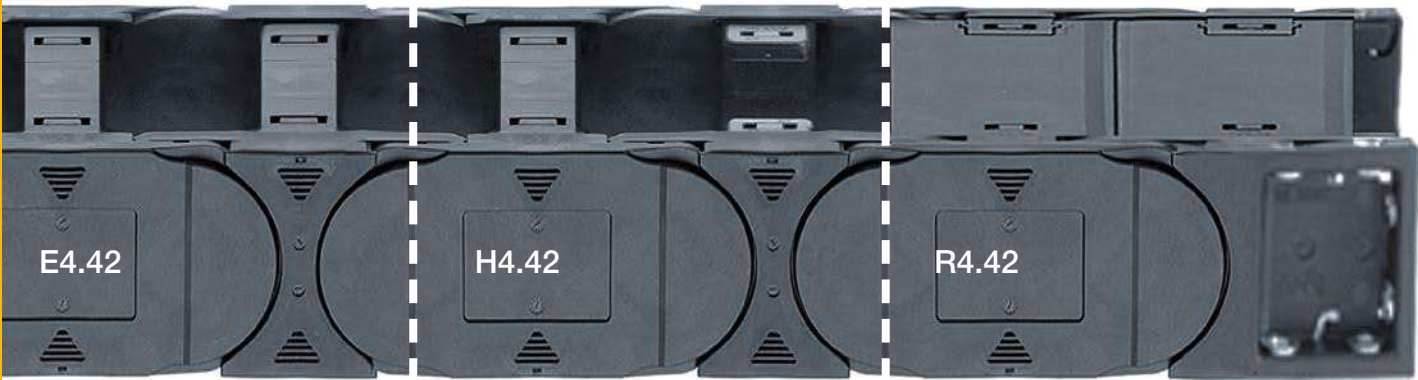
 **Note:** Please be aware of the minimum lateral gap to the side links! **e-tubes: 30mm**
As standard separators are fitted every 2nd e-chain® link!

 	Part No. Standard separator unassembled 32.1 assembled 32.1.1	For all applications Standard separator with a wide base for maximum holding force.
 	Part No. Separator, narrow top unassembled 32.2 assembled 32.2.1	For even faster installation Wide on one side for high holding force, narrow on opposite side for easy cable fitting.
 	Part No. Separator, narrow unassembled 32.3 assembled 32.3.1	For a large number of thin cables Separator with a narrow base for a large number of thin cables side by side. Saves space.
 	Part No. Separator, asymmetrical unassembled 32.4 assembled 32.4.1	For side-mounted applications Asymmetrical separator, for defined gap distance. No additional spacers required.
 	Part No. Notch separator unassembled 32.5 assembled 32.5.1	Locks securely in preset increments Notch separator for exact positioning. Recommended for side-mounted applications.
 	Part No. Shelf unassembled 3200.X assembled 3210.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width	Part No.	Part No.	Width	Part No.	Part No.	Width	Part No.	Part No.	Width	Part No.	Part No.
[mm]	unassembled	assembled	[mm]	unassembled	assembled	[mm]	unassembled	assembled	[mm]	unassembled	assembled
050	3200.050	3210.050	115	3200.115	3210.115	175	3200.175	3210.175	250	3200.250	3210.250
075	3200.075	3210.075	125	3200.125	3210.125	200	3200.200	3210.200			
100	3200.100	3210.100	150	3200.150	3210.150	225	3200.225	3210.225			



Product range



e-chains® with crossbars every link	e-chains® with crossbars every 2nd link	e-tubes closed		Bi [mm]	Ba [mm]	E4.42 [kg/m]	H4.42 [kg/m]	R4.42 [kg/m]
E4.42.	H4.42.	R4.42.1)	05.□.0	50	76	≈ 2.10	≈ 2.05	≈ 2.74
E4.42.	H4.42.	R4.42.1)	06.□.0	68	94	≈ 2.21	≈ 2.10	-
E4.42.	H4.42.	R4.42.	07.□.0	75	101	≈ 2.24	≈ 2.12	≈ 3.05
E4.42.	H4.42.	R4.42.	087.□.0	87	114	≈ 2.30	≈ 2.15	≈ 3.20
E4.42.	H4.42.	-	097.□.0	97	123	≈ 2.35	≈ 2.17	-
E4.42.	H4.42.	R4.42.	10.□.0	100	126	≈ 2.37	≈ 2.18	≈ 3.34
E4.42.	H4.42.	R4.42.	11.□.0	108	134	≈ 2.42	≈ 2.20	≈ 3.39
E4.42.	H4.42.	-	112.□.0	112	139	≈ 2.43	≈ 2.21	-
E4.42.	H4.42.	R4.42.	12.□.0	125	151	≈ 2.52	≈ 2.26	≈ 3.58
E4.42.	H4.42.	-	137.□.0	137	164	≈ 2.57	≈ 2.28	-
E4.42.	H4.42.	R4.42.	15.□.0	150	176	≈ 2.64	≈ 2.32	≈ 3.87
E4.42.	H4.42.	-	162.□.0	162	189	≈ 2.66	≈ 2.33	-
E4.42.	H4.42.	R4.42.	17.□.0	168	194	≈ 2.73	≈ 2.36	≈ 4.10
E4.42.	H4.42.	-	18.□.0	175	201	≈ 2.75	≈ 2.37	-
E4.42.	H4.42.	-	187.□.0	187	214	≈ 2.79	≈ 2.39	-
E4.42.	H4.42.	R4.42.	20.□.0	200	226	≈ 2.90	≈ 2.44	≈ 4.44

e-chains® with crossbars every link	e-chains® with crossbars every 2nd link	e-tubes closed		Bi [mm]	Ba [mm]	E4.42 [kg/m]	H4.42 [kg/m]	R4.42 [kg/m]
E4.42.	H4.42.	-	212.□.0	212	239	≈ 2.94	≈ 2.46	-
E4.42.	H4.42.	-	23.□.0	225	251	≈ 3.02	≈ 2.51	-
E4.42.	H4.42.	-	237.□.0	237	264	≈ 3.05	≈ 2.52	-
E4.42.	H4.42.	R4.42.	25.□.0	250	276	≈ 3.16	≈ 2.58	≈ 5.44
E4.42.	H4.42.	-	262.□.0	262	289	≈ 3.23	≈ 2.61	-
E4.42.	H4.42.	-	28.□.0	275	301	≈ 3.29	≈ 2.64	-
E4.42.	H4.42.	-	29.□.0	287	314	≈ 3.32	≈ 2.65	-
E4.42.	H4.42.	R4.42.	30.□.0	300	326	≈ 3.42	≈ 2.71	≈ 6.09
E4.42.	H4.42.	-	312.□.0	312	339	≈ 3.44	≈ 2.72	-
E4.42.	H4.42.	-	325.□.0	325	351	≈ 3.53	≈ 2.76	-
E4.42.	H4.42.	-	337.□.0	337	364	≈ 3.58	≈ 2.79	-
E4.42.	H4.42.	-	350.□.0	350	376	≈ 3.77	≈ 2.88	-
E4.42.	H4.42.	-	362.□.0	362	389	≈ 3.85	≈ 2.92	-
E4.42.	H4.42.	-	375.□.0	375	402	≈ 3.91	≈ 2.95	-
E4.42.	H4.42.	-	387.□.0	387	414	≈ 3.97	≈ 2.98	-
E4.42.	H4.42.	-	400.□.0	400	426	≈ 4.02	≈ 3.01	-

Available bend radii *R* [mm] | 075* | 100* | 115* | 125 | 150 | 160 | 175 | 200 | 250 | 300 | 350 |

*Radius not available for e-tubes. 1) Lid removable, non-openable



Order key

E4.42.30.150.0

Series / Type	Inner height	Width index	Bend radius	Colour index

Order example:

Complete Part No. with the required radius R. Example:

E4.42.30.150.0 = crossbars removable along the inner and outer radius

H4.42.30.150.0 = crossbars removable along the inner and outer radius

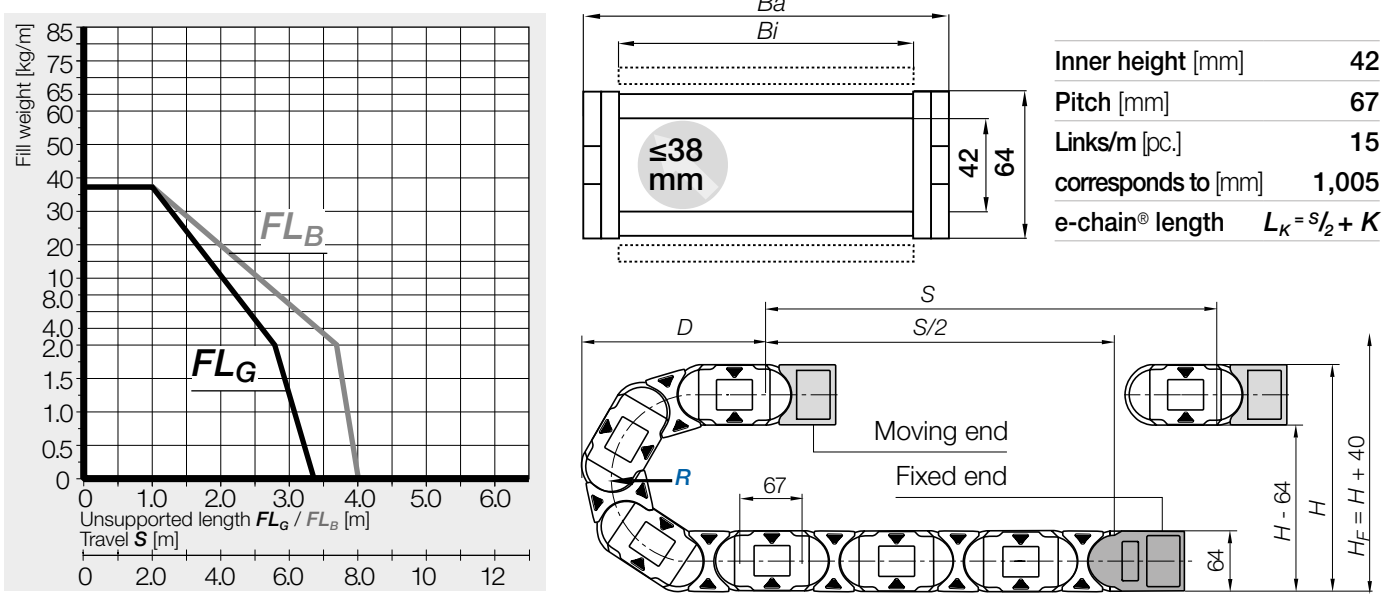
R4.42.30.150.0 = lids openable along the outer radius from one side

Order index for colour options ► www.igus.eu/info-colours



Available from stock
Upon request

Unsupported applications | Short travels

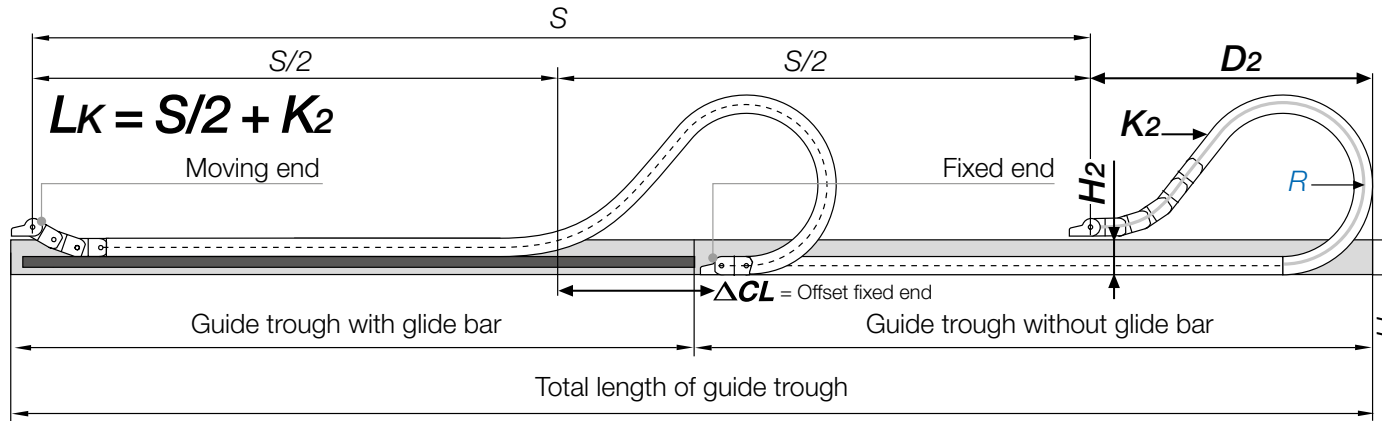


<i>R</i>	075*	100*	115*	125	150	160	175	200	250	300	350
<i>H</i> ₊₂₅	214	264	294	314	364	384	414	464	564	664	764
<i>D</i>	208	233	248	258	283	293	308	333	383	433	483
<i>K</i>	370	450	500	530	610	640	685	765	920	1,080	1,235

The required clearance height: $H_F = H + 40\text{mm}$ (with 3.0kg/m fill weight)

*Radius not available for e-tubes

Gliding applications | For travel lengths from 12m to max. 300m



<i>R</i>	075*	100*	115*	125	150	160	175	200	250	300	350
<i>H</i> ₂	150	186	186	186	186	186	186	186	186	186	186
<i>D</i> ₂ ⁺⁵⁰	174	390	435	475	570	623	670	780	1,030	1,150	1,500
<i>K</i> ₂	370	603	737	804	938	1,072	1,139	1,340	1,675	1,943	2,412
ΔCL	-	170	200	230	300	380	380	460	660	730	1,030

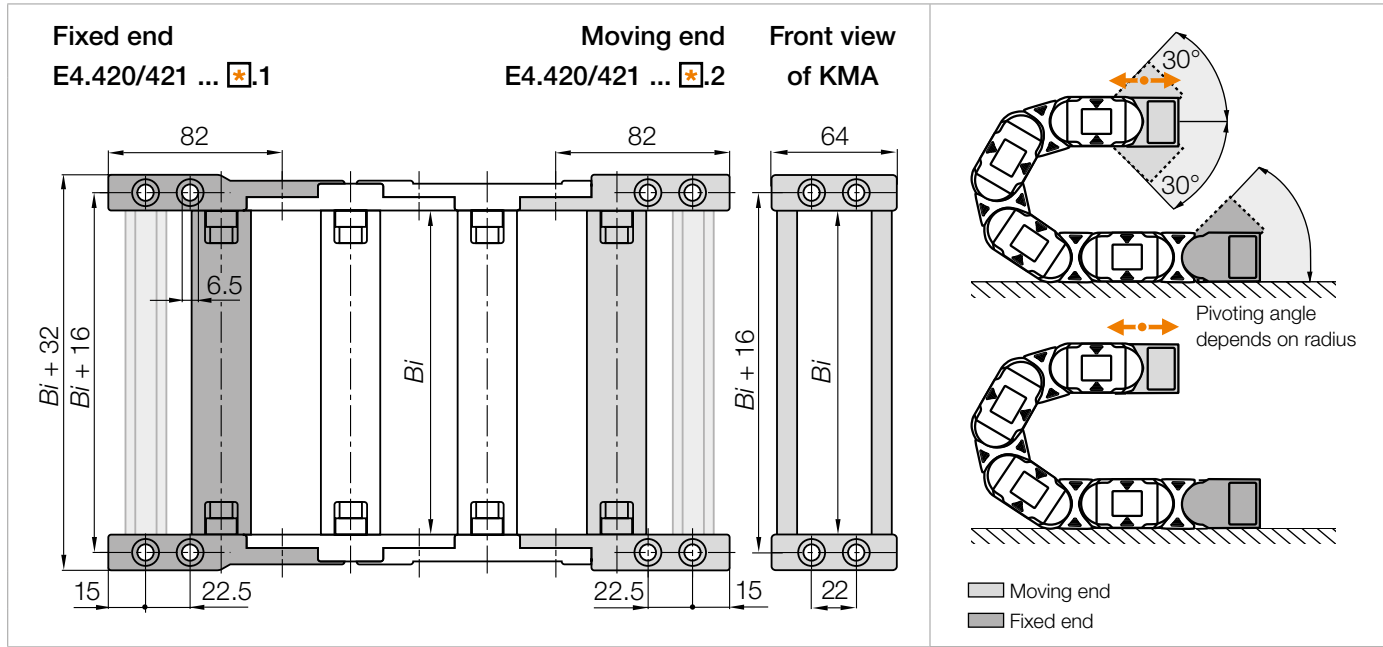
Note: In case of travels between 8 and 12m we recommend an e-chain® with a longer unsupported length.

*Radius not available for e-tubes



Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting | Locking

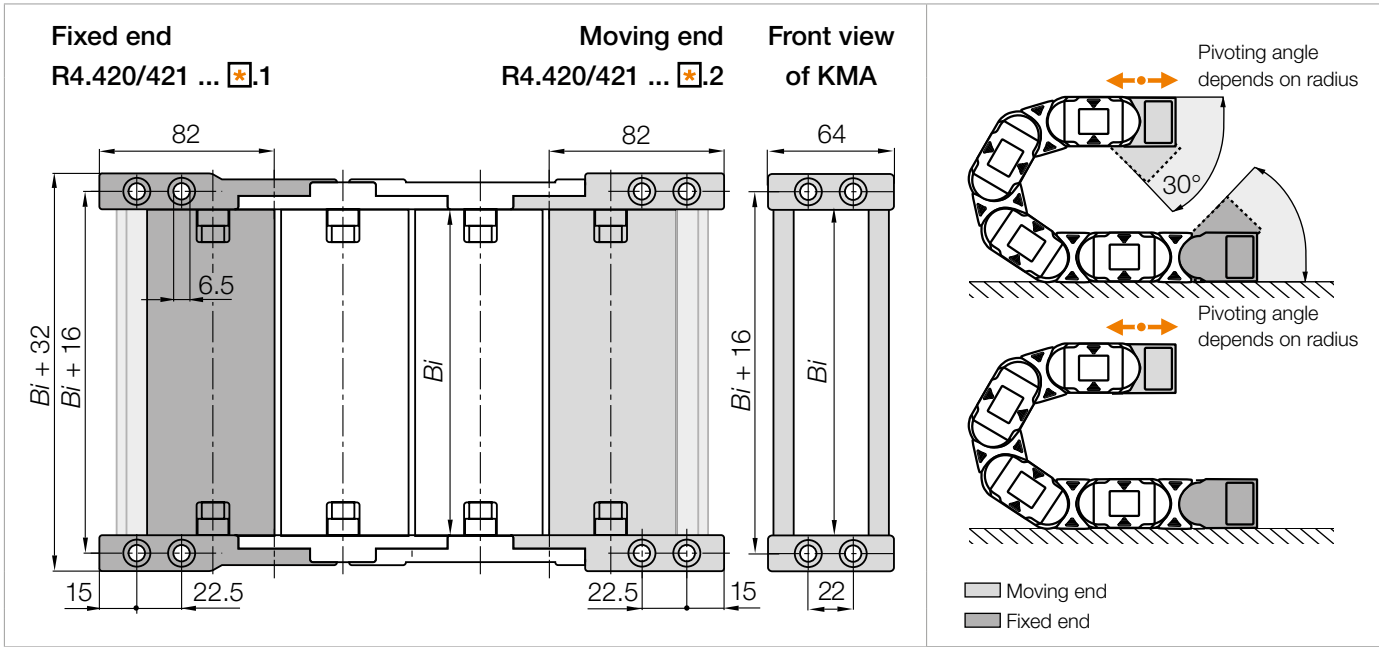


Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
05.	E4.420.05. [12]	E4.421.05. [12]	50
06.	E4.420.06. [12]	E4.421.06. [12]	68
07.	E4.420.07. [12]	E4.421.07. [12]	75
087.	E4.420.087. [12]	E4.421.087. [12]	87
09.	E4.420.09. [12]	E4.421.09. [12]	97
10.	E4.420.10. [12]	E4.421.10. [12]	100
11.	E4.420.11. [12]	E4.421.11. [12]	108
112.	E4.420.112. [12]	E4.421.112. [12]	112
12.	E4.420.12. [12]	E4.421.12. [12]	125
137.	E4.420.137. [12]	E4.421.137. [12]	137
15.	E4.420.15. [12]	E4.421.15. [12]	150
162.	E4.420.162. [12]	E4.421.162. [12]	162
17.	E4.420.17. [12]	E4.421.17. [12]	168
18.	E4.420.18. [12]	E4.421.18. [12]	175
187.	E4.420.187. [12]	E4.421.187. [12]	187
20.	E4.420.20. [12]	E4.421.20. [12]	200

(KMA = polymer metal mounting bracket)

Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
212.	E4.420.212. [12]	E4.421.212. [12]	212
23.	E4.420.23. [12]	E4.421.23. [12]	225
237.	E4.420.237. [12]	E4.421.237. [12]	237
25.	E4.420.25. [12]	E4.421.25. [12]	250
262.	E4.420.262. [12]	E4.421.262. [12]	262
28.	E4.420.28. [12]	E4.421.28. [12]	275
29.	E4.420.29. [12]	E4.421.29. [12]	287
30.	E4.420.30. [12]	E4.421.30. [12]	300
312.	E4.420.312. [12]	E4.421.312. [12]	312
325.	E4.420.325. [12]	E4.421.325. [12]	325
337.	E4.420.337. [12]	E4.421.337. [12]	337
350.	E4.420.350. [12]	E4.421.350. [12]	350
362.	E4.420.362. [12]	E4.421.362. [12]	362
375.	E4.420.375. [12]	E4.421.375. [12]	375
387.	E4.420.387. [12]	E4.421.387. [12]	387
400.	E4.420.400. [12]	E4.421.400. [12]	400

KMA mounting brackets | Attachment from any side | Pivoting | Locking

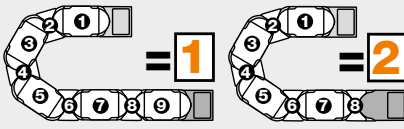


Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
05.	R4.420.05. [12]	R4.421.05. [12]	50
06.	R4.420.06. [12]	R4.421.06. [12]	68
07.	R4.420.07. [12]	R4.421.07. [12]	75
087.	R4.420.087. [12]	R4.421.087. [12]	87
10.	R4.420.10. [12]	R4.421.10. [12]	100
11.	R4.420.11. [12]	R4.421.11. [12]	108

(KMA = polymer metal mounting bracket)

Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
12.	R4.420.12. [12]	R4.421.12. [12]	125
15.	R4.420.15. [12]	R4.421.15. [12]	150
17.	R4.420.17. [12]	R4.421.17. [12]	168
20.	R4.420.20. [12]	R4.421.20. [12]	200
25.	R4.420.25. [12]	R4.421.25. [12]	250
30.	R4.420.30. [12]	R4.421.30. [12]	300

Note [1]: The e-chains® may end with either an inner or an outer side link. An outer side link should always be the first e-chain® link at the moving end. Please specify the index [1] (for odd) or [2] (for even) depending on an even or odd number of links required.



Order key

E4.420.30. [2]. 12. C. A2

Series	Width index	Even number of links	Full set	C-profile option	Pre-fitted

Note: Possible orientations for KMA mounting brackets. For mounting brackets pre-fitted **without strain relief**, please add index **.A**. For types pre-fitted **with strain relief** please add index **.A1**, **.A2**, **.A3** or **.A4**.

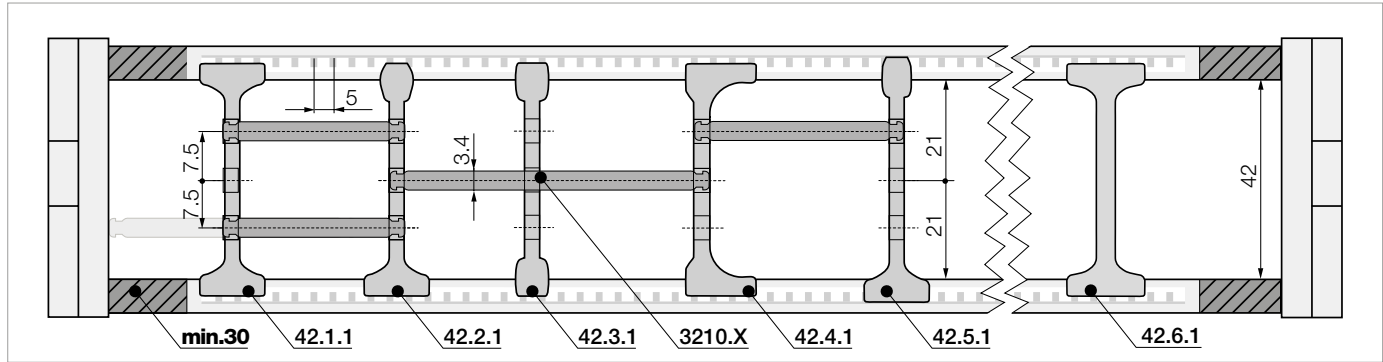


For the C-profile option please add index **.C**.

Available from stock
Upon request

Available from stock
Upon request

Interior separation | Increase cable service life

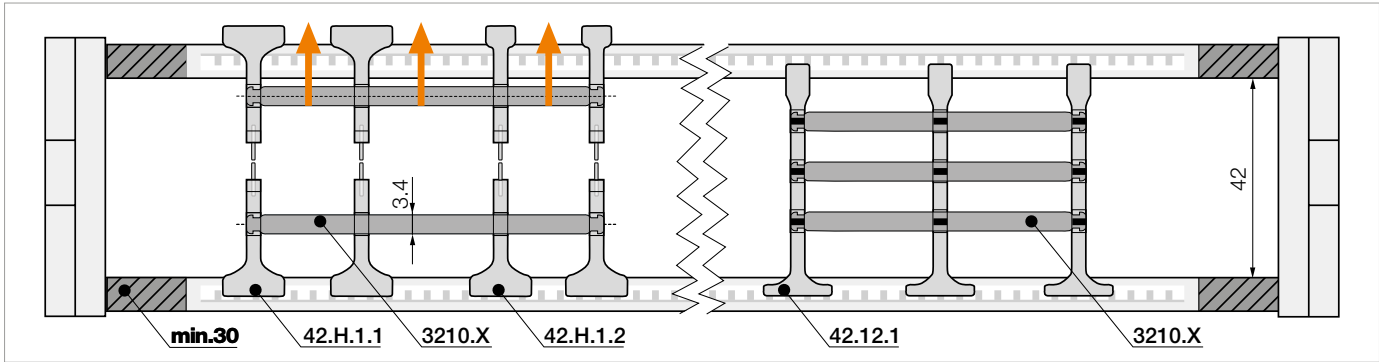


Note: Please be aware of the minimum lateral gap to the side links! **e-tubes: 30mm**
As standard separators are fitted every 2nd e-chain® link!

		Part No. Standard separator unassembled 42.1 assembled 42.1.1	For all applications Standard separator with a wide base for maximum holding force.
		Part No. Separator, narrow top unassembled 42.2 assembled 42.2.1	For even faster installation Wide on one side for high holding force, narrow on opposite side for easy cable fitting.
		Part No. Separator, narrow unassembled 42.3 assembled 42.3.1	For a large number of thin cables Separator with a narrow base for a large number of thin cables side by side. Saves space.
		Part No. Separator, asymmetrical unassembled 42.4 assembled 42.4.1	For side-mounted applications Asymmetrical separator, for defined gap distance. No additional spacers required.
		Part No. Notch separator* unassembled 42.5 assembled 42.5.1	Locks securely in preset increments Notch separator* for exact positioning. Recommended for side-mounted applications. *Suitable from Bi 75
		Part No. Notch locking separator* unassembled 42.6 assembled 42.6.1	Notch locking separator for increased holding force For higher crossbar opening forces for high humidity and/or large hydraulic hoses. They can be positioned precisely and then locked in position.

*Only suitable for e-chains®

Interior separation | To allow faster filling



Note: Please be aware of the minimum lateral gap to the side links! **e-tubes: 30mm**
As standard separators are fitted every 2nd e-chain® link!

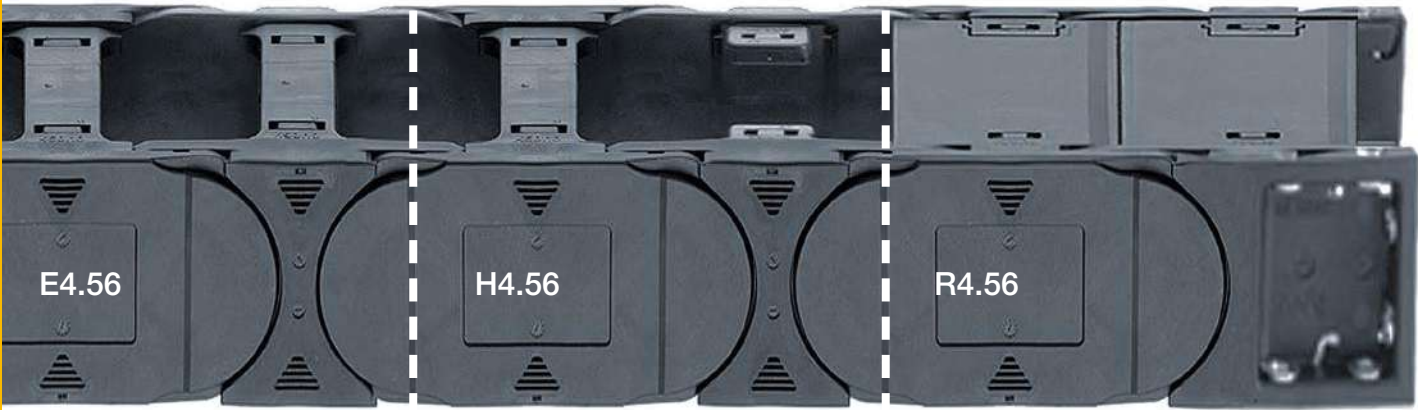
		Part No. Split separator, wide top unassembled 42.H.1 assembled 42.H.1.1	Split separators In order to fill e-chains® more easily and effectively, these separators can be split in the middle. This allows easier access to middle shelf partitions. Fast assembly and easy retrofit. 2 types available: with wide or narrow top.
		Part No. Split separator, narrow top unassembled 42.H.2 assembled 42.H.2.1	
		Part No. Lean separator unassembled 42.12 assembled 42.12.1	Lean separators¹⁾ Quick fitting of shelves in several layers. Enables extremely fast replacement of individual cables in very full e-chains®. Only suitable for e-chains®.
		Part No. Shelf unassembled 3200.X assembled 3210.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	3200.050	3210.050	115	3200.115	3210.115	175	3200.175	3210.175	250	3200.250	3210.250
075	3200.075	3210.075	125	3200.125	3210.125	200	3200.200	3210.200			
100	3200.100	3210.100	150	3200.150	3210.150	225	3200.225	3210.225			



Lean separator for even faster filling: quickly insert several layers of cables into the e-chain® and reduce the installation time by up to 50%. Measured on a 4m long e-chain® fitted with 12 cables. **1) Note:** Please combine a maximum of four lean separators with one shelf. Not suitable for side-mounted e-chains®!

Product range



e-chains® with crossbars every link	e-chains® with crossbars every 2nd link	e-tubes closed		Bi		Ba		E4.56		H4.56		R4.56	
				[mm]	[mm]	[mm]	[mm]	[kg/m]	[kg/m]	[kg/m]	[kg/m]	[kg/m]	[kg/m]
E4.56.	H4.56.	-	05.	50	84	≈ 3.60	≈ 3.59	-					
E4.56.	H4.56.	-	055.	55	89	≈ 3.65	≈ 3.62	-					
E4.56.	H4.56.	-	06.	65	99	≈ 3.69	≈ 3.63	-					
E4.56.	H4.56.	R4.56.1)	07.	75	109	≈ 3.76	≈ 3.67	≈ 4.31					
E4.56.	H4.56.	-	08.	87	121	≈ 3.85	≈ 3.71	-					
E4.56.	H4.56.	R4.56.	10.	100	134	≈ 3.93	≈ 3.75	≈ 4.65					
E4.56.	H4.56.	-	11.	112	147	≈ 4.05	≈ 3.81	-					
E4.56.	H4.56.	R4.56.	12.	125	159	≈ 4.13	≈ 3.85	≈ 5.01					
E4.56.	H4.56.	-	13.	137	172	≈ 4.26	≈ 3.92	-					
E4.56.	H4.56.	R4.56.	15.	150	184	≈ 4.28	≈ 3.93	≈ 5.36					
E4.56.	H4.56.	-	16.	162	197	≈ 4.41	≈ 3.99	-					
E4.56.	H4.56.	-	169.	169	204	≈ 4.49	≈ 4.03	-					
E4.56.	H4.56.	R4.56.	17.	175	209	≈ 4.55	≈ 4.06	≈ 5.73					
E4.56.	H4.56.	-	182.	182	217	≈ 4.59	≈ 4.08	-					
E4.56.	H4.56.	-	18.	187	222	≈ 4.66	≈ 4.12	-					
E4.56.	H4.56.	R4.56.	20.	200	234	≈ 4.71	≈ 4.14	≈ 5.96					
E4.56.	H4.56.	-	207.	207	242	≈ 4.77	≈ 4.17	-					
E4.56.	H4.56.	-	21.	212	247	≈ 4.78	≈ 4.18	-					
E4.56.	H4.56.	-	22.	225	259	≈ 4.85	≈ 4.21	-					
E4.56.	H4.56.	-	23.	237	272	≈ 4.96	≈ 4.27	-					
E4.56.	H4.56.	R4.56.	25.	250	284	≈ 5.07	≈ 4.32	≈ 6.64					
E4.56.	H4.56.	-	26.	262	297	≈ 5.16	≈ 4.37	-					
E4.56.	H4.56.	R4.56.	27.	275	309	≈ 5.27	≈ 4.42	≈ 6.97					

e-chains® with crossbars every link	e-chains® with crossbars every 2nd link	e-tubes closed		Bi		Ba		E4.56		H4.56		R4.56	
				[mm]	[mm]	[mm]	[mm]	[kg/m]	[kg/m]	[kg/m]	[kg/m]	[kg/m]	[kg/m]
E4.56.	H4.56.	-	28.	287	322	≈ 5.32	≈ 4.45	-					
E4.56.	H4.56.	R4.56.	30.	300	334	≈ 5.48	≈ 4.53	≈ 7.31					
E4.56.	H4.56.	-	31.	312	347	≈ 5.51	≈ 4.54	-					
E4.56.	H4.56.	-	32.	325	359	≈ 5.62	≈ 4.60	-					
E4.56.	H4.56.	-	33.	337	372	≈ 5.74	≈ 4.66	-					
E4.56.	H4.56.	R4.56.	35.	350	384	≈ 5.88	≈ 4.73	≈ 8.00					
E4.56.	H4.56.	-	36.	362	397	≈ 5.90	≈ 4.74	-					
E4.56.	H4.56.	-	37.	375	409	≈ 6.02	≈ 4.79	-					
E4.56.	H4.56.	-	38.	387	422	≈ 6.06	≈ 4.82	-					
E4.56.	H4.56.	R4.56.	40.	400	434	≈ 6.01	≈ 4.79	≈ 8.68					
E4.56.	H4.56.	-	41.	412	447	≈ 6.25	≈ 4.91	-					
E4.56.	H4.56.	-	42.	425	459	≈ 6.37	≈ 4.97	-					
E4.56.	H4.56.	-	43.	437	472	≈ 6.46	≈ 5.01	-					
E4.56.	H4.56.	-	45.	450	484	≈ 6.65	≈ 5.11	-					
E4.56.	H4.56.	R4.56.	46.	462	497	≈ 6.70	≈ 5.14	≈ 9.52					
E4.56.	H4.56.	-	47.	475	509	≈ 6.73	≈ 5.15	-					
E4.56.	H4.56.	-	48.	487	522	≈ 6.80	≈ 5.19	-					
E4.56.	H4.56.	-	50.	500	534	≈ 6.96	≈ 5.26	-					
E4.56.	H4.56.	-	51.	512	547	≈ 7.01	≈ 5.29	-					
E4.56.	H4.56.	-	52.	525	559	≈ 7.14	≈ 5.36	-					
E4.56.	H4.56.	-	53.	537	572	≈ 7.23	≈ 5.40	-					
E4.56.	H4.56.	-	55.	550	584	≈ 7.65	≈ 5.61	-					
E4.56.	H4.56.	-	60.	600	634	≈ 7.38	≈ 5.48	-					

Available bend radii *R* [mm] | 100* | 135* | 150 | 175 | 200 | 240 | 250 | 300 | 350 | 400 | 450 | 500 |

*Radius not available for e-tubes. 1) Lid removable, non-openable



Order key

E4.56.15.150.0

Series / Type	Inner height	Width index	Bend radius	Colour index

Order example:

Complete Part No. with the required radius *R*. Example:

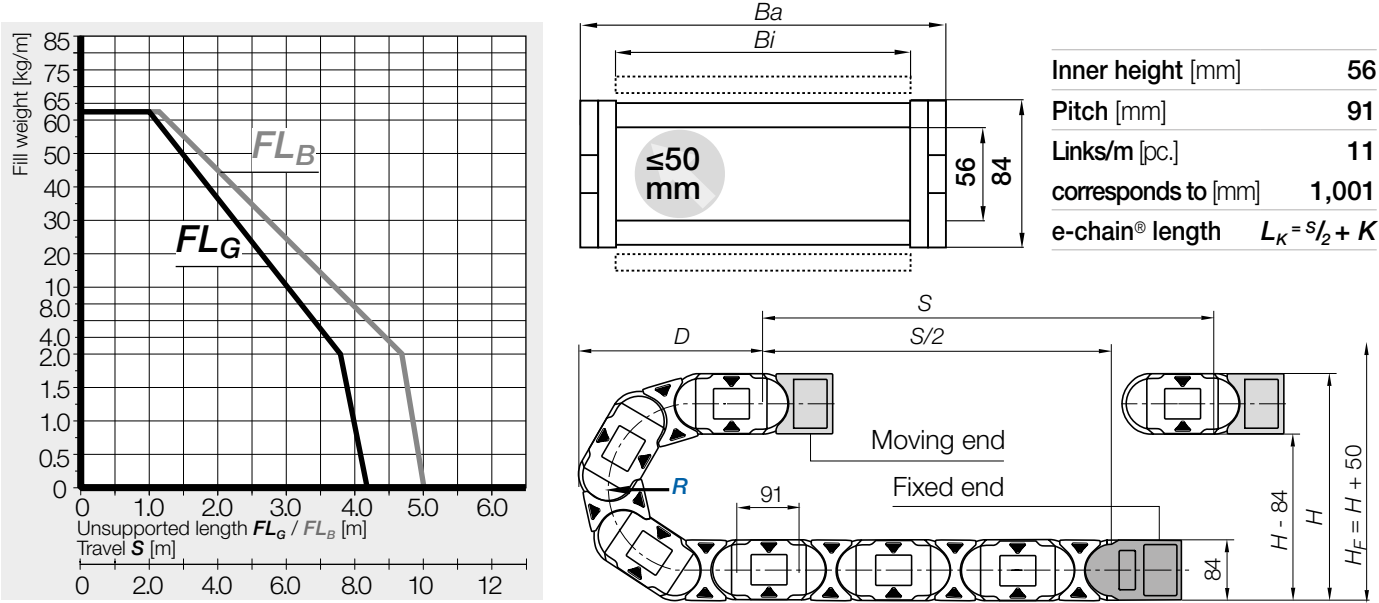
E4.56.15.150.0 = crossbars removable along the inner and outer radius

H4.56.15.150.0 = crossbars removable along the inner and outer radius

R4.56.15.150.0 = lids openable along the outer radius from one side

Order index for colour options ► www.igus.eu/info-colours

Unsupported applications | Short travels

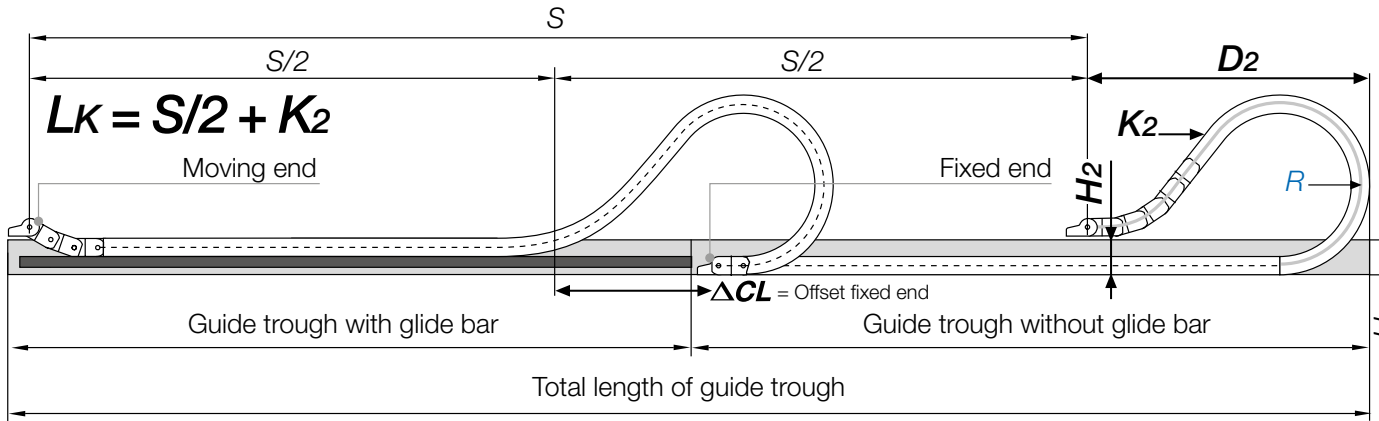


<i>R</i>	100*	135*	150	175	200	240	250	300	350	400	450	500
<i>H</i> _{±25}	320	354	384	434	484	564	584	684	784	884	984	1,084
<i>D</i>	300	314	329	354	379	419	429	479	529	579	629	679
<i>K</i>	500	610	655	735	815	940	970	1,125	1,285	1,440	1,600	1.755

The required clearance height: *H_F* = *H* + 50mm (with 3.0kg/m fill weight)

*Radius not available for e-tubes

Gliding applications | For travel lengths from 12m to max. 400m



<i>R</i>	100*	135*	150	175	200	240	250	300	350	400	450	500
<i>H</i> ₂	-	270	266	266	266	266	266	266	266	266	266	266
<i>D</i> ₂ ⁺⁵⁰	-	268	450	580	710	900	980	1,180	1,440	1,530	1,700	1,850
<i>K</i> ₂	-	610	819	1,092	1,274	1,547	1,638	2,002	2,275	2,548	2,912	3,276
<i>ΔCL</i>	-	-	159	259	359	509	559	709	909	959	1,059	1,159

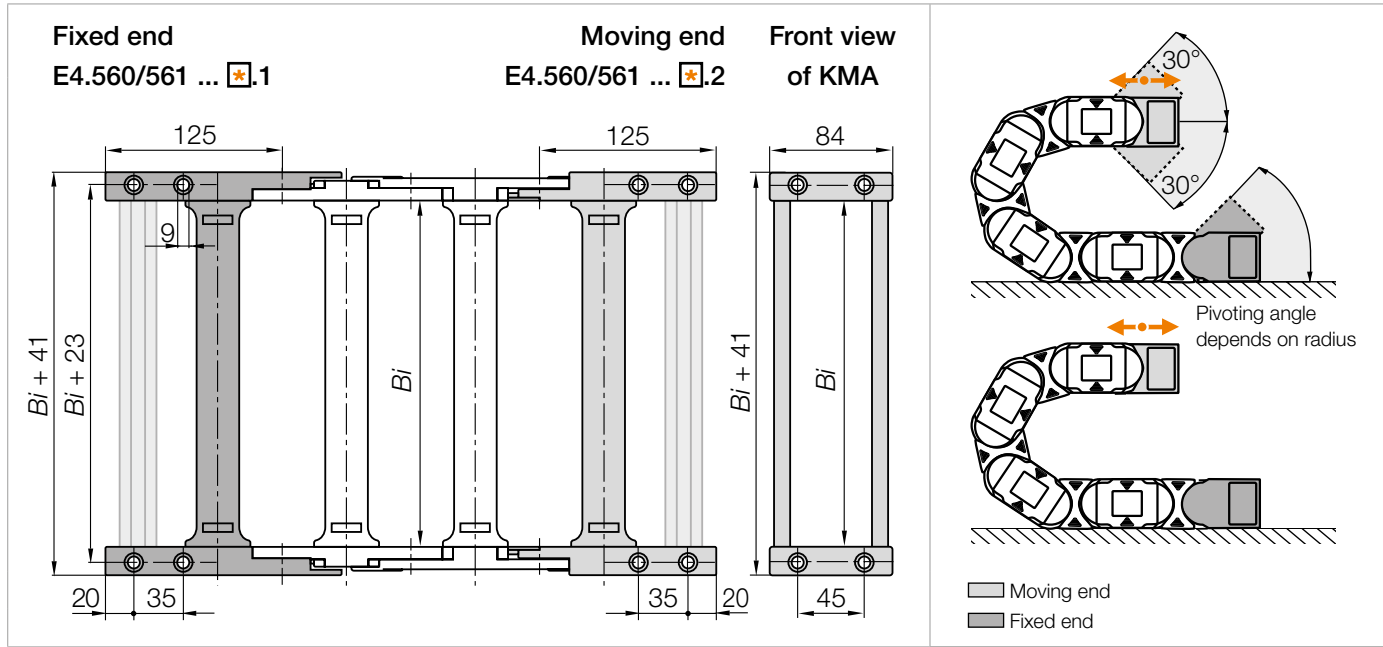
Note: In case of travels between 10 and 12m we recommend an e-chain® with a longer unsupported length.

*Radius not available for e-tubes



Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting | Locking



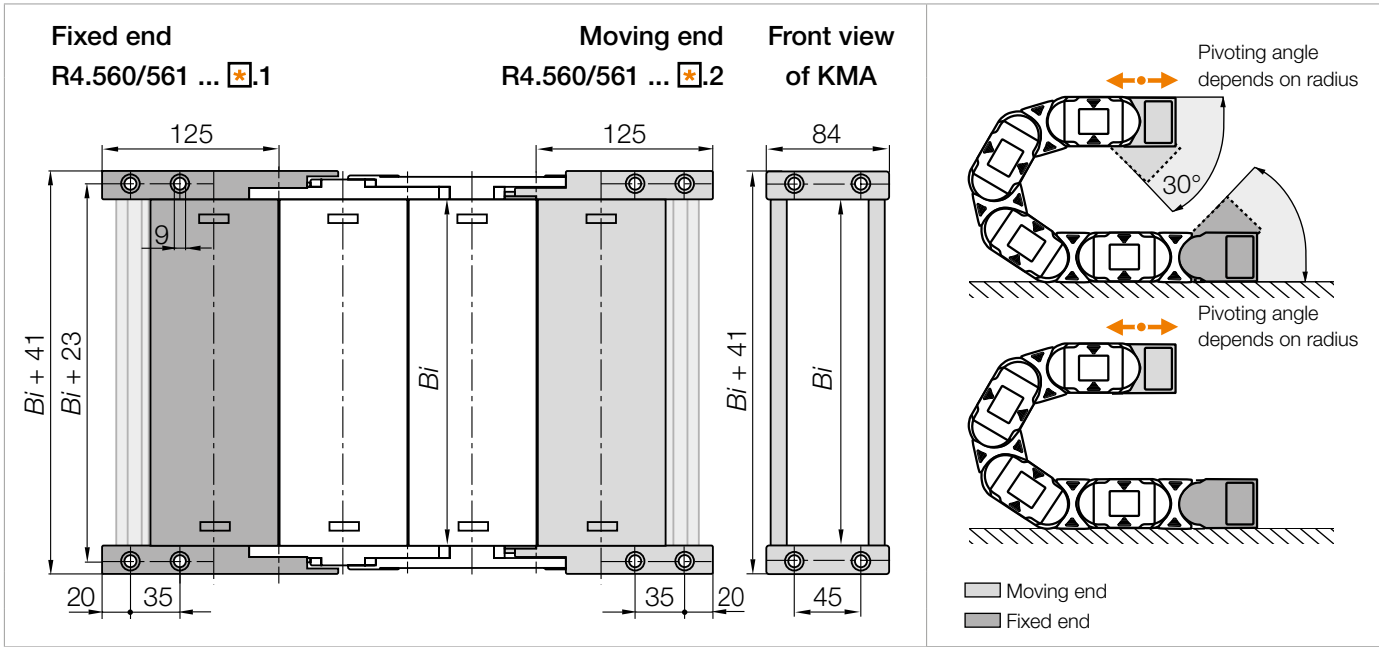
Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
05.	E4.560.05. [1].12.□	E4.561.05. [1].12.□	50
055.	E4.560.055. [1].12.□	E4.561.055. [1].12.□	55
06.	E4.560.06. [1].12.□	E4.561.06. [1].12.□	65
07.	E4.560.07. [1].12.□	E4.561.07. [1].12.□	75
08.	E4.560.08. [1].12.□	E4.561.08. [1].12.□	87
10.	E4.560.10. [1].12.□	E4.561.10. [1].12.□	100
11.	E4.560.11. [1].12.□	E4.561.11. [1].12.□	112
12.	E4.560.12. [1].12.□	E4.561.12. [1].12.□	125
13.	E4.560.13. [1].12.□	E4.561.13. [1].12.□	137
15.	E4.560.15. [1].12.□	E4.561.15. [1].12.□	150
16.	E4.560.16. [1].12.□	E4.561.16. [1].12.□	162
169.	E4.560.169. [1].12.□	E4.561.169. [1].12.□	169
17.	E4.560.17. [1].12.□	E4.561.17. [1].12.□	175
182.	E4.560.182. [1].12.□	E4.561.182. [1].12.□	182
18.	E4.560.18. [1].12.□	E4.561.18. [1].12.□	187
20.	E4.560.20. [1].12.□	E4.561.20. [1].12.□	200
207.	E4.560.207. [1].12.□	E4.561.207. [1].12.□	207
21.	E4.560.21. [1].12.□	E4.561.21. [1].12.□	212
22.	E4.560.22. [1].12.□	E4.561.22. [1].12.□	225
23.	E4.560.23. [1].12.□	E4.561.23. [1].12.□	237
25.	E4.560.25. [1].12.□	E4.561.25. [1].12.□	250
26.	E4.560.26. [1].12.□	E4.561.26. [1].12.□	262
27.	E4.560.27. [1].12.□	E4.561.27. [1].12.□	275

(KMA = polymer metal mounting bracket)

Available from stock
Upon request

Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
28.	E4.560.28. [1].12.□	E4.561.28. [1].12.□	287
30.	E4.560.30. [1].12.□	E4.561.30. [1].12.□	300
31.	E4.560.31. [1].12.□	E4.561.31. [1].12.□	312
32.	E4.560.32. [1].12.□	E4.561.32. [1].12.□	325
33.	E4.560.33. [1].12.□	E4.561.33. [1].12.□	337
35.	E4.560.35. [1].12.□	E4.561.35. [1].12.□	350
36.	E4.560.36. [1].12.□	E4.561.36. [1].12.□	362
37.	E4.560.37. [1].12.□	E4.561.37. [1].12.□	375
38.	E4.560.38. [1].12.□	E4.561.38. [1].12.□	387
40.	E4.560.40. [1].12.□	E4.561.40. [1].12.□	400
41.	E4.560.41. [1].12.□	E4.561.41. [1].12.□	412
42.	E4.560.42. [1].12.□	E4.561.42. [1].12.□	425
43.	E4.560.43. [1].12.□	E4.561.43. [1].12.□	437
45.	E4.560.45. [1].12.□	E4.561.45. [1].12.□	450
46.	E4.560.46. [1].12.□	E4.561.46. [1].12.□	462
47.	E4.560.47. [1].12.□	E4.561.47. [1].12.□	475
48.	E4.560.48. [1].12.□	E4.561.48. [1].12.□	487
50.	E4.560.50. [1].12.□	E4.561.50. [1].12.□	500
51.	E4.560.51. [1].12.□	E4.561.51. [1].12.□	512
52.	E4.560.52. [1].12.□	E4.561.52. [1].12.□	525
53.	E4.560.53. [1].12.□	E4.561.53. [1].12.□	537
55.	E4.560.55. [1].12.□	E4.561.55. [1].12.□	550
60.	E4.560.60. [1].12.□	E4.561.60. [1].12.□	600

KMA mounting brackets | Attachment from any side | Pivoting | Locking

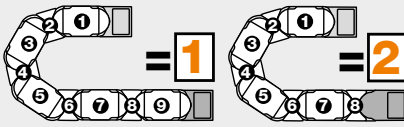


Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
07.	R4.560.07. [1].12.□	R4.561.07. [1].12.□	75
10.	R4.560.10. [1].12.□	R4.561.10. [1].12.□	100
12.	R4.560.12. [1].12.□	R4.561.12. [1].12.□	112
15.	R4.560.15. [1].12.□	R4.561.15. [1].12.□	150
17.	R4.560.17. [1].12.□	R4.561.17. [1].12.□	175
20.	R4.560.20. [1].12.□	R4.561.20. [1].12.□	200

(KMA = polymer metal mounting bracket)

Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
25.	R4.560.25. [1].12.□	R4.561.25. [1].12.□	250
27.	R4.560.27. [1].12.□	R4.561.27. [1].12.□	275
30.	R4.560.30. [1].12.□	R4.561.30. [1].12.□	300
35.	R4.560.35. [1].12.□	R4.561.35. [1].12.□	350
40.	R4.560.40. [1].12.□	R4.561.40. [1].12.□	400
46.	R4.560.46. [1].12.□	R4.561.46. [1].12.□	462

Note [1]: The e-chains® may end with either an inner or an outer side link. An outer side link should always be the first e-chain® link at the moving end. Please specify the index [1] (for odd) or [2] (for even) depending on an even or odd number of links required.

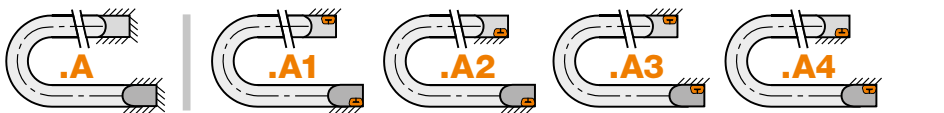


Order key

E4.560.15. [2].12. C. A2

Series	Width index	Even number of links	Full set	C-profile option	Pre-fitted

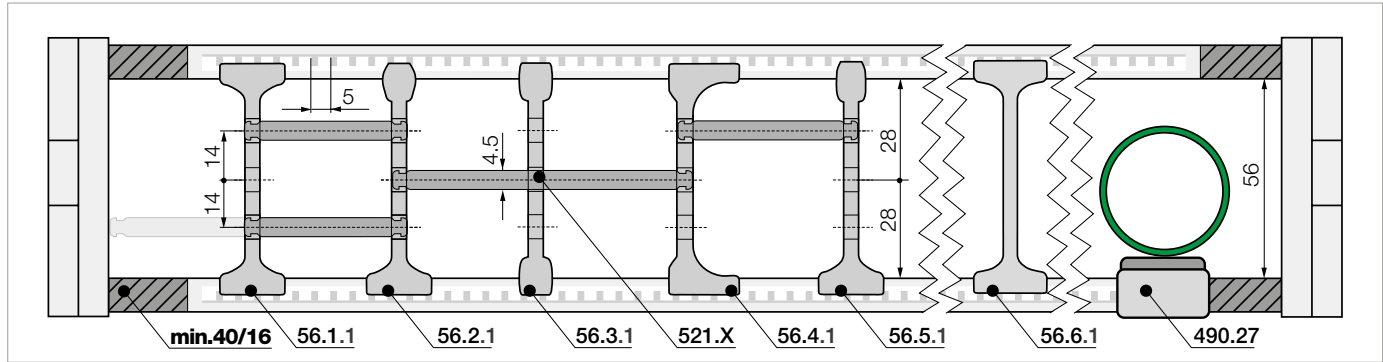
Note: Possible orientations for KMA mounting brackets. For mounting brackets pre-fitted **without strain relief**, please add index **.A**. For types pre-fitted **with strain relief** please add index **.A1**, **.A2**, **.A3** or **.A4**.



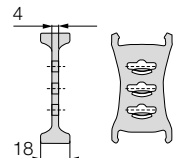
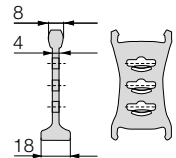
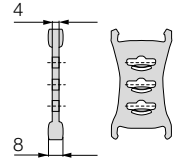
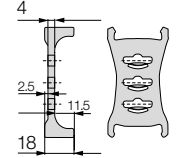
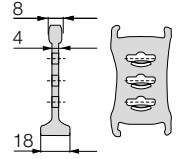
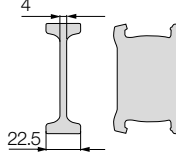
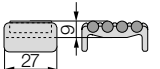
For the C-profile option please add index **.C**.

Available from stock
Upon request

Interior separation | Increase cable service life

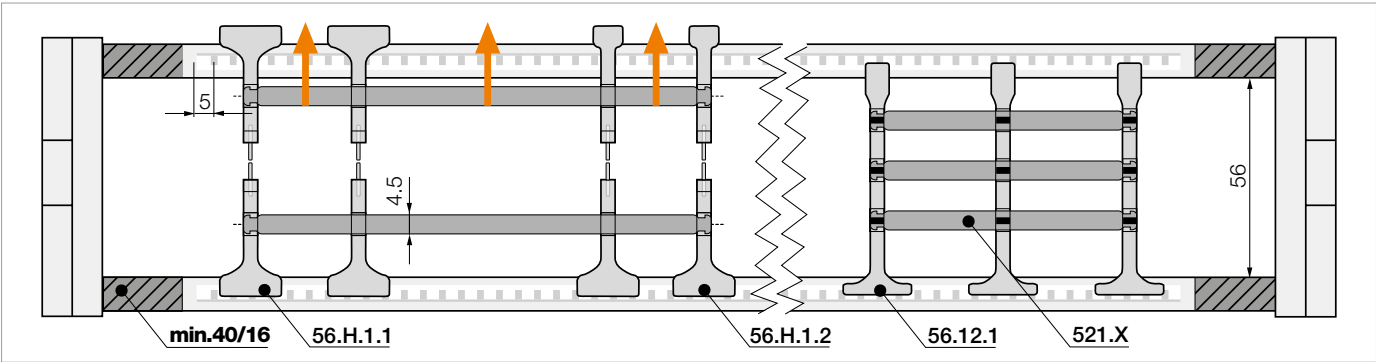


Note: Please be aware of the minimum lateral gap to the side links! **e-tube: 40mm** | **e-chain®: 16mm**
As standard separators are fitted every 2nd e-chain® link!

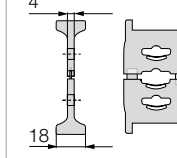
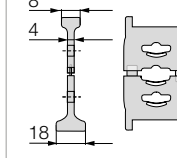
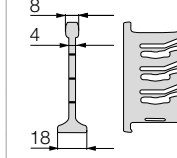
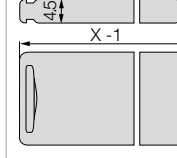
		Part No. Standard separator unassembled 56.1 assembled 56.1.1	For all applications Standard separator with a wide base for maximum holding force.
		Part No. Separator, narrow top unassembled 56.2 assembled 56.2.1	For even faster installation Wide on one side for high holding force, narrow on opposite side for easy cable fitting.
		Part No. Separator, narrow unassembled 56.3 assembled 56.3.1	For a large number of thin cables Separator with a narrow base for a large number of thin cables side by side. Saves space.
		Part No. Separator, asymmetrical unassembled 56.4 assembled 56.4.1	For side-mounted applications Asymmetrical separator, for defined gap distance. No additional spacers required.
		Part No. Notch separator unassembled 56.5 assembled 56.5.1	Locks securely in preset increments Notch separator for exact positioning. Recommended for side-mounted applications.
		Part No. Notch locking separator* unassembled 56.6 assembled 56.6.1	Notch locking separator for increased holding force For higher crossbar opening forces for high humidity and/or large hydraulic hoses. They can be positioned precisely and then locked in position.
		Part No. Rollclip* unassembled 489.27 assembled 490.27	Minimises abrasion of sensitive hoses The rollclip simply clamps onto the opening crossbar. The movable rollers compensate for relative movement between the e-chain® and hose.

*Only suitable for e-chains®

Interior separation | To allow faster filling



Note: Please be aware of the minimum lateral gap to the side links! **e-tube: 40mm** | **e-chain®: 16mm**
As standard separators are fitted every 2nd e-chain® link!

		Part No. Split separator, wide top unassembled 56.H.1 assembled 56.H.1.1	Split separators In order to fill e-chains® more easily and effectively, these separators can be split in the middle. This allows easier access to middle shelf partitions. Fast assembly and easy retrofit. 2 types available: with wide or narrow top.
		Part No. Split separator, narrow top unassembled 56.H.2 assembled 56.H.2.1	
		Part No. Lean separator unassembled 56.12 assembled 56.12.1	Lean separators¹⁾ Quick fitting of shelves in several layers. Enables extremely fast replacement of individual cables in very full e-chains®. Only suitable for e-chains®.
		Part No. Shelf unassembled 520.X assembled 521.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	520.050	521.050	125	520.125	521.125	225	520.225	521.225	375	520.375	521.375
065	520.065	521.065	150	520.150	521.150	250	520.250	521.250	387	520.387	521.387
075	520.075	521.075	175	520.175	521.175	300	520.300	521.300	450	520.450	521.450
100	520.100	521.100	200	520.200	521.200	350	520.350	521.350			



Lean separator for even faster filling: quickly insert several layers of cables into the e-chain® and reduce the installation time by up to 50%. Measured on a 4m long e-chain® fitted with 12 cables. **1) Note:** Please combine a maximum of four lean separators with one shelf. Not suitable for side-mounted e-chains®!

 Available from stock
 Upon request

Product range



e-chains® with crossbars every link	e-chains® with crossbars every 2nd link	e-tubes closed		Bi			Ba			E4.80			H4.80			R4.80		
				[mm]	[mm]	[kg/m]	[mm]	[mm]	[kg/m]	[kg/m]	[kg/m]	[kg/m]	[mm]	[mm]	[kg/m]	[kg/m]	[kg/m]	[kg/m]
E4.80.	H4.80.	-	05.	50	100	≈ 5.73	≈ 5.72	-										
E4.80.	H4.80.	-	055.	55	105	≈ 5.77	≈ 5.74	-										
E4.80.	H4.80.	-	06.	65	115	≈ 5.80	≈ 5.76	-										
E4.80.	H4.80.	-	07.	75	125	≈ 5.86	≈ 5.78	-										
E4.80.	H4.80.	-	08.	87	137	≈ 5.93	≈ 5.82	-										
E4.80.	H4.80.	R4.80.	10.	100	150	≈ 6.00	≈ 5.85	≈ 6.70										
E4.80.	H4.80.	-	11.	112	163	≈ 6.10	≈ 5.90	-										
E4.80.	H4.80.	-	12.	125	175	≈ 6.16	≈ 5.93	-										
E4.80.	H4.80.	-	13.	137	188	≈ 6.27	≈ 5.99	-										
E4.80.	H4.80.	R4.80.	15.	150	200	≈ 6.30	≈ 6.01	≈ 7.34										
E4.80.	H4.80.	-	16.	162	213	≈ 6.39	≈ 6.05	-										
E4.80.	H4.80.	-	169.	169	220	≈ 6.46	≈ 6.08	-										
E4.80.	H4.80.	-	17.	175	225	≈ 6.50	≈ 6.11	-										
E4.80.	H4.80.	-	182.	182	233	≈ 6.54	≈ 6.12	-										
E4.80.	H4.80.	-	18.	187	238	≈ 6.59	≈ 6.15	-										
E4.80.	H4.80.	R4.80.	20.	200	250	≈ 6.64	≈ 6.17	≈ 8.09										
E4.80.	H4.80.	-	207.	207	258	≈ 6.68	≈ 6.20	-										
E4.80.	H4.80.	-	21.	212	263	≈ 6.70	≈ 6.20	-										
E4.80.	H4.80.	-	22.	225	275	≈ 6.76	≈ 6.23	-										
E4.80.	H4.80.	-	23.	237	288	≈ 6.84	≈ 6.28	-										
E4.80.	H4.80.	R4.80.	25.	250	300	≈ 6.94	≈ 6.32	≈ 8.47										
E4.80.	H4.80.	-	26.	262	313	≈ 7.01	≈ 6.36	-										
E4.80.	H4.80.	-	27.	275	325	≈ 7.09	≈ 6.40	-										

e-chains® with crossbars every link	e-chains® with crossbars every 2nd link	e-tubes closed		Bi			Ba			E4.80			H4.80			R4.80		
				[mm]	[mm]	[kg/m]	[mm]	[mm]	[kg/m]	[kg/m]	[kg/m]	[kg/m]	[mm]	[mm]	[kg/m]	[kg/m]	[kg/m]	[kg/m]
E4.80.	H4.80.	-	28.	287	338	≈ 7.14	≈ 6.42	-										
E4.80.	H4.80.	R4.80.	30.	300	350	≈ 7.27	≈ 6.49	≈ 9.22										
E4.80.	H4.80.	-	31.	312	363	≈ 7.30	≈ 6.50	-										
E4.80.	H4.80.	-	32.	325	375	≈ 7.38	≈ 6.54	-										
E4.80.	H4.80.	-	33.	337	388	≈ 7.48	≈ 6.59	-										
E4.80.	H4.80.	R4.80.	35.	350	400	≈ 7.59	≈ 6.65	≈ 9.90										
E4.80.	H4.80.	-	36.	362	413	≈ 7.61	≈ 6.66	-										
E4.80.	H4.80.	-	37.	375	425	≈ 7.71	≈ 6.71	-										
E4.80.	H4.80.	-	38.	387	438	≈ 7.74	≈ 6.73	-										
E4.80.	H4.80.	R4.80.	40.	400	450	≈ 7.84	≈ 6.77	≈ 10.52										
E4.80.	H4.80.	-	41.	412	463	≈ 7.90	≈ 6.80	-										
E4.80.	H4.80.	-	42.	425	475	≈ 8.00	≈ 6.85	-										
E4.80.	H4.80.	-	43.	437	488	≈ 8.07	≈ 6.89	-										
E4.80.	H4.80.	-	45.	450	500	≈ 8.23	≈ 6.97	-										
E4.80.	H4.80.	R4.80.	46.	462	513	≈ 8.26	≈ 6.99	≈ 11.33										
E4.80.	H4.80.	-	47.	475	525	≈ 8.29	≈ 7.00	-										
E4.80.	H4.80.	-	48.	487	538	≈ 8.35	≈ 7.03	-										
E4.80.	H4.80.	-	50.	500	550	≈ 8.48	≈ 7.09	-										
E4.80.	H4.80.	-	51.	512	563	≈ 8.52	≈ 7.11	-										
E4.80.	H4.80.	-	52.	525	575	≈ 8.63	≈ 7.17	-										
E4.80.	H4.80.	-	53.	537	588	≈ 8.70	≈ 7.21	-										
E4.80.	H4.80.	-	55.	550	600	≈ 9.05	≈ 7.38	-										
E4.80.	H4.80.	-	60.	600	650	≈ 9.23	≈ 7.47	-										

Available bend radii R [mm] | 150* | 200 | 250 | 300 | 350 | 400 | 500 | 550 | 600 | 1,000 |

* Radius not available for e-tubes.



E4.80.15.200.0

Order example:

Complete Part No. with the required radius R . Example:

E4.80.15.200.0 = crossbars removable along the inner and outer radius

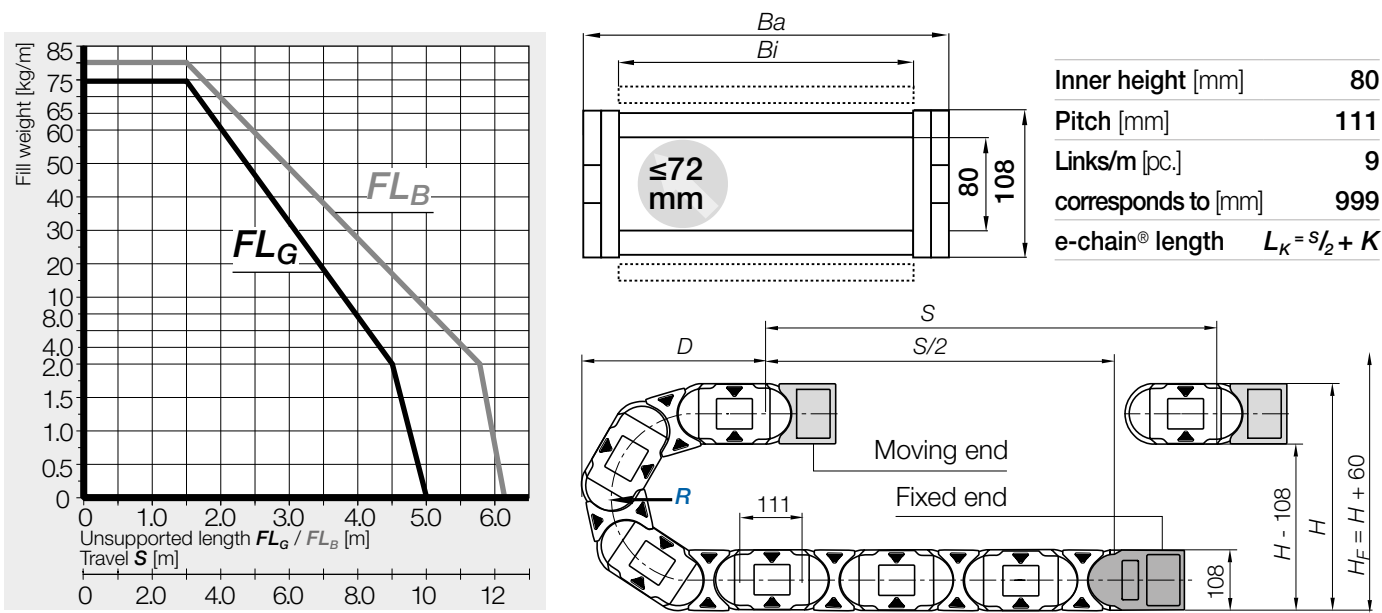
H4.80.15.200.0 = crossbars removable along the inner and outer radius

R4.80.15.200.0 = lids openable along the outer radius from one side

Order index for colour options ► www.igus.eu/info-colours

Series / Type	Inner height	Width index	Bend radius	Colour index

Unsupported applications | Short travels

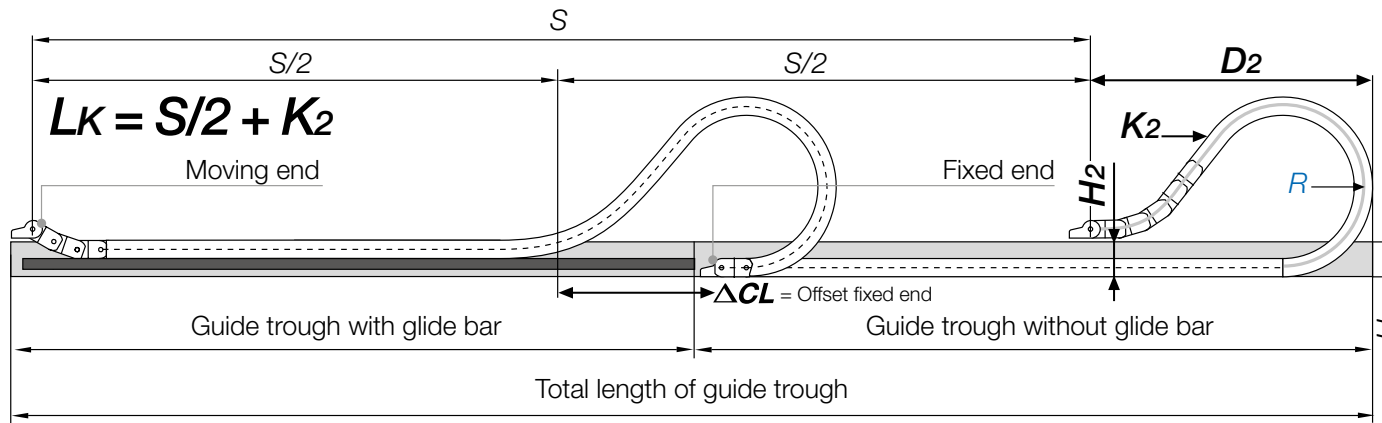


R	150*	200	250	300	350	400	500	550	600	1,000
H_{+25}^0	408	508	608	708	808	908	1,108	1,208	1,308	2,108
D	371	421	471	521	571	621	721	771	821	1,221
K	695	855	1,010	1,165	1,325	1,480	1,795	1,950	2,110	3,365

The required clearance height: $H_F = H + 60\text{mm}$ (with 3.0kg/m fill weight)

*Radius not available for e-tubes

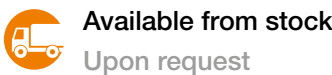
Gliding applications | For travel lengths from 12m to max. 400m



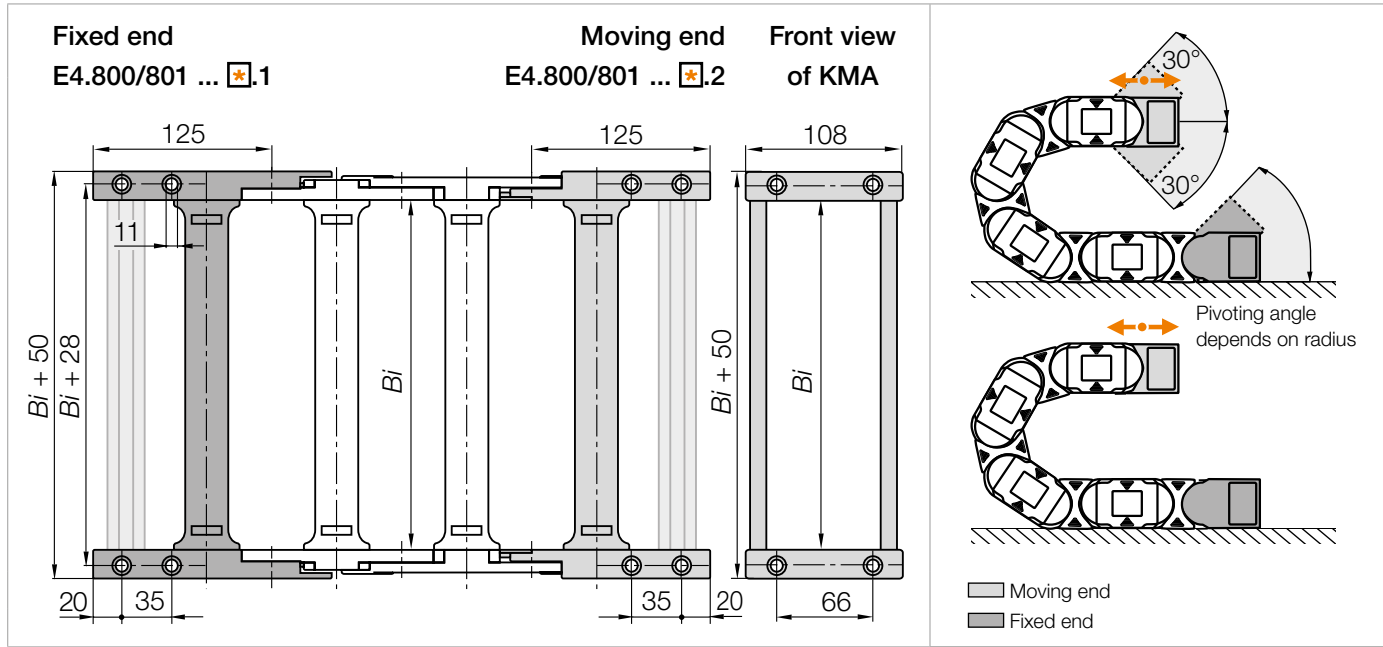
R	150*	200	250	300	350	400	500	550	600	1,000
H_2	242	242	242	242	242	242	242	-	-	-
D_2^{+50}	550	800	1,000	1,200	1,450	1,600	2,100	-	-	-
K_2	890	1,330	1,665	2,000	2,330	2,660	3,440	-	-	-
ΔCL	189	389	539	689	889	989	1,389	-	-	-

Note: In case of travels between 10 and 12m we recommend an e-chain® with a longer unsupported length.

*Radius not available for e-tubes



KMA mounting brackets | Attachment from any side | Pivoting | Locking

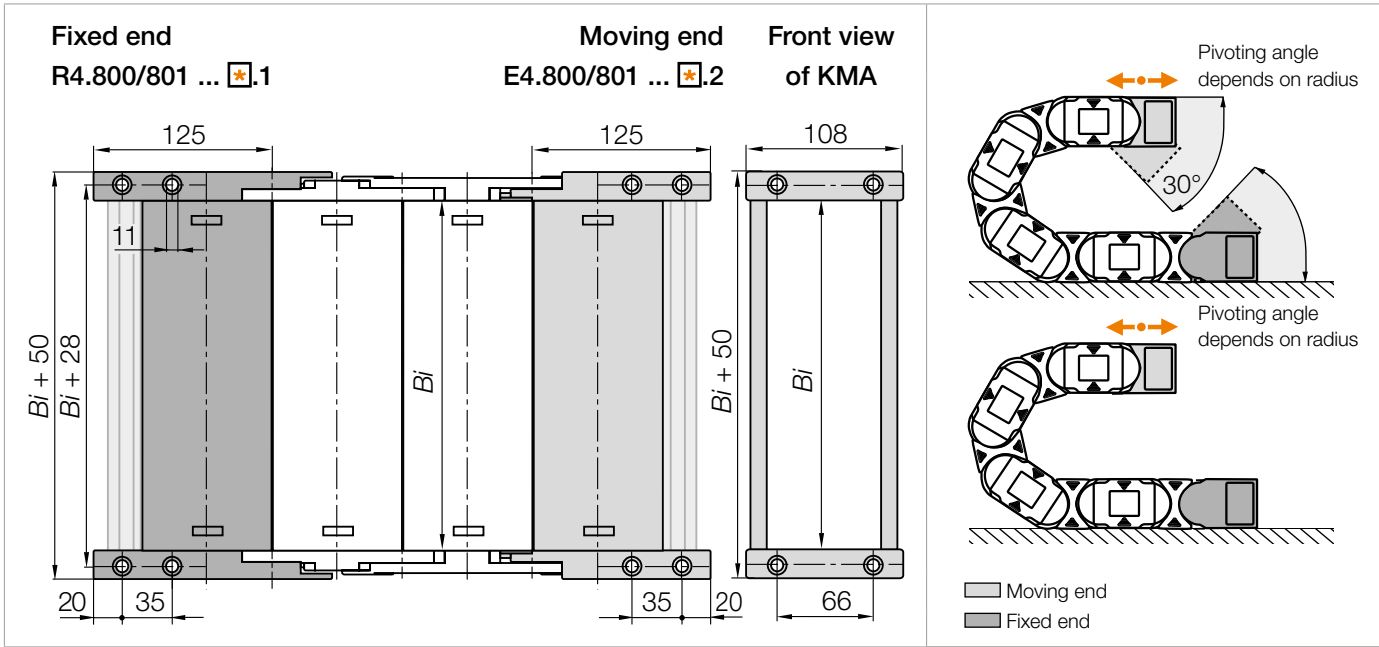


Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
05.	E4.800.05. [1].12.□	E4.801.05. [1].12.□	50
055.	E4.800.055. [1].12.□	E4.801.055. [1].12.□	55
06.	E4.800.06. [1].12.□	E4.801.06. [1].12.□	65
07.	E4.800.07. [1].12.□	E4.801.07. [1].12.□	75
08.	E4.800.08. [1].12.□	E4.801.08. [1].12.□	87
10.	E4.800.10. [1].12.□	E4.801.10. [1].12.□	100
11.	E4.800.11. [1].12.□	E4.801.11. [1].12.□	112
12.	E4.800.12. [1].12.□	E4.801.12. [1].12.□	125
13.	E4.800.13. [1].12.□	E4.801.13. [1].12.□	137
15.	E4.800.15. [1].12.□	E4.801.15. [1].12.□	150
16.	E4.800.16. [1].12.□	E4.801.16. [1].12.□	162
169.	E4.800.169. [1].12.□	E4.801.169. [1].12.□	169
17.	E4.800.17. [1].12.□	E4.801.17. [1].12.□	175
182.	E4.800.182. [1].12.□	E4.801.182. [1].12.□	182
18.	E4.800.18. [1].12.□	E4.801.18. [1].12.□	187
20.	E4.800.20. [1].12.□	E4.801.20. [1].12.□	200
207.	E4.800.207. [1].12.□	E4.801.207. [1].12.□	207
21.	E4.800.21. [1].12.□	E4.801.21. [1].12.□	212
22.	E4.800.22. [1].12.□	E4.801.22. [1].12.□	225
23.	E4.800.23. [1].12.□	E4.801.23. [1].12.□	237
25.	E4.800.25. [1].12.□	E4.801.25. [1].12.□	250
26.	E4.800.26. [1].12.□	E4.801.26. [1].12.□	262
27.	E4.800.27. [1].12.□	E4.801.27. [1].12.□	275

(KMA = polymer metal mounting bracket)

Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting | Locking

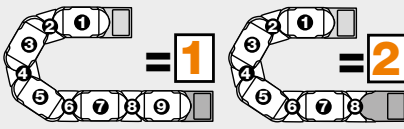


Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
10.	R4.800.10. [1].12.□	R4.801.10. [1].12.□	100
15.	R4.800.15. [1].12.□	R4.801.15. [1].12.□	150
20.	R4.800.20. [1].12.□	R4.801.20. [1].12.□	200
25.	R4.800.25. [1].12.□	R4.801.25. [1].12.□	250

(KMA = polymer metal mounting bracket)

Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
30.	R4.800.30. [1].12.□	R4.801.30. [1].12.□	300
35.	R4.800.35. [1].12.□	R4.801.35. [1].12.□	350
40.	R4.800.40. [1].12.□	R4.801.40. [1].12.□	400
46.	R4.800.46. [1].12.□	R4.801.46. [1].12.□	462

Note [1]: The e-chains® may end with either an inner or an outer side link. An outer side link should always be the first e-chain® link at the moving end. Please specify the index **1** (for odd) or **2** (for even) depending on an even or odd number of links required.



Order key

E4.800.15. [2].12. C. A2

Series	Width index	Even number of links	Full set	C-profile option	Pre-fitted

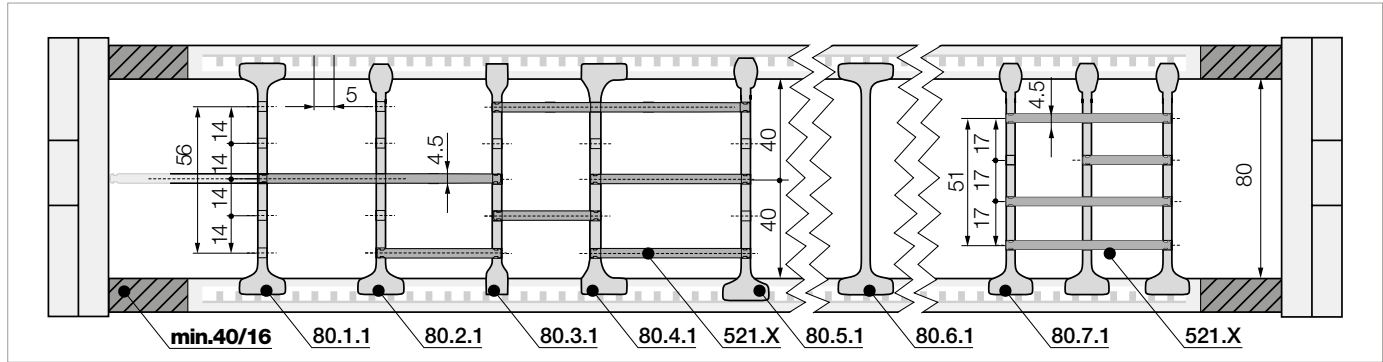
Note: Possible orientations for KMA mounting brackets. For mounting brackets pre-fitted **without strain relief**, please add index **.A**. For types pre-fitted **with strain relief** please add index **.A1**, **.A2**, **.A3** or **.A4**.



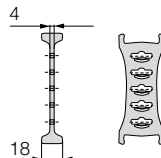
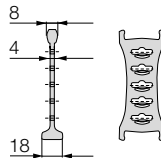
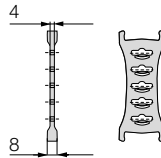
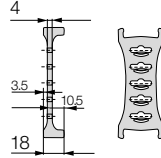
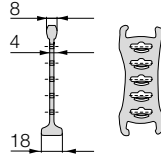
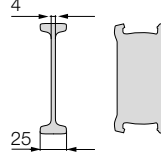
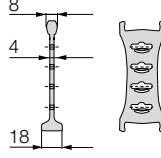
For the C-profile option please add index **.C**.

Available from stock
Upon request

Interior separation | Increase cable service life

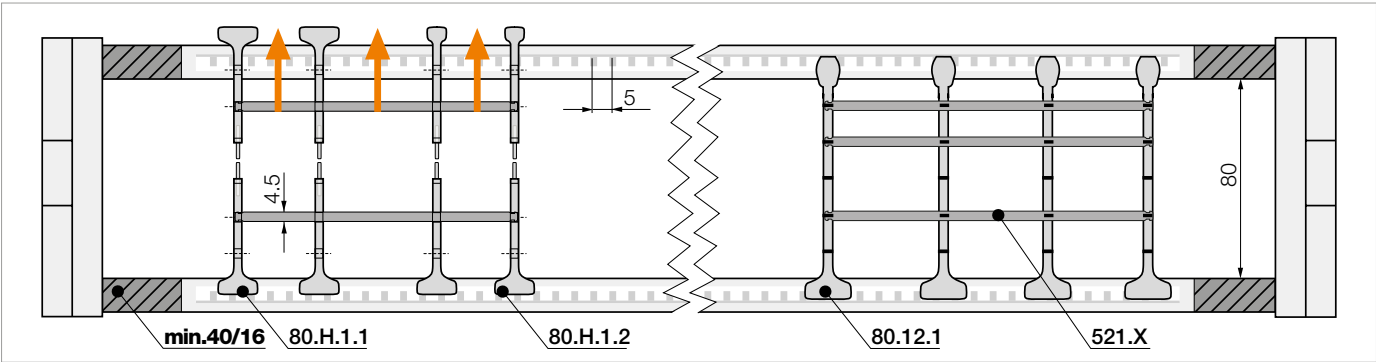


Note: Please be aware of the minimum lateral gap to the side links! **e-tube: 40mm** | **e-chain®: 16mm**
As standard separators are fitted every 2nd e-chain® link!

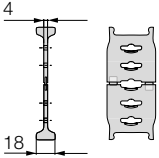
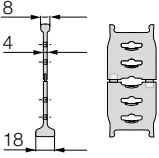
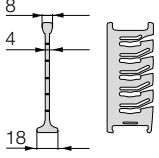
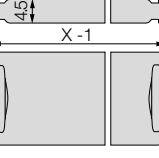
		Part No. Standard separator unassembled 80.1 assembled 80.1.1	For all applications Standard separator with a wide base for maximum holding force.
		Part No. Separator, narrow top unassembled 80.2 assembled 80.2.1	For even faster installation Wide on one side for high holding force, narrow on opposite side for easy cable fitting.
		Part No. Separator, narrow unassembled 80.3 assembled 80.3.1	For a large number of thin cables Separator with a narrow base for a large number of thin cables side by side. Saves space.
		Part No. Separator, asymmetrical unassembled 80.4 assembled 80.4.1	For side-mounted applications Asymmetrical separator, for defined gap distance. No additional spacers required.
		Part No. Notch separator unassembled 80.5 assembled 80.5.1	Locks securely in preset increments Notch separator for exact positioning. Recommended for side-mounted applications.
		Part No. Notch locking separator* unassembled 80.6 assembled 80.6.1	Notch locking separator for increased holding force For higher crossbar opening forces for high humidity and/or large hydraulic hoses. They can be positioned precisely and then locked in position.
		Part No. Separator, one end locking unassembled 80.7 assembled 80.7.1	Separator, one end locking Offset slots for more variability in horizontal subdivisions.

*Only suitable for e-chains®

Interior separation | To allow faster filling



Note: Please be aware of the minimum lateral gap to the side links! **e-tube: 40mm** | **e-chain®: 16mm**
As standard separators are fitted every 2nd e-chain® link!

		Part No. Split separator, wide top unassembled 80.H.1 assembled 80.H.1.1	Split separators In order to fill e-chains® more easily and effectively, these separators can be split in the middle. This allows easier access to middle shelf partitions. Fast assembly and easy retrofit. 2 types available: with wide or narrow top.
		Part No. Split separator, narrow top unassembled 80.H.2 assembled 80.H.2.1	
		Part No. Lean separator unassembled 80.12 assembled 80.12.1	Lean separators¹⁾ Quick fitting of shelves in several layers. Enables extremely fast replacement of individual cables in very full e-chains®. Only suitable for e-chains®.
		Part No. Shelf unassembled 520.X assembled 521.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

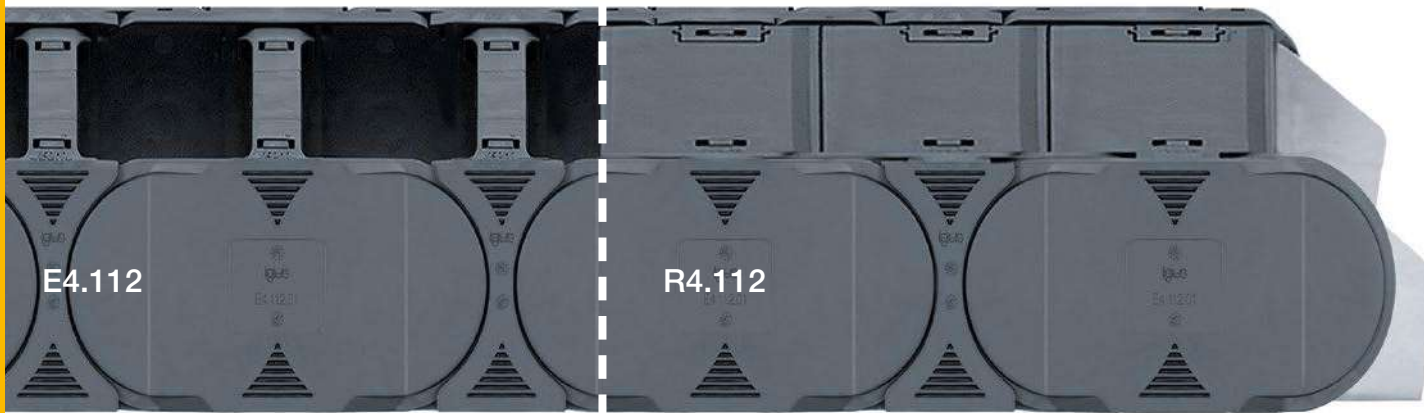
Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	520.050	521.050	125	520.125	521.125	225	520.225	521.225	375	520.375	521.375
065	520.065	521.065	150	520.150	521.150	250	520.250	521.250	387	520.387	521.387
075	520.075	521.075	175	520.175	521.175	300	520.300	521.300	450	520.450	521.450
100	520.100	521.100	200	520.200	521.200	350	520.350	521.350			



Lean separator for even faster filling: quickly insert several layers of cables into the e-chain® and reduce the installation time by up to 50%. Measured on a 4m long e-chain® fitted with 12 cables. **1) Note: Please combine a maximum of four lean separators with one shelf. Not suitable for side-mounted e-chains®!**

 Available from stock
 Upon request

Product range



Part No. e-chains® with crossbars every link	Part No. e-tubes closed	Bi [mm]	Ba [mm]	E4.112 [kg/m]	R4.112 [kg/m]
E4.112. 05.□.0	–	50	102	≈ 7.78	–
E4.112.055.□.0	–	55	107	≈ 7.81	–
E4.112. 06.□.0	–	65	117	≈ 7.84	–
E4.112. 07.□.0	–	75	127	≈ 7.88	–
E4.112. 08.□.0	–	87	139	≈ 7.94	–
E4.112. 10.□.0	–	100	152	≈ 7.99	–
E4.112. 11.□.0	–	112	164	≈ 8.07	–
E4.112. 12.□.0	–	125	177	≈ 8.12	–
E4.112. 13.□.0	–	137	189	≈ 8.20	–
E4.112. 15.□.0	–	150	202	≈ 8.23	–
E4.112. 16.□.0	–	162	214	≈ 8.30	–
E4.112.169.□.0	–	169	222	≈ 8.35	–
E4.112. 17.□.0	–	175	227	≈ 8.38	–
E4.112.182.□.0	–	182	235	≈ 8.41	–
E4.112. 18.□.0	–	187	239	≈ 8.45	–
E4.112. 20.□.0	R4.112.20.□.0	200	252	≈ 8.49	≈ 10.15
E4.112.207.□.0	–	207	260	≈ 8.52	–
E4.112. 21.□.0	–	212	264	≈ 8.53	–
E4.112. 22.□.0	–	225	277	≈ 8.58	–
E4.112. 23.□.0	–	237	289	≈ 8.65	–
E4.112. 25.□.0	R4.112.25.□.0	250	302	≈ 8.72	≈ 10.79
E4.112. 26.□.0	–	262	314	≈ 8.78	–
E4.112. 27.□.0	–	275	327	≈ 8.84	–

Part No. e-chains® with crossbars every link	Part No. e-tubes closed	Bi [mm]	Ba [mm]	E4.112 [kg/m]	R4.112 [kg/m]
E4.112. 28.□.0	–	287	339	≈ 8.88	–
E4.112. 30.□.0	R4.112.30.□.0	300	352	≈ 8.97	≈ 11.42
E4.112. 31.□.0	–	312	364	≈ 9.00	–
E4.112. 32.□.0	–	325	377	≈ 9.06	–
E4.112. 33.□.0	–	337	389	≈ 9.14	–
E4.112. 35.□.0	R4.112.35.□.0	350	402	≈ 9.27	≈ 12.07
E4.112. 36.□.0	–	362	414	≈ 9.21	–
E4.112. 37.□.0	–	375	427	≈ 9.27	–
E4.112. 38.□.0	–	387	439	≈ 9.35	–
E4.112. 40.□.0	R4.112.40.□.0	400	452	≈ 9.52	≈ 12.71
E4.112. 41.□.0	–	412	464	≈ 9.47	–
E4.112. 42.□.0	–	425	477	≈ 9.66	–
E4.112. 43.□.0	–	437	489	≈ 9.56	–
E4.112. 45.□.0	–	450	502	≈ 9.77	–
E4.112. 46.□.0	–	462	514	≈ 9.74	–
E4.112. 47.□.0	–	475	527	≈ 9.76	–
E4.112. 48.□.0	–	487	539	≈ 9.92	–
E4.112. 50.□.0	R4.112.50.□.0	500	552	≈ 9.98	≈ 13.99
E4.112. 51.□.0	–	512	564	≈ 9.92	–
E4.112. 52.□.0	–	525	577	≈ 10.03	–
E4.112. 53.□.0	–	537	589	≈ 10.09	–
E4.112. 55.□.0	–	550	602	≈ 10.36	–
E4.112. 60.□.0	–	600	652	≈ 10.51	–

Available bend radii *R* [mm] | 200* | 250** | 300** | 350 | 400 | 450 | 500 | 550 | 600 | 750 | 1.000 |

*Radius not available for e-tubes **Radius available for e-tubes with technical limitations, upon request

Order key

E4.112.20.500.0

Series / Type	Inner height	Width index	Bend radius	Colour index
---------------	--------------	-------------	-------------	--------------

Order example:

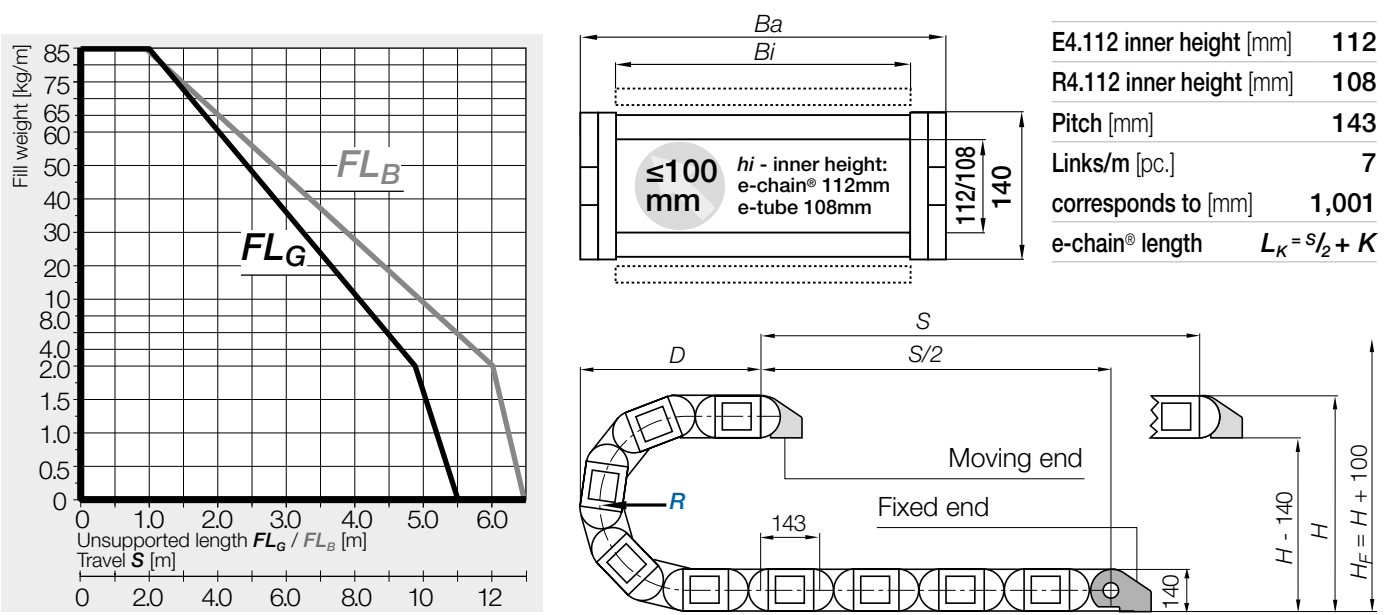
Complete Part No. with the required radius *R*. Example:

E4.112.20.500.0 = crossbars removable along the inner and outer radius

R4.112.20.500.0 = lids openable along the outer radius from one side

Order index for colour options ► www.igus.eu/info-colours

Unsupported applications | Short travels

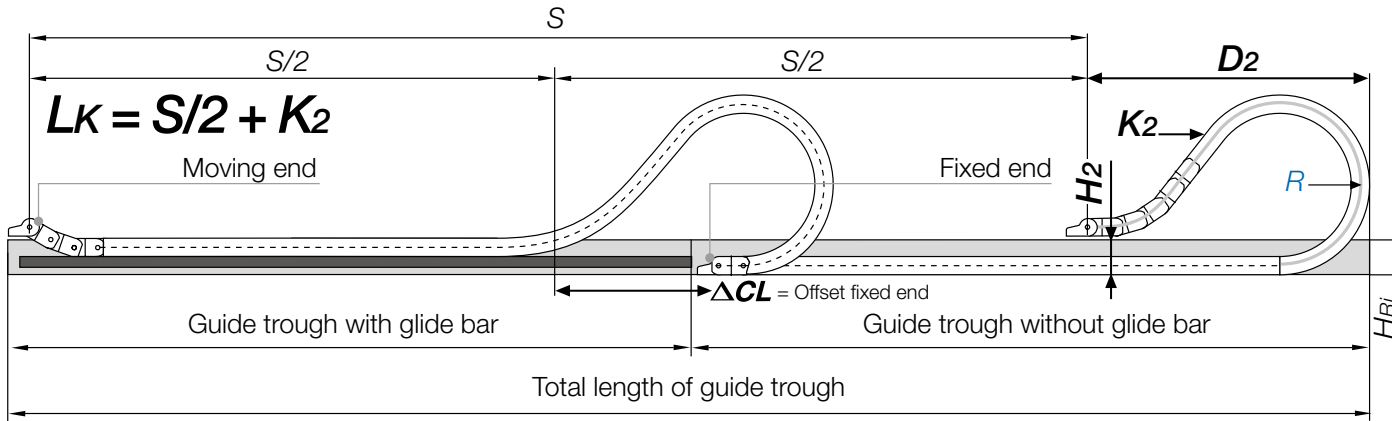


<i>R</i>	200*	250**	300**	350	400	450	500	550	600	750	1,000
<i>H</i>	545	645	745	845	945	1,045	1,145	1,245	1,345	1,645	2,145
<i>D</i>	415	465	515	565	615	665	715	765	815	965	1,215
<i>K</i>	915	1,075	1,230	1,390	1,545	1,700	1,860	2,015	2,175	2,645	3,430

The required clearance height: $H_F = H + 100\text{mm}$ (with 5.0kg/m fill weight)

*Radius not available for e-tubes **Radius available for e-tubes with technical limitations, upon request

Gliding applications | For travel lengths from 14m to max. 450m



<i>R</i>	200*	250**	300**	350	400	450	500	550	600	750	1,000
<i>H</i> ₂	325	325	325	325	325	325	325	325	325	–	–
<i>D</i> ₂ ⁺⁵⁰	900	1,000	1,100	1,250	1,450	1,600	1,700	1,900	2,050	–	–
<i>K</i> ₂	1,573	1,716	1,859	2,288	2,574	2,860	3,146	3,432	3,861	–	–
Δ <i>CL</i>	450	500	550	650	800	900	950	1,100	1,200	–	–

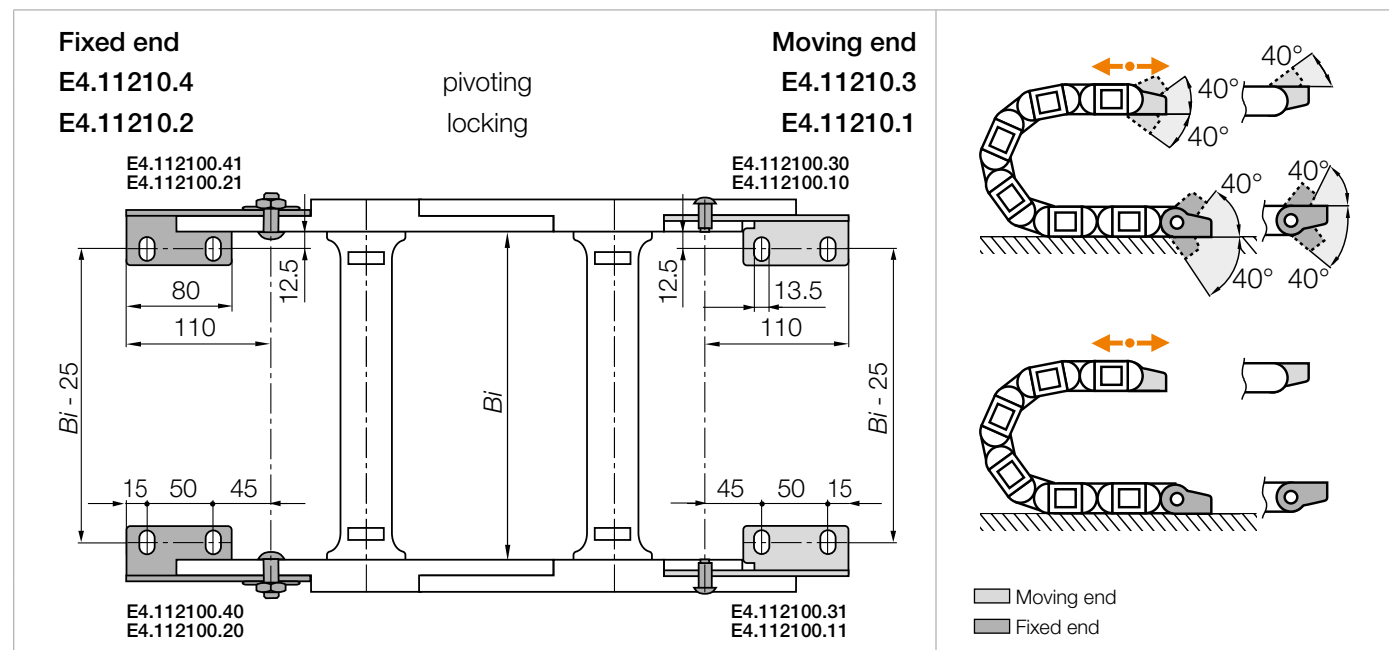
Note: In case of travels between 11 and 14m we recommend an e-chain® with a longer unsupported length.

*Radius not available for e-tubes **Radius available for e-tubes with technical limitations, upon request

Available from stock
Upon request



Steel mounting brackets | Attachment from any side | Pivoting | Locking



Part No. Full set	Part No. Full set	Description
Steel pivoting	Steel locking	Mounting bracket
E4.11210.1.34.VS.E45	E4.11210.1.12.VS.E45	Full set (both ends) ending with outer side link, screwed - standard
E4.11210.2.34.VS.E45	E4.11210.2.12.VS.E45	Full set (both ends) beginning with outer side link (moving end) - ending with inner side link (fixed end), screwed - standard

Stainless steel version available. Please add index .E45 (material: AISI 316Ti)

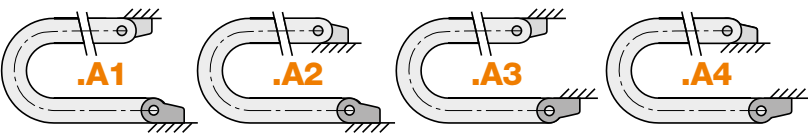
Note: The e-chains® may end with either an inner or an outer side link. An outer side link should always be the first e-chain® link at the moving end. Please specify the index 1 (for odd) or 2 (for even) depending on an even or odd number of links required. For the best appearance, make sure the e-chain® ends with 1 outer side links whenever possible (with odd number of links).

Order key

E4.11210.1.12.VS.A2

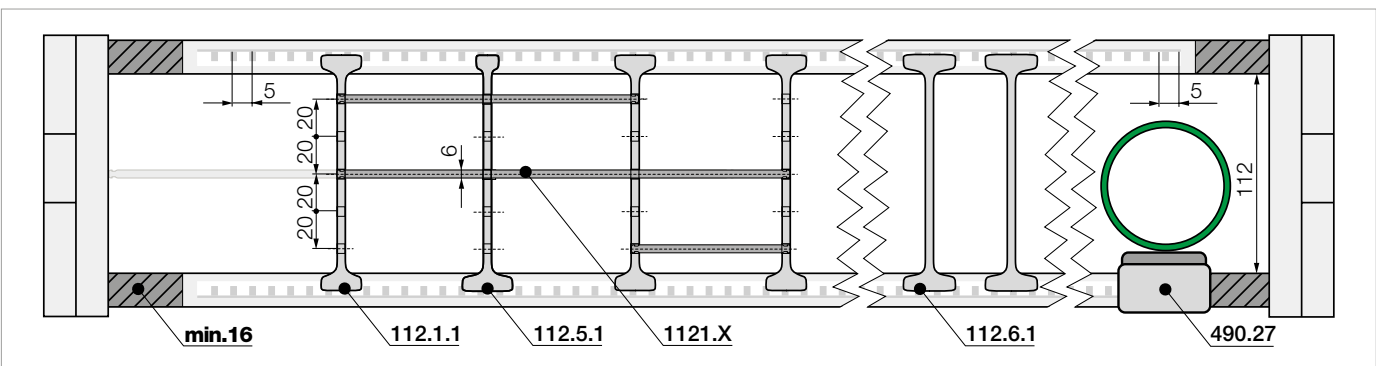
Series	Odd number of links	Full set, locking	Pre-fitted	Pre-fitted
--------	---------------------	-------------------	------------	------------

Note: Possible variations for pre-fitted mounting brackets. To receive steel mounting brackets pre-fitted please add index .A1, .A2, .A3 or .A4.



Available from stock
Upon request

Interior separation | Increase cable service life



Note: Please be aware of the minimum lateral gap to the side links! e-chain®: =16mm
As standard separators are fitted every 2nd e-chain® link!

		Part No. Standard separator unassembled 112.1 assembled 112.1.1	For all applications Standard separator with a wide base for maximum holding force.
		Part No. Notch separator unassembled 112.5 assembled 112.5.1	Locks securely in preset increments Notch separator for exact positioning. Recommended for side-mounted applications.
		Part No. Shelf unassembled 1120.X assembled 1121.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

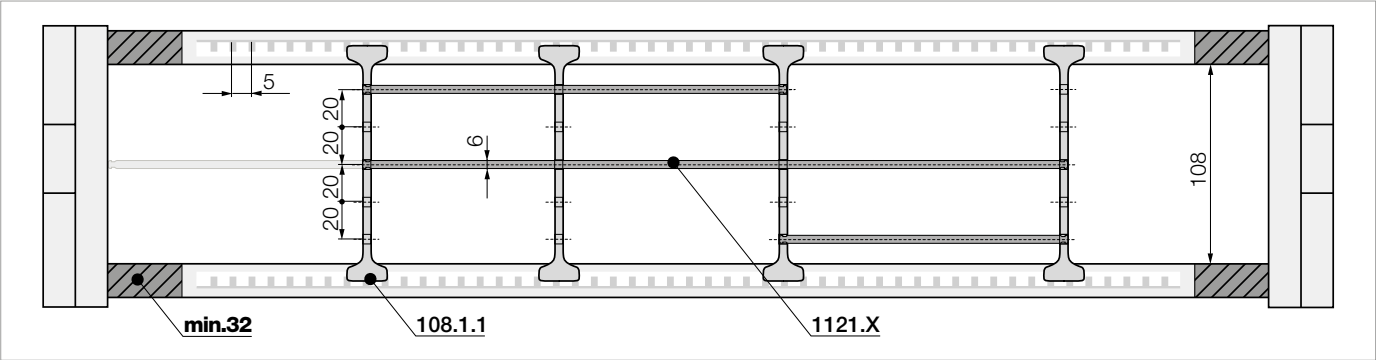
Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	1120.050	1121.050	125	1120.125	1121.125	225	1120.225	1121.225	375	1120.375	1121.375
065	1120.065	1121.065	150	1120.150	1121.150	250	1120.250	1121.250	387	1120.387	1121.387
075	1120.075	1121.075	175	1120.175	1121.175	300	1120.300	1121.300	450	1120.450	1121.450
100	1120.100	1121.100	200	1120.200	1121.200	350	1120.350	1121.350			

Interior separation | Other optional elements

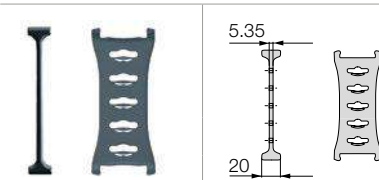
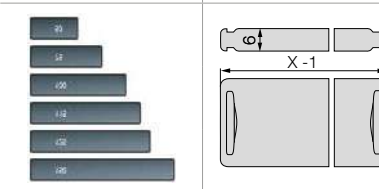
		Part No. Notch locking separator unassembled 112.6 assembled 112.6.1	Notch locking separator for increased holding force For higher crossbar opening forces for high humidity and/or large hydraulic hoses. They can be positioned precisely and then locked in position.
		Part No. Rollclip unassembled 489.27 assembled 490.27	Minimises abrasion of sensitive hoses The rollclip simply clamps onto the opening crossbar. The movable rollers compensate for relative movement between the e-chain® and hose.

All interior separations on this page are only suitable for e-chains®!

Interior separation | Increase cable service life



Note: Please be aware of the minimum lateral gap to the side links! **e-tubes: 32mm**
As standard separators are fitted every 2nd e-chain® link!

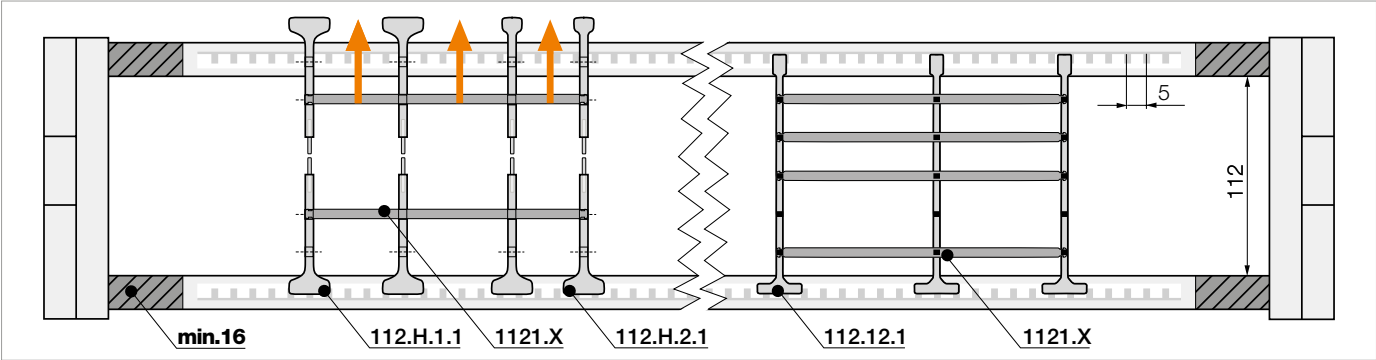
	Part No. Standard separator unassembled 108.1 assembled 108.1.1	For all applications Standard separator with a wide base for maximum holding force.
	Part No. Shelf unassembled 1120.X assembled 1121.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	1120.050	1121.050	125	1120.125	1121.125	225	1120.225	1121.225	375	1120.375	1121.375
065	1120.065	1121.065	150	1120.150	1121.150	250	1120.250	1121.250	387	1120.387	1121.387
075	1120.075	1121.075	175	1120.175	1121.175	300	1120.300	1121.300	450	1120.450	1121.450
100	1120.100	1121.100	200	1120.200	1121.200	350	1120.350	1121.350			

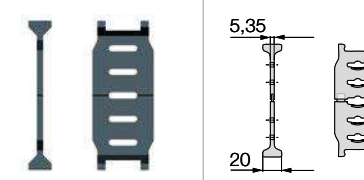
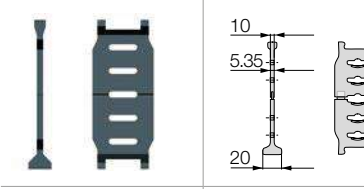
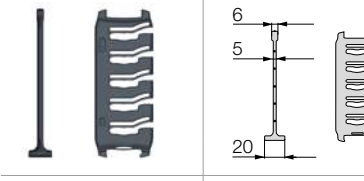
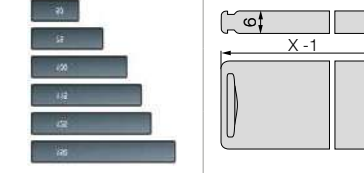
All interior separations on this page are only suitable for e-tubes!

 Available from stock
Upon request

Interior separation | To allow faster filling



Note: Please be aware of the minimum lateral gap to the side links! **e-chain®: =16mm**
As standard separators are fitted every 2nd e-chain® link!

	Part No. Split separator, wide top unassembled 112.H.1 assembled 112.H.1.1	Split separators In order to fill e-chains® more easily and effectively, these separators can be split in the middle. This allows easier access to middle shelf partitions. Fast assembly and easy retrofit. 2 types available: with wide or narrow top.
	Part No. Split separator, narrow top unassembled 112.H.2 assembled 112.H.2.1	
	Part No. Lean separator unassembled 112.12 assembled 112.12.1	Lean separators¹⁾ Quick fitting of shelves in several layers. Enables extremely fast replacement of individual cables in very full e-chains®. Only suitable for e-chains®.
	Part No. Shelf unassembled 1120.X assembled 1121.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
50	1.120.050	1.121.050	125	1.120.125	1.121.125	225	1.120.225	1.121.225	375	1.120.375	1.121.375
65	1.120.065	1.121.065	150	1.120.150	1.121.150	250	1.120.250	1.121.250	387	1.120.387	1.121.387
75	1.120.075	1.121.075	175	1.120.175	1.121.175	300	1.120.300	1.121.300	450	1.120.450	1.121.450
100	1.120.100	1.121.100	200	1.120.200	1.121.200	350	1.120.350	1.121.350			



Lean separator for even faster filling: quickly insert several layers of cables into the e-chain® and reduce the installation time by up to 50%. Measured on a 4m long e-chain® fitted with 12 cables. **1) Note:** Please combine a maximum of four lean separators with one shelf. Not suitable for side-mounted e-chains®!

 Available from stock
Upon request

All interior separations on this page are only suitable for e-chains®!

Product range



Part No. e-chains® with crossbars every link	<i>Bi</i> [mm]	<i>Ba</i> [mm]	E4.162 [kg/m]
E4.162.20.0	200	256	≈ 10.45
E4.162.25.0	250	306	≈ 10.74
E4.162.30.0	300	356	≈ 10.99
E4.162.32.0	325	381	≈ 11.02
E4.162.35.0	350	406	≈ 11.21

Part No. e-chains® with crossbars every link	<i>Bi</i> [mm]	<i>Ba</i> [mm]	E4.162 [kg/m]
E4.162.40.0	400	456	≈ 11.51
E4.162.45.0	450	506	≈ 11.65
E4.162.50.0	500	556	≈ 11.83
E4.162.55.0	550	606	≈ 12.11
E4.162.60.0	600	656	≈ 12.45

Available bend radii *R* [mm] | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 750 | 1.000 |



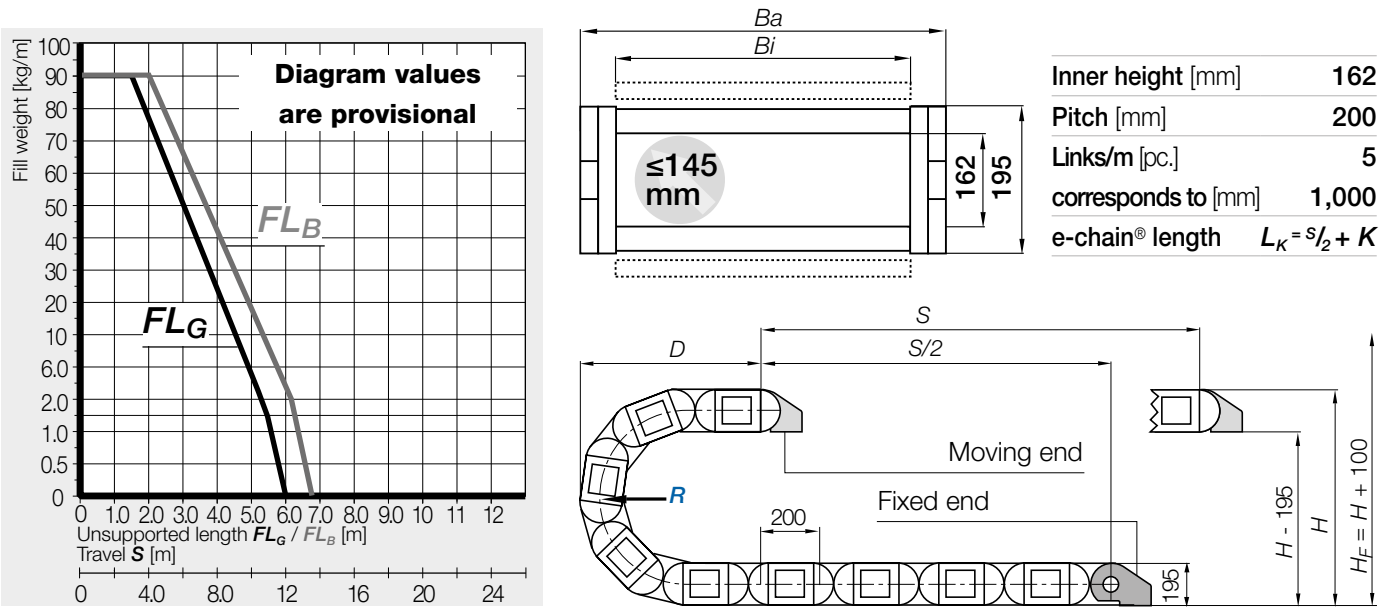
Order key

E4.162.40.350.0

Series / Type	Inner height	Width index	Bend radius	Colour index

Order example:
Complete Part No. with the required radius *R*. Example:
E4.162.40.350.0 = crossbars removable along the inner and outer radius
Order index for colour options ► www.igus.eu/info-colours

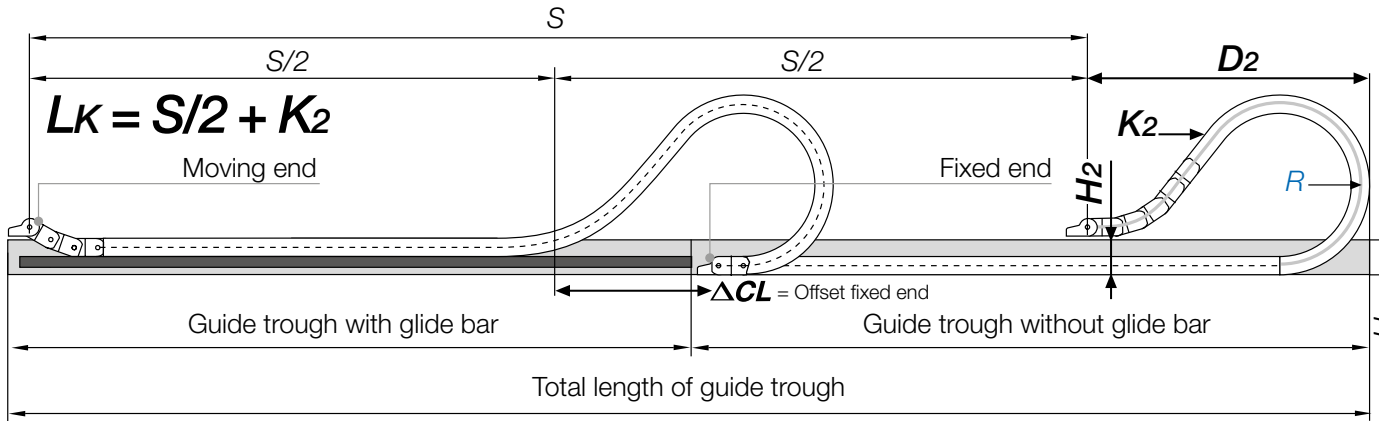
Unsupported applications | Short travels



<i>R</i>	250	300	350	400	450	500	550	600	750	1,000
<i>H</i>	700	800	900	1,000	1,100	1,200	1,300	1,400	1,700	2,200
<i>D</i>	648	698	748	798	848	898	948	998	1,148	1,398
<i>K</i>	1,190	1,345	1,500	1,660	1,815	1,975	2,130	2,285	2,760	3,545

The required clearance height: $H_F = H + 100\text{mm}$ (with 5.0kg/m fill weight)

Gliding applications | For travel lengths from 14m to max. 450m



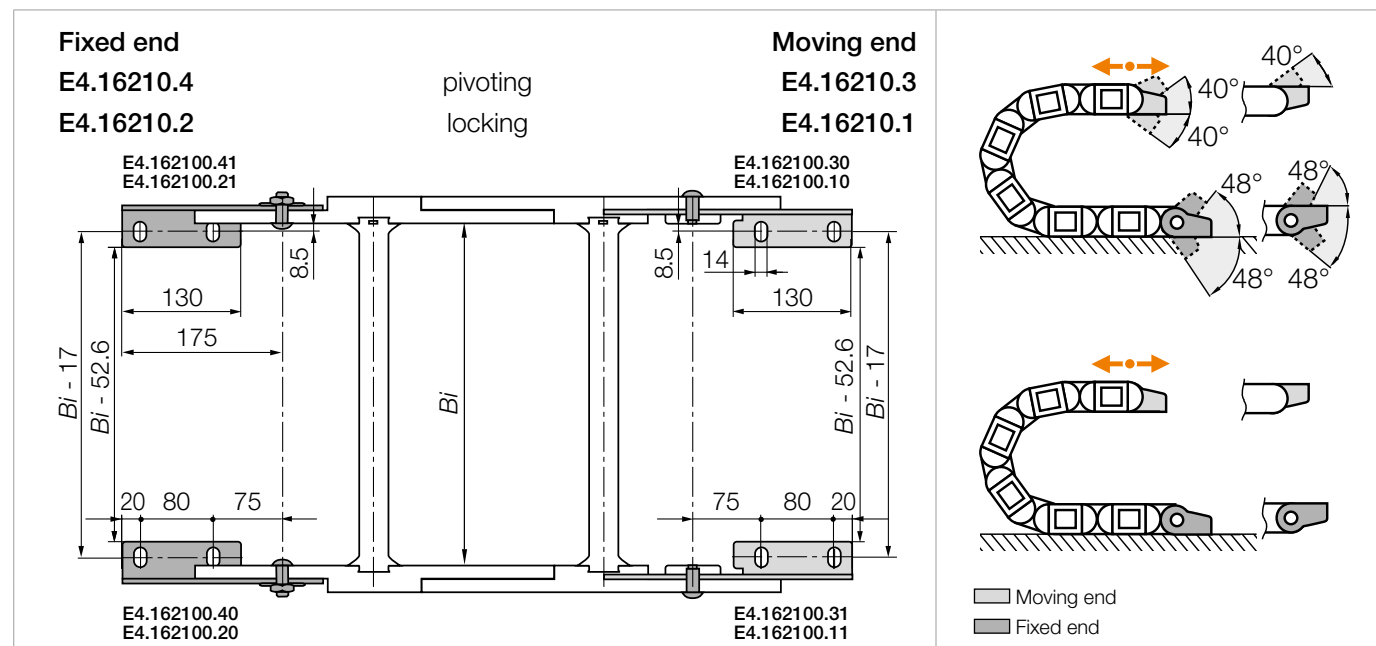
<i>R</i>	250	300	350	400	450	500	550	600	750	1,000
<i>H</i> ₂	*	580	580	580	580	580	580	580	**	**
<i>D</i> ₂ ⁺⁵⁰	*	950	1,050	1,350	1,600	1,950	2,050	2,400	**	**
<i>K</i> ₂	*	1,600	1,800	2,400	2,800	3,200	3,400	3,800	**	**
ΔCL	*	300	350	600	800	1,100	1,150	1,450	**	**

Note: In case of travels between 12 and 14m we recommend an e-chain® with a longer unsupported length.

*Values such as unsupported applications **Values upon request

 Available from stock
Upon request

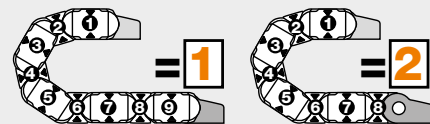
 Available from stock
Upon request



Part No. Full set	Part No. Full set	
Steel pivoting	Steel locking	Description Mounting bracket
E4.16210.1.34.VS.E45	E4.16210.1.12.VS.E45	Full set (both ends) ending with outer side link, screwed - standard
E4.16210.2.34.VS.E45	E4.16210.2.12.VS.E45	Full set (both ends) beginning with outer side link (moving end) - ending with inner side link (fixed end), screwed - standard

Stainless steel version available. Please add index **.E45** (material: AISI 316Ti)

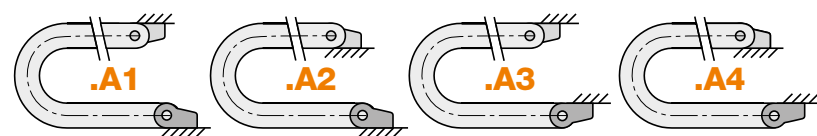
Note: The e-chains® may end with either an inner or an outer side link. An outer side link should always be the first e-chain® link at the moving end. Please specify the index **1** (for odd) or **2** (for even) depending on an even or odd number of links required. For the best appearance, make sure the e-chain® ends with **1** outer side links whenever possible (with odd number of links).


Order key

E4.16210.1.12.VS.A2

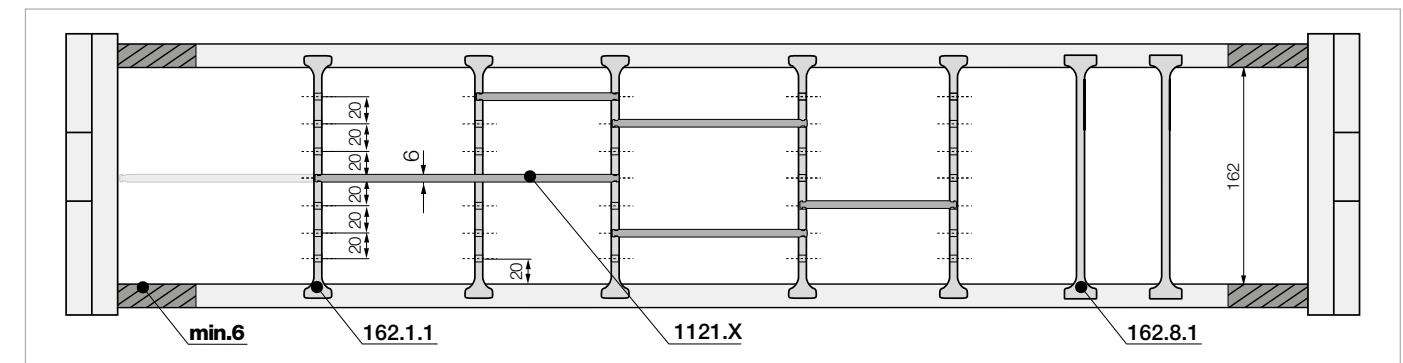
Series	Odd number of links	Full set, locking	Pre-fitted	Pre-fitted
--------	---------------------	-------------------	------------	------------

Note: Possible variations for pre-fitted mounting brackets. To receive steel mounting brackets pre-fitted please add index **.A1**, **.A2**, **.A3** or **.A4**.



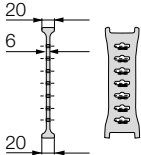
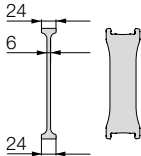
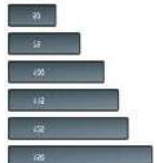
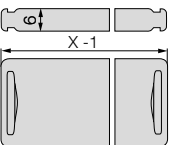
 **Available from stock**
Upon request

Interior separation | Increase cable service life



 **Note:** Please be aware of the minimum lateral gap to the side links! **e-chain®: 6mm**

As standard separators are fitted every 2nd e-chain® link!

		Part No. Standard separator unassembled 162.1 assembled 162.1.1	For all applications Standard separator with a wide base for maximum holding force.
		Part No. Locking separator unassembled 162.8 assembled 162.8.1	Locking separator for increased holding force Locking separators offer higher crossbar opening forces for high humidity and/or large hydraulic hoses.
		Part No. Shelf unassembled 1120.X assembled 1121.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width	Part No.	Part No.	Width	Part No.	Part No.	Width	Part No.	Part No.	Width	Part No.	Part No.
[mm]	unassembled	assembled	[mm]	unassembled	assembled	[mm]	unassembled	assembled	[mm]	unassembled	assembled
050	1120.050	1121.050	125	1120.125	1121.125	225	1120.225	1121.225	375	1120.375	1121.375
065	1120.065	1121.065	150	1120.150	1121.150	250	1120.250	1121.250	387	1120.387	1121.387
075	1120.075	1121.075	175	1120.175	1121.175	300	1120.300	1121.300	450	1120.450	1121.450
100	1120.100	1121.100	200	1120.200	1121.200	350	1120.350	1121.350			

 Available from stock
Upon request

Product range



Part No. e-chains® with crossbars every link	<i>Bi</i> [mm]	<i>Ba</i> [mm]	800 [kg/m]
800.20.□.0	200	260	≈ 15.09
800.25.□.0	250	310	≈ 15.50
800.30.□.0	300	360	≈ 15.89
800.32.□.0	325	385	≈ 16.05
800.35.□.0	350	410	≈ 16.22

Part No. e-chains® with crossbars every link	<i>Bi</i> [mm]	<i>Ba</i> [mm]	800 [kg/m]
800.40.□.0	400	460	≈ 16.74
800.45.□.0	450	510	≈ 16.88
800.50.□.0	500	560	≈ 17.23
800.55.□.0	550	610	≈ 17.63
800.60.□.0	600	660	≈ 18.19

Available bend radii *R* [mm] | 325 | 350 | 400 | 450 | 500 | 600 | 750 | 1.000 |



Order key

800.40.350.0

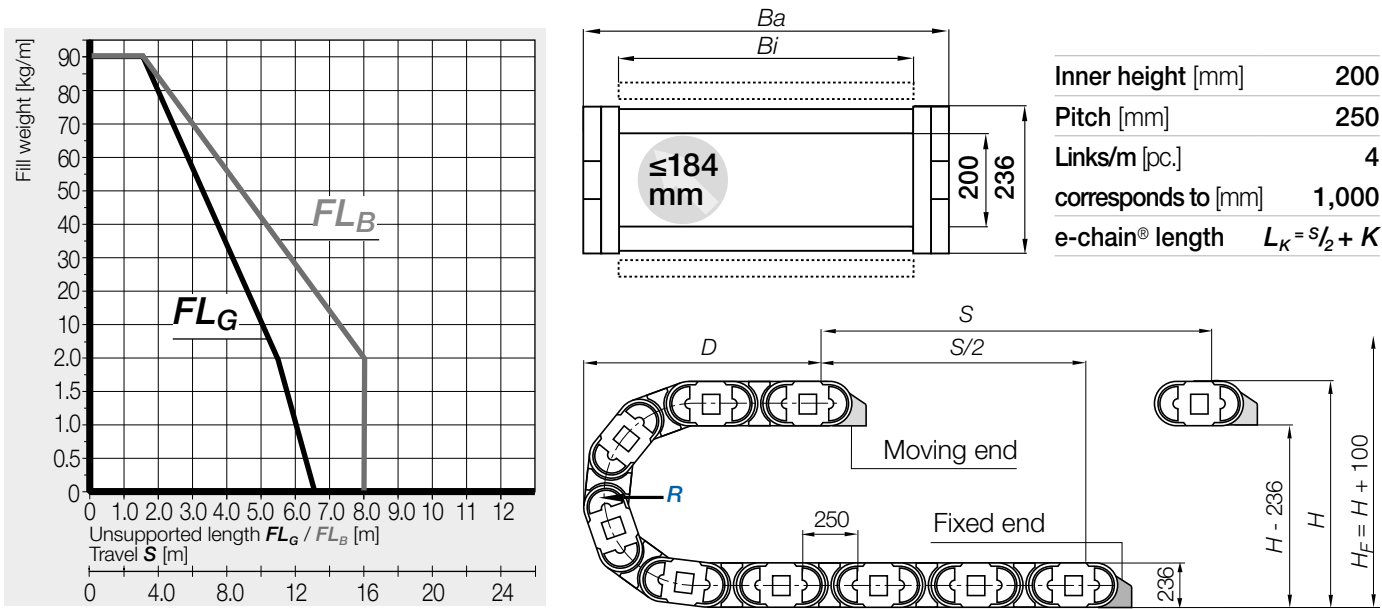
Series	Width index	Bend radius	Colour index

Order example:
Complete Part No. with the required radius *R*. Example:
800.40.350.0 = crossbars removable along the inner and outer radius
Order index for colour options ► www.igus.eu/info-colours



Available from stock
Upon request

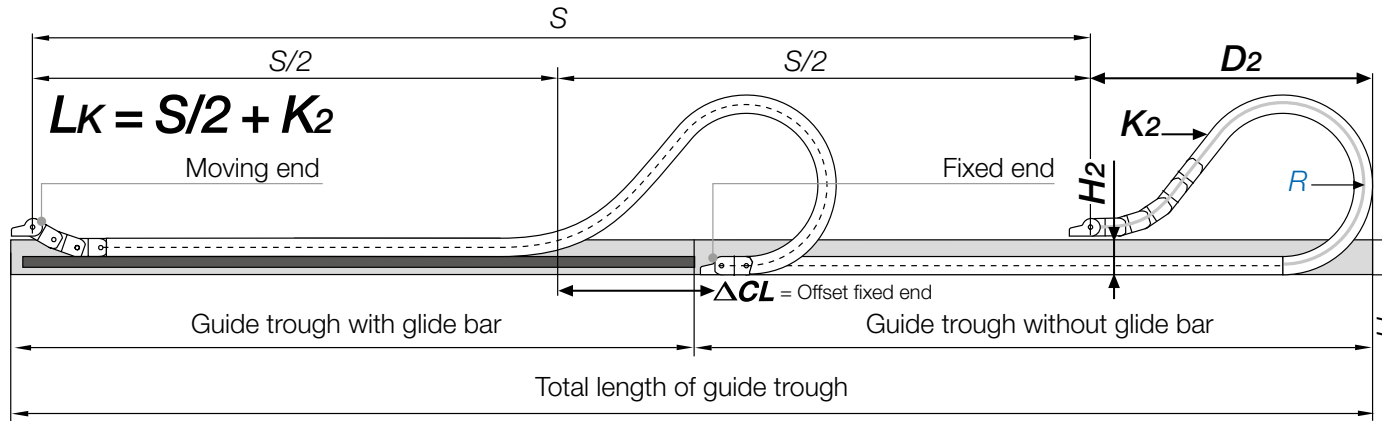
Unsupported applications | Short travels



<i>R</i>	325	350	400	450	500	600	750	1,000
<i>H</i>	886	936	1,036	1,136	1,236	1,436	1,736	2,236
<i>D</i>	818	843	893	943	993	1,093	1,243	1,493
<i>K</i>	1,525	1,600	1,760	1,915	2,075	2,385	2,860	3,645

The required clearance height: $H_F = H + 100\text{mm}$ (with 5.0kg/m fill weight)

Gliding applications | For travel lengths from 15m to max. 450m



<i>R</i>	325	350	400	450	500	600	750	1,000
<i>H</i> ₂	580	580	580	580	580	580	580	580
<i>D</i> ₂ ⁺⁵⁰	1,030	1,080	1,380	1,610	2,000	2,480	*	*
<i>K</i> ₂	2,000	2,000	2,500	3,000	3,250	4,000	*	*
ΔCL	250	300	550	750	1,050	1,400	*	*

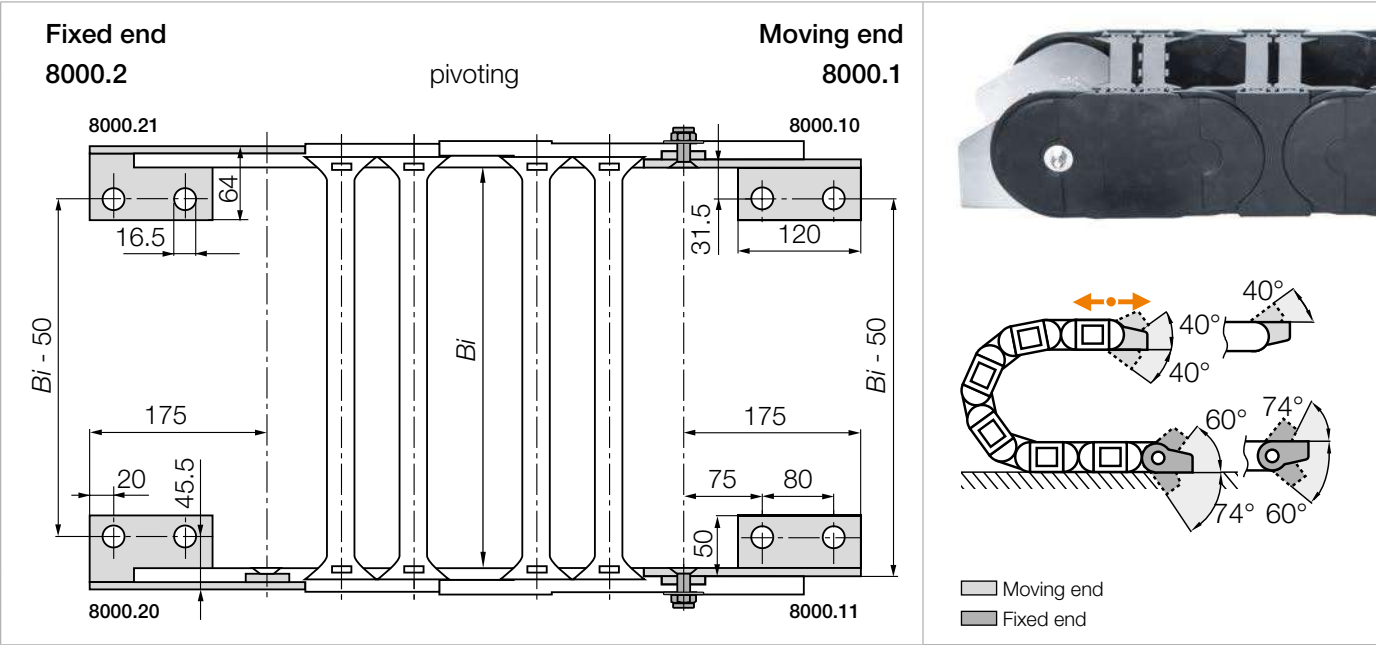
Note: In case of travels between 12 and 15m we recommend an e-chain® with a longer unsupported length.

*Values upon request



Available from stock
Upon request

Steel mounting brackets | Attachment from any side | Pivoting



Part No. Full set	
Steel	Description
pivoting	Mounting bracket
8000.1.12.VS.E45	Full set (both ends) ending with outer side link, screwed - standard
8000.3.12.VS.E45	Full set (both ends) beginning with outer side link (moving end) - ending with inner side link (fixed end), screwed - standard

Stainless steel version available. Please add index .E45 (material: AISI 316Ti)

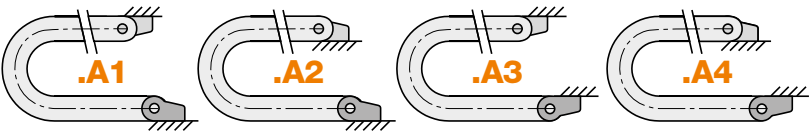
Note: The e-chains® may end with either an inner or an outer side link. An outer side link should always be the first e-chain® link at the moving end. Please specify the index 1 (for odd) or 3 (for even) depending on an even or odd number of links required. For the best appearance, make sure the e-chain® ends with 1 outer side links whenever possible (with odd number of links).

Order key

8000.1.12.VS.A2

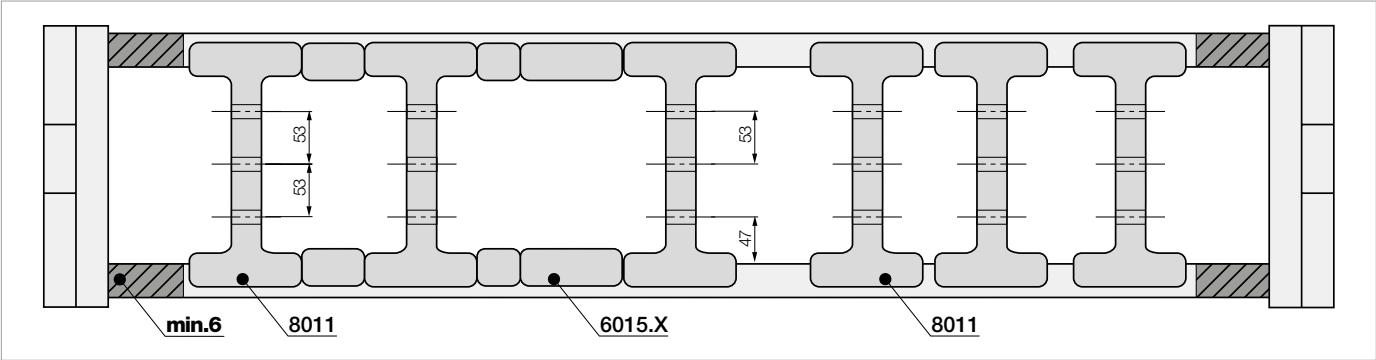
Series	Odd number of links	Full set	Pre-fitted	Pre-fitted
--------	---------------------	----------	------------	------------

Note: Possible variations for pre-fitted mounting brackets. To receive steel mounting brackets pre-fitted please add index .A1, .A2, .A3 or .A4.



Available from stock
Upon request

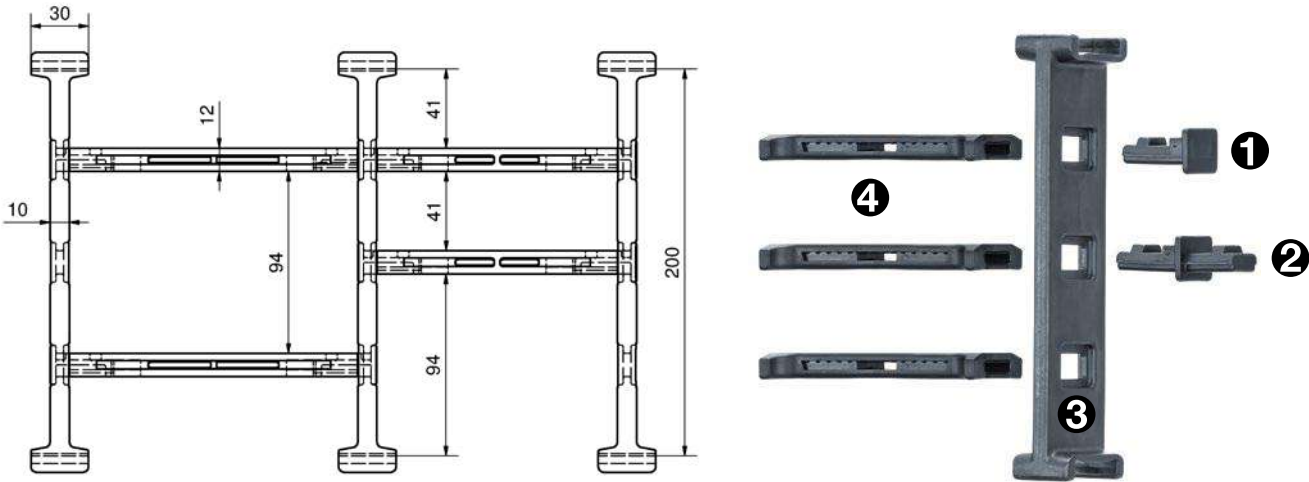
Interior separation



Note: Please be aware of the minimum lateral gap to the side links! e-chain®: 6mm
As standard separators are fitted every 2nd e-chain® link!

		Part No. Slotted separator unassembled 8001 assembled 8011	Slotted separator For a vertical subdivision. The slot allows basic vertical/horizontal shelving arrangements.
	XX [mm] = 10, 15, 20	Part No. Spacer unassembled 6005.XX assembled 6015.XX	Spacer for fixing the separator position To avoid reducing the internal height by 2mm, they can also be mounted on the opening crossbar from the outside (not for long travels).

Modular shelving system | For widths from 50 to 60mm



- Reliable, strong guidance also with large cable diameters
- Modular design with easy installation

Part No.	Part No.	Form	Part No.	Part No.	Width
unassembled	assembled	Snap in tab	Separator	Crossbar	[mm]
8001H1	8011H1	1 one side	8001	450.XX.A	50 - 600
8001H2	8011H2	2 both sides	8001	450.XX.A	50 - 600

Available from stock
Upon request

Product range



Part No. e-chains® with crossbars every link	<i>Bi</i> [mm]	<i>Ba</i> [mm]	840 [kg/m]
840.13.□.0	100	160	≈ 13.84
840.15.□.0	113	173	≈ 13.87
840.16.□.0	125	185	≈ 13.95
840.17.□.0	138	198	≈ 14.04
840.18.□.0	150	210	≈ 14.13
840.20.□.0	163	223	≈ 14.17
840.21.□.0	175	235	≈ 14.22
840.22.□.0	188	248	≈ 14.27
840.23.□.0	200	260	≈ 14.35
840.25.□.0	213	273	≈ 14.43
840.26.□.0	225	285	≈ 14.49
840.27.□.0	238	298	≈ 14.57
840.28.□.0	250	310	≈ 14.61
840.30.□.0	263	323	≈ 14.72
840.31.□.0	275	335	≈ 14.75
840.32.□.0	288	348	≈ 14.82
840.33.□.0	300	360	≈ 14.91
840.35.□.0	313	373	≈ 15.06

Part No. e-chains® with crossbars every link	<i>Bi</i> [mm]	<i>Ba</i> [mm]	840 [kg/m]
840.36.□.0	325	385	≈ 15.09
840.37.□.0	338	398	≈ 15.11
840.38.□.0	350	410	≈ 15.15
840.40.□.0	363	423	≈ 15.34
840.41.□.0	375	435	≈ 15.39
840.42.□.0	388	448	≈ 15.50
840.43.□.0	400	460	≈ 15.57
840.45.□.0	413	473	≈ 15.63
840.46.□.0	425	485	≈ 15.69
840.47.□.0	438	498	≈ 15.72
840.48.□.0	450	510	≈ 15.80
840.50.□.0	463	523	≈ 15.87
840.51.□.0	475	535	≈ 15.91
840.52.□.0	488	548	≈ 15.93
840.53.□.0	500	560	≈ 16.00
840.55.□.0	513	573	≈ 16.31
840.60.□.0	563	623	≈ 16.47

Available bend radii *R* [mm] | 325 | 350 | 400 | 450 | 500 | 600 | 750 | 1.000 |

Order key

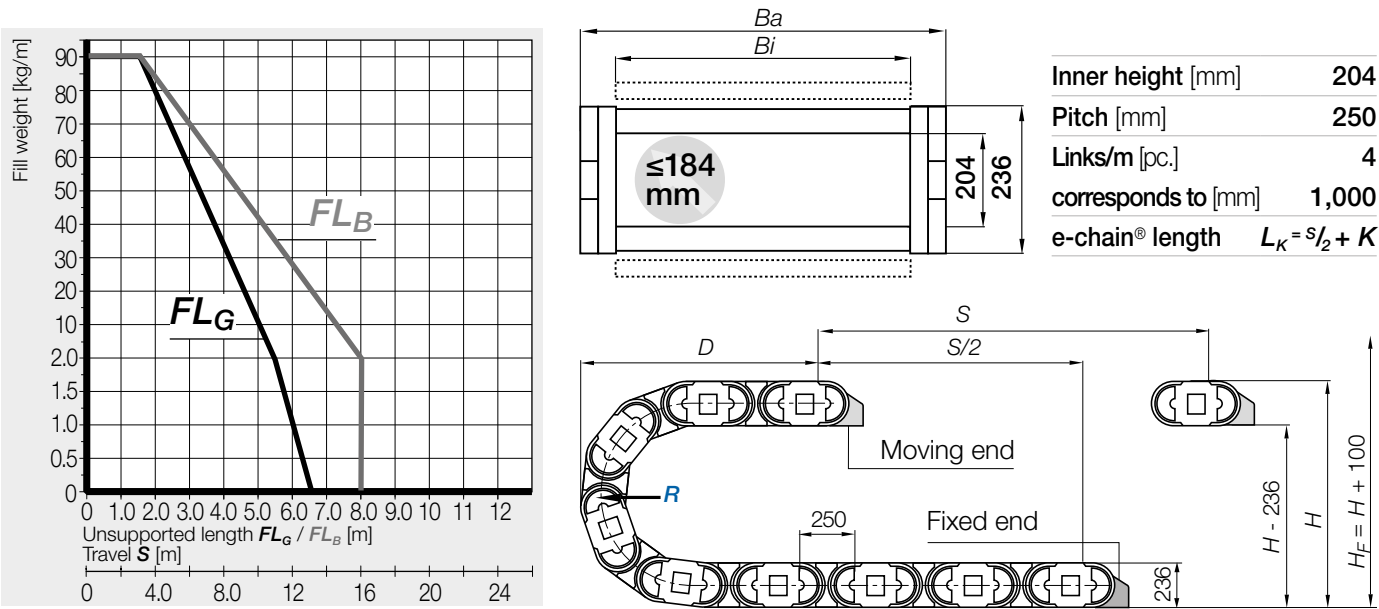
840.40.350.0

Series	Width index	Bend radius	Colour index
--------	-------------	-------------	--------------

Order example:
Complete Part No. with the required radius *R*. Example:
840.40.350.0 = crossbars removable along the inner and outer radius
Order index for colour options ► www.igus.eu/info-colours

Available from stock
Upon request

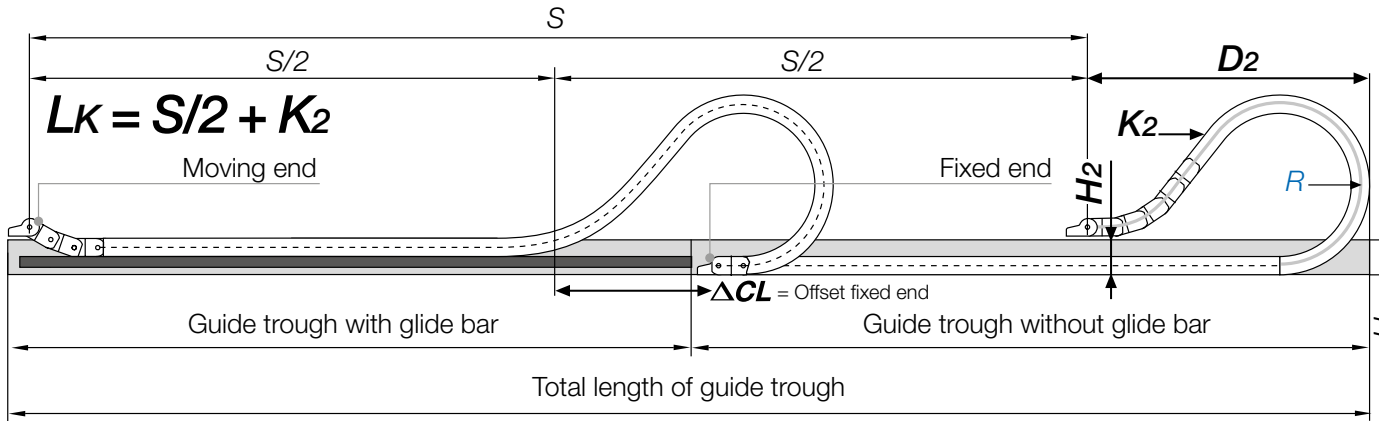
Unsupported applications | Short travels



<i>R</i>	325	350	400	450	500	600	750	1,000
<i>H</i>	886	936	1,036	1,136	1,236	1,436	1,736	2,236
<i>D</i>	818	843	893	943	993	1,093	1,243	1,493
<i>K</i>	1,525	1,600	1,760	1,915	2,075	2,385	2,860	3,645

The required clearance height: $H_F = H + 100\text{mm}$ (with 5.0kg/m fill weight)

Gliding applications | For travel lengths from 15m to max. 450m

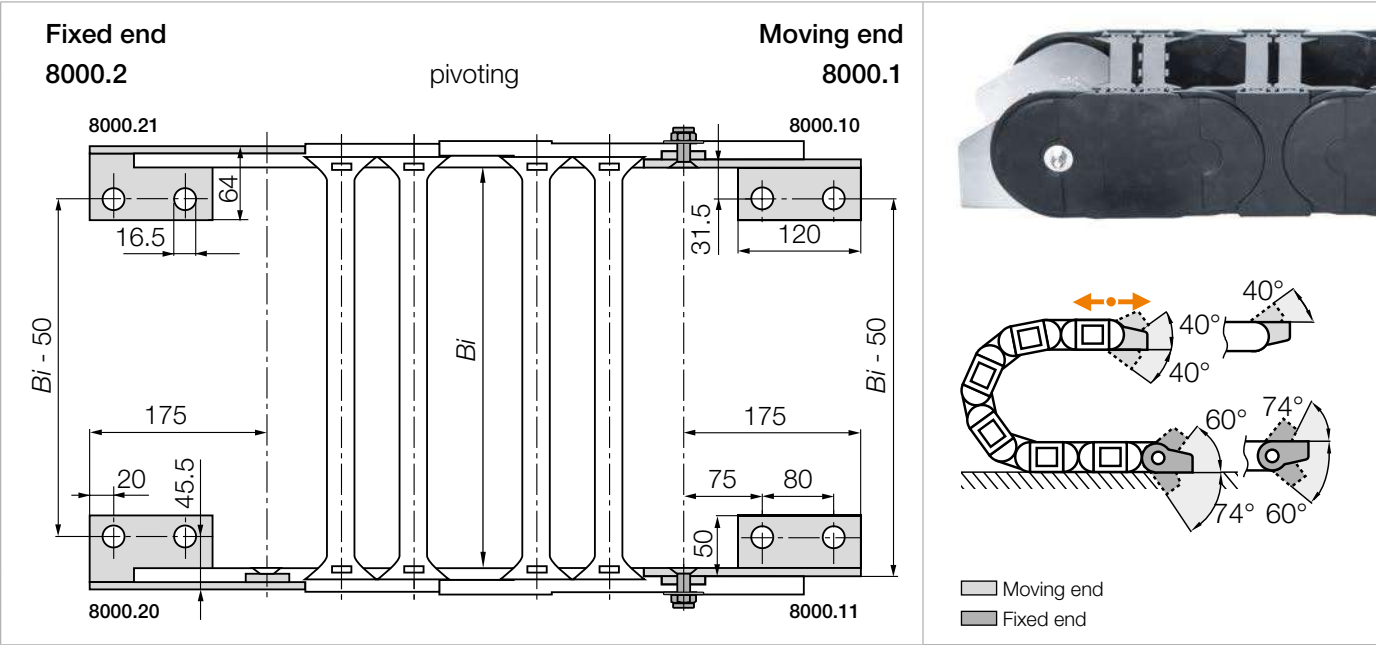


<i>R</i>	325	350	400	450	500	600	750	1,000
<i>H</i> ₂	580	580	580	580	580	580	580	580
<i>D</i> ₂ ⁺⁵⁰	1,030	1,080	1,380	1,610	2,000	2,480	*	*
<i>K</i> ₂	2,000	2,000	2,500	3,000	3,250	4,000	*	*
ΔCL	250	300	550	750	1,050	1,400	*	*

Note: In case of travels between 12 and 15m we recommend an e-chain® with a longer unsupported length.
*Values upon request

Available from stock
Upon request

Steel mounting brackets | Attachment from any side | Pivoting



Part No. Full set	
Steel	Description
pivoting	Mounting bracket
8000.1.12.VS.E45	Full set (both ends) ending with outer side link, screwed - standard
8000.3.12.VS.E45	Full set (both ends) beginning with outer side link (moving end) - ending with inner side link (fixed end), screwed - standard

Stainless steel version available. Please add index .E45 (material: AISI 316Ti)

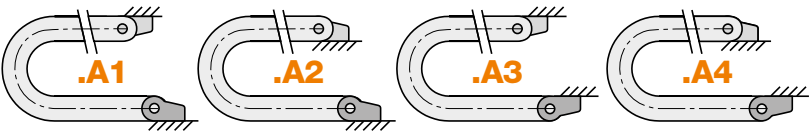
Note: The e-chains® may end with either an inner or an outer side link. An outer side link should always be the first e-chain® link at the moving end. Please specify the index 1 (for odd) or 3 (for even) depending on an even or odd number of links required. For the best appearance, make sure the e-chain® ends with 1 outer side links whenever possible (with odd number of links).

Order key

8000.1.12.VS.A2

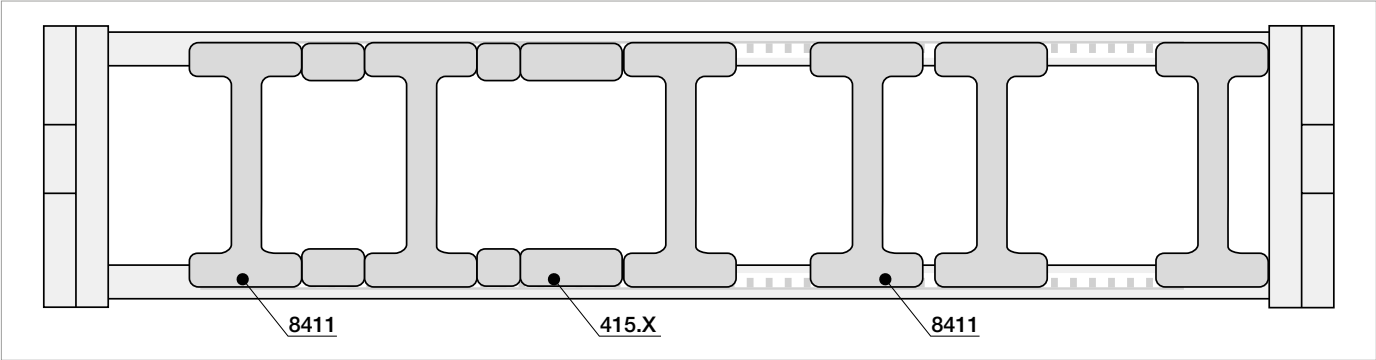
Series	Odd number of links	Full set	Pre-fitted	Pre-fitted
--------	---------------------	----------	------------	------------

Note: Possible variations for pre-fitted mounting brackets. To receive steel mounting brackets pre-fitted please add index .A1, .A2, .A3 or .A4.

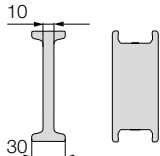
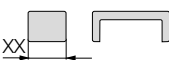


Available from stock
Upon request

Interior separation



No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-chain® link!

		<table><tr><th colspan="2">Part No.</th></tr><tr><th colspan="2">Separator</th></tr><tr><td>unassembled</td><td>8401</td></tr><tr><td>assembled</td><td>8011</td></tr></table>	Part No.		Separator		unassembled	8401	assembled	8011	Separator For a vertical subdivision. Offers security due to its wide base design, also when used with large cables or hoses.
Part No.											
Separator											
unassembled	8401										
assembled	8011										
	XX [mm] = 10, 15, 20 30, 40 	<table><tr><th colspan="2">Part No.</th></tr><tr><th colspan="2">Spacer</th></tr><tr><td>unassembled</td><td>405.XX</td></tr><tr><td>assembled</td><td>415.XX</td></tr></table>	Part No.		Spacer		unassembled	405.XX	assembled	415.XX	Spacer for fixing the separator position To avoid reducing the internal height by 2mm, they can also be mounted on the opening crossbar from the outside (not for long travels).
Part No.											
Spacer											
unassembled	405.XX										
assembled	415.XX										

Available from stock
Upon request

Product range



Part No. e-chains® with crossbars every link	<i>Bi</i> [mm]	<i>Ba</i> [mm]	E4.350 [kg/m]
E4.350.400.□.0	400	540	≈ 61.9
E4.350.500.□.0	500	640	≈ 65.7
E4.350.600.□.0	600	740	≈ 69.6

Part No. e-chains® with crossbars every link	<i>Bi</i> [mm]	<i>Ba</i> [mm]	E4.350 [kg/m]
E4.350.700.□.0	700	840	≈ 73.4
E4.350.800.□.0	800	940	≈ 77.2

Available bend radii *R* [mm] | 500 | 750 | 1.000 |

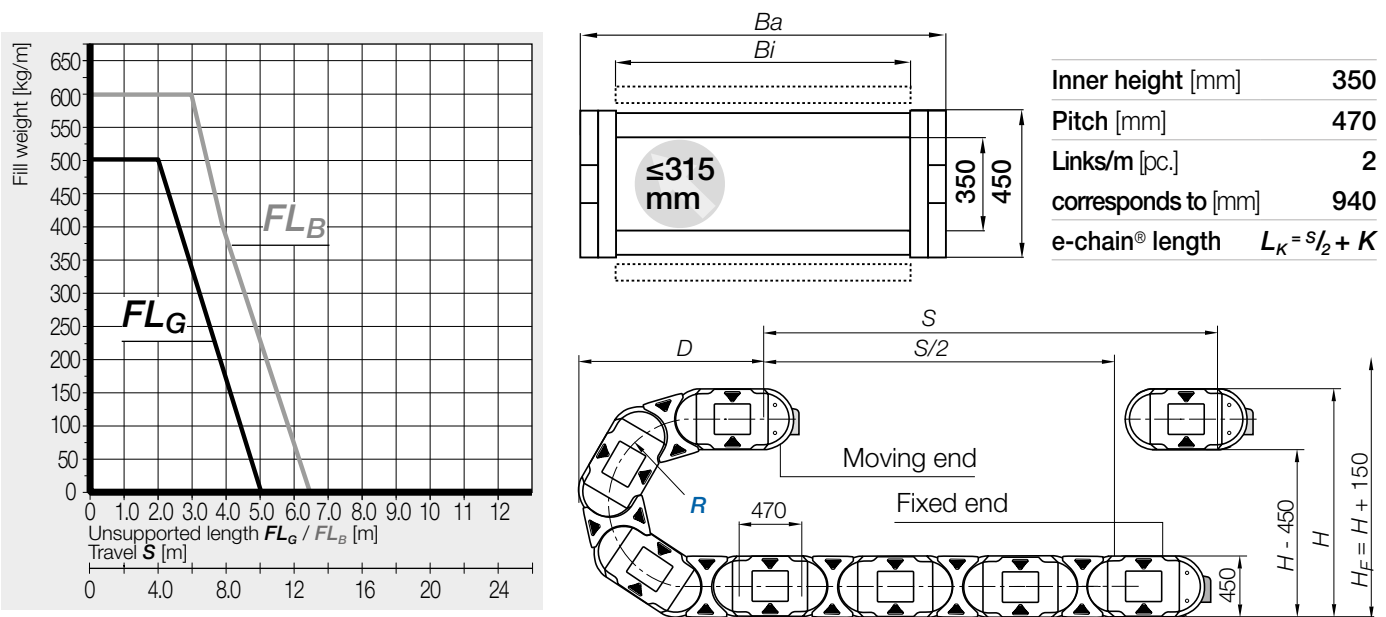
Order key

E4.350.500.500.0

Series / Type	Inner height	Width index	Bend radius	Colour index
---------------	--------------	-------------	-------------	--------------

Note:
Systems of this type should be designed in conjunction with our engineering team.
Please contact us at ► www.igus.eu/contact

Unsupported applications | Short travels



<i>R</i>	500	750	1,000
<i>H</i>	1,450	1,950	2,450
<i>D</i>	1,430	1,680	1,930
<i>K</i>	2,515	3,300	4,085

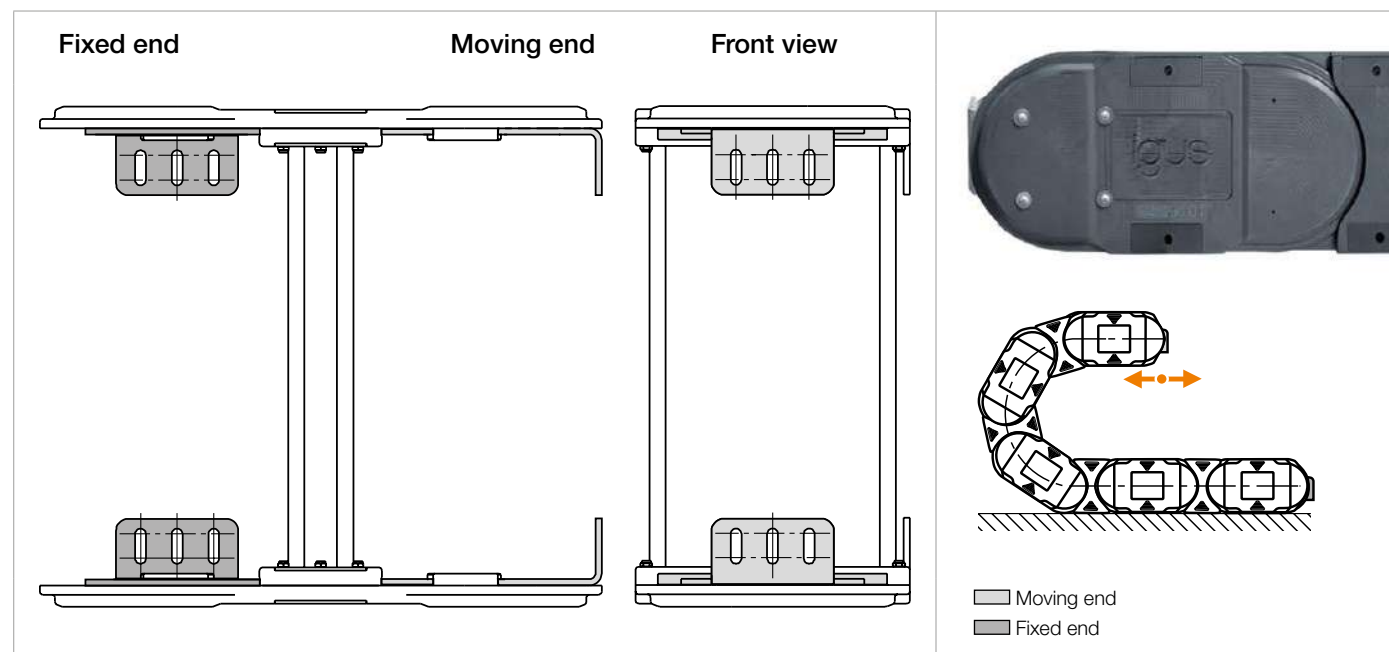
The required clearance height: $H_F = H + 150\text{mm}$

Application example | The largest igus® polymer e-chain® with 350mm inner height



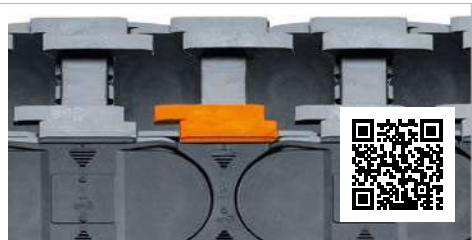
Lighter than comparable steel chains, the E4.350 series effortlessly carries more than 100kg of fill weight per metre on a 138m travel.

Steel mounting brackets | Locking



Note: Mounting brackets for series E4.350 according to your requirements. Steel or stainless steel available.
(Material: AISI 304 stainless steel)

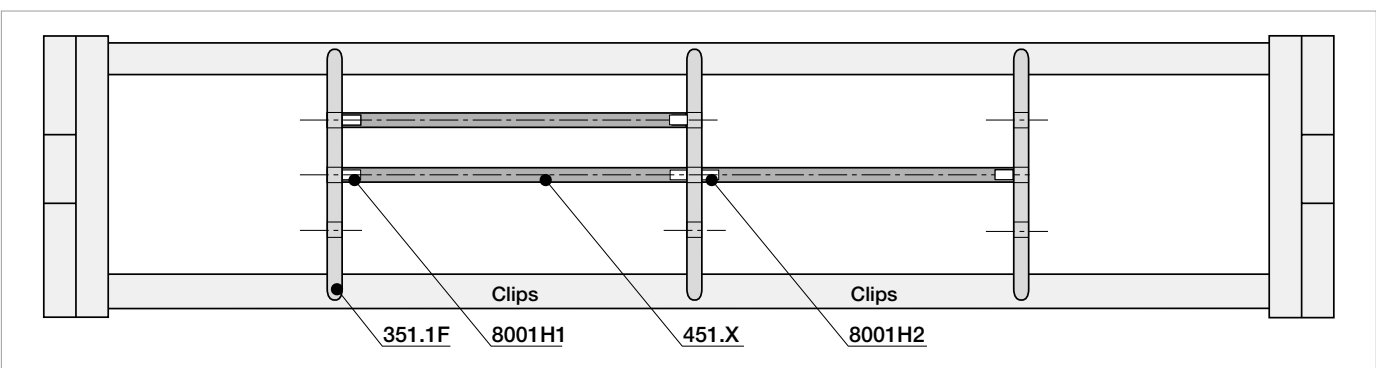
- Glide pads for energy chains on long travels**
- Low-friction and low-wear gliding elements increase the service life of igus® e-chains® in gliding applications
 - For travel speeds from 1 to 3m/s
 - Especially in an environment where abrasive media are present
 - Easy to retrofit



- E4.1R rol e-chains® - reduced noise, vibration and drive energy**
- Easy changeover from gliding to rolling e-chain®
 - rol e-chain® links suitable for all radii of the standard series
 - Ideal for long travels
 - Quiet operation due to equal pitch of the e-chain® links



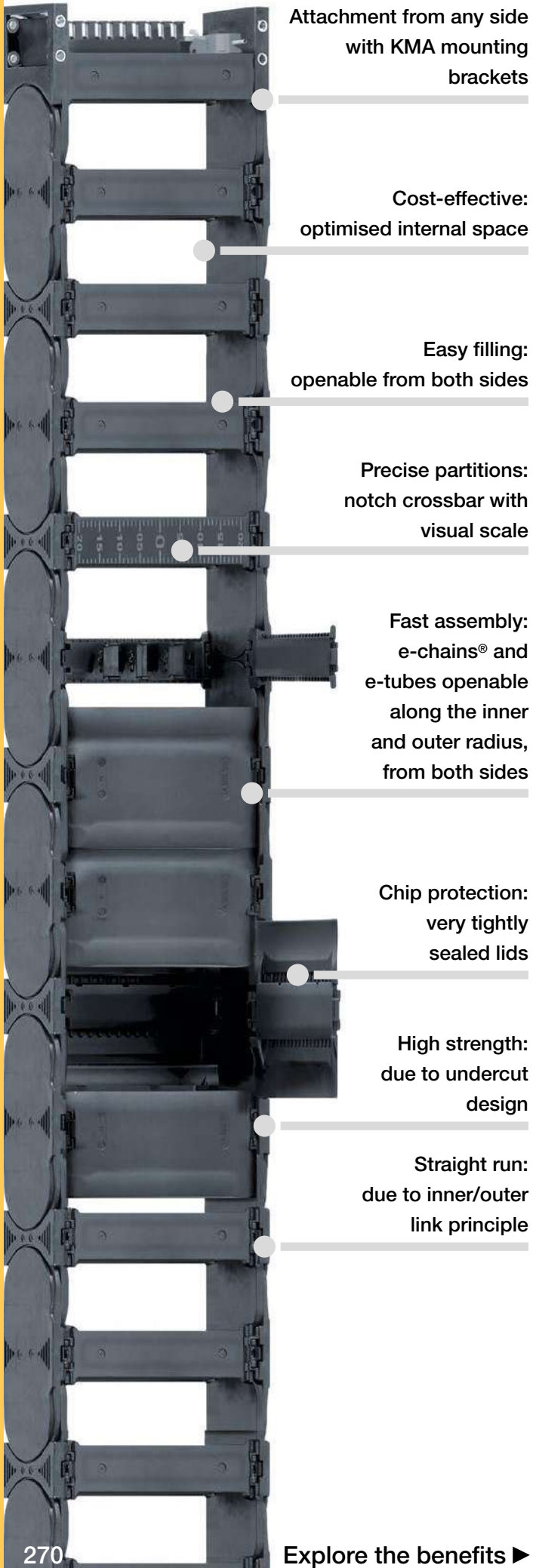
Interior separation



No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-chain® link!

		Part No. Separator for vertical subdivision		Separator for vertical subdivision For a vertical separation with 450.X.
		unassembled	350.1F	
		assembled	351.1F	For horizontal interior separation Horizontal shelves of various widths with separators for vertical subdivision. They can be fitted at 3 different heights.
		unassembled	450.X	
		assembled	451.X	
		unassembled	451.X	

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	450.050	451.050	175	450.170	451.170	312	450.310	451.310	450	450.450	451.450
055	450.055	451.055	187	450.180	451.180	325	450.320	451.320	462	450.460	451.460
065	450.060	451.060	200	450.200	451.200	337	450.330	451.330	475	450.470	451.470
075	450.070	451.070	212	450.210	451.210	350	450.350	451.350	487	450.480	451.480
087	450.080	451.080	225	450.220	451.220	362	450.360	451.360	500	450.500	451.500
100	450.100	451.100	237	450.230	451.230	375	450.370	451.370	512	450.510	451.510
112	450.110	451.110	250	450.250	451.250	387	450.380	451.380	525	450.520	451.520
125	450.120	451.120	262	450.260	451.260	400	450.400	451.400	537	450.530	451.530
137	450.130	451.130	275	450.270	451.270	412	450.410	451.410	550	450.550	451.550
150	450.150	451.150	287	450.280	451.280	425	450.420	451.420	600	450.600	451.600
162	450.160	451.160	300	450.300	451.300	437	450.430	451.430			



Light design, high dynamics, cost-effective - E4.1L

All-rounder e-chains® and e-tubes for high dynamics. The E4.1L series was developed to combine the advantages of the E2/000 and E4.1 series in one series. On the one hand the strength of the E4.1 system and on the other the easy accessibility and assembly of the E2/000 system. The E4.1L system is the ideal energy chain for mechanical engineering and applications where there must be an optimum relationship between technical requirements and economic efficiency.

Benefits

- 30% lighter and more cost-effective than the comparable E4.1
- Cost-effective, strong and light due to optimised e-chain® link design
- Ideal ratio of internal and external dimensions with thinner outer links and optimised crossbar geometry
- e-chains® and e-tubes openable along the inner and outer radius, from both sides
- Inside completely accessible for easy filling
- Very tightly fitting lids on the e-tubes, virtually no gaps or openings
- Also suitable for side-mounted, standing and hanging applications
- Lower weight, high strength and good dynamics

Typical application areas

- Machine tools
- General mechanical engineering
- If the strength of the E2/000 is not enough for you, but an E4.1 is oversized

Selection table

Part No.	Inner height <i>hi</i> [mm]	Outer height <i>ha</i> [mm]	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Bend radius <i>R</i> [mm]	Unsupported length ≤ [m]	Page
----------	--------------------------------	--------------------------------	-------------------------------	-------------------------------	------------------------------	--------------------------	------

E4.1L - e-chains® with crossbars every link

The lightweight all-rounder - even for demanding applications.

E4.31L	31	42	40 - 175	54 - 189	055 - 250	2.00	272
E4.38L	38	54	50 - 300	66 - 316	063 - 300	2.75	278
E4.48L	48	64	50 - 300	70 - 320	075 - 350	3.75	284
E4.64L	64	84	75 - 350	101 - 376	125 - 400	4.00	290

R4.1L - e-tubes fully enclosed

Lightweight, excellent cable protection.

R4.31L	31	42	50 - 125	64 - 139	075 - 250	2.00	272
R4.38L	38	54	50 - 250	66 - 266	125 - 300	2.75	278
R4.48L	48	64	50 - 250	70 - 270	125 - 350	3.75	284

Technical data

General properties

Speed gliding ¹⁾ / acceleration gliding ¹⁾	≤ 5m/s / ≤ 25m/s ²
Speed <i>FL_G</i> /acceleration <i>FL_G</i>	≤ 20m/s / ≤ 200m/s ²
Speed <i>FL_B</i> /acceleration <i>FL_B</i>	≤ 3m/s / ≤ 6m/s ²
igumid® G LW material - permitted temperature °C	-40°C/+120°C
Flammability class, igumid® G LW	VDE 0304 IIC UL94-HB

1) Series E4.31L / R4.31L: if a gliding application is required for a long travel, please consult igus®

Installation types, maximum travel lengths

Series	Unsupported	Gliding ¹⁾	Vertical hanging	Vertical standing	Side mounted, unsupported
E4.31L / R4.31L	≤ 4.0m	upon request	≤ 40m	≤ 2.5m	≤ 0.6m
E4.38L / R4.38L	≤ 5.5m	≤ 80m	≤ 50m	≤ 3.0m	≤ 1.0m
E4.48L / R4.48L	≤ 7.5m	≤ 100m	≤ 80m	≤ 3.0m	≤ 1.2m
E4.64L	≤ 4.0m	upon request	≤ 80m	≤ 8.0m	≤ 2.0m

1) Series E4.31L / R4.31L: if a gliding application is required for a long travel, please consult igus®

Product range



Part No. e-chains® with crossbars every link	Part No. e-tubes closed	<i>Bi</i> [mm]	<i>Ba</i> [mm]	E4.31L [kg/m]	R4.31L [kg/m]
E4.31L.040.□.0	-	40	54	≈ 0.70	-
E4.31L.050.□.0	R4.31L.050.□.0	50	64	≈ 0.74	≈ 0.87
E4.31L.062.□.0	-	62	76	≈ 0.76	-
E4.31L.075.□.0	R4.31L.075.□.0	75	89	≈ 0.78	≈ 1.01
E4.31L.087.□.0	-	87	101	≈ 0.83	-
E4.31L.100.□.0	R4.31L.100.□.0	100	114	≈ 0.88	≈ 1.10
E4.31L.112.□.0	-	112	126	≈ 0.93	-

Part No. e-chains® with crossbars every link	Part No. e-tubes closed	<i>Bi</i> [mm]	<i>Ba</i> [mm]	E4.31L [kg/m]	R4.31L [kg/m]
E4.31L.125.□.0	R4.31L.125.□.0	125	139	≈ 0.96	≈ 1.28
E4.31L.137.□.0*	-	137	151	≈ 0.98	-
E4.31L.150.□.0	R4.31L.150.□.0*	150	164	≈ 1.00	≈ 1.40
E4.31L.162.□.0	-	162	176	≈ 1.04	-
E4.31L.175.□.0	R4.31L.175.□.0*	175	189	≈ 1.13	≈ 1.55
E4.31L.187.□.0*	-	187	201	≈ 1.17	-
E4.31L.200.□.0*	R4.31L.200.□.0*	200	214	≈ 1.17	≈ 1.68

Available bend radii *R* [mm] | 055¹⁾ | 063¹⁾ | 075 | 090 | 100 | 125 | 150 | 175 | 200 | 250 |

*Width available upon request, please consult igus® for delivery time. 1) Radius not available for e-tubes.

Order key

E4.31L.100.100.0

Series / Type	Inner height	Width index	Bend radius	Colour index
---------------	--------------	-------------	-------------	--------------

Order example:

Complete Part No. with the required radius R. Example:

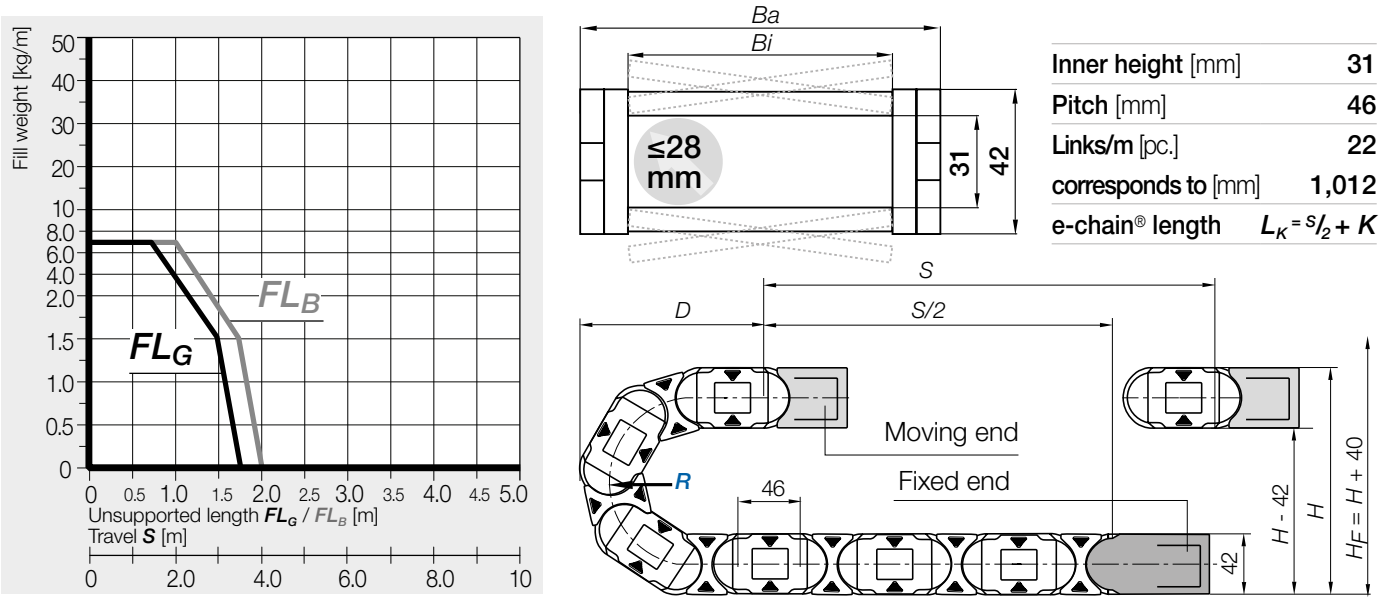
E4.31L.100.100.0 = crossbars openable along inner and outer radius, from both sides

R4.31L.100.100.0 = lids openable along inner and outer radius, from both sides

Order index for colour options ► www.igus.eu/info-colours

 Available from stock
Upon request

Unsupported applications | Short travels



<i>R</i>	055 ¹⁾	063 ¹⁾	075	090	100	125	150	175	200	250
<i>H</i>	152	168	192	222	242	292	342	392	442	542
<i>D</i>	145	153	165	180	190	215	240	265	290	340
<i>K</i>	265	290	330	375	410	485	565	645	725	880

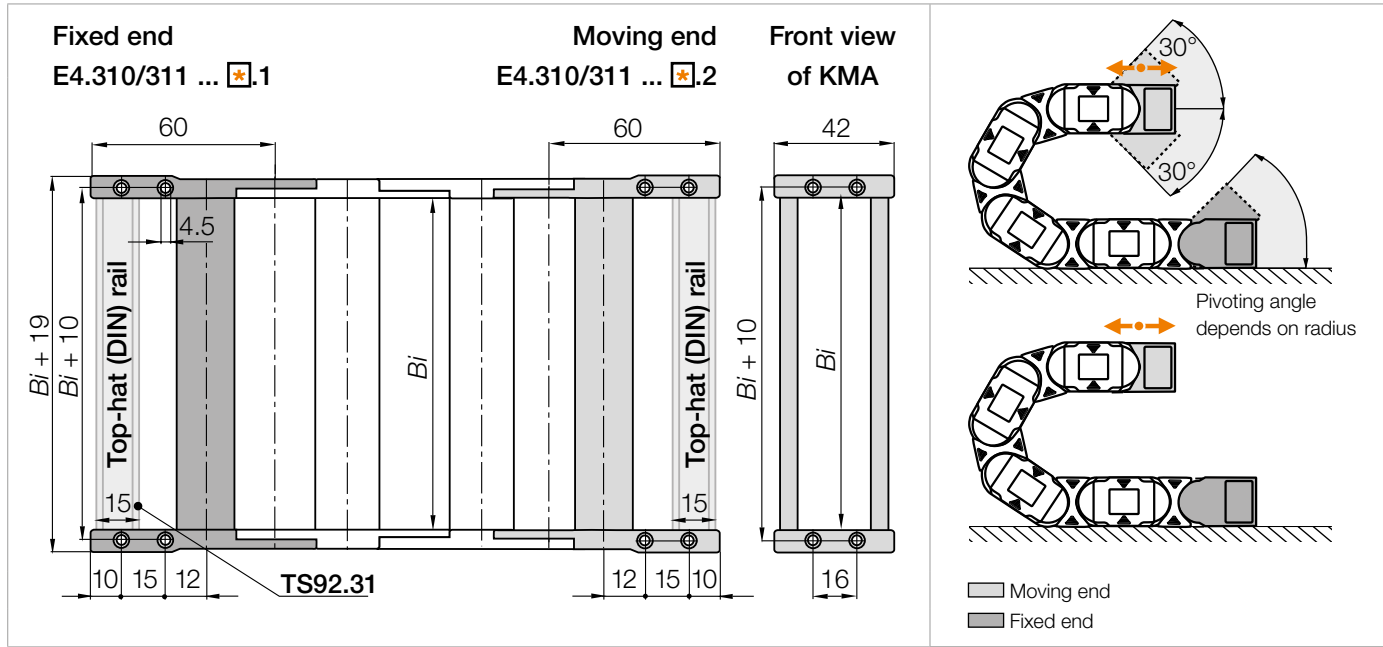
The required clearance height: $H_F = H + 40\text{mm}$ (with 1.0kg/m fill weight)

1) Radius not available for e-tubes.

 **Note:** If a gliding application is required for a long travel, please consult igus®.

 Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting | Locking

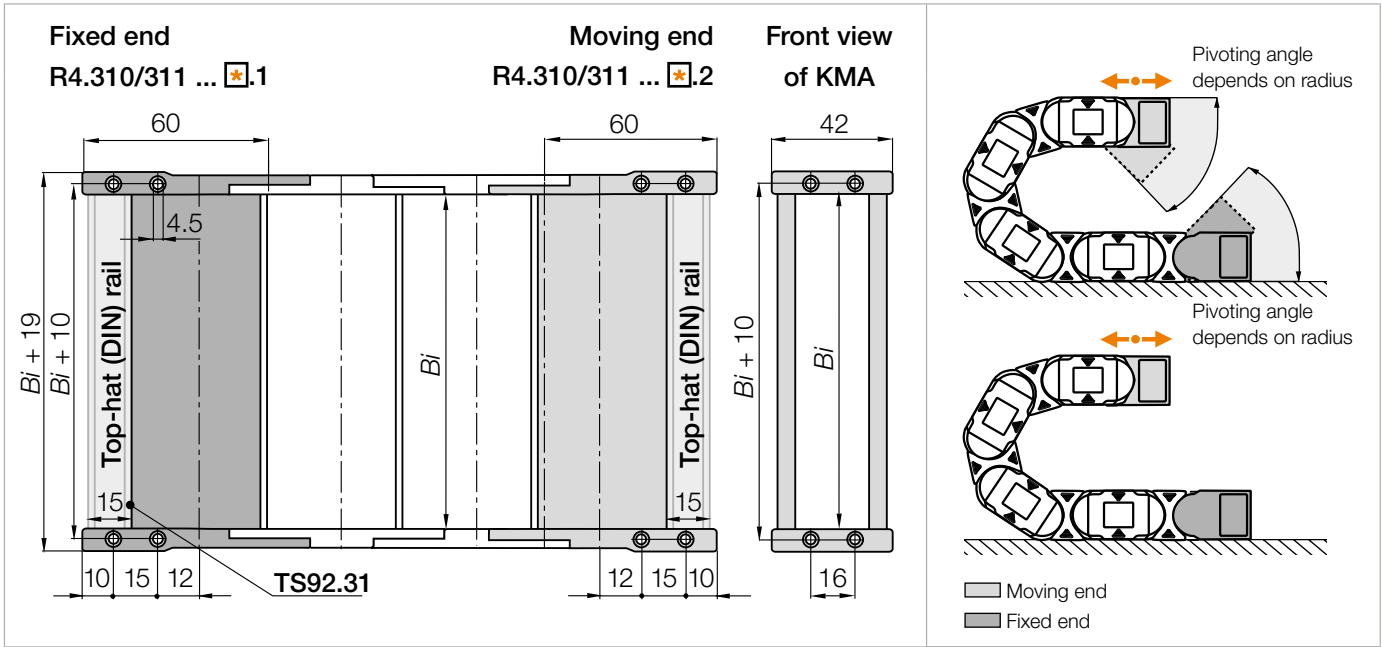


Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
040.	E4.310.040.[1].12.[]	E4.311.040.[1].12.[]	40
050.	E4.310.050.[1].12.[]	E4.311.050.[1].12.[]	50
062.	E4.310.062.[1].12.[]	E4.311.062.[1].12.[]	62
075.	E4.310.075.[1].12.[]	E4.311.075.[1].12.[]	75
087.	E4.310.087.[1].12.[]	E4.311.087.[1].12.[]	87
100.	E4.310.100.[1].12.[]	E4.311.100.[1].12.[]	100
112.	E4.310.112.[1].12.[]	E4.311.112.[1].12.[]	112

*Width available upon request, please consult igus® for delivery time.
(KMA = polymer metal mounting bracket)

Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
125.	E4.310.125.[1].12.[]	E4.311.125.[1].12.[]	125
137.	E4.310.137.[1].12.[]*	E4.311.137.[1].12.[]*	137
150.	E4.310.150.[1].12.[]	E4.311.150.[1].12.[]	150
162.	E4.310.162.[1].12.[]	E4.311.162.[1].12.[]	162
175.	E4.310.175.[1].12.[]	E4.311.175.[1].12.[]	175
187.	E4.310.187.[1].12.[]*	E4.311.187.[1].12.[]*	187
200.	E4.310.200.[1].12.[]*	E4.311.200.[1].12.[]*	200

KMA mounting brackets | Attachment from any side | Pivoting | Locking

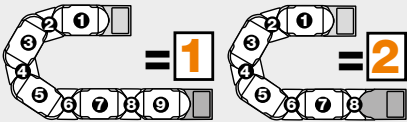


Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
050.	R4.310.050.[1].12.[]	R4.311.050.[1].12.[]	50
075.	R4.310.075.[1].12.[]	R4.311.075.[1].12.[]	75
100.	R4.310.100.[1].12.[]	R4.311.100.[1].12.[]	100
125.	R4.311.125.[1].12.[]	R4.311.125.[1].12.[]	125

*Width available upon request, please consult igus® for delivery time.
(KMA = polymer metal mounting bracket)

Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
150.	R4.310.150.[1].12.[]*	R4.311.150.[1].12.[]*	150
175.	R4.310.175.[1].12.[]*	R4.311.175.[1].12.[]*	175
200.	R4.310.200.[1].12.[]*	R4.311.200.[1].12.[]*	200

Note [1]: The e-chains® may end with either an inner or an outer side link. An outer side link should always be the first e-chain® link at the moving end. Please specify the index [1] (for odd) or [2] (for even) depending on an even or odd number of links required.



Order key

E4.310.100.[2].12.C.A2

Series	Width index	Even number of links	Full set	C-profile option	Pre-fitted

Note: Possible orientations for KMA mounting brackets. For mounting brackets pre-fitted **without strain relief**, please add index .A. For types pre-fitted **with strain relief** please add index .A1, .A2, .A3 or .A4.

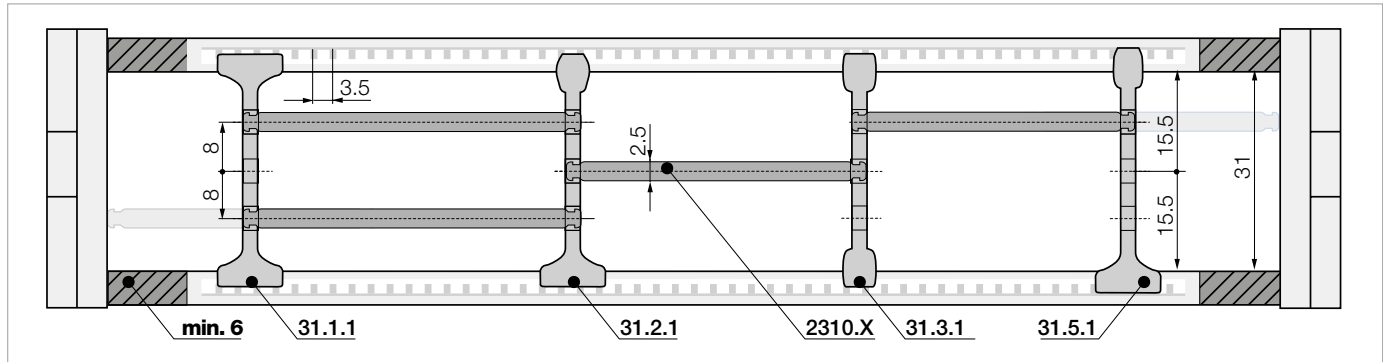


For the top-hat (DIN) rail option TS92.31 please add index .C.

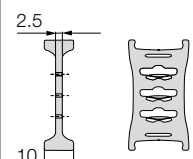
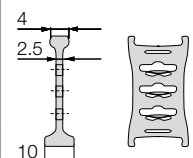
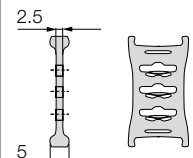
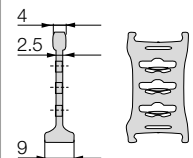
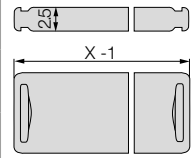
Available from stock
Upon request

Available from stock
Upon request

Interior separation | Increase cable service life



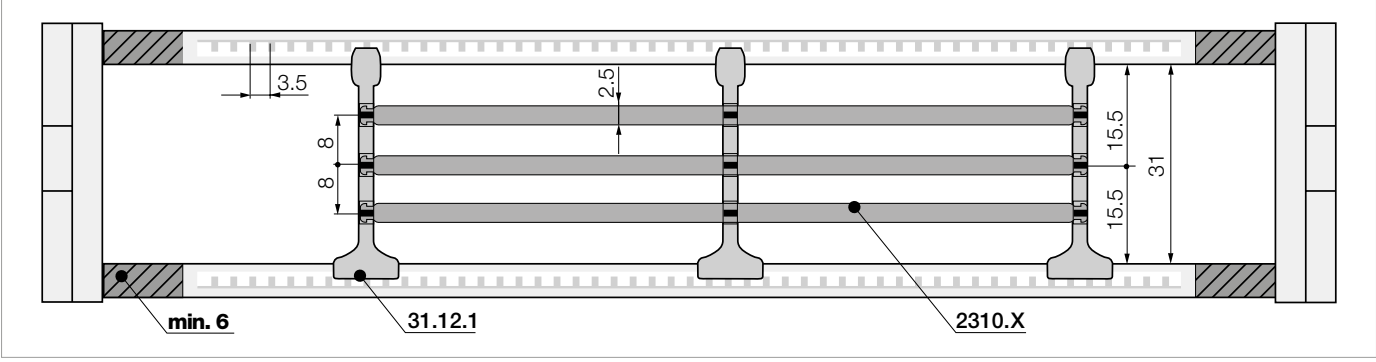
Note: Please be aware of the minimum lateral gap to the side links! **e-tube: 6mm** | **e-chain®: 6mm**
As standard separators are fitted every 2nd e-chain® link!

 	Part No. Standard separator unassembled 31.1 assembled 31.1.1	For all applications Standard separator with a wide base for maximum holding force.
 	Part No. Separator, narrow top unassembled 31.2 assembled 31.2.1	For even faster installation Wide on one side for high holding force, narrow on opposite side for easy cable fitting.
 	Part No. Separator, narrow unassembled 31.3 assembled 31.3.1	For a large number of thin cables Separator with a narrow base for a large number of thin cables side by side. Saves space.
 	Part No. Notch separator unassembled 31.5 assembled 31.5.1	Locks securely in preset increments Notch separator for exact positioning. Recommended for side-mounted applications.
 	Part No. Shelf unassembled 2300.X assembled 2310.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

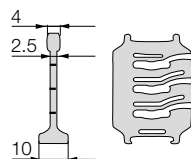
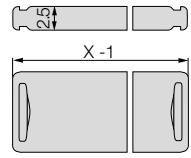
Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
015	2300.015	2310.015	057	2300.057	2310.057	077	2300.077	2310.077	110	2300.110	2310.110
025	2300.025	2310.025	060	2300.060	2310.060	080	2300.080	2310.080	120	2300.120	2310.120
030	2300.030	2310.030	062	2300.062	2310.062	087	2300.087	2310.087	125	2300.125	2310.125
038	2300.038	2310.038	065	2300.065	2310.065	090	2300.090	2310.090			
040	2300.040	2310.040	070	2300.070	2310.070	100	2300.100	2310.100			
050	2300.050	2310.050	075	2300.075	2310.075	103	2300.103	2310.103			

 Available from stock
Upon request

Interior separation | To allow faster filling



Note: Please be aware of the minimum lateral gap to the side links! **e-tube: 6mm** | **e-chain®: 6mm**
As standard separators are fitted every 2nd e-chain® link!

 	Part No. Lean separator unassembled 31.12 assembled 31.12.1	Lean separators¹⁾ Quick fitting of shelves in several layers. Enables extremely fast replacement of individual cables in very full e-chains®. Only suitable for e-chains®.
 	Part No. Shelf unassembled 2300.X assembled 2310.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
015	2300.015	2310.015	057	2300.057	2310.057	077	2300.077	2310.077	110	2300.110	2310.110
025	2300.025	2310.025	060	2300.060	2310.060	080	2300.080	2310.080	120	2300.120	2310.120
030	2300.030	2310.030	062	2300.062	2310.062	087	2300.087	2310.087	125	2300.125	2310.125
038	2300.038	2310.038	065	2300.065	2310.065	090	2300.090	2310.090			
040	2300.040	2310.040	070	2300.070	2310.070	100	2300.100	2310.100			
050	2300.050	2310.050	075	2300.075	2310.075	103	2300.103	2310.103			



Lean separator for even faster filling: quickly insert several layers of cables into the e-chain® and reduce the installation time by up to 50%. Measured on a 4m long e-chain® fitted with 12 cables. **1) Note:** Please combine a maximum of four lean separators with one shelf. Not suitable for side-mounted e-chains®!

 Available from stock
Upon request

Product range



Part No. e-chains® with crossbars every link	Part No. e-tubes closed	Bi [mm]	Ba [mm]	E4.38L [kg/m]	R4.38L [kg/m]
E4.38L.050.0	R4.38L.050.0	50	66	≈ 1.13	≈ 1.20
E4.38L.062.0	-	62	78	≈ 1.19	-
E4.38L.075.0	R4.38L.075.0	75	91	≈ 1.26	≈ 1.38
E4.38L.087.0	-	87	103	≈ 1.30	-
E4.38L.100.0	R4.38L.100.0	100	116	≈ 1.37	≈ 1.60
E4.38L.105.0	-	105	121	≈ 1.39	-
E4.38L.112.0	-	112	128	≈ 1.44	-
E4.38L.125.0	R4.38L.125.0	125	141	≈ 1.50	≈ 1.75
E4.38L.137.0	-	137	153	≈ 1.55	-
E4.38L.150.0	R4.38L.150.0	150	166	≈ 1.65	≈ 1.92
E4.38L.162.0	-	162	178	≈ 1.69	-

Part No. e-chains® with crossbars every link	Part No. e-tubes closed	Bi [mm]	Ba [mm]	E4.38L [kg/m]	R4.38L [kg/m]
E4.38L.175.0	R4.38L.175.0	175	191	≈ 1.74	≈ 2.10
E4.38L.187.0	-	187	203	≈ 1.80	-
E4.38L.200.0	R4.38L.200.0	200	216	≈ 1.86	≈ 2.29
E4.38L.212.0	-	212	228	≈ 1.90	-
E4.38L.225.0	-	225	241	≈ 1.97	-
E4.38L.237.0	-	237	253	≈ 2.05	-
E4.38L.250.0	R4.38L.250.0	250	266	≈ 2.11	≈ 2.65
E4.38L.262.0	-	262	278	≈ 2.15	-
E4.38L.275.0*	-	275	291	≈ 2.22	-
E4.38L.287.0*	-	287	303	≈ 2.30	-
E4.38L.300.0	R4.38L.300.0*	300	316	≈ 2.36	≈ 3.00

Available bend radii R [mm] | 063¹⁾ | 075¹⁾ | 100¹⁾ | 125 | 150 | 175 | 200 | 250 | 300 |

*Width available upon request, please consult igus® for delivery time. 1) Radius not available for e-tubes.

Order key

E4.38L.100.150.0

Series / Type	Inner height	Width index	Bend radius	Colour index
---------------	--------------	-------------	-------------	--------------

Order example:

Complete Part No. with the required radius R . Example:

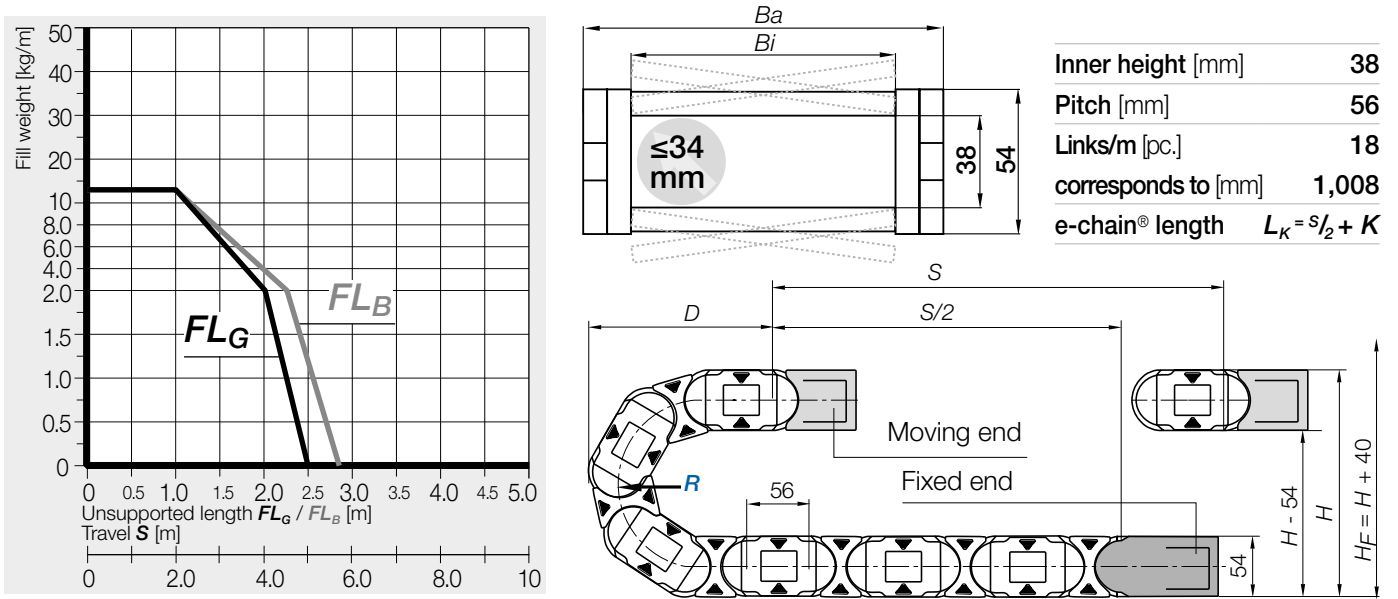
E4.38L.100.150.0 = crossbars openable along inner and outer radius, from both sides

R4.38L.100.150.0 = lids openable along inner and outer radius, from both sides

Order index for colour options ► www.igus.eu/info-colours

Available from stock
Upon request

Unsupported applications | Short travels

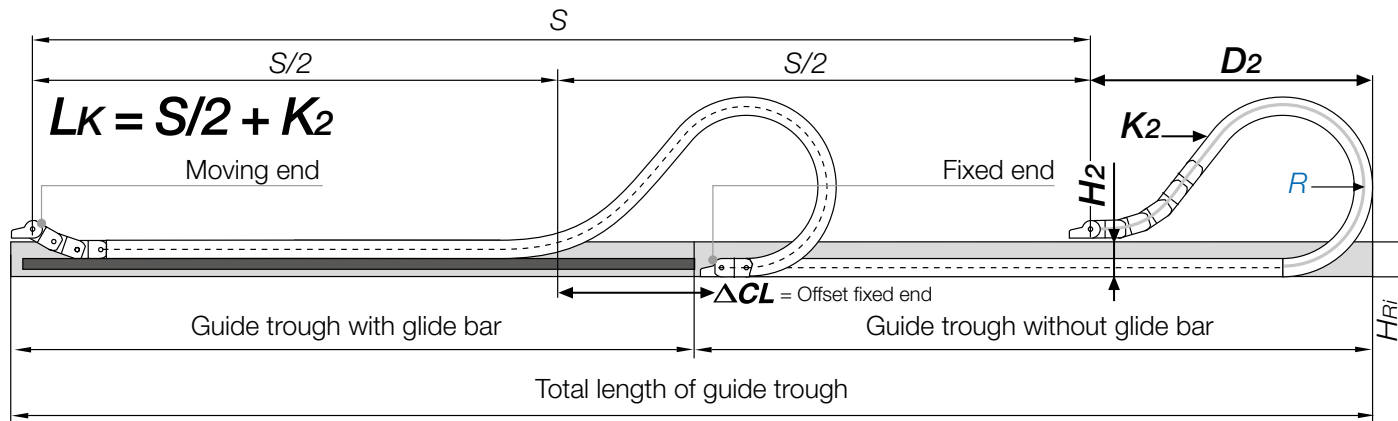


R	063 ¹⁾	075 ¹⁾	100 ¹⁾	125	150	175	200	250	300
H	180	204	254	304	354	404	454	554	654
D	174	186	211	236	261	286	311	361	411
K	310	350	430	505	585	665	745	900	1,055

The required clearance height: $H_F = H + 40\text{mm}$ (with 2.0kg/m fill weight)

1) Radius not available for e-tubes.

Gliding applications | For travel lengths from 10m to max. 80m



R	063 ¹⁾	075 ¹⁾	100 ¹⁾	125	150	175	200	250 ²⁾	300 ²⁾
H_2	180	204	96	96	96	96	96	-	-
D_2^{+25}	174	186	370	470	500	655	770	-	-
K_2	310	350	616	784	896	1,120	1,288	-	-
ΔCL	-	-	160	210	240	370	460	-	-

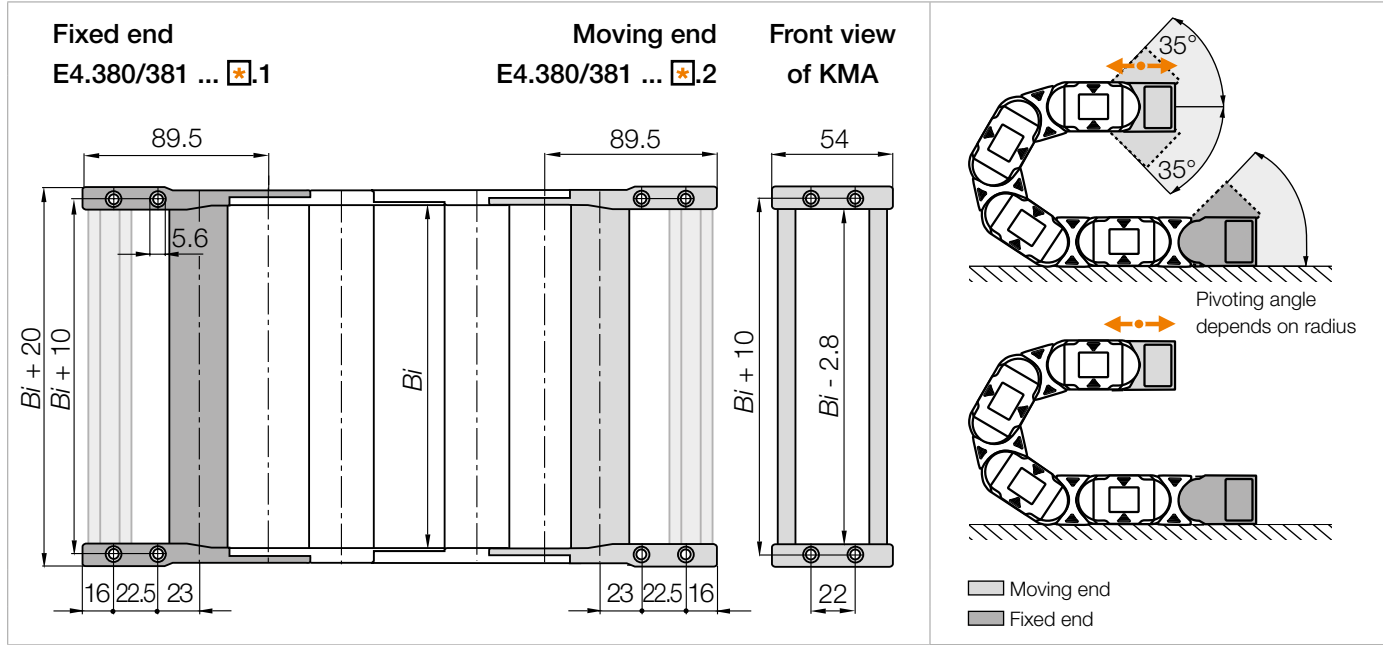
Note: In case of travels between 5 and 10m we recommend an e-chain® with a longer unsupported length.

1) Radius not available for e-tubes.

2) Radius not suitable for long travel applications. Please consult igus®.

Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting | Locking

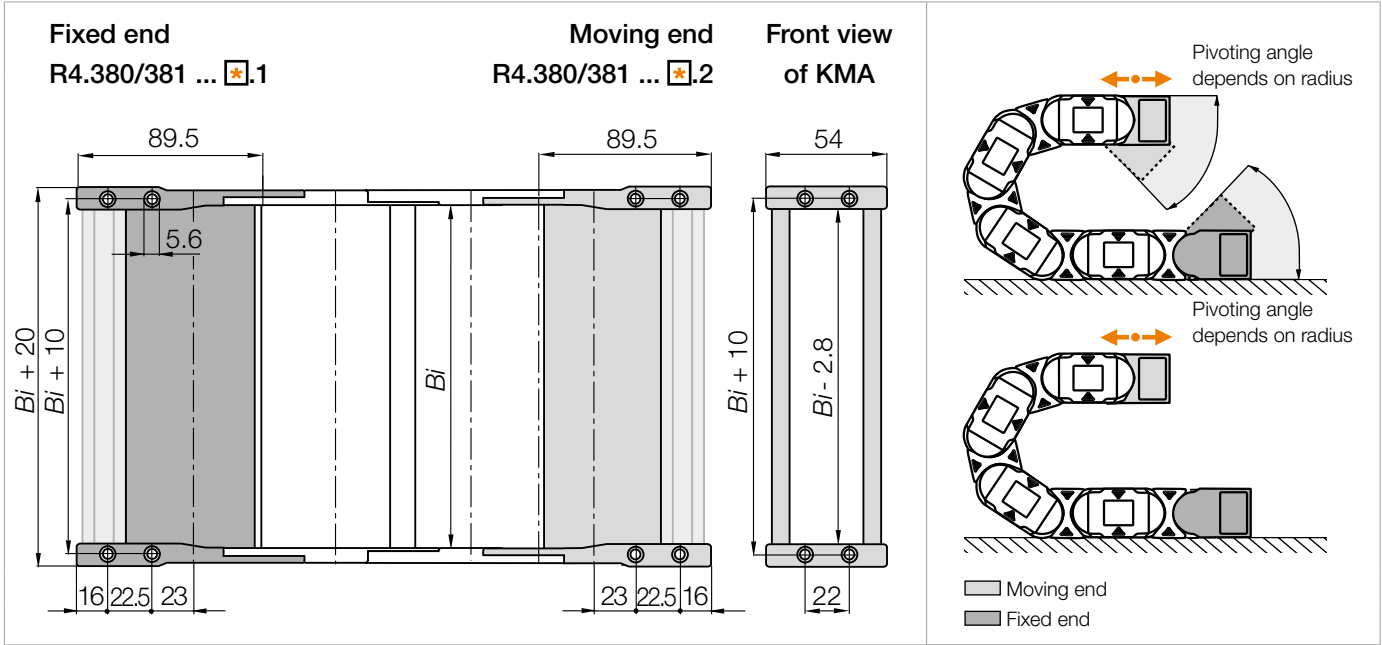


Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
050.	E4.380.050.[1].12.	E4.381.050.[1].12.	50
062.	E4.380.062.[1].12.	E4.381.062.[1].12.	62
075.	E4.380.075.[1].12.	E4.381.075.[1].12.	75
087.	E4.380.087.[1].12.	E4.381.087.[1].12.	87
100.	E4.380.100.[1].12.	E4.381.100.[1].12.	100
105.	E4.380.105.[1].12.	E4.381.105.[1].12.	105
112.	E4.380.112.[1].12.	E4.381.112.[1].12.	112
125.	E4.380.125.[1].12.	E4.381.125.[1].12.	125
137.	E4.380.137.[1].12.	E4.381.137.[1].12.	137
150.	E4.380.150.[1].12.	E4.381.150.[1].12.	150
162.	E4.380.162.[1].12.	E4.381.162.[1].12.	162

*Width available upon request, please consult igus® for delivery time.
(KMA = polymer metal mounting bracket)

Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
175.	E4.380.175.[1].12.	E4.381.175.[1].12.	175
187.	E4.380.187.[1].12.	E4.381.187.[1].12.	187
200.	E4.380.200.[1].12.	E4.381.200.[1].12.	200
212.	E4.380.212.[1].12.	E4.381.212.[1].12.	212
225.	E4.380.225.[1].12.	E4.381.225.[1].12.	225
237.	E4.380.237.[1].12.	E4.381.237.[1].12.	237
250.	E4.380.250.[1].12.	E4.381.250.[1].12.	250
262.	E4.380.262.[1].12.	E4.381.262.[1].12.	262
275.	E4.380.275.[1].12.*	E4.381.275.[1].12.*	275
287.	E4.380.287.[1].12.*	E4.381.287.[1].12.*	287
300.	E4.380.300.[1].12.	E4.381.300.[1].12.	300

KMA mounting brackets | Attachment from any side | Pivoting | Locking

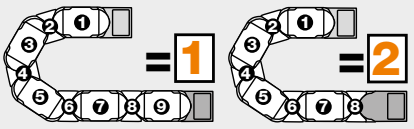


Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
050.	R4.380.050.[1].12.	R4.381.050.[1].12.	50
075.	R4.380.075.[1].12.	R4.381.075.[1].12.	75
100.	R4.380.100.[1].12.	R4.381.100.[1].12.	100
125.	R4.380.125.[1].12.	R4.381.125.[1].12.	125
150.	R4.380.150.[1].12.	R4.381.150.[1].12.	150

*Width available upon request, please consult igus® for delivery time.
(KMA = polymer metal mounting bracket)

Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
175.	R4.380.175.[1].12.	R4.381.175.[1].12.	175
200.	R4.380.200.[1].12.	R4.381.200.[1].12.	200
250.	R4.380.250.[1].12.	R4.381.250.[1].12.	250
300.	R4.380.300.[1].12.*	R4.381.300.[1].12.*	300

Note [1]: The e-chains® may end with either an inner or an outer side link. An outer side link should always be the first e-chain® link at the moving end. Please specify the index [1] (for odd) or [2] (for even) depending on an even or odd number of links required.



Order key

E4.380.100.[2].12.C.A2

Series	Width index	Even number of links	Full set	C-profile option	Pre-fitted

Note: Possible orientations for KMA mounting brackets. For mounting brackets pre-fitted **without strain relief**, please add index .A. For types pre-fitted **with strain relief** please add index .A1, .A2, .A3 or .A4.

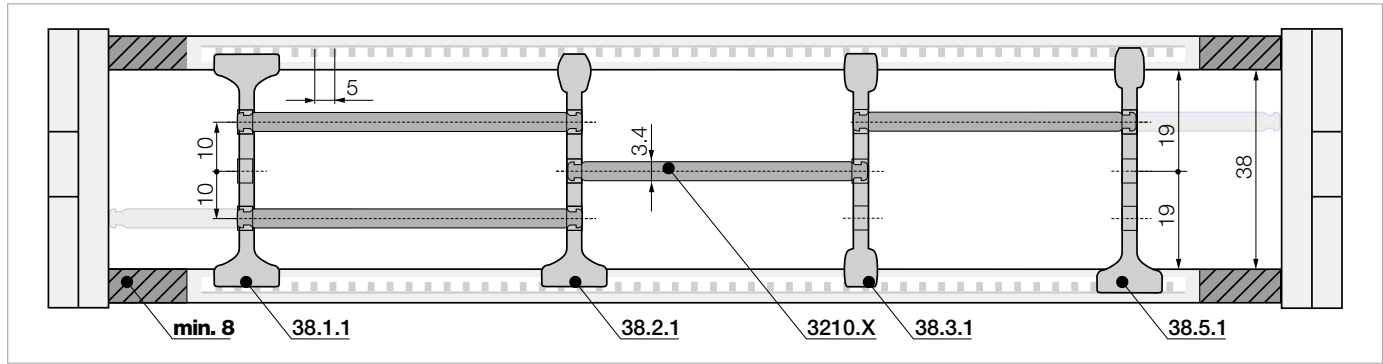


For the C-profile option please add index .C.

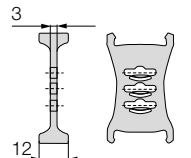
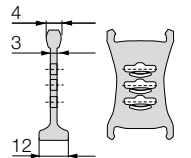
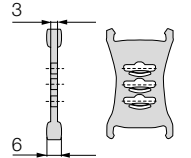
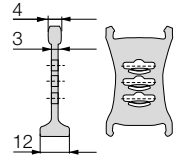
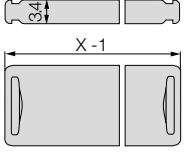
Available from stock
Upon request

Available from stock
Upon request

Interior separation | Increase cable service life



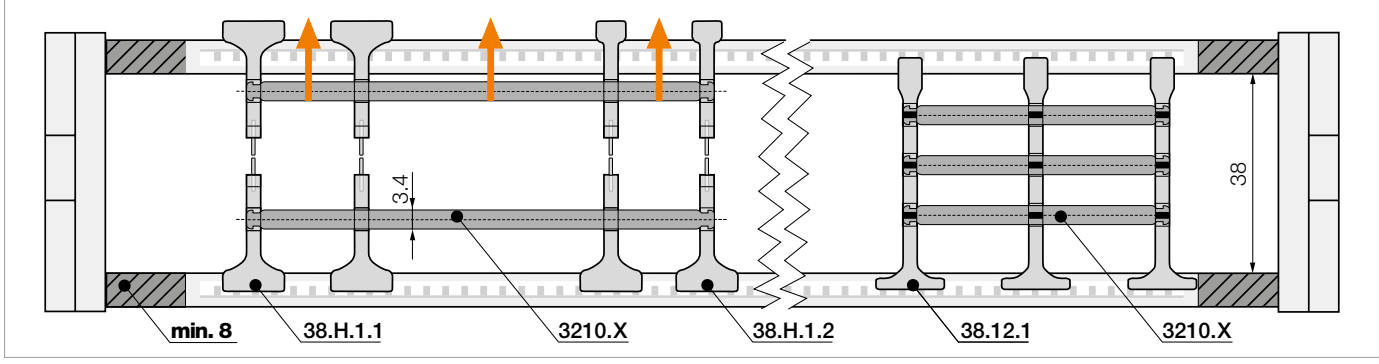
Note: Please be aware of the minimum lateral gap to the side links! **e-tube: 8mm** | **e-chain®: 8mm**
As standard separators are fitted every 2nd e-chain® link!

 	Part No. Standard separator unassembled 38.1 assembled 38.1.1	For all applications Standard separator with a wide base for maximum holding force.
 	Part No. Separator, narrow top unassembled 38.2 assembled 38.2.1	For even faster installation Wide on one side for high holding force, narrow on opposite side for easy cable fitting.
 	Part No. Separator, narrow unassembled 38.3 assembled 38.3.1	For a large number of thin cables Separator with a narrow base for a large number of thin cables side by side. Saves space.
 	Part No. Notch separator unassembled 38.5 assembled 38.5.1	Locks securely in preset increments Notch separator for exact positioning. Recommended for side-mounted applications.
 	Part No. Shelf unassembled 3200.X assembled 3210.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

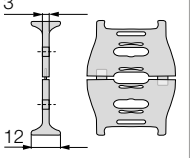
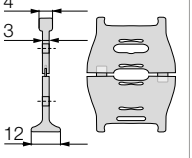
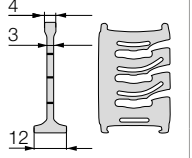
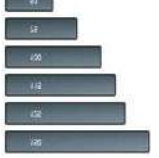
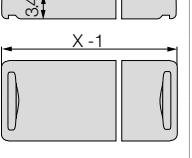
Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	3200.050	3210.050	115	3200.115	3210.115	175	3200.175	3210.175	250	3200.250	3210.250
075	3200.075	3210.075	125	3200.125	3210.125	200	3200.200	3210.200			
100	3200.100	3210.100	150	3200.150	3210.150	225	3200.225	3210.225			

 Available from stock
Upon request

Interior separation | To allow faster filling



Note: Please be aware of the minimum lateral gap to the side links! **e-tube: 8mm** | **e-chain®: 8mm**
As standard separators are fitted every 2nd e-chain® link!

 	Part No. Split separator, wide top unassembled 38.H.1 assembled 38.H.1.1	Split separators In order to fill e-chains® more easily and effectively, these separators can be split in the middle. This allows easier access to middle shelf partitions. Fast assembly and easy retrofit. 2 types available: with wide or narrow top.
 	Part No. Split separator, narrow top unassembled 38.H.2 assembled 38.H.2.1	
 	Part No. Lean separator unassembled 38.12 assembled 38.12.1	Lean separators¹⁾ Quick fitting of shelves in several layers. Enables extremely fast replacement of individual cables in very full e-chains®. Only suitable for e-chains®.
 	Part No. Shelf unassembled 3200.X assembled 3210.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	3200.050	3210.050	115	3200.115	3210.115	175	3200.175	3210.175	250	3200.250	3210.250
075	3200.075	3210.075	125	3200.125	3210.125	200	3200.200	3210.200			
100	3200.100	3210.100	150	3200.150	3210.150	225	3200.225	3210.225			



Lean separator for even faster filling: quickly insert several layers of cables into the e-chain® and reduce the installation time by up to 50%. Measured on a 4m long e-chain® fitted with 12 cables. **1) Note:** Please combine a maximum of four lean separators with one shelf. Not suitable for side-mounted e-chains®!

 Available from stock
Upon request

Product range



Part No. e-chains® with crossbars every link	Part No. e-tubes closed	Bi [mm]	Ba [mm]	E4.48L [kg/m]	R4.48L [kg/m]
E4.48L.050.0	R4.48L.050.0	50	70	≈ 1.53	≈ 1.64
E4.48L.062.0	R4.48L.062.0	62	82	≈ 1.58	≈ 1.69
E4.48L.075.0	R4.48L.075.0	75	95	≈ 1.64	≈ 1.82
E4.48L.087.0	–	87	107	≈ 1.67	≈ 1.91
E4.48L.100.0	R4.48L.100.0	100	120	≈ 1.73	≈ 2.01
E4.48L.105.0	–	105	125	≈ 1.74	–
E4.48L.112.0	R4.48L.112.0	112	132	≈ 1.79	≈ 2.15
E4.48L.125.0	R4.48L.125.0	125	145	≈ 1.84	≈ 2.18
E4.48L.137.0	–	137	157	≈ 1.88	–
E4.48L.150.0	R4.48L.150.0	150	170	≈ 1.97	≈ 2.36
E4.48L.162.0	–	162	182	≈ 2.00	–

Part No. e-chains® with crossbars every link	Part No. e-tubes closed	Bi [mm]	Ba [mm]	E4.48L [kg/m]	R4.48L [kg/m]
E4.48L.175.0	R4.48L.175.0	175	195	≈ 2.04	≈ 2.58
E4.48L.187.0	–	187	207	≈ 2.09	–
E4.48L.200.0	R4.48L.200.0	200	220	≈ 2.14	≈ 2.70
E4.48L.212.0	–	212	232	≈ 2.18	–
E4.48L.225.0	R4.48L.225.0	225	245	≈ 2.24	≈ 2.97
E4.48L.237.0	–	237	257	≈ 2.30	–
E4.48L.250.0	R4.48L.250.0	250	270	≈ 2.35	≈ 3.08
E4.48L.262.0	–	262	282	≈ 2.39	–
E4.48L.275.0*	–	275	295	≈ 2.45	–
E4.48L.287.0*	–	287	307	≈ 2.51	–
E4.48L.300.0	–	300	320	≈ 2.56	≈ 3.42

Available bend radii R [mm] | 075¹⁾ | 100¹⁾ | 125 | 150 | 175 | 200 | 250 | 300 | 350 |

*Width available upon request, please consult igus® for delivery time. 1) Radius not available for e-tubes.

Order key

E4.48L.175.150.0

Series / Type	Inner height	Width index	Bend radius	Colour index
---------------	--------------	-------------	-------------	--------------

Order example:

Complete Part No. with the required radius R . Example:

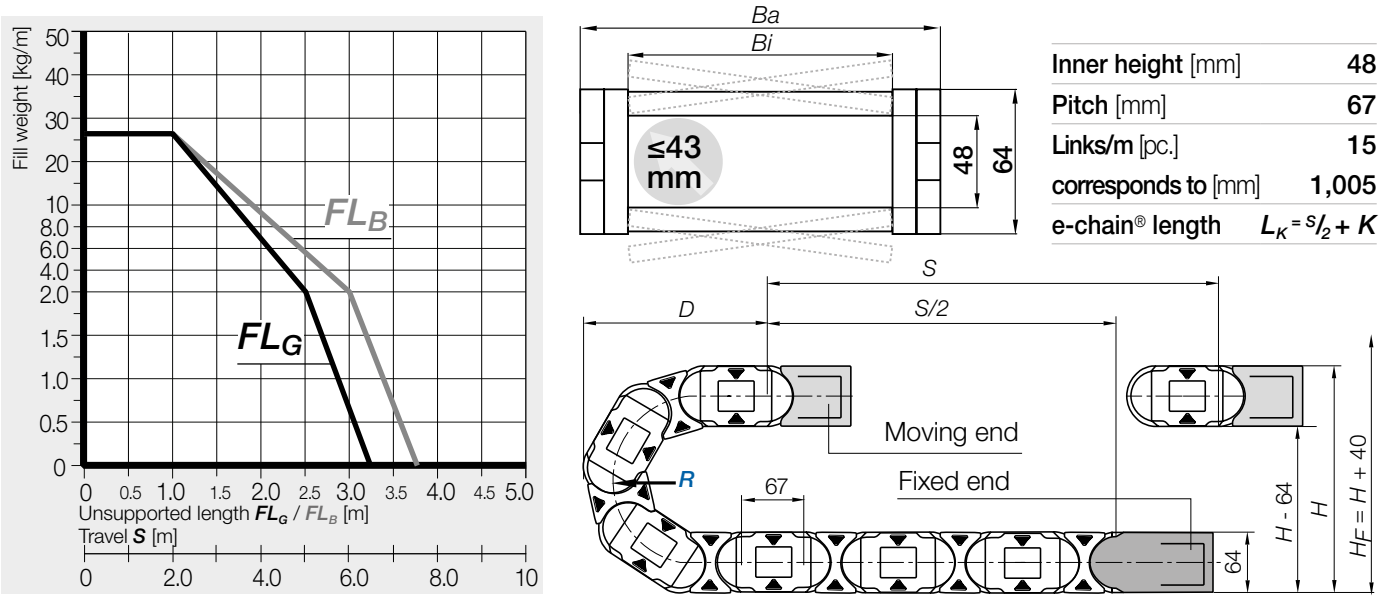
E4.48L.175.150.0 = crossbars openable along inner and outer radius, from both sides

R4.48L.175.150.0 = lids openable along inner and outer radius, from both sides

Order index for colour options ► www.igus.eu/info-colours

Available from stock
Upon request

Unsupported applications | Short travels

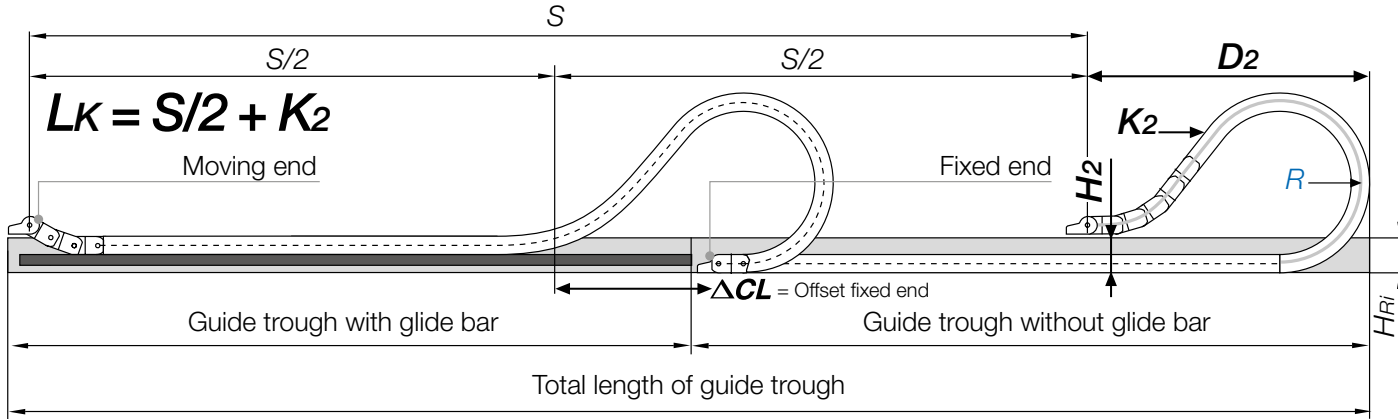


R	075 ¹⁾	100 ¹⁾	125	150	175	200	250	300	350
H	214	264	314	364	414	464	564	664	764
D	208	233	258	283	308	333	383	433	483
K	370	450	530	610	685	765	920	1,080	1,235

The required clearance height: $H_F = H + 40\text{mm}$ (with 2.5kg/m fill weight)

1) Radius not available for e-tubes.

Gliding applications | For travel lengths from 10m to max. 100m



R	075 ¹⁾	100 ¹⁾	125	150	175	200	250	300 ²⁾	350 ²⁾
H ₂	214	264	106	106	106	106	106	–	–
D ₂ ⁺⁵⁰	208	233	475	570	670	780	1,030	–	–
K ₂	370	450	804	938	1,139	1,340	1,675	–	–
ΔCL	–	–	230	300	380	460	660	–	–

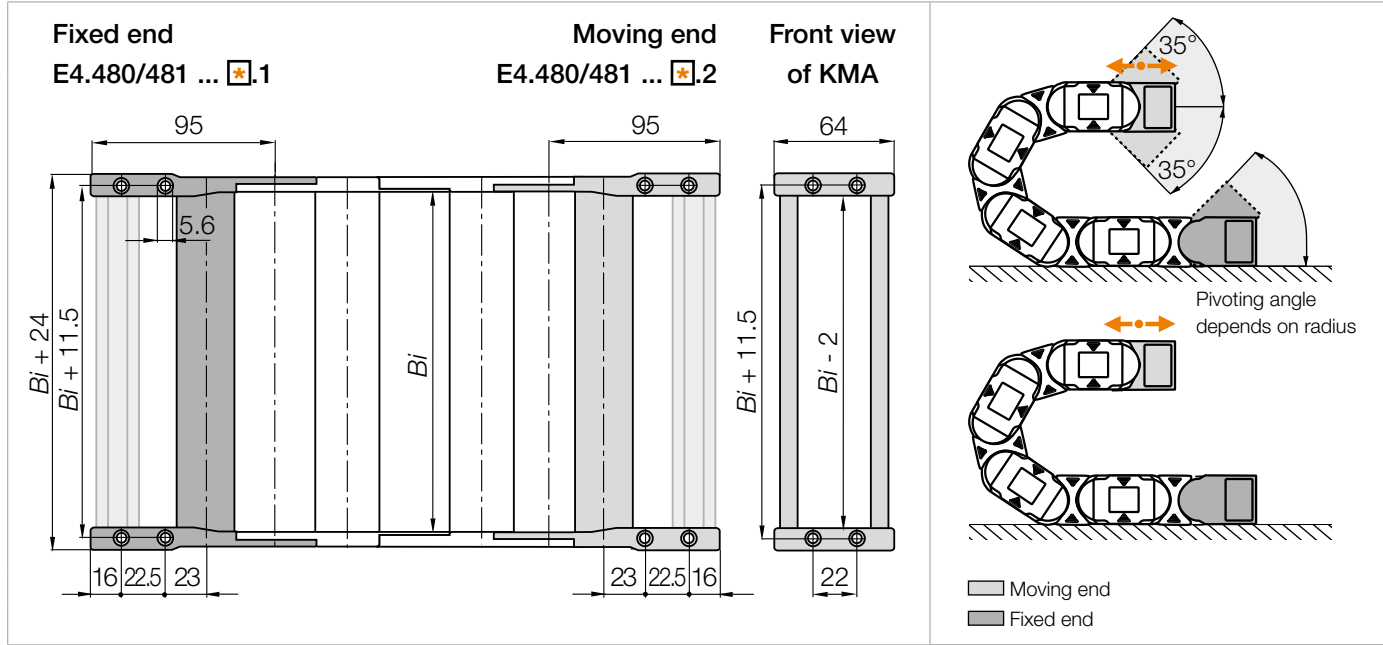
Note: In case of travels between 5 and 10m we recommend an e-chain® with a longer unsupported length.

1) Radius not available for e-tubes.

2) Radius not suitable for long travel applications. Please consult igus®.

Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting | Locking

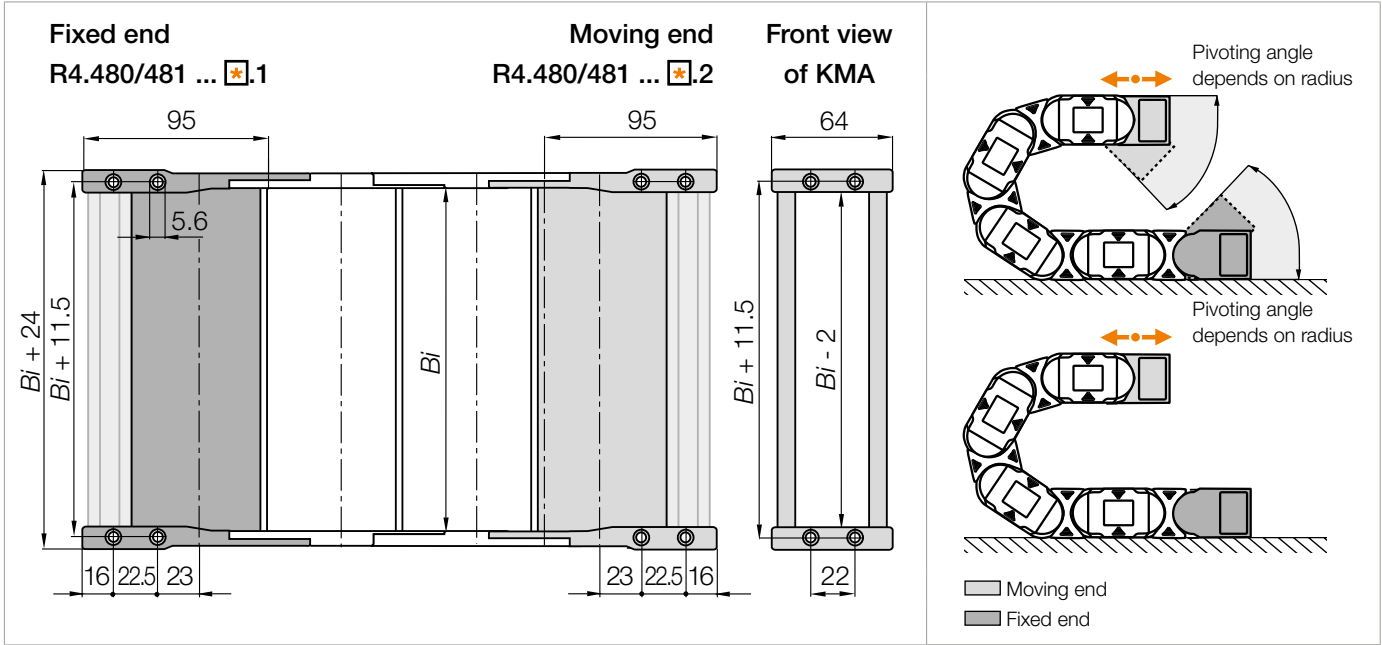


Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
050.	E4.480.050.[1].12.	E4.481.050.[1].12.	50
062.	E4.480.062.[1].12.	E4.481.062.[1].12.	62
075.	E4.480.075.[1].12.	E4.481.075.[1].12.	75
087.	E4.480.087.[1].12.	E4.481.087.[1].12.	87
100.	E4.480.100.[1].12.	E4.481.100.[1].12.	100
105.	E4.480.105.[1].12.	E4.481.105.[1].12.	105
112.	E4.480.112.[1].12.	E4.481.112.[1].12.	112
125.	E4.480.125.[1].12.	E4.481.125.[1].12.	125
137.	E4.480.137.[1].12.	E4.481.137.[1].12.	137
150.	E4.480.150.[1].12.	E4.481.150.[1].12.	150
162.	E4.480.162.[1].12.	E4.481.162.[1].12.	162

*Width available upon request, please consult igus® for delivery time.
(KMA = polymer metal mounting bracket)

Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
175.	E4.480.175.[1].12.	E4.481.175.[1].12.	175
187.	E4.480.187.[1].12.	E4.481.187.[1].12.	187
200.	E4.480.200.[1].12.	E4.481.200.[1].12.	200
212.	E4.480.212.[1].12.	E4.481.212.[1].12.	212
225.	E4.480.225.[1].12.	E4.481.225.[1].12.	225
237.	E4.480.237.[1].12.	E4.481.237.[1].12.	237
250.	E4.480.250.[1].12.	E4.481.250.[1].12.	250
262.	E4.480.262.[1].12.	E4.481.262.[1].12.	262
275.	E4.480.275.[1].12.*	E4.481.275.[1].12.*	275
287.	E4.480.287.[1].12.*	E4.481.287.[1].12.*	287
300.	E4.480.300.[1].12.	E4.481.300.[1].12.	300

KMA mounting brackets | Attachment from any side | Pivoting | Locking

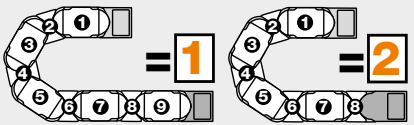


Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
050.	R4.480.050.[1].12.	R4.481.050.[1].12.	50
062.	R4.480.062.[1].12.	R4.481.062.[1].12.	62
075.	R4.480.075.[1].12.	R4.481.075.[1].12.	75
100.	R4.480.100.[1].12.	R4.481.100.[1].12.	100
112.	R4.480.112.[1].12.	R4.481.112.[1].12.	112
125.	R4.480.125.[1].12.	R4.481.125.[1].12.	125

*Width available upon request, please consult igus® for delivery time.
(KMA = polymer metal mounting bracket)

Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
150.	R4.480.150.[1].12.	R4.481.150.[1].12.	150
175.	R4.480.175.[1].12.	R4.481.175.[1].12.	175
225.	R4.480.200.[1].12.	R4.481.200.[1].12.	225
200.	R4.480.225.[1].12.	R4.481.225.[1].12.	200
250.	R4.480.250.[1].12.	R4.481.250.[1].12.	250

Note [1]: The e-chains® may end with either an inner or an outer side link. An outer side link should always be the first e-chain® link at the moving end. Please specify the index [1] (for odd) or [2] (for even) depending on an even or odd number of links required.



Order key

E4.480.175.[2].12.C.A2

Series	Width index	Even number of links	Full set	C-profile option	Pre-fitted

Note: Possible orientations for KMA mounting brackets. For mounting brackets pre-fitted **without strain relief**, please add index **.A**. For types pre-fitted **with strain relief** please add index **.A1**, **.A2**, **.A3** or **.A4**.

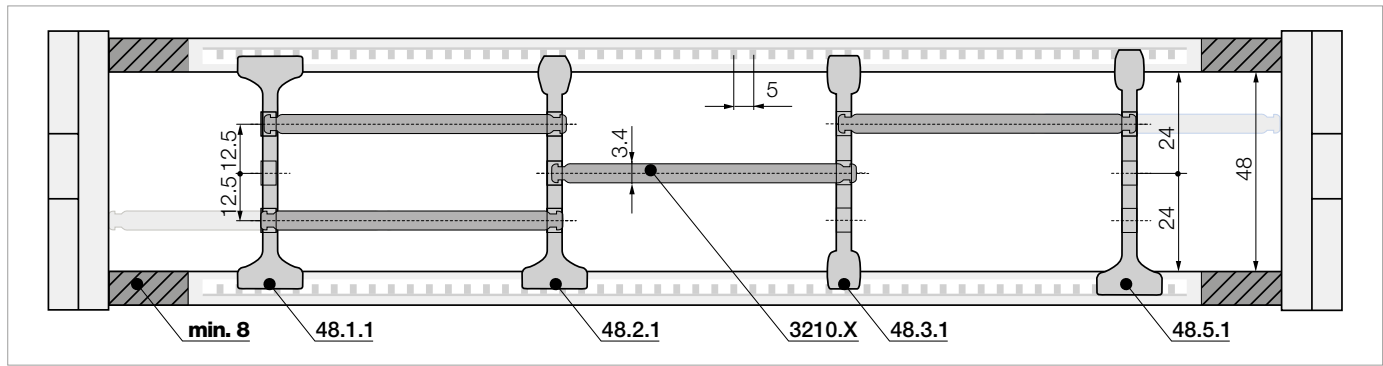


For the C-profile option please add index **.C**.

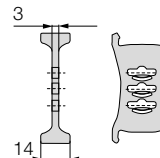
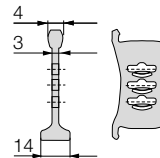
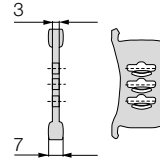
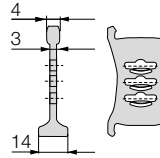
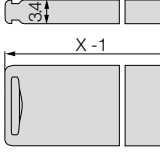
Available from stock
Upon request

Available from stock
Upon request

Interior separation | Increase cable service life



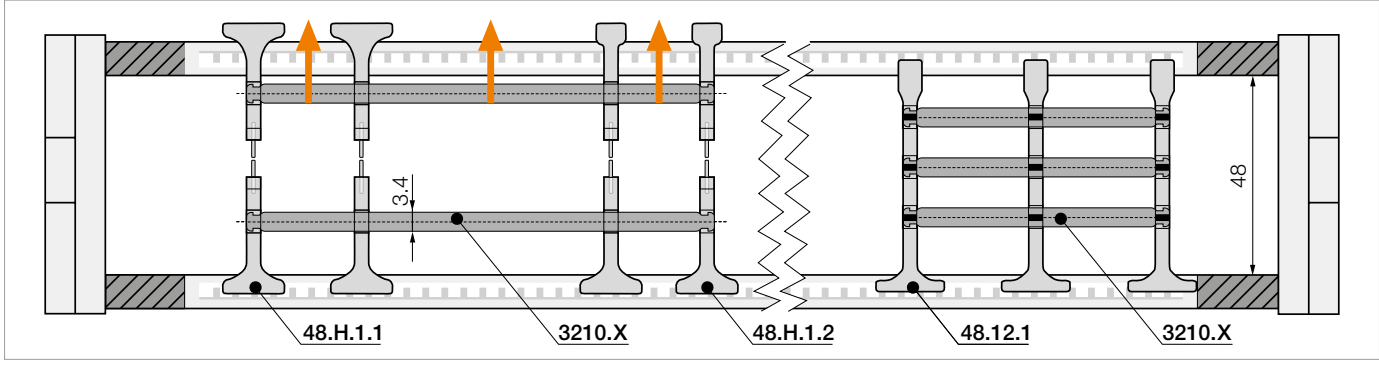
Note: Please be aware of the minimum lateral gap to the side links! **e-tube: 8mm** | **e-chain®: 8mm**
As standard separators are fitted every 2nd e-chain® link!

		Part No. Standard separator unassembled 48.1 assembled 48.1.1	For all applications Standard separator with a wide base for maximum holding force.
		Part No. Separator, narrow top unassembled 48.2 assembled 48.2.1	For even faster installation Wide on one side for high holding force, narrow on opposite side for easy cable fitting.
		Part No. Separator, narrow unassembled 48.3 assembled 48.3.1	For a large number of thin cables Separator with a narrow base for a large number of thin cables side by side. Saves space.
		Part No. Notch separator unassembled 48.5 assembled 48.5.1	Locks securely in preset increments Notch separator for exact positioning. Recommended for side-mounted applications.
		Part No. Shelf unassembled 3200.X assembled 3210.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

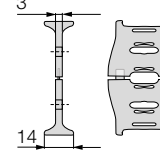
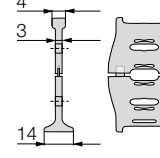
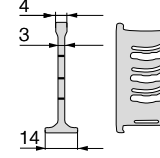
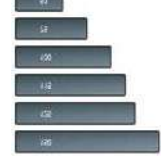
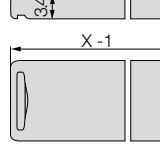
Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	3200.050	3210.050	115	3200.115	3210.115	175	3200.175	3210.175	250	3200.250	3210.250
075	3200.075	3210.075	125	3200.125	3210.125	200	3200.200	3210.200			
100	3200.100	3210.100	150	3200.150	3210.150	225	3200.225	3210.225			

 Available from stock
Upon request

Interior separation | To allow faster filling



Note: Please be aware of the minimum lateral gap to the side links! **e-tube: 8mm** | **e-chain®: 8mm**
As standard separators are fitted every 2nd e-chain® link!

		Part No. Split separator, wide top unassembled 48.H.1 assembled 48.H.1.1	Split separators In order to fill e-chains® more easily and effectively, these separators can be split in the middle. This allows easier access to middle shelf partitions. Fast assembly and easy retrofit. 2 types available: with wide or narrow top.
		Part No. Split separator, narrow top unassembled 48.H.2 assembled 48.H.2.1	
		Part No. Lean separator unassembled 48.12 assembled 48.12.1	Lean separators¹⁾ Quick fitting of shelves in several layers. Enables extremely fast replacement of individual cables in very full e-chains®. Only suitable for e-chains®.
		Part No. Shelf unassembled 3200.X assembled 3210.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	3200.050	3210.050	115	3200.115	3210.115	175	3200.175	3210.175	250	3200.250	3210.250
075	3200.075	3210.075	125	3200.125	3210.125	200	3200.200	3210.200			
100	3200.100	3210.100	150	3200.150	3210.150	225	3200.225	3210.225			



Lean separator for even faster filling: quickly insert several layers of cables into the e-chain® and reduce the installation time by up to 50%. Measured on a 4m long e-chain® fitted with 12 cables. **1) Note:** Please combine a maximum of four lean separators with one shelf. Not suitable for side-mounted e-chains®!

 Available from stock
Upon request

Product range



Part No. e-chains® with crossbars every link	Bi [mm]	Ba [mm]	E4.64L [kg/m]
E4.64L.075.□.0	75	101	≈ 2.47
E4.64L.087.□.0	87	113	≈ 2.54
E4.64L.100.□.0	100	126	≈ 2.57
E4.64L.112.□.0	112	138	≈ 2.63
E4.64L.125.□.0	125	151	≈ 2.67
E4.64L.137.□.0	137	163	≈ 2.72
E4.64L.150.□.0	150	176	≈ 2.77
E4.64L.175.□.0	175	201	≈ 2.87

Part No. e-chains® with crossbars every link	Bi [mm]	Ba [mm]	E4.64L [kg/m]
E4.64L.187.□.0	187	213	≈ 2.93
E4.64L.200.□.0	200	226	≈ 2.97
E4.64L.212.□.0	212	238	≈ 3.03
E4.64L.225.□.0	225	251	≈ 3.08
E4.64L.250.□.0	250	276	≈ 3.18
E4.64L.300.□.0	300	326	≈ 3.38
E4.64L.325.□.0	325	351	≈ 3.48
E4.64L.350.□.0	350	376	≈ 3.58

Available bend radii *R* [mm] | 100¹⁾ | 125 | 150 | 175 | 200 | 250 | 300 | 350 | 400 |

1) Radius available upon request, please consult igus® for delivery time.

Order key

E4.64L.150.150.0

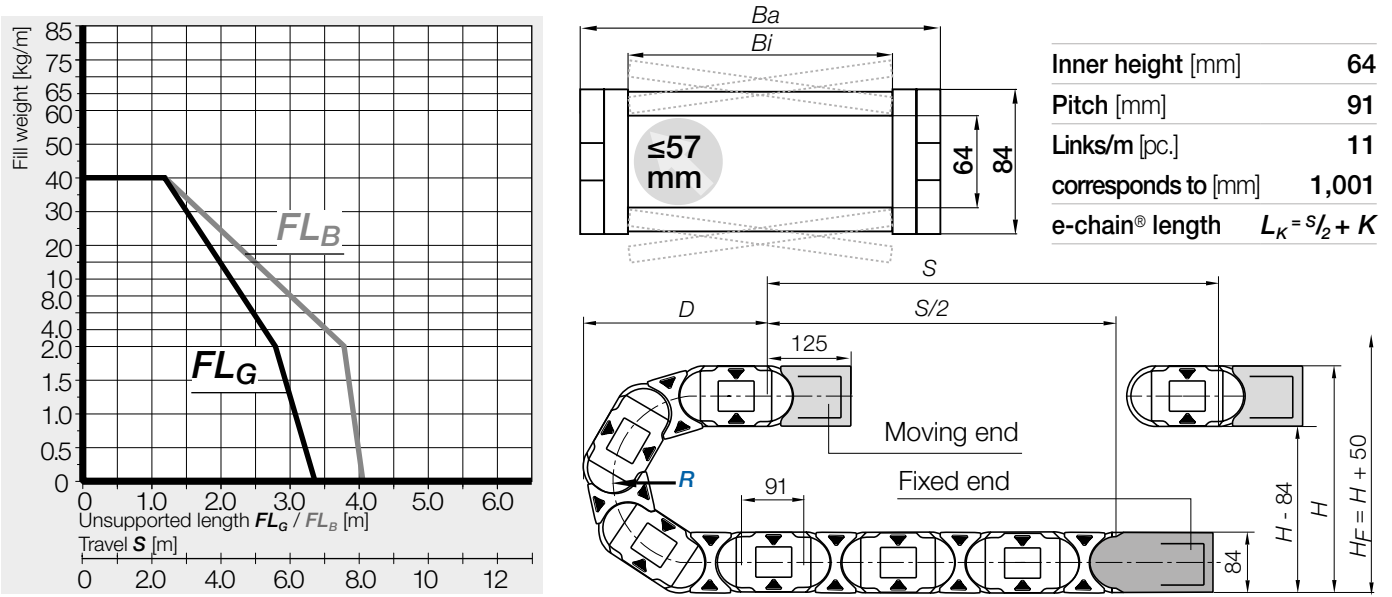
Series / Type	Inner height	Width index	Bend radius	Colour index

Order example:
Complete Part No. with the required radius R. Example:
E4.64L.150.150.0 = crossbars openable along inner and outer radius, from both sides
Order index for colour options ► www.igus.eu/info-colours

Available from stock
Upon request



Unsupported applications | Short travels

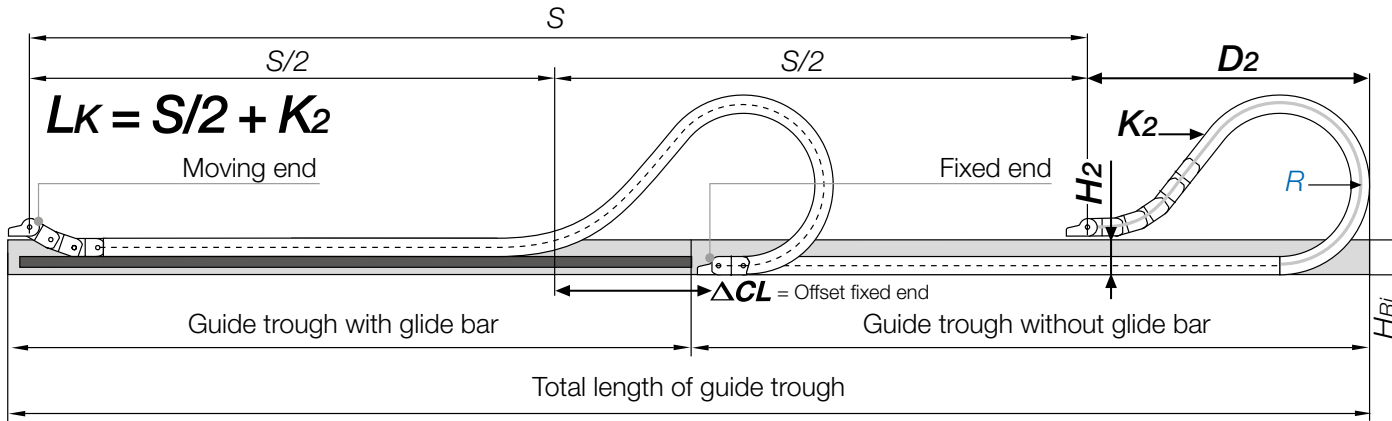


<i>R</i>	100 ¹⁾	125	150	175	200	250	300	350	400
<i>H</i>	284	334	384	434	484	584	684	784	884
<i>D</i>	279	304	329	354	379	429	479	529	579
<i>K</i>	500	575	655	735	815	970	1,125	1,285	1,440

The required clearance height: $H_F = H + 50\text{mm}$ (with 2.0kg/m fill weight)

1) Radius available upon request, please consult igus® for delivery time.

Gliding applications | For long travels, upon request



<i>R</i>	100 ¹⁾	125	150	175	200	250	300	350	400
<i>H</i> ₂	2) ²⁾	180	180	180	180	180	–	–	–
<i>D</i> ₂ ⁺⁵⁰	2) ²⁾	505	580	705	830	1,080	–	–	–
<i>K</i> ₂	2) ²⁾	819	910	1,183	1,365	1,729	–	–	–
ΔCL	2) ²⁾	209	259	359	459	570	–	–	–

Note: In case of travels between 5 and 10m we recommend an e-chain® with a longer unsupported length.

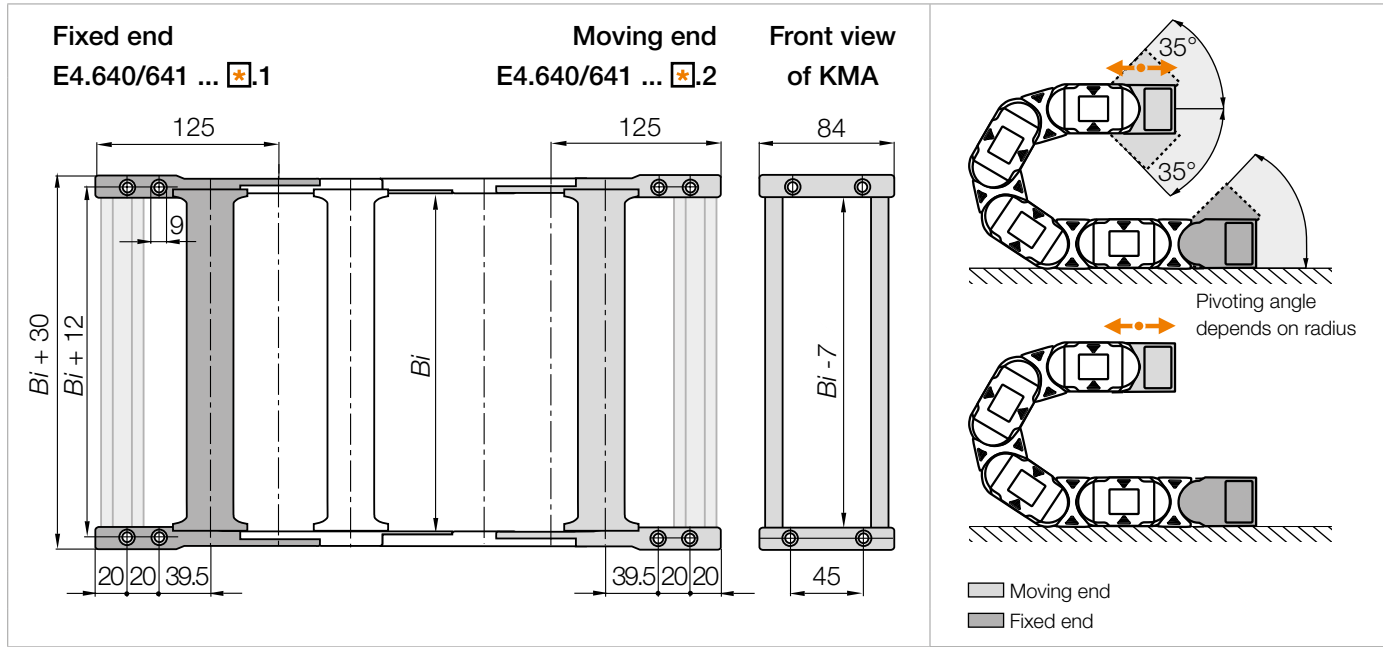
1) Radius available upon request, please consult igus® for delivery time.

2) Values upon request

Available from stock
Upon request



KMA mounting brackets | Attachment from any side | Pivoting | Locking



Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
075.	E4.640.075. * .12.	E4.641.075. * .12.	75
087.	E4.640.087. * .12.	E4.641.087. * .12.	87
100.	E4.640.100. * .12.	E4.641.100. * .12.	100
112.	E4.640.112. * .12.	E4.641.112. * .12.	112
125.	E4.640.125. * .12.	E4.641.125. * .12.	125
137.	E4.640.137. * .12.	E4.641.137. * .12.	137
150.	E4.640.150. * .12.	E4.641.150. * .12.	150
175.	E4.640.175. * .12.	E4.641.175. * .12.	175

*Width available upon request, please consult igus® for delivery time.
(KMA = polymer metal mounting bracket)

 Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting | Locking

Note *: The e-chains® may end with either an inner or an outer side link. An outer side link should always be the first e-chain® link at the moving end. Please specify the index 1 (for odd) or 2 (for even) depending on an even or odd number of links required.

 Order key

E4.640.150.2.12.C.A2

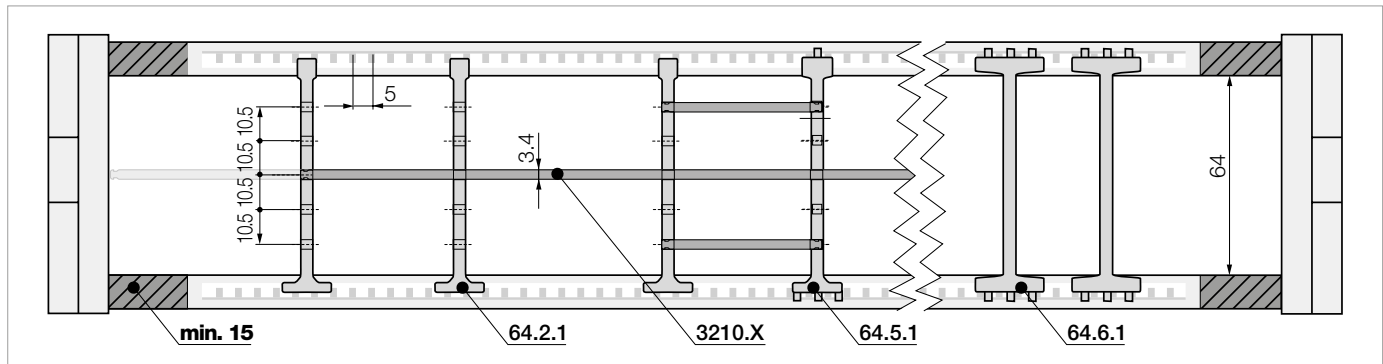
Series	Width index	Even number of links	Full set	C-profile option	Pre-fitted

Note: Possible orientations for KMA mounting brackets. For mounting brackets pre-fitted **without strain relief**, please add index **.A**. For types pre-fitted **with strain relief** please add index **.A1**, **.A2**, **.A3** or **.A4**.

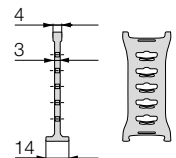
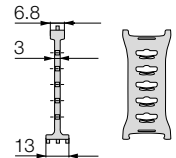
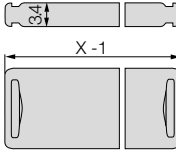
For the C-profile option please add index **.C**.

 Available from stock
Upon request

Interior separation | Increase cable service life

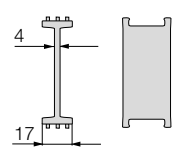


 **Note:** Please be aware of the minimum lateral gap to the side links! **e-chain®: 15mm**
As standard separators are fitted every 2nd e-chain® link!

 	Part No. Separator, narrow top unassembled 64.2 assembled 64.2.1	For even faster installation Wide on one side for high holding force, narrow on opposite side for easy cable fitting.
 	Part No. Notch separator unassembled 64.5 assembled 64.5.1	Locks securely in preset increments Notch separator for exact positioning. Recommended for side-mounted applications.
 	Part No. Shelf unassembled 3200.X assembled 3210.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

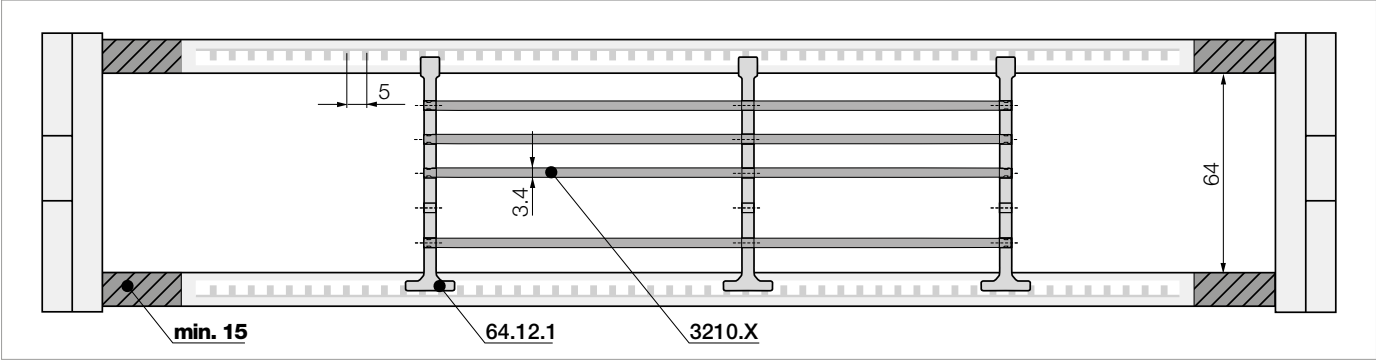
Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	3200.050	3210.050	115	3200.115	3210.115	175	3200.175	3210.175	250	3200.250	3210.250
075	3200.075	3210.075	125	3200.125	3210.125	200	3200.200	3210.200			
100	3200.100	3210.100	150	3200.150	3210.150	225	3200.225	3210.225			

More interior separation options

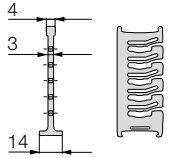
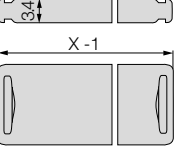
 	Part No. Notch locking separator unassembled 64.6 assembled 64.6.1	Notch locking separator for increased holding force For higher crossbar opening forces for high humidity and/or large hydraulic hoses. They can be positioned precisely and then locked in position.
---	---	--

 Available from stock
Upon request

Interior separation | To allow faster filling



 **Note:** Please be aware of the minimum lateral gap to the side links! **e-chain®: 15mm**
As standard separators are fitted every 2nd e-chain® link!

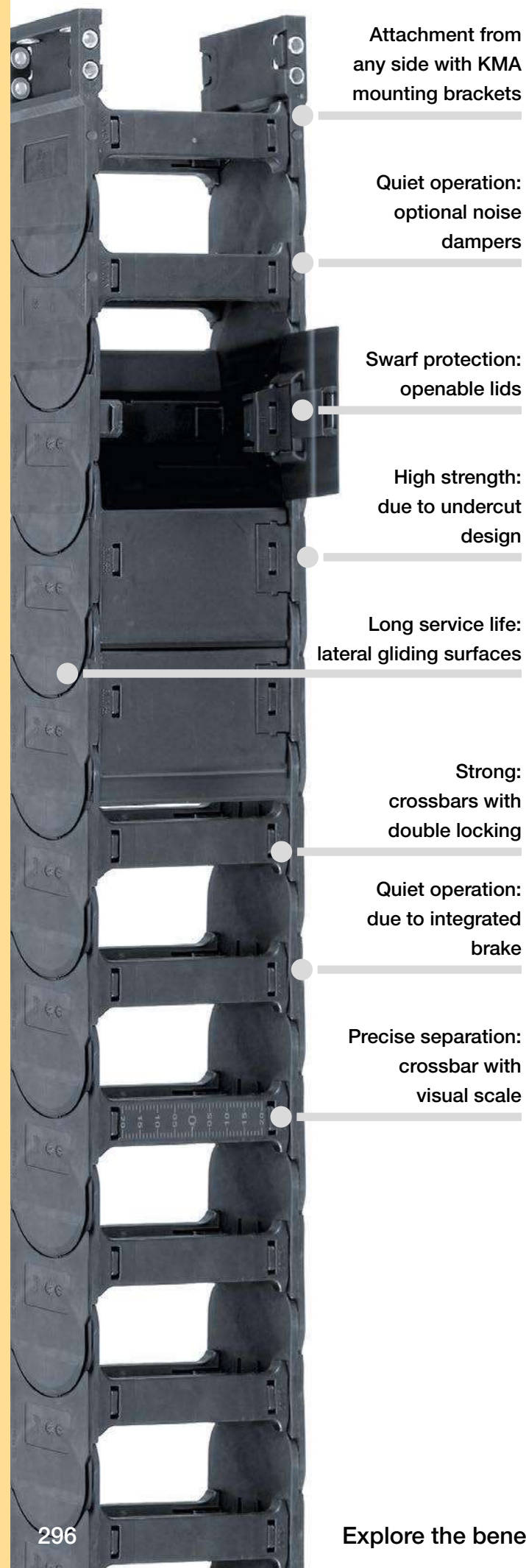
 	Part No. Lean separator unassembled 64.12 assembled 64.12.1	Lean separators¹⁾ Quick fitting of shelves in several layers. Enables extremely fast replacement of individual cables in very full e-chains®. Only suitable for e-chains®.
 	Part No. Shelf unassembled 3200.X assembled 3210.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	3200.050	3210.050	115	3200.115	3210.115	175	3200.175	3210.175	250	3200.250	3210.250
075	3200.075	3210.075	125	3200.125	3210.125	200	3200.200	3210.200			
100	3200.100	3210.100	150	3200.150	3210.150	225	3200.225	3210.225			



Lean separator for even faster filling: quickly insert several layers of cables into the e-chain® and reduce the installation time by up to 50%. Measured on a 4m long e-chain® fitted with 12 cables. **1) Note:** Please combine a maximum of four lean separators with one shelf. Not suitable for side-mounted e-chains®!

 Available from stock
Upon request



Attachment from
any side with KMA
mounting brackets

Quiet operation:
optional noise
dampers

Swarf protection:
openable lids

High strength:
due to undercut
design

Long service life:
lateral gliding surfaces

Strong:
crossbars with
double locking

Quiet operation:
due to integrated
brake

Precise separation:
crossbar with
visual scale

Low weight and cost-effective - E4/light

Weight reduction, a larger interior space and a reduced price. The characteristics of the igus® E4/light system: thinner side links (for all series) and a thinner crossbar (for some series: 14240, 14340). E4/light e-chains® offer an optimum price/performance ratio for many applications. Especially for short travels, hanging and small standing applications. E4/light types are often first choice.

Benefits

- Large inner heights combined with low weight
- E4/light e-chains® offer optimum price and performance solutions for many applications
- Especially suitable for short travel distances, hanging and standing designs

Typical application areas

- Machine tools
- Material handling
- Stone cutting machines
- Woodworking
- Machines
- Vehicles
- Construction machinery
- Limited application for long travel distances
- General machinery, etc.

Selection table

Part No.	Inner height <i>hi</i> [mm]	Outer height <i>ha</i> [mm]	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Bend radius <i>R</i> [mm]	Unsupported length ≤ [m]	Page
----------	--------------------------------	--------------------------------	-------------------------------	-------------------------------	------------------------------	-----------------------------	------

E4/light - e-chains® with crossbars every link

The all-rounder, for heavy-duty applications.

14040	56	84	50 - 600	76 - 626	135 - 500	4.0	298
14240	62	84	50 - 400	76 - 426	135 - 500	4.0	304
14550	70	98	50 - 600	77 - 627	150 - 600	4.2	310
15050	80	108	50 - 600	80 - 630	150 - 600	4.6	316
15250	86	108	50 - 400	80 - 430	150 - 600	4.6	322
1640	112	140	50 - 600	84 - 634	200 - 600	4.5	328

E4/light - e-chains® with crossbars every 2nd link

The cost-effective, easy-to-install alternative for almost any application.

14140	56	84	50 - 600	76 - 626	135 - 500	4.0	298
14340	62	84	50 - 400	76 - 426	135 - 500	4.0	304
14650	70	98	50 - 600	77 - 627	150 - 600	4.2	310
15150	80	108	50 - 600	80 - 630	150 - 600	4.6	316
15350	86	108	50 - 400	80 - 430	150 - 600	4.6	322

E4/light - e-tubes fully enclosed

Excellent cable protection

R18840	56	84	75 - 462	101 - 489	150 - 500	4.0	298
R19050	70	98	75 - 462	102 - 489	200 - 600	4.2	310
R19850	80	108	75 - 462	105 - 493	200 - 500	4.6	316
R1608	108	140	200 - 500	234 - 534	250 - 600	4.5	328

Technical data

General properties

Speed gliding / acceleration gliding	≤ 5m/s / ≤ 50m/s²
Speed FL_G /acceleration FL_G	≤ 20m/s / ≤ 200m/s²
Speed FL_B /acceleration FL_B	≤ 3m/s / ≤ 6m/s²
igumid® G LW material - permitted temperature °C	-40°C/+120°C
Flammability class, igumid® G LW	VDE 0304 IIC UL94-HB

Installation types, maximum travel lengths

Series	Unsupported	Gliding	Vertical hanging	Vertical standing	Side mounted, unsupported	Rotary	Zig-zag
14040	≤ 8.0m	≤ 150m	≤ 80m	≤ 6.0m	≤ 2.0m	with rework	upon request
14240	≤ 8.0m	≤ 150m	≤ 80m	≤ 6.0m	≤ 2.0m	with rework	upon request
14550	≤ 8.4m	≤ 250m	≤ 90m	≤ 6.0m	≤ 2.0m	with rework	upon request
15050	≤ 9.2m	≤ 250m	≤ 100m	≤ 6.0m	≤ 2.0m	with rework	upon request
15250	≤ 9.2m	≤ 250m	≤ 100m	≤ 6.0m	≤ 2.0m	with rework	upon request
1640	≤ 9.0m	≤ 400m	≤ 100m	≤ 5.0m	≤ 2.0m	with rework	upon request

Product range



e-chains® with crossbars every link	e-chains® with crossbars every 2nd link	e-tubes closed		Bi [mm]	Ba [mm]	14040 [kg/m]	14140 [kg/m]	R18840 [kg/m]
14040.	14140.	-	05.□.0	50	76	≈ 2.47	≈ 2.48	-
14040.	14140.	-	055.□.0	55	81	≈ 2.57	≈ 2.50	-
14040.	14140.	-	06.□.0	65	91	≈ 2.66	≈ 2.51	-
14040.	14140.	18840.1)	07.□.0	75	101	≈ 2.75	≈ 2.25	≈ 3.20
14040.	14140.	-	08.□.0	87	113	≈ 2.84	≈ 2.44	-
14040.	14140.	18840.	10.□.0	100	126	≈ 2.93	≈ 2.61	≈ 3.49
14040.	14140.	-	11.□.0	112	139	≈ 3.06	≈ 2.67	-
14040.	14140.	18840.	12.□.0	125	151	≈ 3.12	≈ 2.71	≈ 3.85
14040.	14140.	-	13.□.0	137	164	≈ 3.26	≈ 2.77	-
14040.	14140.	18840.	15.□.0	150	176	≈ 3.32	≈ 2.81	≈ 4.28
14040.	14140.	-	16.□.0	162	189	≈ 3.43	≈ 2.86	-
14040.	14140.	-	169.□.0	169	196	≈ 3.51	≈ 2.90	-
14040.	14140.	18840.	17.□.0	175	201	≈ 3.54	≈ 2.92	≈ 4.54
14040.	14140.	-	182.□.0	182	209	≈ 3.58	≈ 2.94	-
14040.	14140.	-	18.□.0	187	214	≈ 3.65	≈ 2.97	-
14040.	14140.	18840.	20.□.0	200	226	≈ 3.67	≈ 2.98	≈ 4.85
14040.	14140.	-	207.□.0	207	234	≈ 3.73	≈ 3.01	-
14040.	14140.	-	21.□.0	212	239	≈ 3.78	≈ 3.04	-
14040.	14140.	-	22.□.0	225	251	≈ 3.85	≈ 3.07	-
14040.	14140.	-	23.□.0	237	264	≈ 3.98	≈ 3.14	-
14040.	14140.	18840.	25.□.0	250	276	≈ 4.07	≈ 3.18	≈ 5.58
14040.	14140.	-	26.□.0	262	289	≈ 4.16	≈ 3.22	-
14040.	14140.	18840.	27.□.0	275	301	≈ 4.27	≈ 3.28	≈ 5.85

e-chains® with crossbars every link	e-chains® with crossbars every 2nd link	e-tubes closed		Bi [mm]	Ba [mm]	14040 [kg/m]	14140 [kg/m]	R18840 [kg/m]
14040.	14140.	-	28.□.0	287	314	≈ 4.29	≈ 3.29	-
14040.	14140.	18840.	30.□.0	300	326	≈ 4.51	≈ 3.40	≈ 6.24
14040.	14140.	-	31.□.0	312	339	≈ 4.57	≈ 3.42	-
14040.	14140.	-	32.□.0	325	351	≈ 4.60	≈ 3.44	-
14040.	14140.	-	33.□.0	337	364	≈ 4.77	≈ 3.53	-
14040.	14140.	18840.	35.□.0	350	376	≈ 4.93	≈ 3.61	≈ 6.99
14040.	14140.	-	36.□.0	362	389	≈ 4.94	≈ 3.61	-
14040.	14140.	-	37.□.0	375	401	≈ 4.95	≈ 3.62	-
14040.	14140.	-	38.□.0	387	414	≈ 5.04	≈ 3.66	-
14040.	14140.	18840.	40.□.0	400	426	≈ 5.24	≈ 3.76	≈ 7.94
14040.	14140.	-	41.□.0	412	439	≈ 5.39	≈ 3.84	-
14040.	14140.	-	42.□.0	425	451	≈ 5.54	≈ 3.92	-
14040.	14140.	-	43.□.0	437	464	≈ 5.61	≈ 3.95	-
14040.	14140.	-	45.□.0	450	476	≈ 5.68	≈ 3.98	-
14040.	14140.	18840.	46.□.0	462	489	≈ 5.70	≈ 3.99	≈ 8.40
14040.	14140.	-	47.□.0	475	501	≈ 5.83	≈ 4.06	-
14040.	14140.	-	48.□.0	487	514	≈ 5.86	≈ 4.08	-
14040.	14140.	-	50.□.0	500	526	≈ 5.96	≈ 4.13	-
14040.	14140.	-	51.□.0	512	539	≈ 5.98	≈ 4.14	-
14040.	14140.	-	52.□.0	525	551	≈ 6.03	≈ 4.16	-
14040.	14140.	-	53.□.0	537	564	≈ 6.18	≈ 4.24	-
14040.	14140.	-	55.□.0	550	576	≈ 6.67	≈ 4.48	-
14040.	14140.	-	60.□.0	600	626	≈ 6.98	≈ 4.58	-

Available bend radii *R* [mm] | 135* | 150 | 175 | 200 | 250 | 300 | 400 | 500 |

*Radius not available for e-tubes. 1) Lid removable, non-openable

Order key

14140.30.150.0

Series	Width index	Bend radius	Colour index
--------	-------------	-------------	--------------

Order example:

Complete Part No. with the required radius *R*. Example:

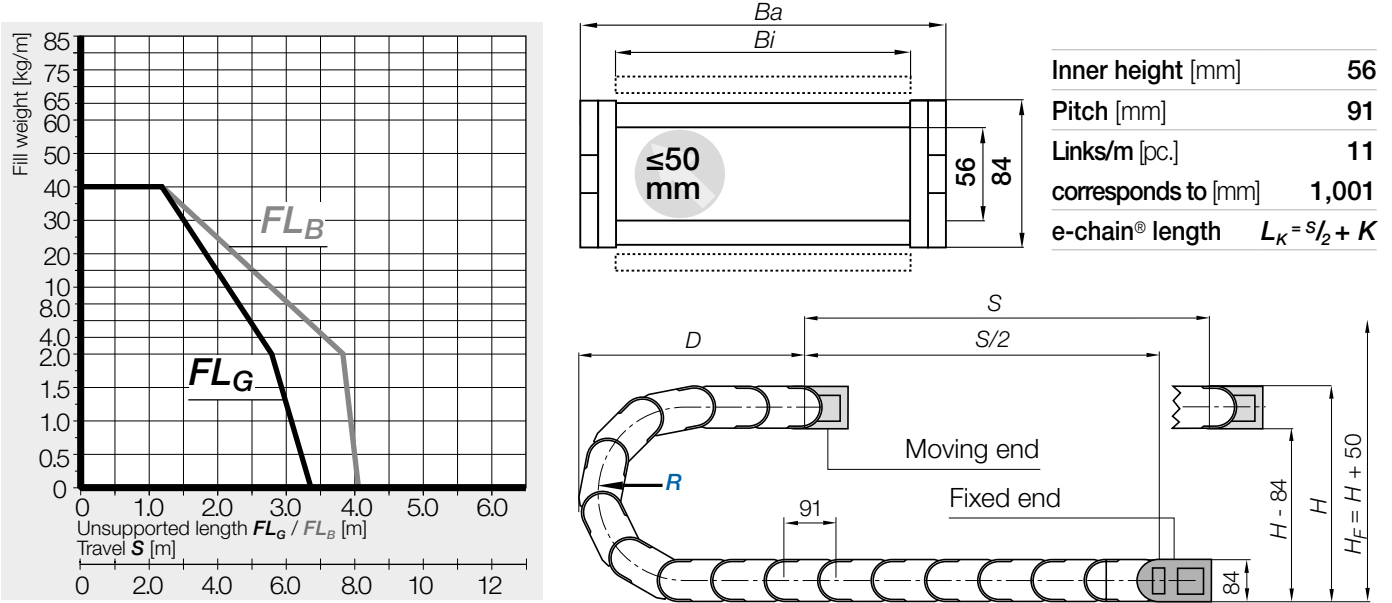
14040.30.150.0 = crossbars removable along the inner and outer radius

14140.30.150.0 = crossbars removable along the inner and outer radius

18840.30.150.0 = lids openable along the outer radius from one side

Order index for colour options ► www.igus.eu/info-colours

Unsupported applications | Short travels

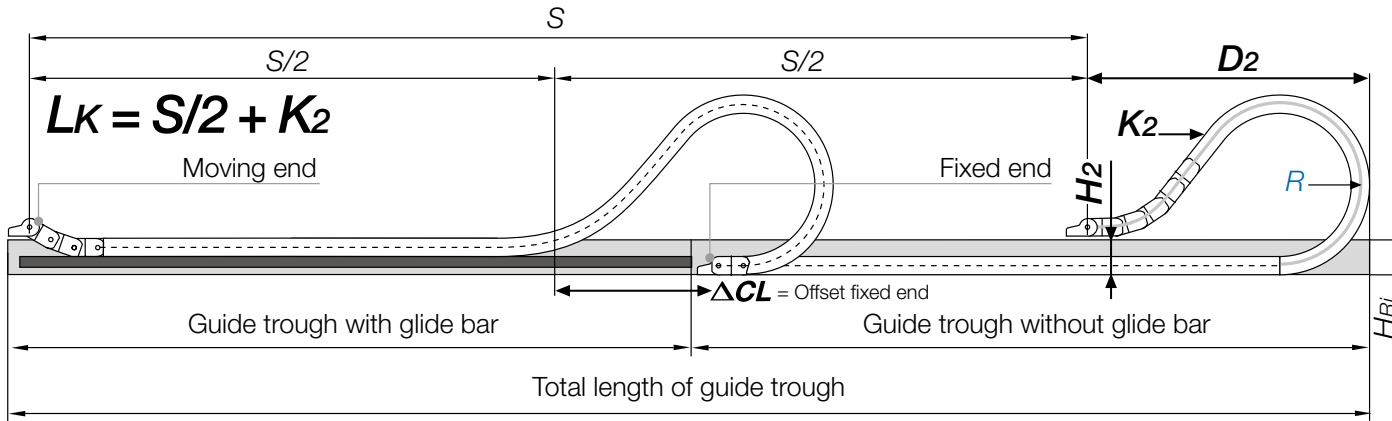


<i>R</i>	135*	150	175	200	250	300	400	500
<i>H</i> ₊₂₅	354	384	434	484	584	684	884	1,084
<i>D</i>	314	329	354	379	429	479	579	679
<i>K</i>	610	655	735	815	970	1,125	1,440	1.755

The required clearance height: *H_F* = *H* + 50mm (with 2.0kg/m fill weight)

* Radius not available for e-tubes.

Gliding applications | For travel lengths from 12m to max. 150m



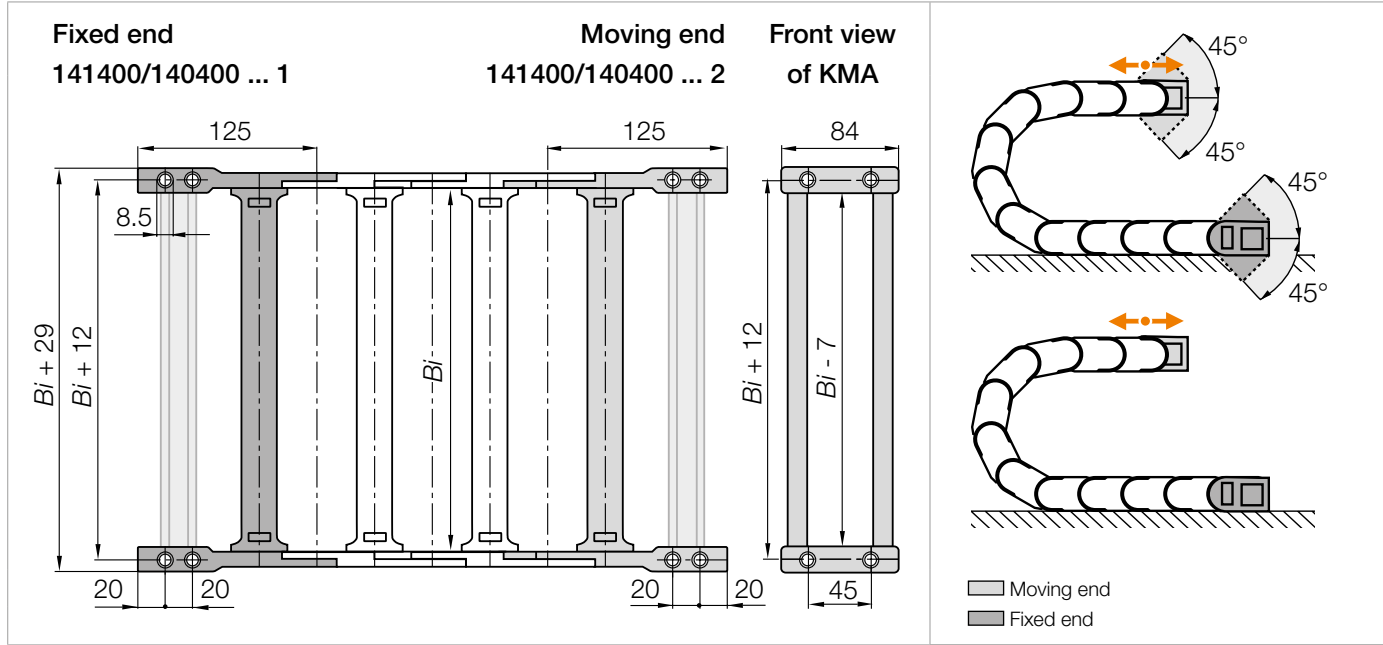
<i>R</i>	135*	150	175	200	250	300	400	500
<i>H</i> ₂	266	266	266	266	266	266	266	266
<i>D</i> ₂₊₅₀	390	450	530	710	920	1,120	1,530	1,830
<i>K</i> ₂	728	819	1,001	1,274	1,638	1,911	2,548	3,185
<i>ΔCL</i>	124	159	209	359	509	659	959	1,159

Note: In case of travels between 8 and 12m we recommend an e-chain® with a longer unsupported length.

* Radius not available for e-tubes.

Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting | Locking

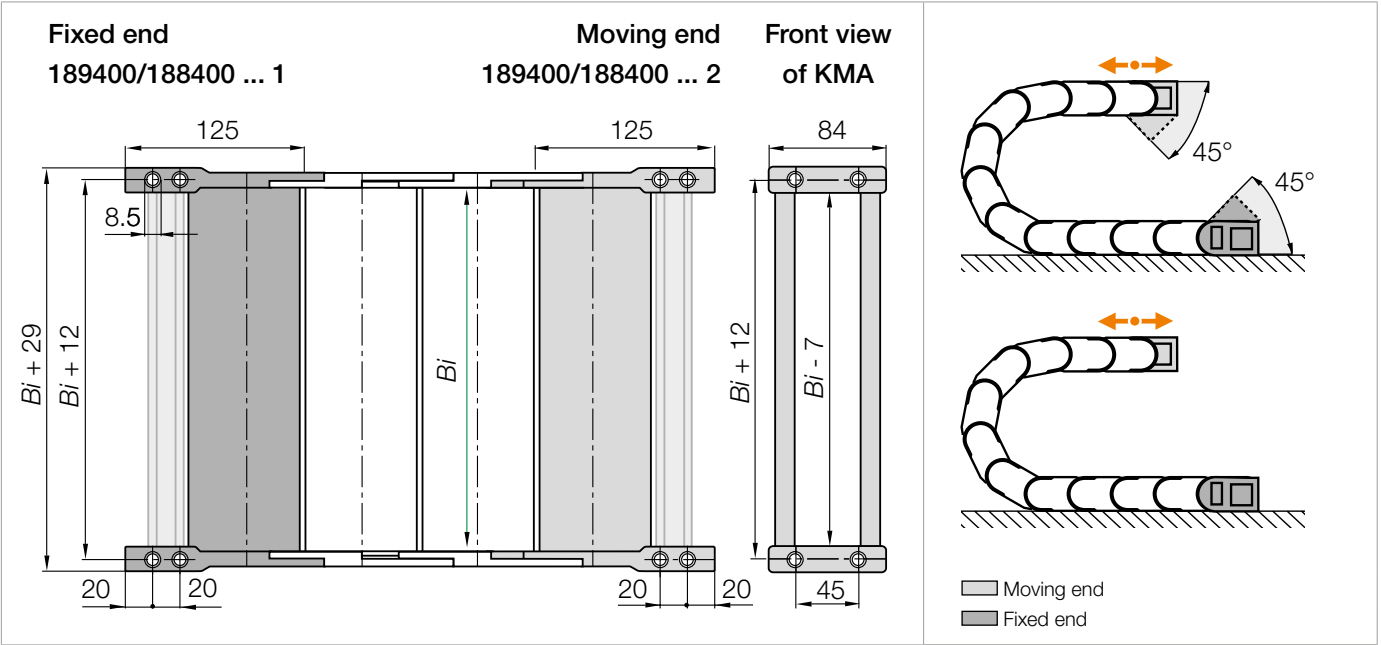


Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
05.	141400.05. 12.□	140400.05. 12.□	50
055.	141400.055.12.□	140400.055.12.□	55
06.	141400.06. 12.□	140400.06. 12.□	65
07.	141400.07. 12.□	140400.07. 12.□	75
08.	141400.08. 12.□	140400.08. 12.□	87
10.	141400.10. 12.□	140400.10. 12.□	100
11.	141400.11. 12.□	140400.11. 12.□	112
12.	141400.12. 12.□	140400.12. 12.□	125
13.	141400.13. 12.□	140400.13. 12.□	137
15.	141400.15. 12.□	140400.15. 12.□	150
16.	141400.16. 12.□	140400.16. 12.□	162
169.	141400.169.12.□	140400.169.12.□	169
17.	141400.17. 12.□	140400.17. 12.□	175
182.	141400.182.12.□	140400.182.12.□	182
18.	141400.18. 12.□	140400.18. 12.□	187
20.	141400.20. 12.□	140400.20. 12.□	200
207.	141400.207.12.□	140400.207.12.□	207
21.	141400.21. 12.□	140400.21. 12.□	212
22.	141400.22. 12.□	140400.22. 12.□	225
23.	141400.23. 12.□	140400.23. 12.□	237
25.	141400.25. 12.□	140400.25. 12.□	250
26.	141400.26. 12.□	140400.26. 12.□	262
27.	141400.27. 12.□	140400.27. 12.□	275

(KMA = polymer metal mounting bracket)

 Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting | Locking



Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
07.	189400.07.12.□	188400.07.12.□	75
10.	189400.10.12.□	188400.10.12.□	100
12.	189400.12.12.□	188400.12.12.□	125
15.	189400.15.12.□	188400.15.12.□	150
17.	189400.17.12.□	188400.17.12.□	175
20.	189400.20.12.□	188400.20.12.□	200

(KMA = polymer metal mounting bracket)

Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
25.	189400.25.12.□	188400.25.12.□	250
27.	189400.27.12.□	188400.27.12.□	275
30.	189400.30.12.□	188400.30.12.□	300
35.	189400.35.12.□	188400.35.12.□	350
40.	189400.40.12.□	188400.40.12.□	400
46.	189400.46.12.□	188400.46.12.□	462

Order key

141400.30.12. **.C.A2**

Series	Width index	Full set	C-profile option	Pre-fitted

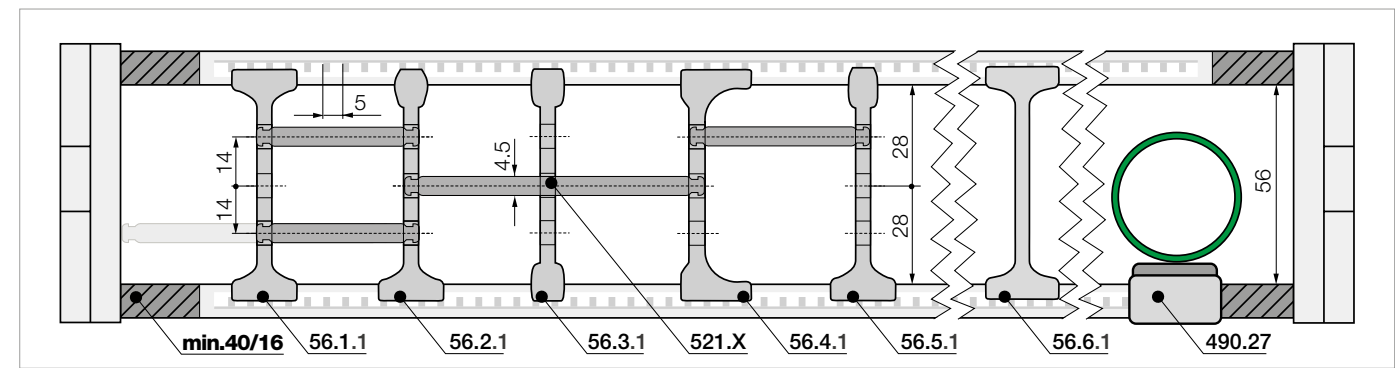
Note: Possible orientations for KMA mounting brackets. For mounting brackets pre-fitted **without strain relief**, please add index **.A**. For types pre-fitted **with strain relief** please add index **.A1**, **.A2**, **.A3** or **.A4**.



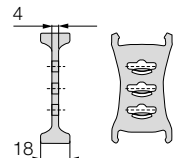
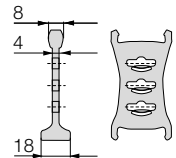
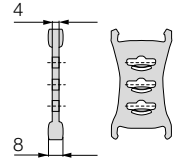
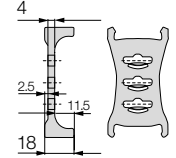
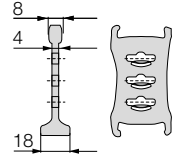
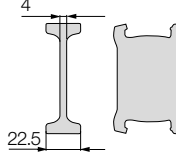
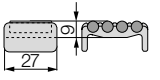
For the C-profile option please add index **.C**.

 Available from stock
Upon request

Interior separation | Increase cable service life

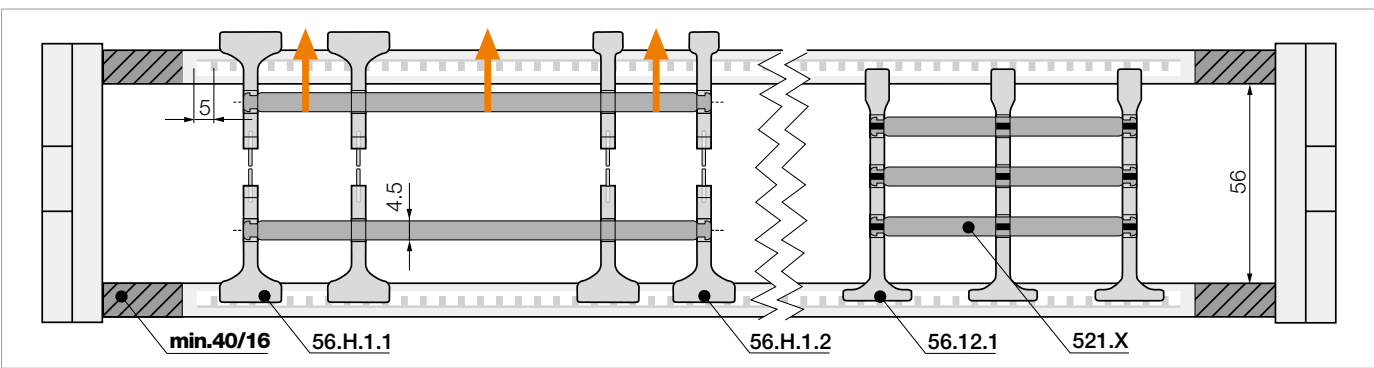


Note: Please be aware of the minimum lateral gap to the side links! **e-tube: 40mm** | **e-chain®: 16mm**
As standard separators are fitted every 2nd e-chain® link!

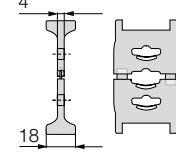
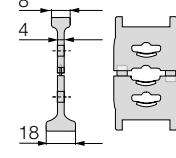
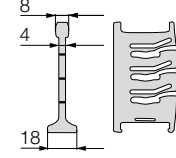
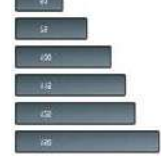
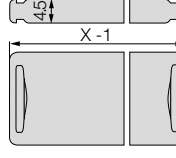
		Part No. Standard separator unassembled 56.1 assembled 56.1.1	For all applications Standard separator with a wide base for maximum holding force.
		Part No. Separator, narrow top unassembled 56.2 assembled 56.2.1	For even faster installation Wide on one side for high holding force, narrow on opposite side for easy cable fitting.
		Part No. Separator, narrow unassembled 56.3 assembled 56.3.1	For a large number of thin cables Separator with a narrow base for a large number of thin cables side by side. Saves space.
		Part No. Separator, asymmetrical unassembled 56.4 assembled 56.4.1	For side-mounted applications Asymmetrical separator, for defined gap distance. No additional spacers required.
		Part No. Notch separator unassembled 56.5 assembled 56.5.1	Locks securely in preset increments Notch separator for exact positioning. Recommended for side-mounted applications.
		Part No. Notch locking separator* unassembled 56.6 assembled 56.6.1	Notch locking separator for increased holding force For higher crossbar opening forces for high humidity and/or large hydraulic hoses. They can be positioned precisely and then locked in position.
		Part No. Rollclip* unassembled 489.27 assembled 490.27	Minimises abrasion of sensitive hoses The rollclip simply clamps onto the opening crossbar. The movable rollers compensate for relative movement between the e-chain® and hose.

*Only suitable for e-chains®

Interior separation | To allow faster filling



Note: Please be aware of the minimum lateral gap to the side links! **e-tube: 40mm** | **e-chain®: 16mm**
As standard separators are fitted every 2nd e-chain® link!

		Part No. Split separator, wide top unassembled 56.H.1 assembled 56.H.1.1	Split separators In order to fill e-chains® more easily and effectively, these separators can be split in the middle. This allows easier access to middle shelf partitions. Fast assembly and easy retrofit. 2 types available: with wide or narrow top.
		Part No. Split separator, narrow top unassembled 56.H.2 assembled 56.H.2.1	
		Part No. Lean separator unassembled 56.12 assembled 56.12.1	Lean separators¹⁾ Quick fitting of shelves in several layers. Enables extremely fast replacement of individual cables in very full e-chains®. Only suitable for e-chains®.
		Part No. Shelf unassembled 520.X assembled 521.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	520.050	521.050	125	520.125	521.125	225	520.225	521.225	375	520.375	521.375
065	520.065	521.065	150	520.150	521.150	250	520.250	521.250	387	520.387	521.387
075	520.075	521.075	175	520.175	521.175	300	520.300	521.300	450	520.450	521.450
100	520.100	521.100	200	520.200	521.200	350	520.350	521.350			



Lean separator for even faster filling: quickly insert several layers of cables into the e-chain® and reduce the installation time by up to 50%. Measured on a 4m long e-chain® fitted with 12 cables. **1) Note:** Please combine a maximum of four lean separators with one shelf. Not suitable for side-mounted e-chains®!

 Available from stock
 Upon request

Product range



Part No. e-chains® with crossbars every link	Part No. e-chains® with crossbars every 2nd link	Bi [mm]	Ba [mm]	14240 [kg/m]	14340 [kg/m]
14240. 05.□.0	14340. 05.□.0	50	76	≈ 2.37	≈ 2.32
14240. 06.□.0	14340. 06.□.0	68	94	≈ 2.40	≈ 2.33
14240. 07.□.0	14340. 07.□.0	75	101	≈ 2.42	≈ 2.34
14240.087.□.0	14340.087.□.0	87	114	≈ 2.47	≈ 2.36
14240.097.□.0	14340.097.□.0	97	123	≈ 2.51	≈ 2.38
14240. 10.□.0	14340. 10.□.0	100	126	≈ 2.52	≈ 2.39
14240. 11.□.0	14340. 11.□.0	108	134	≈ 2.55	≈ 2.40
14240.112.□.0	14340.112.□.0	112	139	≈ 2.55	≈ 2.41
14240. 12.□.0	14340. 12.□.0	125	151	≈ 2.62	≈ 2.44
14240.137.□.0	14340.137.□.0	137	164	≈ 2.66	≈ 2.46
14240. 15.□.0	14340. 15.□.0	150	176	≈ 2.72	≈ 2.49
14240.162.□.0	14340.162.□.0	162	189	≈ 2.73	≈ 2.49
14240. 17.□.0	14340. 17.□.0	168	194	≈ 2.79	≈ 2.52
14240. 18.□.0	14340. 18.□.0	175	201	≈ 2.82	≈ 2.53
14240.187.□.0	14340.187.□.0	187	214	≈ 2.84	≈ 2.55
14240. 20.□.0	14340. 20.□.0	200	226	≈ 2.89	≈ 2.58

Part No. e-chains® with crossbars every link	Part No. e-chains® with crossbars every 2nd link	Bi [mm]	Ba [mm]	14240 [kg/m]	14340 [kg/m]
14240.212.□.0	14340.212.□.0	212	239	≈ 2.95	≈ 2.60
14240. 23.□.0	14340. 23.□.0	225	251	≈ 3.01	≈ 2.63
14240.237.□.0	14340.237.□.0	237	264	≈ 3.04	≈ 2.65
14240. 25.□.0	14340. 25.□.0	250	276	≈ 3.10	≈ 2.68
14240.262.□.0	14340.262.□.0	262	289	≈ 3.11	≈ 2.69
14240. 28.□.0	14340. 28.□.0	275	301	≈ 3.19	≈ 2.72
14240. 29.□.0	14340. 29.□.0	287	314	≈ 3.20	≈ 2.73
14240. 30.□.0	14340. 30.□.0	300	326	≈ 3.30	≈ 2.78
14240.312.□.0	14340.312.□.0	312	339	≈ 3.31	≈ 2.79
14240.325.□.0	14340.325.□.0	325	351	≈ 3.37	≈ 2.81
14240.337.□.0	14340.337.□.0	337	364	≈ 3.40	≈ 2.83
14240.350.□.0	14340.350.□.0	350	376	≈ 3.56	≈ 2.91
14240.362.□.0	14340.362.□.0	362	389	≈ 3.61	≈ 2.93
14240.375.□.0	14340.375.□.0	375	401	≈ 3.64	≈ 2.95
14240.387.□.0	14340.387.□.0	387	414	≈ 3.69	≈ 2.97
14240.400.□.0	14340.400.□.0	400	426	≈ 3.73	≈ 2.99

Available bend radii *R* [mm] | 135 | 150 | 175 | 200 | 250 | 300 | 400 | 500 |



Order key

14240.20.300.0

Series	Width index	Bend radius	Colour index
		300	

Order example:

Complete Part No. with the required radius *R*. Example:

14240.20.300.0 = crossbars removable along the inner and outer radius

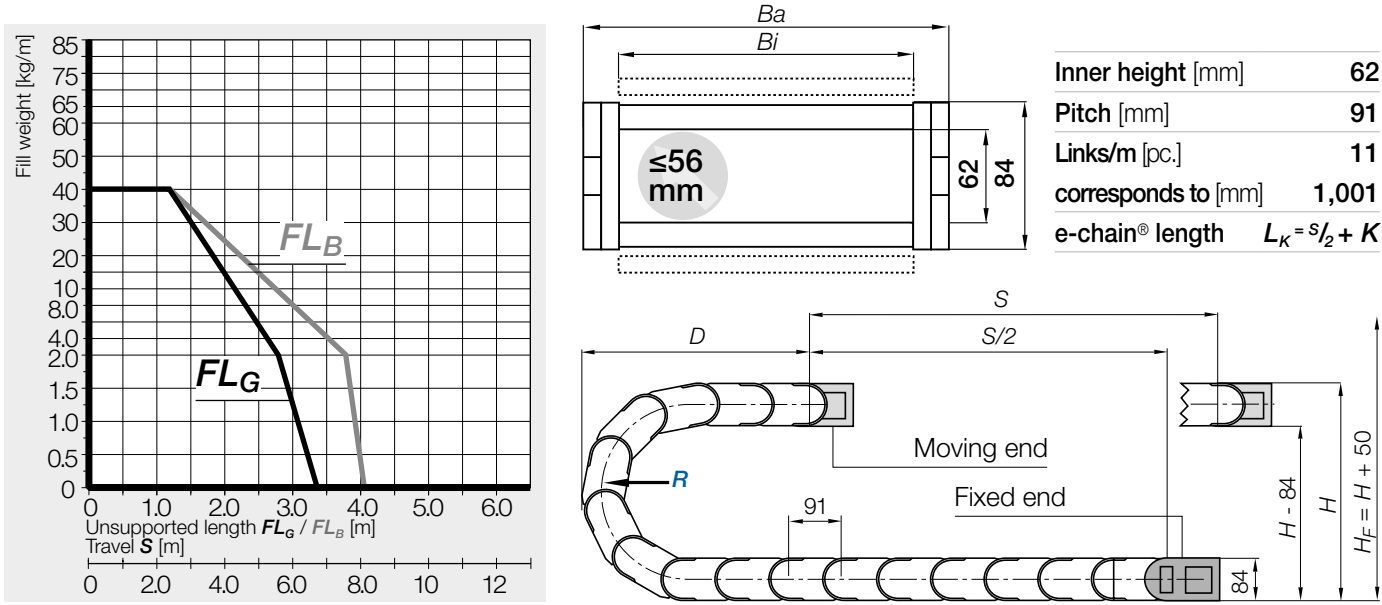
14340.20.300.0 = crossbars removable along the inner and outer radius

Order index for colour options ► www.igus.eu/info-colours



Available from stock
Upon request

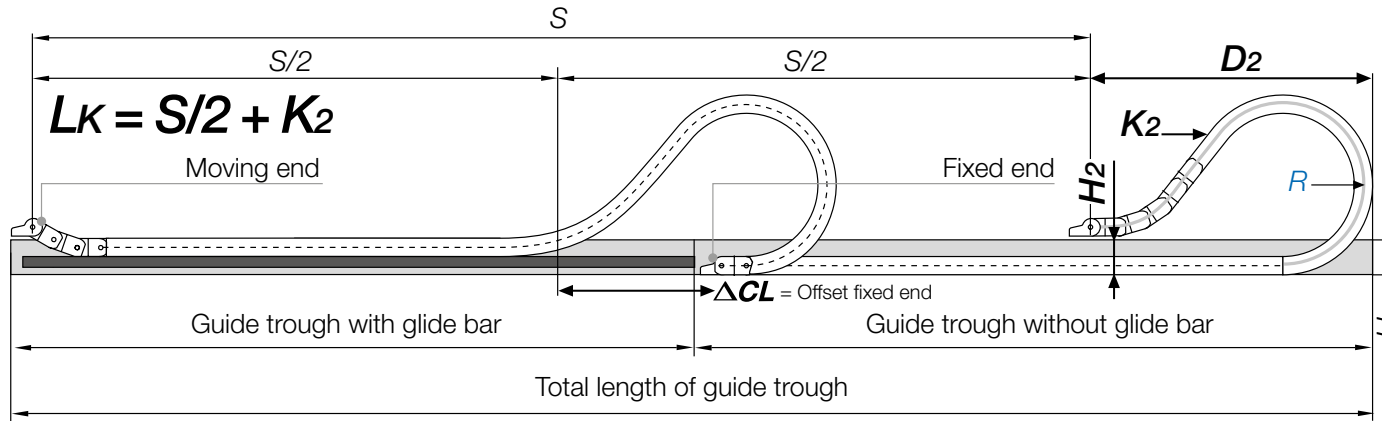
Unsupported applications | Short travels



<i>R</i>	135	150	175	200	250	300	400	500
<i>H</i> ₊₂₅	354	384	434	484	584	684	884	1,084
<i>D</i>	314	329	354	379	429	479	579	679
<i>K</i>	610	655	735	815	970	1,125	1,440	1.755

The required clearance height: *H_F* = *H* + 50mm (with 2.0kg/m fill weight)

Gliding applications | For travel lengths from 12m to max. 250m



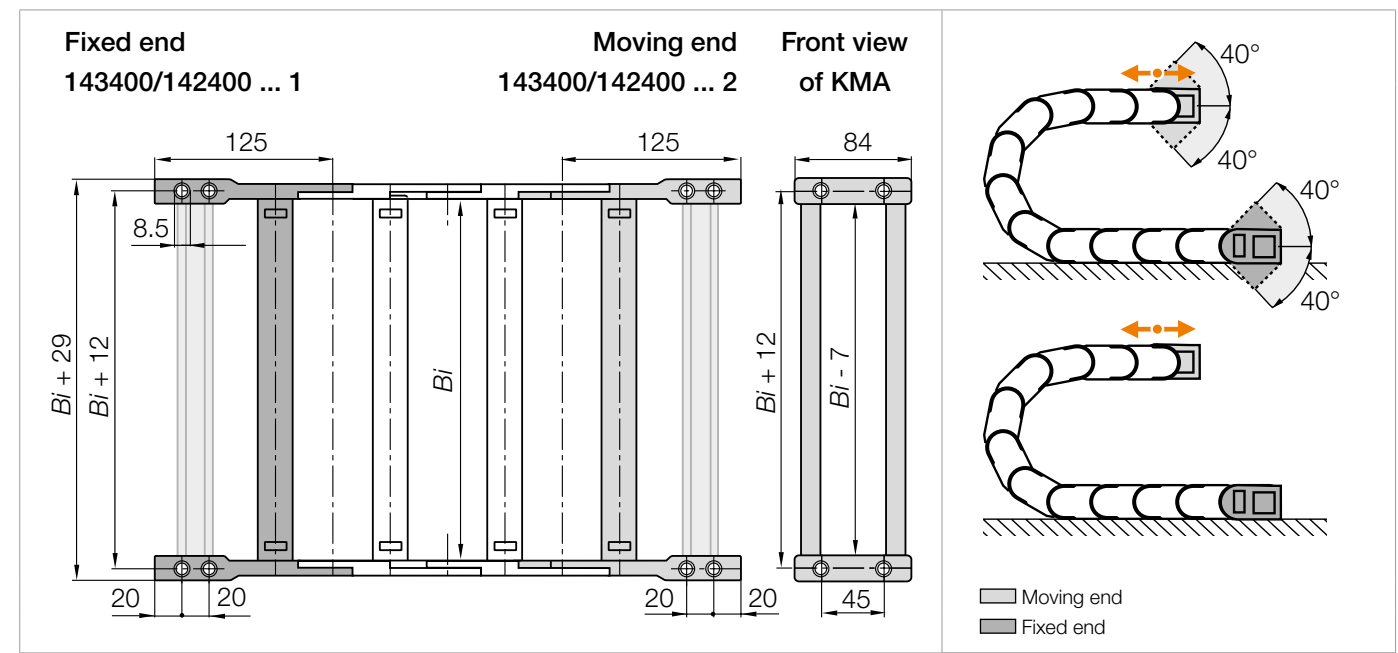
<i>R</i>	135	150	175	200	250	300	400	500
<i>H</i> ₂	266	266	266	266	266	266	266	266
<i>D</i> ₂₊₅₀	390	450	550	710	920	1,120	1,530	1,850
<i>K</i> ₂	728	819	1,001	1,274	1,638	1,911	2,548	3,185
<i>ΔCL</i>	124	159	209	359	509	659	959	1,159

Note: In case of travels between 9 and 12m we recommend an e-chain® with a longer unsupported length.



Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting | Locking



Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
05.	143400.05. 12.□	142400.05. 12.□	50
06.	143400.06. 12.□	142400.06. 12.□	68
07.	143400.07. 12.□	142400.07. 12.□	75
087.	143400.087.12.□	142400.087.12.□	87
097.	143400.097.12.□	142400.097.12.□	97
10.	143400.10. 12.□	142400.10. 12.□	100
11.	143400.11. 12.□	142400.11. 12.□	108
112.	143400.112.12.□	142400.112.12.□	112
12.	143400.12. 12.□	142400.12. 12.□	125
137.	143400.137.12.□	142400.137.12.□	137
15.	143400.15. 12.□	142400.15. 12.□	150
162.	143400.162.12.□	142400.162.12.□	162
17.	143400.17. 12.□	142400.17. 12.□	168
18.	143400.18. 12.□	142400.18. 12.□	175
187.	143400.187.12.□	142400.187.12.□	187
20.	143400.20. 12.□	142400.20. 12.□	200

(KMA = polymer metal mounting bracket)

Order key

143400.20.12 .C.A2

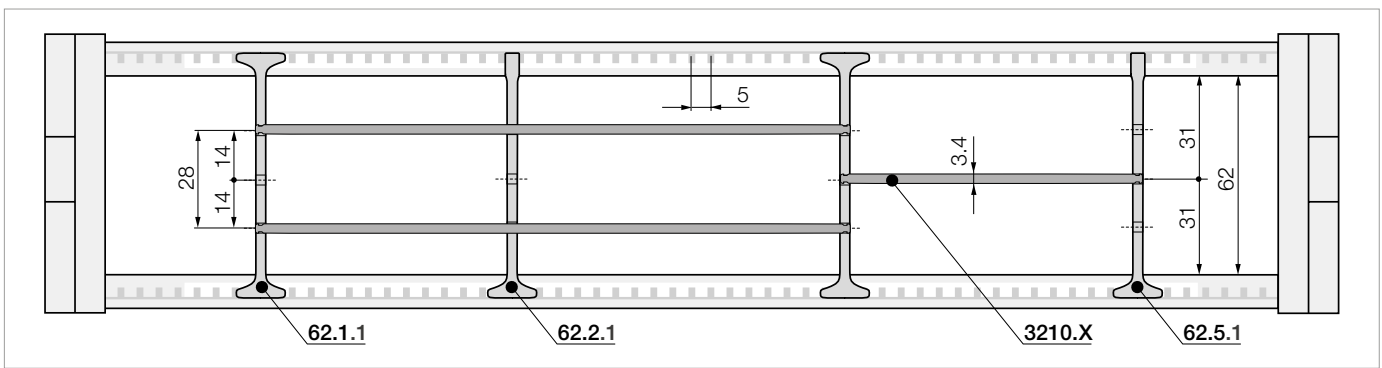
Series	Width index	Full set	C-profile option	Pre-fitted

Note: Possible orientations for KMA mounting brackets. For mounting brackets pre-fitted without strain relief, please add index **.A**. For types pre-fitted with strain relief please add index **.A1**, **.A2**, **.A3** or **.A4**.



For the C-profile option please add index **.C**.

Interior separation | Increase cable service life

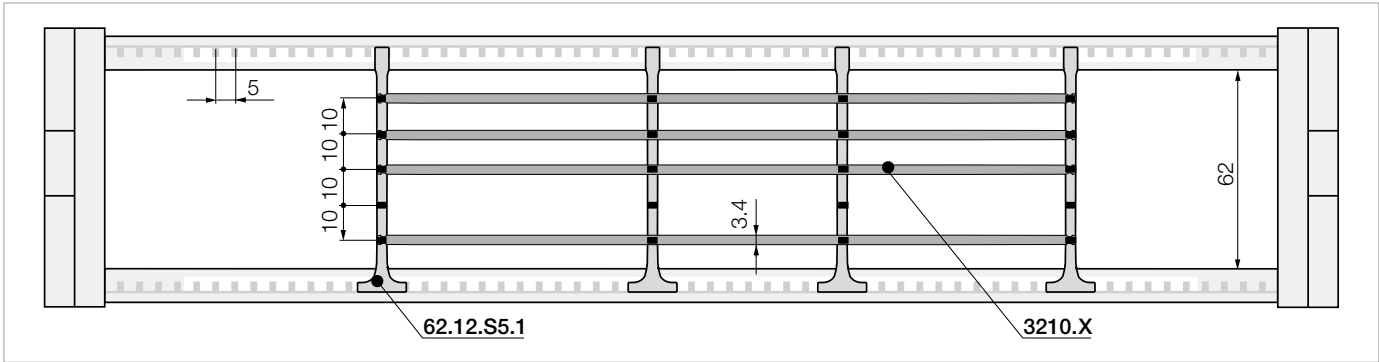


No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-chain® link!

		Part No. Standard separator unassembled 62.1 assembled 62.1.1	For all applications Standard separator with a wide base for maximum holding force.
		Part No. Separator, narrow top unassembled 62.2 assembled 62.2.1	For even faster installation Wide on one side for high holding force, narrow on opposite side for easy cable fitting.
		Part No. Notch separator* unassembled 62.5 assembled 62.5.1	Locks securely in preset increments Notch separator* for exact positioning. Recommended for side-mounted applications. *Suitable from Bi 75
		Part No. Shelf unassembled 3200.X assembled 3210.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	3200.050	3210.050	115	3200.115	3210.115	175	3200.175	3210.175	250	3200.250	3210.250
075	3200.075	3210.075	125	3200.125	3210.125	200	3200.200	3210.200			
100	3200.100	3210.100	150	3200.150	3210.150	225	3200.225	3210.225			

Interior separation | To allow faster filling



No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-chain® link!

		Part No. Lean separator¹⁾ unassembled 62.12.S5 assembled 62.12.S5.1	Lean separators¹⁾ Quick fitting of shelves in several layers. Enables extremely fast replacement of individual cables in very full e-chains®. Only suitable for e-chains®.
		Part No. Shelf unassembled 3200.X assembled 3210.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	3200.050	3210.050	115	3200.115	3210.115	175	3200.175	3210.175	250	3200.250	3210.250
075	3200.075	3210.075	125	3200.125	3210.125	200	3200.200	3210.200			
100	3200.100	3210.100	150	3200.150	3210.150	225	3200.225	3210.225			



Lean separator for even faster filling: quickly insert several layers of cables into the e-chain® and reduce the installation time by up to 50%. Measured on a 4m long e-chain® fitted with 12 cables. **1) Note: Please combine a maximum of four lean separators with one shelf. Not suitable for side-mounted e-chains®!**

Product range



e-chains® with crossbars every link	e-chains® with crossbars every 2nd link	e-tubes closed		Bi		Ba		14550	14650	R19050
				[mm]	[mm]	[mm]	[mm]	[kg/m]	[kg/m]	[kg/m]
14550.	14650.	-	05.	50	77	≈ 3.28	≈ 3.27	-		
14550.	14650.	-	055.	55	82	≈ 3.33	≈ 3.29	-		
14550.	14650.	-	06.	65	92	≈ 3.37	≈ 3.31	-		
14550.	14650.	19050.	07.	75	102	≈ 3.44	≈ 3.35	≈ 4.00		
14550.	14650.	-	08.	87	114	≈ 3.52	≈ 3.38	-		
14550.	14650.	19050.	10.	100	127	≈ 3.61	≈ 3.43	≈ 4.33		
14550.	14650.	-	11.	112	139	≈ 3.73	≈ 3.49	-		
14550.	14650.	19050.	12.	125	152	≈ 3.81	≈ 3.53	≈ 4.70		
14550.	14650.	-	13.	137	164	≈ 3.94	≈ 3.60	-		
14550.	14650.	19050.	15.	150	177	≈ 3.98	≈ 3.62	≈ 5.04		
14550.	14650.	-	16.	162	189	≈ 4.09	≈ 3.67	-		
14550.	14650.	-	169.	169	197	≈ 4.18	≈ 3.71	-		
14550.	14650.	19050.	17.	175	202	≈ 4.23	≈ 3.74	≈ 5.41		
14550.	14650.	-	182.	182	210	≈ 4.27	≈ 3.76	-		
14550.	14650.	-	18.	187	214	≈ 4.34	≈ 3.80	-		
14550.	14650.	19050.	20.	200	227	≈ 4.39	≈ 3.82	≈ 5.64		
14550.	14650.	-	207.	207	235	≈ 4.44	≈ 3.84	-		
14550.	14650.	-	21.	212	239	≈ 4.46	≈ 3.86	-		
14550.	14650.	-	22.	225	252	≈ 4.53	≈ 3.89	-		
14550.	14650.	-	23.	237	264	≈ 4.64	≈ 3.95	-		
14550.	14650.	19050.	25.	250	277	≈ 4.76	≈ 4.00	≈ 6.32		
14550.	14650.	-	26.	262	289	≈ 4.85	≈ 4.05	-		
14550.	14650.	19050.	27.	275	302	≈ 4.95	≈ 4.10	≈ 6.65		

e-chains® with crossbars every link	e-chains® with crossbars every 2nd link	e-tubes closed		Bi		Ba		14550	14650	R19050
				[mm]	[mm]	[mm]	[mm]	[kg/m]	[kg/m]	[kg/m]
14550.	14650.	-	28.	287	314	≈ 5.01	≈ 4.13	-		
14550.	14650.	19050.	30.	300	327	≈ 5.16	≈ 4.21	≈ 6.99		
14550.	14650.	-	31.	312	339	≈ 5.20	≈ 4.23	-		
14550.	14650.	-	32.	325	352	≈ 5.30	≈ 4.28	-		
14550.	14650.	-	33.	337	364	≈ 5.42	≈ 4.34	-		
14550.	14650.	19050.	35.	350	377	≈ 5.62	≈ 4.44	≈ 7.68		
14550.	14650.	-	36.	362	389	≈ 5.53	≈ 4.39	-		
14550.	14650.	-	37.	375	402	≈ 5.63	≈ 4.44	-		
14550.	14650.	-	38.	387	414	≈ 5.74	≈ 4.50	-		
14550.	14650.	19050.	40.	400	427	≈ 6.01	≈ 4.63	≈ 8.36		
14550.	14650.	-	41.	412	439	≈ 5.94	≈ 4.60	-		
14550.	14650.	-	42.	425	452	≈ 6.23	≈ 4.74	-		
14550.	14650.	-	43.	437	464	≈ 6.07	≈ 4.66	-		
14550.	14650.	-	45.	450	477	≈ 6.40	≈ 4.83	-		
14550.	14650.	19050.	46.	462	489	≈ 6.35	≈ 4.80	≈ 9.21		
14550.	14650.	-	47.	475	502	≈ 6.39	≈ 4.82	-		
14550.	14650.	-	48.	487	514	≈ 6.64	≈ 4.95	-		
14550.	14650.	-	50.	500	527	≈ 6.74	≈ 5.00	-		
14550.	14650.	-	51.	512	539	≈ 6.65	≈ 4.95	-		
14550.	14650.	-	52.	525	552	≈ 6.82	≈ 5.04	-		
14550.	14650.	-	53.	537	564	≈ 6.92	≈ 5.09	-		
14550.	14650.	-	55.	550	577	≈ 7.34	≈ 5.30	-		
14550.	14650.	-	60.	600	627	≈ 7.57	≈ 5.41	-		

Available bend radii *R* [mm] | 150* | 175* | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 |

* Radius not available for e-tubes.

Order key

14650.30.300.0

Series	Width index	Bend radius	Colour index
--------	-------------	-------------	--------------

Order example:

Complete Part No. with the required radius *R*. Example:

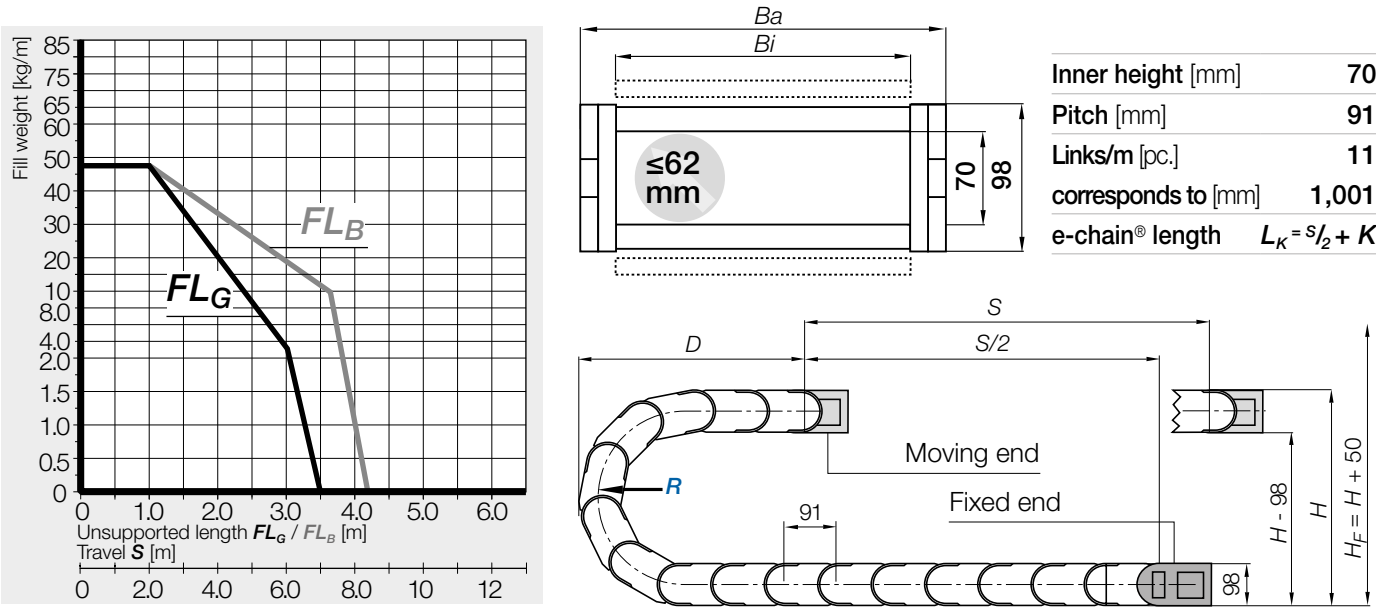
14550.30.300.0 = crossbars removable along the inner and outer radius

14650.30.300.0 = crossbars removable along the inner and outer radius

19050.30.300.0 = lids openable along the outer radius from one side

Order index for colour options ► www.igus.eu/info-colours

Unsupported applications | Short travels



<i>R</i>	150*	175*	200	250	300	350	400	450	500	600
<i>H</i>	398	448	498	598	698	798	898	998	1,098	1,298
<i>D</i>	336	361	386	436	486	536	586	636	686	786
<i>K</i>	655	735	815	970	1,125	1,285	1,440	1,600	1,755	2,070

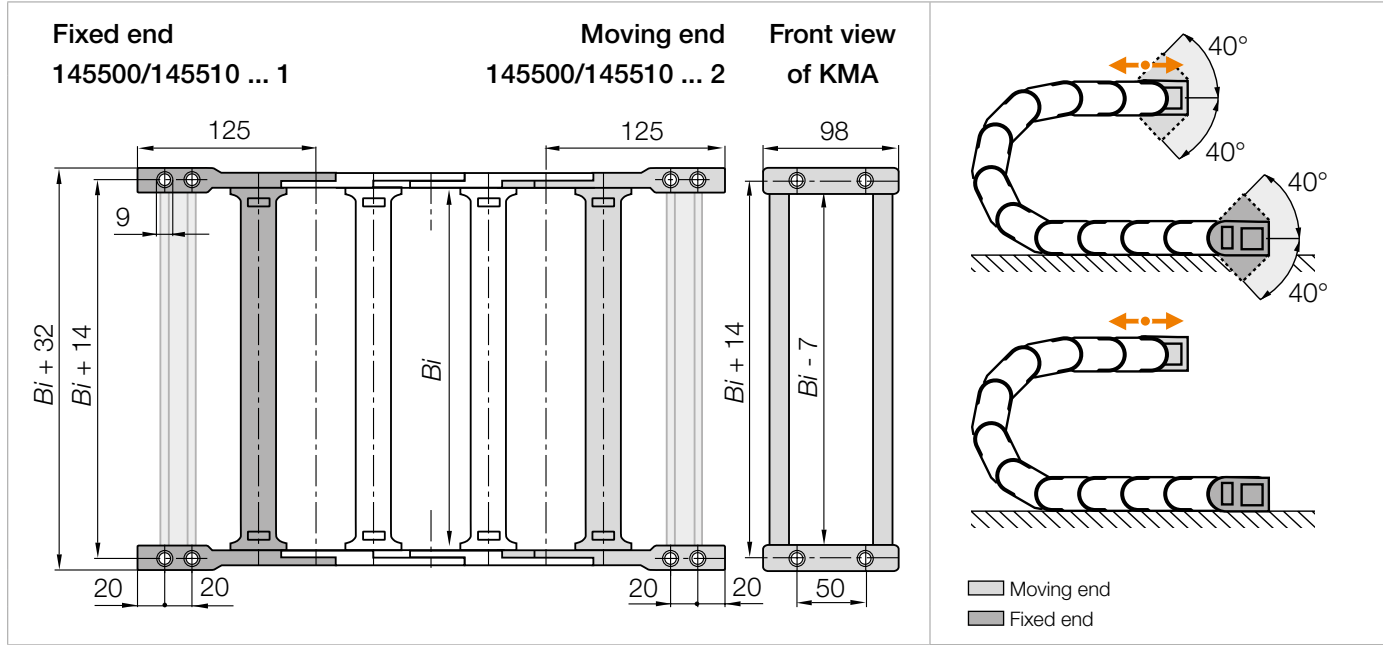
The required clearance height: $H_F = H + 50\text{mm}$ (with 2.5kg/m fill weight)

* Radius not available for e-tubes.

Note: If a gliding application is required for a long travel, please consult igus®.

Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting | Locking

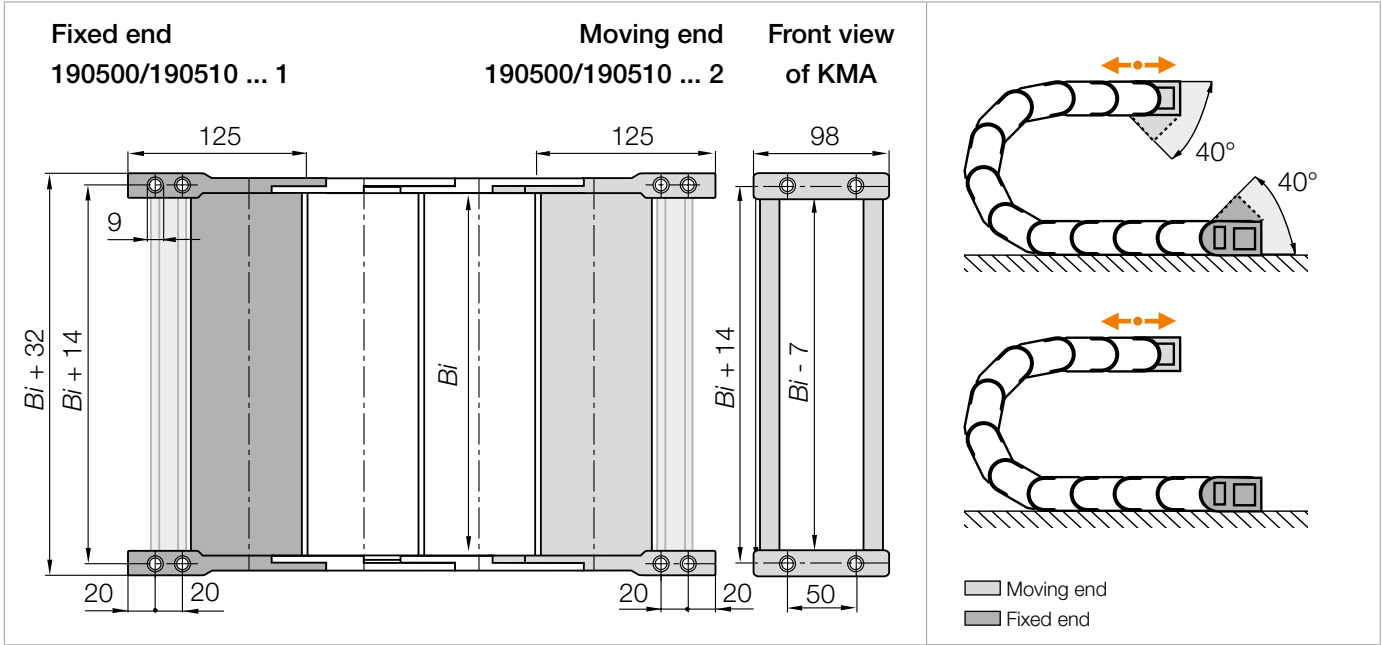


Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
05.	145500.05. 12.□	145510.05. 12.□	50
055.	145500.055.12.□	145510.055.12.□	55
06.	145500.06. 12.□	145510.06. 12.□	65
07.	145500.07. 12.□	145510.07. 12.□	75
08.	145500.08. 12.□	145510.08. 12.□	87
10.	145500.10. 12.□	145510.10. 12.□	100
11.	145500.11. 12.□	145510.11. 12.□	112
12.	145500.12. 12.□	145510.12. 12.□	125
13.	145500.13. 12.□	145510.13. 12.□	137
15.	145500.15. 12.□	145510.15. 12.□	150
16.	145500.16. 12.□	145510.16. 12.□	162
169.	145500.169.12.□	145510.169.12.□	169
17.	145500.17. 12.□	145510.17. 12.□	175
182.	145500.182.12.□	145510.182.12.□	182
18.	145500.18. 12.□	145510.18. 12.□	187
20.	145500.20. 12.□	145510.20. 12.□	200
207.	145500.207.12.□	145510.207.12.□	207
21.	145500.21. 12.□	145510.21. 12.□	212
22.	145500.22. 12.□	145510.22. 12.□	225
23.	145500.23. 12.□	145510.23. 12.□	237
25.	145500.25. 12.□	145510.25. 12.□	250
26.	145500.26. 12.□	145510.26. 12.□	262
27.	145500.27. 12.□	145510.27. 12.□	275

(KMA = polymer metal mounting bracket)

Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting | Locking



Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
07.	190500.07.12.□	190510.07.12.□	75
10.	190500.10.12.□	190510.10.12.□	100
12.	190500.12.12.□	190510.12.12.□	125
15.	190500.15.12.□	190510.15.12.□	150
17.	190500.17.12.□	190510.17.12.□	175
20.	190500.20.12.□	190510.20.12.□	200

(KMA = polymer metal mounting bracket)

Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
25.	190500.25.12.□	190510.25.12.□	250
27.	190500.27.12.□	190510.27.12.□	275
30.	190500.30.12.□	190510.30.12.□	300
35.	190500.35.12.□	190510.35.12.□	350
40.	190500.40.12.□	190510.40.12.□	400
46.	190500.46.12.□	190510.46.12.□	462

Order key

145500.30.12.C.A2

Series	Width index	Full set	C-profile option	Pre-fitted

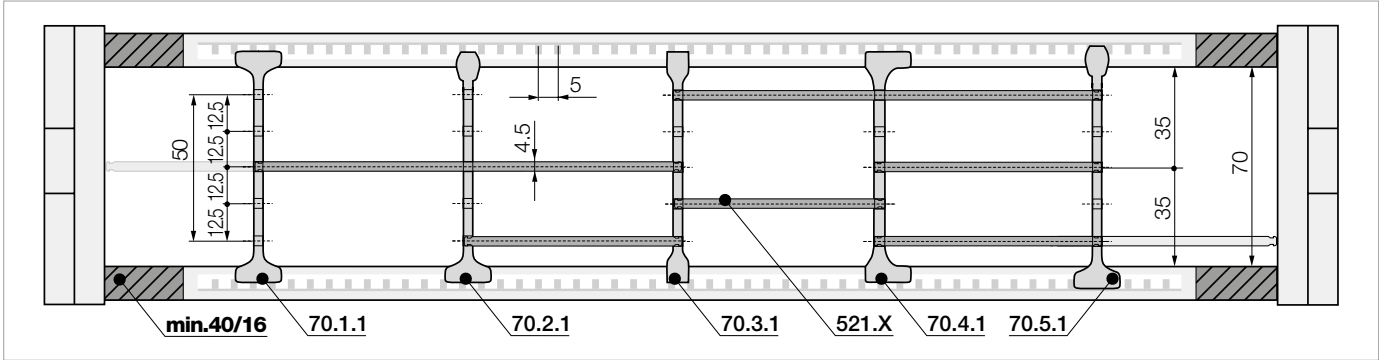
Note: Possible orientations for KMA mounting brackets. For mounting brackets pre-fitted without strain relief, please add index .A. For types pre-fitted with strain relief please add index .A1, .A2, .A3 or .A4.



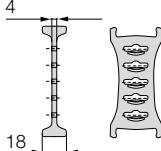
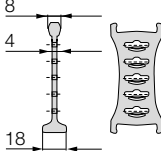
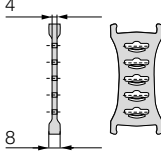
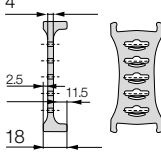
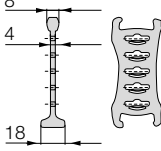
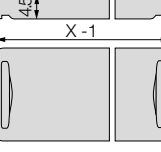
For the C-profile option please add index .C.

Available from stock
Upon request

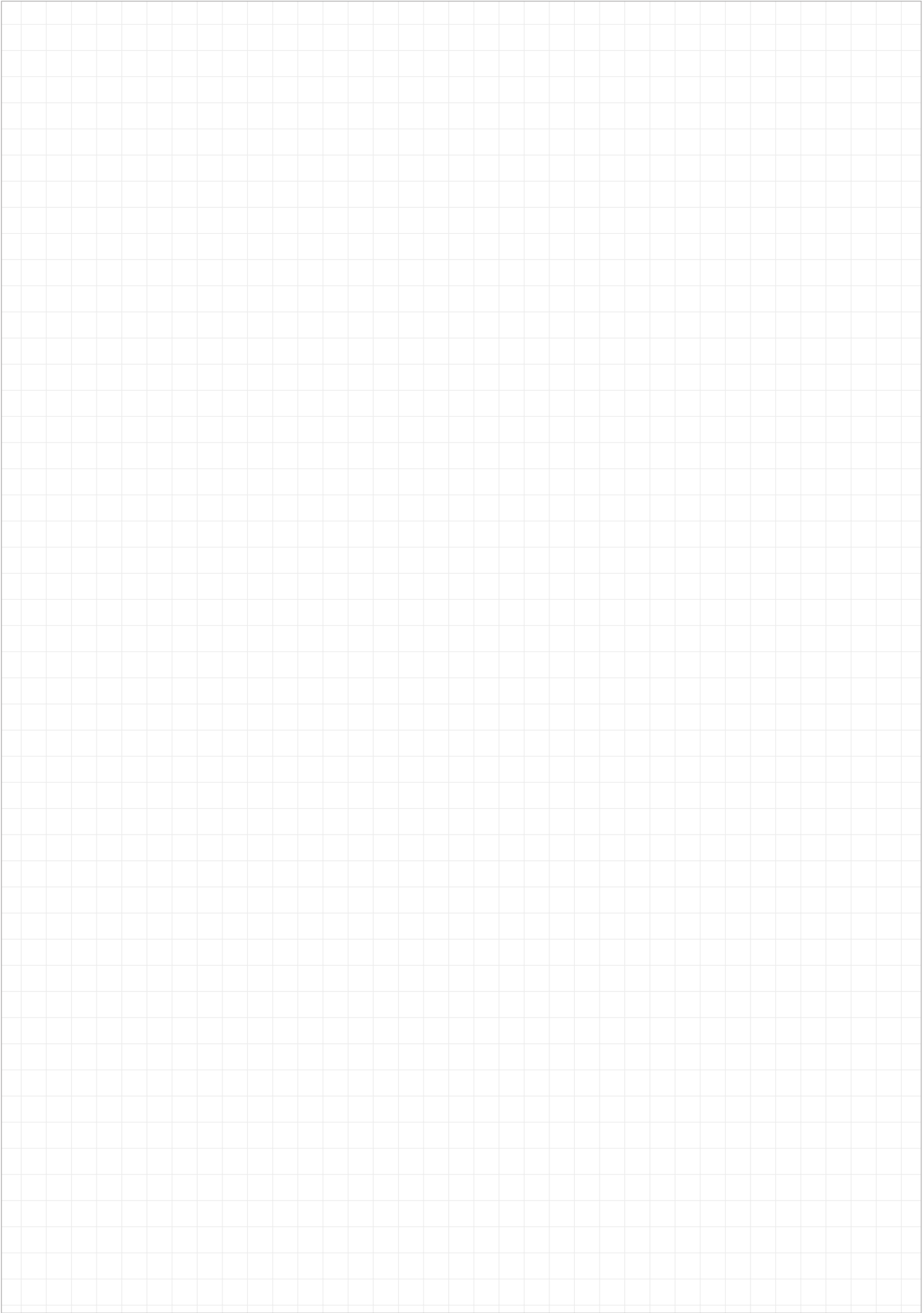
Interior separation | Increase cable service life



Note: Please be aware of the minimum lateral gap to the side links! **e-tube: 40mm** | **e-chain®: 16mm**
As standard separators are fitted every 2nd e-chain® link!

		Part No. Standard separator unassembled 70.1 assembled 70.1.1	For all applications Standard separator with a wide base for maximum holding force.
		Part No. Separator, narrow top unassembled 70.2 assembled 70.2.1	For even faster installation Wide on one side for high holding force, narrow on opposite side for easy cable fitting.
		Part No. Separator, narrow unassembled 70.3 assembled 70.3.1	For a large number of thin cables Separator with a narrow base for a large number of thin cables side by side. Saves space.
		Part No. Separator, asymmetrical unassembled 70.4 assembled 70.4.1	For side-mounted applications Asymmetrical separator, for defined gap distance. No additional spacers required.
		Part No. Notch separator unassembled 70.5 assembled 70.5.1	Locks securely in preset increments Notch separator for exact positioning. Recommended for side-mounted applications.
		Part No. Shelf unassembled 520.X assembled 521.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	520.050	521.050	125	520.125	521.125	225	520.225	521.225	375	520.375	521.375
065	520.065	521.065	150	520.150	521.150	250	520.250	521.250	387	520.387	521.387
075	520.075	521.075	175	520.175	521.175	300	520.300	521.300	450	520.450	521.450
100	520.100	521.100	200	520.200	521.200	350	520.350	521.350			



Product range



e-chains® with crossbars every link	e-chains® with crossbars every 2nd link	e-tubes closed		Bi	Ba	15050	15150	R19850
				[mm]	[mm]	[kg/m]	[kg/m]	[kg/m]
15050.	15150.	-	05.	50	80	≈ 3.85	≈ 3.84	-
15050.	15150.	-	055.	55	85	≈ 3.90	≈ 3.86	-
15050.	15150.	-	06.	65	95	≈ 3.95	≈ 3.88	-
15050.	15150.	19850.	07.	75	105	≈ 4.00	≈ 3.92	≈ 4.46
15050.	15150.	-	08.	87	117	≈ 4.05	≈ 3.96	-
15050.	15150.	19850.	10.	100	130	≈ 4.18	≈ 4.00	≈ 4.74
15050.	15150.	-	11.	112	143	≈ 4.31	≈ 4.07	-
15050.	15150.	19850.	12.	125	155	≈ 4.38	≈ 4.10	≈ 5.10
15050.	15150.	-	13.	137	168	≈ 4.51	≈ 4.17	-
15050.	15150.	19850.	15.	150	180	≈ 4.58	≈ 4.20	≈ 5.53
15050.	15150.	-	16.	162	193	≈ 4.69	≈ 4.26	-
15050.	15150.	-	169.	169	200	≈ 4.77	≈ 4.30	-
15050.	15150.	19850.	17.	175	205	≈ 4.80	≈ 4.31	≈ 5.88
15050.	15150.	-	182.	182	213	≈ 4.85	≈ 4.33	-
15050.	15150.	-	18.	187	218	≈ 4.91	≈ 4.37	-
15050.	15150.	19850.	20.	200	230	≈ 4.93	≈ 4.38	≈ 6.11
15050.	15150.	-	207.	207	238	≈ 4.99	≈ 4.41	-
15050.	15150.	-	21.	212	243	≈ 5.04	≈ 4.43	-
15050.	15150.	-	22.	225	255	≈ 5.10	≈ 4.47	-
15050.	15150.	-	23.	237	268	≈ 5.24	≈ 4.53	-
15050.	15150.	19850.	25.	250	280	≈ 5.32	≈ 4.58	≈ 6.83
15050.	15150.	-	26.	262	293	≈ 5.41	≈ 4.62	-
15050.	15150.	19850.	27.	275	305	≈ 5.52	≈ 4.68	≈ 7.26

e-chains® with crossbars every link	e-chains® with crossbars every 2nd link	e-tubes closed		Bi	Ba	15050	15150	R19850
				[mm]	[mm]	[kg/m]	[kg/m]	[kg/m]
15050.	15150.	-	28.	287	318	≈ 5.54	≈ 4.69	-
15050.	15150.	19850.	30.	300	330	≈ 5.76	≈ 4.80	≈ 7.49
15050.	15150.	-	31.	312	343	≈ 5.80	≈ 4.82	-
15050.	15150.	-	32.	325	355	≈ 5.85	≈ 4.84	-
15050.	15150.	-	33.	337	368	≈ 6.03	≈ 4.93	-
15050.	15150.	19850.	35.	350	380	≈ 6.18	≈ 5.01	≈ 8.24
15050.	15150.	-	36.	362	393	≈ 6.19	≈ 5.02	-
15050.	15150.	-	37.	375	405	≈ 6.20	≈ 5.02	-
15050.	15150.	-	38.	387	418	≈ 6.29	≈ 5.06	-
15050.	15150.	19850.	40.	400	430	≈ 6.49	≈ 5.16	≈ 9.20
15050.	15150.	-	41.	412	443	≈ 6.64	≈ 5.24	-
15050.	15150.	-	42.	425	455	≈ 6.80	≈ 5.31	-
15050.	15150.	-	43.	437	468	≈ 6.86	≈ 5.35	-
15050.	15150.	-	45.	450	480	≈ 6.93	≈ 5.38	-
15050.	15150.	19850.	46.	462	493	≈ 6.95	≈ 5.39	≈ 9.66
15050.	15150.	-	47.	475	505	≈ 7.08	≈ 5.46	-
15050.	15150.	-	48.	487	518	≈ 7.16	≈ 5.49	-
15050.	15150.	-	50.	500	530	≈ 7.22	≈ 5.52	-
15050.	15150.	-	51.	512	543	≈ 7.24	≈ 5.53	-
15050.	15150.	-	52.	525	555	≈ 7.28	≈ 5.56	-
15050.	15150.	-	53.	537	568	≈ 7.44	≈ 5.63	-
15050.	15150.	-	55.	550	580	≈ 7.92	≈ 5.87	-
15050.	15150.	-	60.	600	630	≈ 8.12	≈ 5.97	-

Available bend radii R [mm] | 150* | 200 | 250 | 300 | 350 | 400 | 500 | 600 |

* Radius not available for e-tubes.

 Order key
15050.15.200.0

Series	Width index	Bend radius	Colour index
--------	-------------	-------------	--------------

Order example:

Complete Part No. with the required radius R . Example:

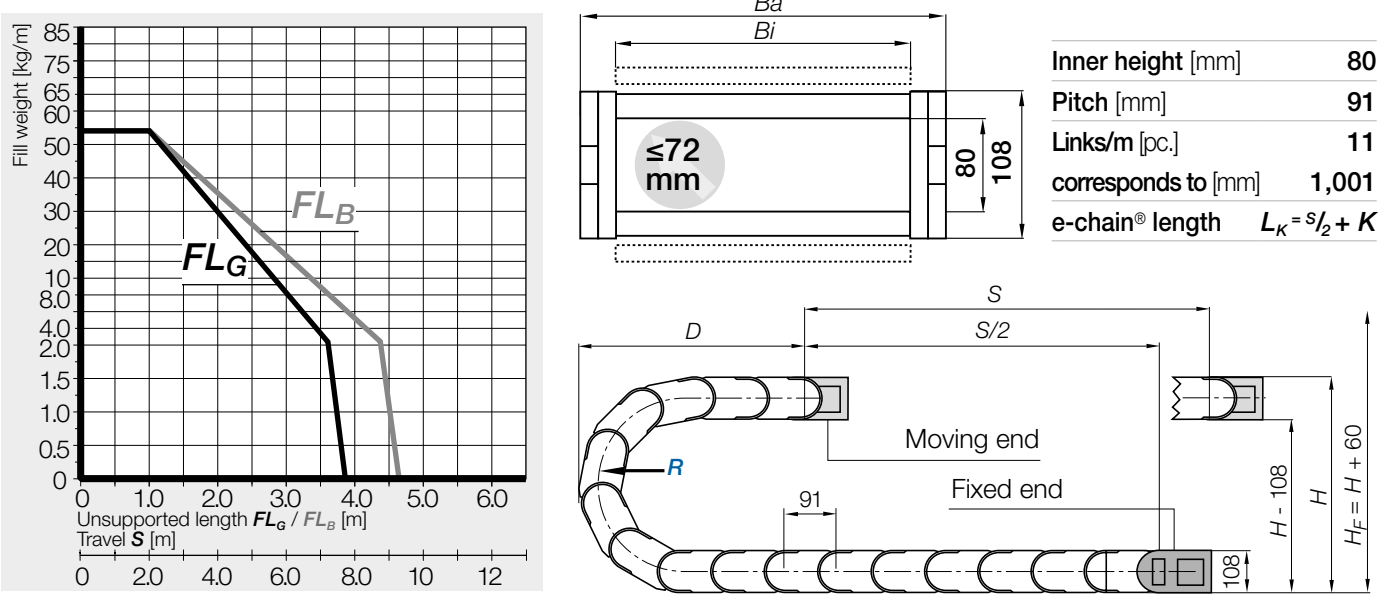
15050.15.200.0 = crossbars removable along the inner and outer radius

15150.15.200.0 = crossbars removable along the inner and outer radius

19850.15.200.0 = lids openable along the outer radius from one side

Order index for colour options ► www.igus.eu/info-colours

Unsupported applications | Short travels

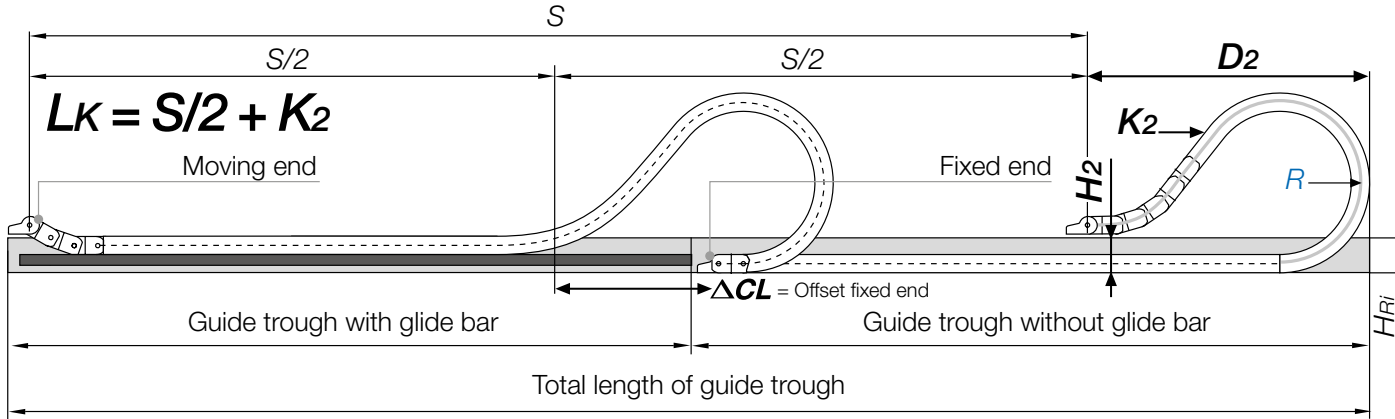


R	150*	200	250	300	350	400	500	600
H_{+25}^0	408	508	608	708	808	908	1,108	1.308
D	341	391	441	491	541	591	691	791
K	655	815	970	1,125	1,285	1,440	1.755	2,070

The required clearance height: $H_F = H + 60\text{mm}$ (with 3.0kg/m fill weight)

* Radius not available for e-tubes.

Gliding applications | For travel lengths from 12m to max. 250m



R	150*	200	250	300	350	400	500	600 ¹⁾
H_2	242	242	242	242	242	242	242	-
D_2^{+50}	550	800	950	1,200	1,550	1,700	2,175	-
K_2	910	1,274	1,638	2,002	2,457	2,730	3,458	-
ΔCL	209	409	509	709	1,009	1,109	1,484	-

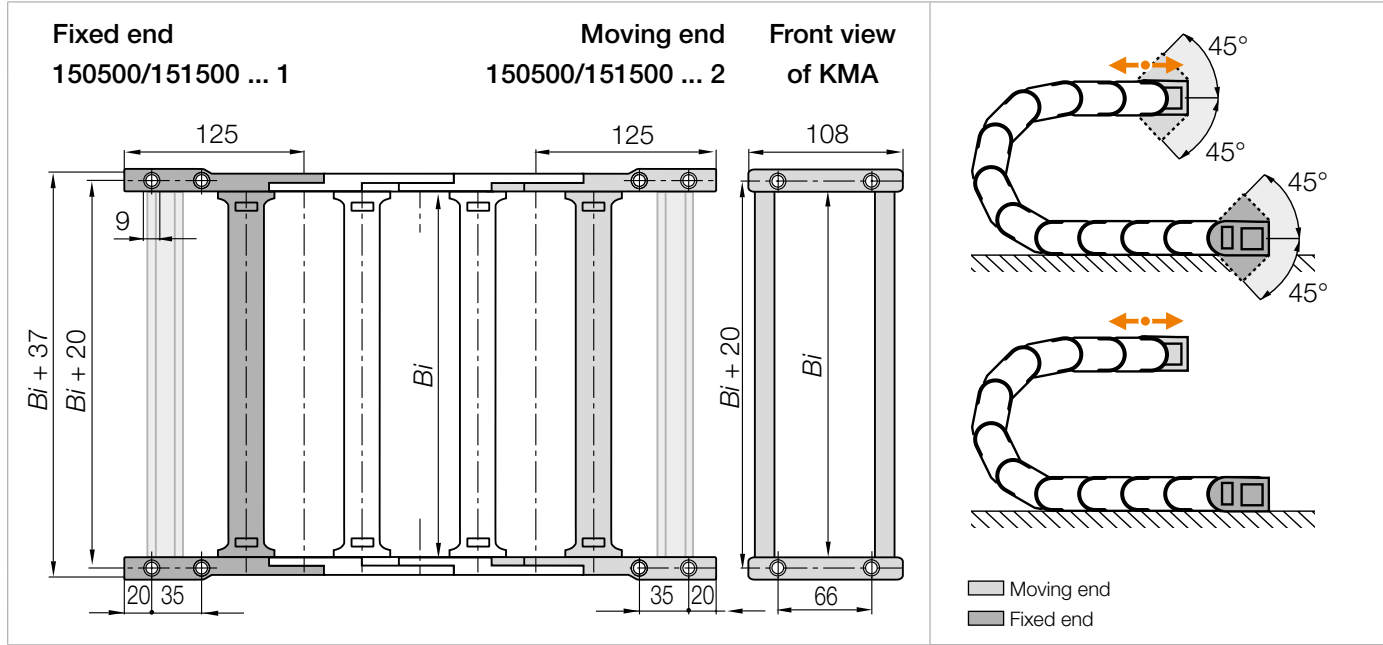
Note: In case of travels between 9 and 12m we recommend an e-chain® with a longer unsupported length.

*Radius not available for e-tubes.

1) Not suitable for long travel applications. Please consult igus®.

 Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting | Locking

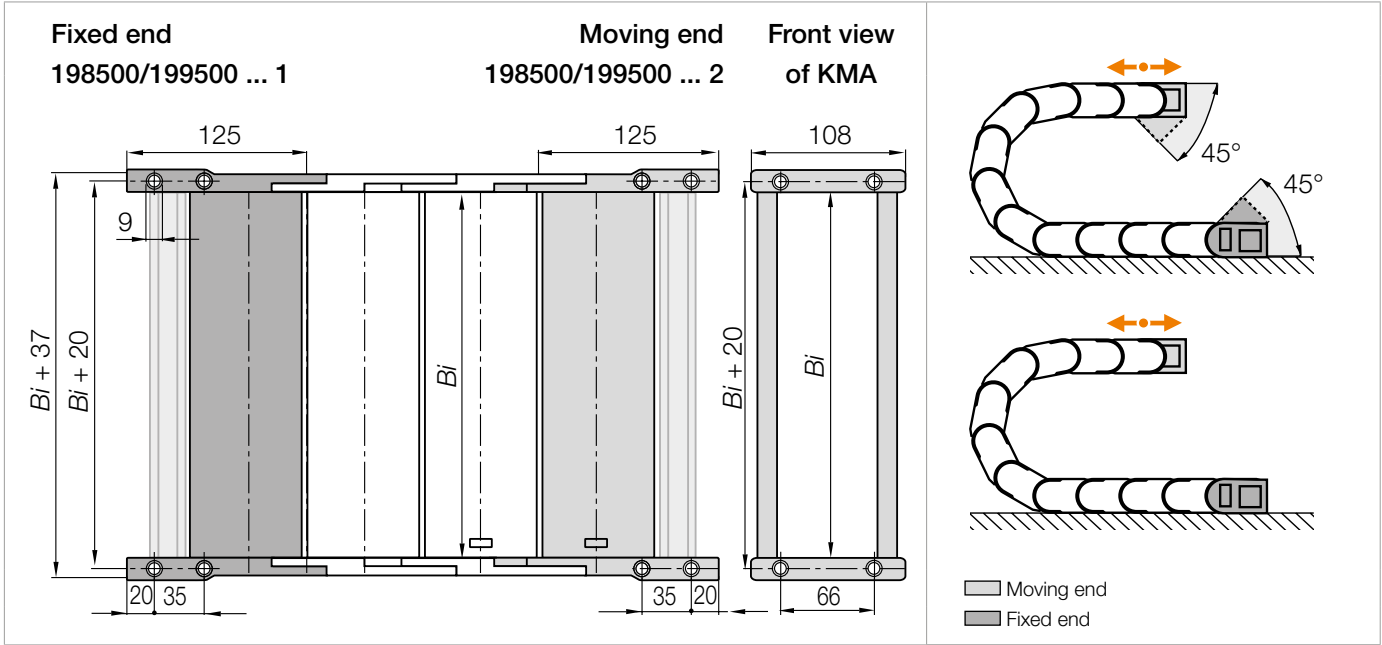


Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
05.	150500.05. 12.□	151500.05. 12.□	50
055.	150500.055.12.□	151500.055.12.□	55
06.	150500.06. 12.□	151500.06. 12.□	65
07.	150500.07. 12.□	151500.07. 12.□	75
08.	150500.08. 12.□	151500.08. 12.□	87
10.	150500.10. 12.□	151500.10. 12.□	100
11.	150500.11. 12.□	151500.11. 12.□	112
12.	150500.12. 12.□	151500.12. 12.□	125
13.	150500.13. 12.□	151500.13. 12.□	137
15.	150500.15. 12.□	151500.15. 12.□	150
16.	150500.16. 12.□	151500.16. 12.□	162
169.	150500.169.12.□	151500.169.12.□	169
17.	150500.17. 12.□	151500.17. 12.□	175
182.	150500.182.12.□	151500.182.12.□	182
18.	150500.18. 12.□	151500.18. 12.□	187
20.	150500.20. 12.□	151500.20. 12.□	200
207.	150500.207.12.□	151500.207.12.□	207
21.	150500.21. 12.□	151500.21. 12.□	212
22.	150500.22. 12.□	151500.22. 12.□	225
23.	150500.23. 12.□	151500.23. 12.□	237
25.	150500.25. 12.□	151500.25. 12.□	250
26.	150500.26. 12.□	151500.26. 12.□	262
27.	150500.27. 12.□	151500.27. 12.□	275

(KMA = polymer metal mounting bracket)

Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting | Locking



Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
07.	198500.07.12.□	199500.07.12.□	75
10.	198500.10.12.□	199500.10.12.□	100
12.	198500.12.12.□	199500.12.12.□	125
15.	198500.15.12.□	199500.15.12.□	150
17.	198500.17.12.□	199500.17.12.□	175
20.	198500.20.12.□	199500.20.12.□	200

(KMA = polymer metal mounting bracket)

Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
25.	198500.25.12.□	199500.25.12.□	250
27.	198500.27.12.□	199500.27.12.□	275
30.	198500.30.12.□	199500.30.12.□	300
35.	198500.35.12.□	199500.35.12.□	350
40.	198500.40.12.□	199500.40.12.□	400
46.	198500.46.12.□	199500.46.12.□	462

Order key

150500.30.12. **C.A2**

Series	Width index	Full set	C-profile option	Pre-fitted

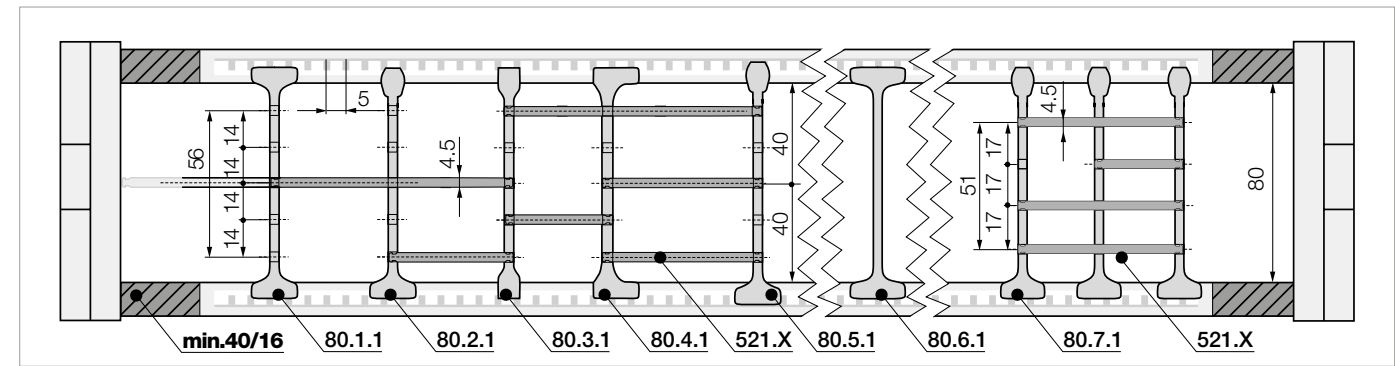
Note: Possible orientations for KMA mounting brackets. For mounting brackets pre-fitted **without strain relief**, please add index **.A**. For types pre-fitted **with strain relief** please add index **.A1**, **.A2**, **.A3** or **.A4**.



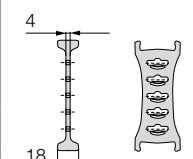
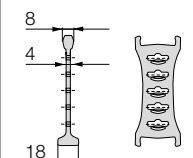
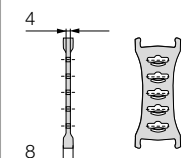
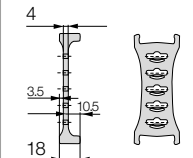
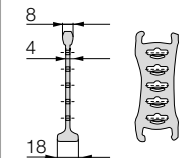
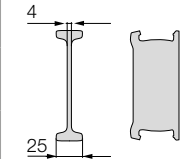
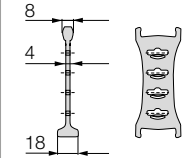
For the C-profile option please add index **.C**.

Available from stock
Upon request

Interior separation | Increase cable service life

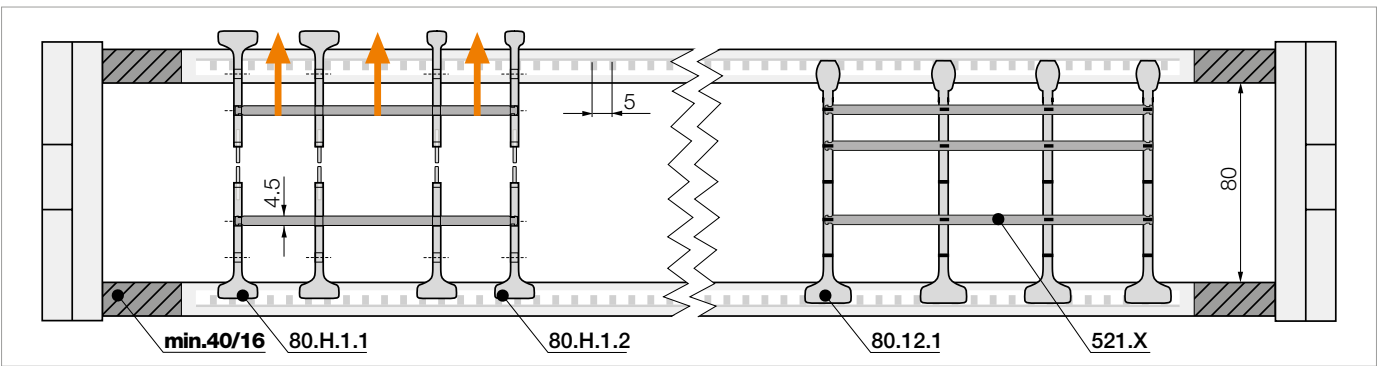


 **Note:** Please be aware of the minimum lateral gap to the side links! **e-tube: 40mm** | **e-chain®: 16mm**
As standard separators are fitted every 2nd e-chain® link!

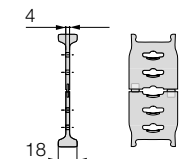
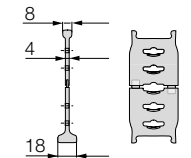
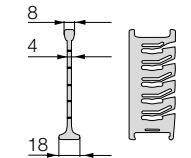
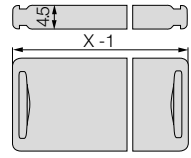
 	Part No. Standard separator unassembled 80.1 assembled 80.1.1	For all applications Standard separator with a wide base for maximum holding force.
 	Part No. Separator, narrow top unassembled 80.2 assembled 80.2.1	For even faster installation Wide on one side for high holding force, narrow on opposite side for easy cable fitting.
 	Part No. Separator, narrow unassembled 80.3 assembled 80.3.1	For a large number of thin cables Separator with a narrow base for a large number of thin cables side by side. Saves space.
 	Part No. Separator, asymmetrical unassembled 80.4 assembled 80.4.1	For side-mounted applications Asymmetrical separator, for defined gap distance. No additional spacers required.
 	Part No. Notch separator unassembled 80.5 assembled 80.5.1	Locks securely in preset increments Notch separator for exact positioning. Recommended for side-mounted applications.
 	Part No. Notch locking separator* unassembled 80.6 assembled 80.6.1	Notch locking separator for increased holding force For higher crossbar opening forces for high humidity and/or large hydraulic hoses. They can be positioned precisely and then locked in position.
 	Part No. Separator, one end locking unassembled 80.7 assembled 80.7.1	Separator, one end locking Offset slots for more variability in horizontal subdivisions.

*Only suitable for e-chains®

Interior separation | To allow faster filling



 **Note:** Please be aware of the minimum lateral gap to the side links! **e-tube: 40mm** | **e-chain®: 16mm**
As standard separators are fitted every 2nd e-chain® link!

 	Part No. Split separator, wide top unassembled 80.H.1 assembled 80.H.1.1	Split separators In order to fill e-chains® more easily and effectively, these separators can be split in the middle. This allows easier access to middle shelf partitions. Fast assembly and easy retrofit. 2 types available: with wide or narrow top.
 	Part No. Split separator, narrow top unassembled 80.H.2 assembled 80.H.2.1	
 	Part No. Lean separator unassembled 80.12 assembled 80.12.1	Lean separators¹⁾ Quick fitting of shelves in several layers. Enables extremely fast replacement of individual cables in very full e-chains®. Only suitable for e-chains®.
 	Part No. Shelf unassembled 520.X assembled 521.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	520.050	521.050	125	520.125	521.125	225	520.225	521.225	375	520.375	521.375
065	520.065	521.065	150	520.150	521.150	250	520.250	521.250	387	520.387	521.387
075	520.075	521.075	175	520.175	521.175	300	520.300	521.300	450	520.450	521.450
100	520.100	521.100	200	520.200	521.200	350	520.350	521.350			



Lean separator for even faster filling: quickly insert several layers of cables into the e-chain® and reduce the installation time by up to 50%. Measured on a 4m long e-chain® fitted with 12 cables. **1) Note:** Please combine a maximum of four lean separators with one shelf. Not suitable for side-mounted e-chains®!

 **Available from stock**
Upon request

Product range



Part No. e-chains® with crossbars every link	Part No. e-chains® with crossbars every 2nd link	<i>Bi</i> [mm]	<i>Ba</i> [mm]	15250 [kg/m]	15350 [kg/m]
15250. 05.□.0	15350. 05.□.0	50	80	≈ 3.64	≈ 3.56
15250. 06.□.0	15350. 06.□.0	68	98	≈ 3.72	≈ 3.60
15250. 07.□.0	15350. 07.□.0	75	105	≈ 3.74	≈ 3.61
15250.087.□.0	15350.087.□.0	87	117	≈ 3.79	≈ 3.63
15250.097.□.0	15350.097.□.0	97	127	≈ 3.83	≈ 3.65
15250. 10.□.0	15350. 10.□.0	100	130	≈ 3.85	≈ 3.66
15250. 11.□.0	15350. 11.□.0	108	138	≈ 3.87	≈ 3.67
15250.112.□.0	15350.112.□.0	112	143	≈ 3.88	≈ 3.68
15250. 12.□.0	15350. 12.□.0	125	155	≈ 3.95	≈ 3.71
15250.137.□.0	15350.137.□.0	137	167	≈ 3.98	≈ 3.73
15250. 15.□.0	15350. 15.□.0	150	180	≈ 4.04	≈ 3.75
15250.162.□.0	15350.162.□.0	162	193	≈ 4.06	≈ 3.76
15250. 17.□.0	15350. 17.□.0	168	198	≈ 4.11	≈ 3.79
15250. 18.□.0	15350. 18.□.0	175	205	≈ 4.12	≈ 3.80
15250.187.□.0	15350.187.□.0	187	218	≈ 4.15	≈ 3.81
15250. 20.□.0	15350. 20.□.0	200	230	≈ 4.23	≈ 3.85

Part No. e-chains® with crossbars every link	Part No. e-chains® with crossbars every 2nd link	<i>Bi</i> [mm]	<i>Ba</i> [mm]	15250 [kg/m]	15350 [kg/m]
15250.212.□.0	15350.212.□.0	212	243	≈ 4.26	≈ 3.86
15250. 23.□.0	15350. 23.□.0	225	255	≈ 4.32	≈ 3.89
15250.237.□.0	15350.237.□.0	237	268	≈ 4.34	≈ 3.90
15250. 25.□.0	15350. 25.□.0	250	280	≈ 4.42	≈ 3.94
15250.262.□.0	15350.262.□.0	262	293	≈ 4.47	≈ 3.97
15250. 28.□.0	15350. 28.□.0	275	305	≈ 4.51	≈ 3.99
15250. 29.□.0	15350. 29.□.0	287	318	≈ 4.53	≈ 4.00
15250. 30.□.0	15350. 30.□.0	300	330	≈ 4.61	≈ 4.04
15250.312.□.0	15350.312.□.0	312	343	≈ 4.63	≈ 4.05
15250.325.□.0	15350.325.□.0	325	355	≈ 4.69	≈ 4.08
15250.337.□.0	15350.337.□.0	337	368	≈ 4.73	≈ 4.10
15250.350.□.0	15350.350.□.0	350	380	≈ 4.87	≈ 4.17
15250.362.□.0	15350.362.□.0	362	393	≈ 4.92	≈ 4.20
15250.375.□.0	15350.375.□.0	375	405	≈ 4.97	≈ 4.22
15250.387.□.0	15350.387.□.0	387	418	≈ 5.01	≈ 4.24
15250.400.□.0	15350.400.□.0	400	430	≈ 5.05	≈ 4.26

Available bend radii *R* [mm] | 150 | 200 | 250 | 300 | 350 | 400 | 500 | 600 |

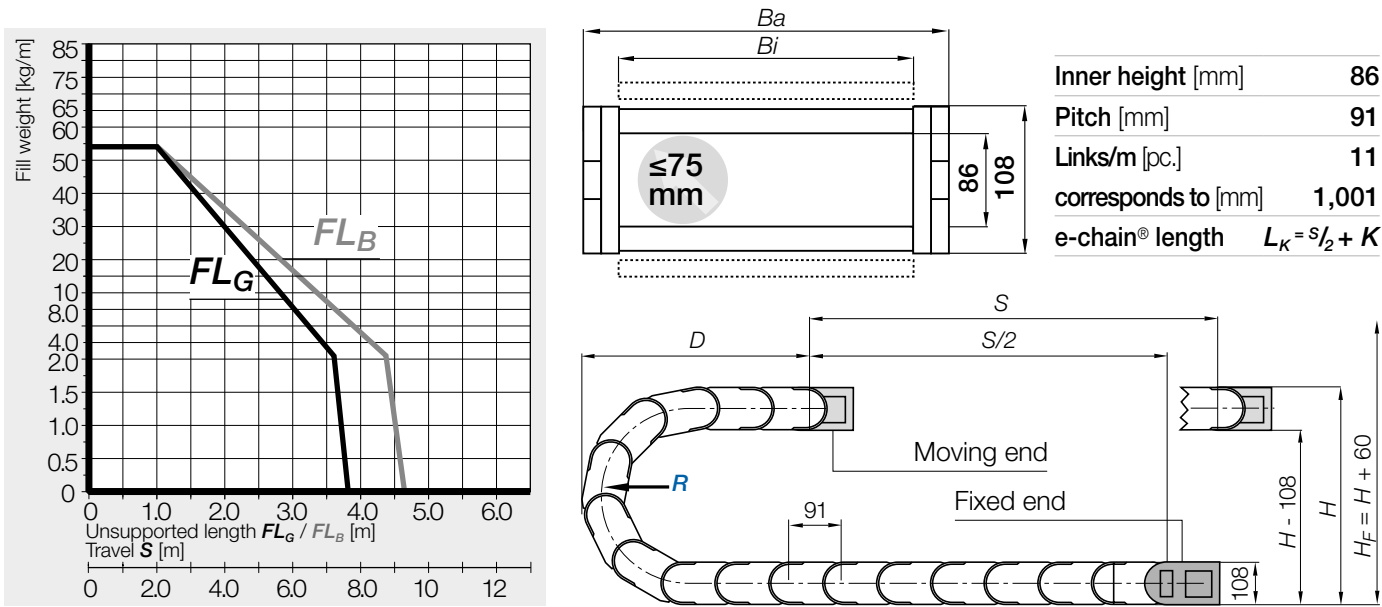
 **Order key**
15350.20.300.0

Series	Width index	Bend radius	Colour index

Order example:
Complete Part No. with the required radius *R*. Example:
15250.20.300.0 = crossbars removable along the inner and outer radius
15350.20.300.0 = crossbars removable along the inner and outer radius
Order index for colour options ► www.igus.eu/info-colours

 Available from stock
Upon request

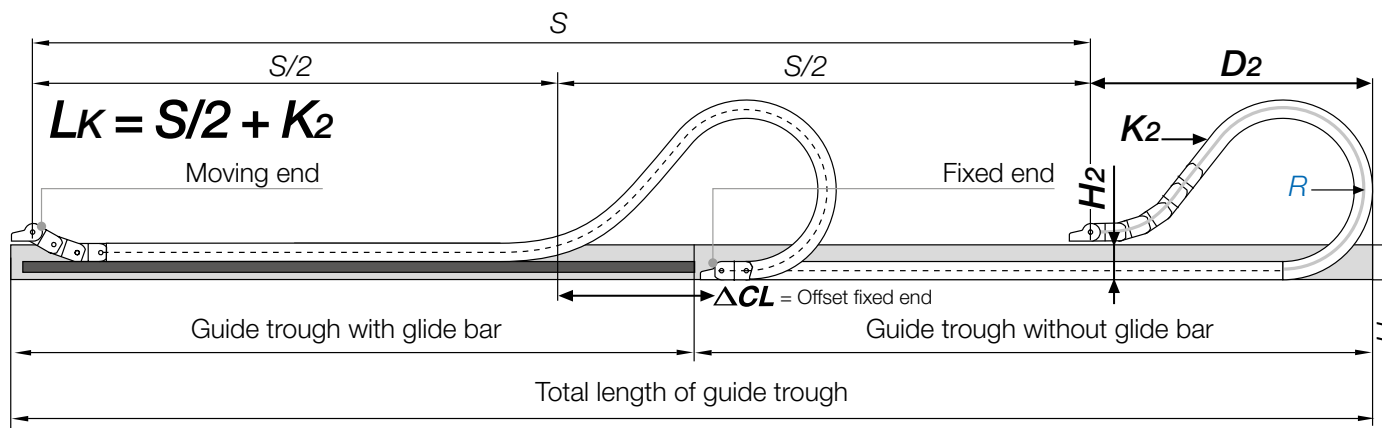
Unsupported applications | Short travels



<i>R</i>	150	200	250	300	350	400	500	600
H_{+25}^0	408	508	608	708	808	908	1,108	1.308
<i>D</i>	341	391	441	491	541	591	691	791
<i>K</i>	655	815	970	1,125	1,285	1,440	1.755	2,070

The required clearance height: $H_F = H + 60\text{mm}$ (with 3.0kg/m fill weight)

Gliding applications | For travel lengths from 12m to max. 250m



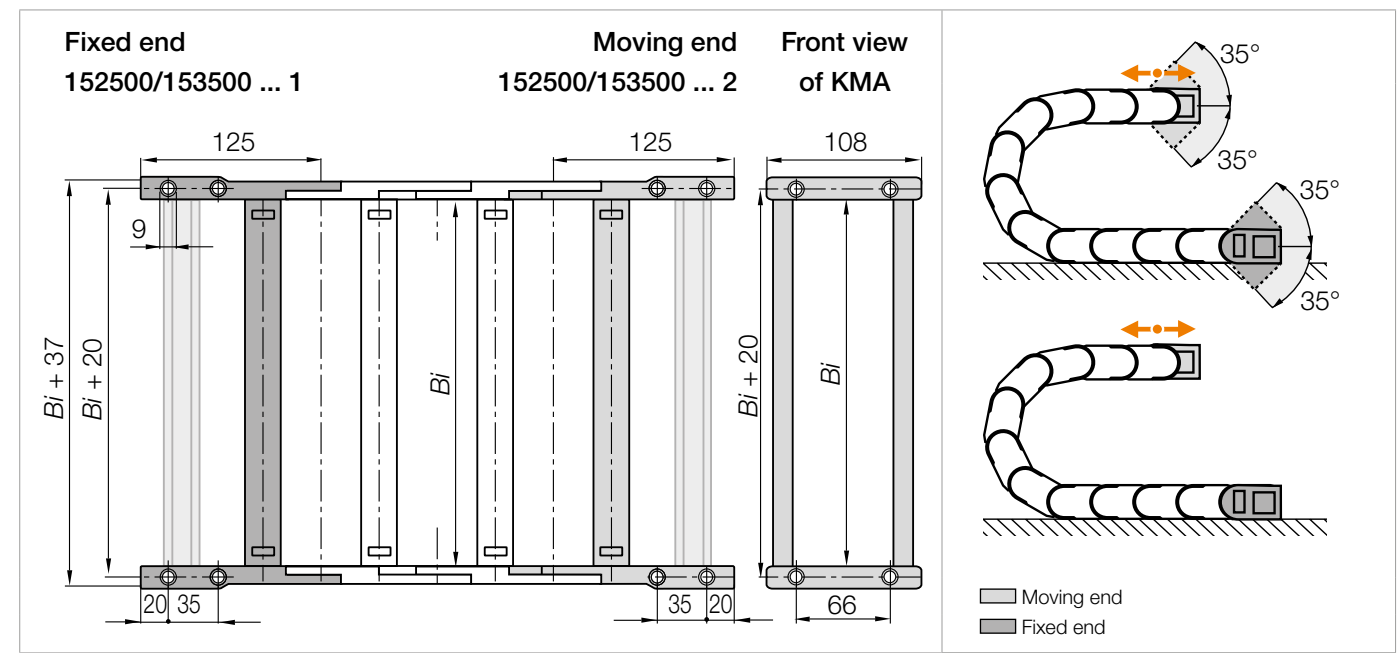
<i>R</i>	150	200	250	300	350	400	500	600 ¹⁾
H_2	242	242	242	242	242	242	242	–
D_2^{+50}	550	800	950	1,200	1,550	1,700	2,175	–
K_2	910	1,274	1,638	2,002	2,457	2,730	3,458	–
ΔCL	209	409	509	709	1,009	1,109	1,339	–

Note: In case of travels between 9 and 12m we recommend an e-chain® with a longer unsupported length.

1) Not suitable for long travel applications. Please consult igus®.

 Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting | Locking



Width index	KMA full set		
	Part No. pivoting	Part No. locking	Bi [mm]
05.	152500.05. 12.□	153500.05. 12.□	50
06.	152500.06. 12.□	153500.06. 12.□	68
07.	152500.07. 12.□	153500.07. 12.□	75
087.	152500.087.12.□	153500.087.12.□	87
097.	152500.097.12.□	153500.097.12.□	97
10.	152500.10. 12.□	153500.10. 12.□	100
11.	152500.11. 12.□	153500.11. 12.□	108
112.	152500.112.12.□	153500.112.12.□	112
12.	152500.12. 12.□	153500.12. 12.□	125
137.	152500.137.12.□	153500.137.12.□	137
15.	152500.15. 12.□	153500.15. 12.□	150
162.	152500.162.12.□	153500.162.12.□	162
17.	152500.17. 12.□	153500.17. 12.□	168
18.	152500.18. 12.□	153500.18. 12.□	175
187.	152500.187.12.□	153500.187.12.□	187
20.	152500.20. 12.□	153500.20. 12.□	200

(KMA = polymer metal mounting bracket)

Order key

152500.20.12.C.A2

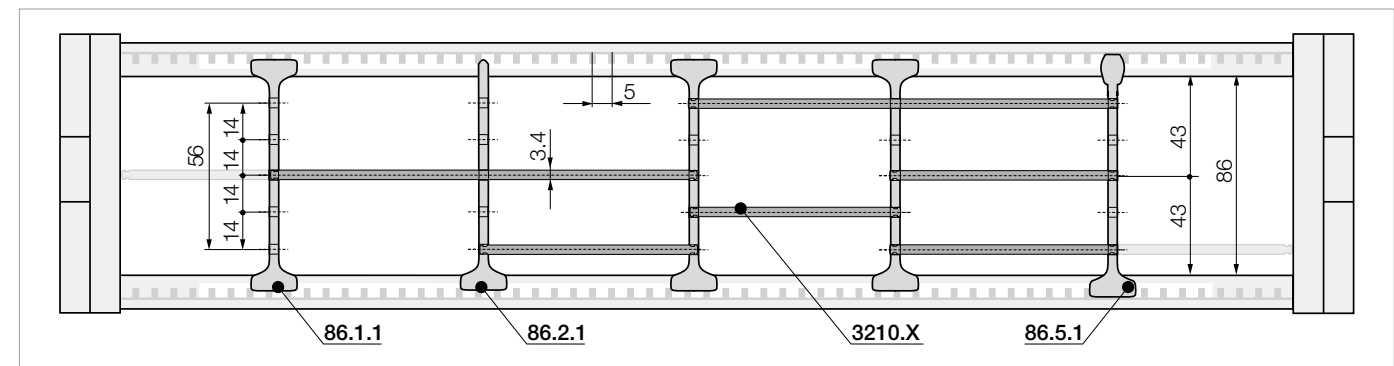
Series	Width index	Full set	C-profile option	Pre-fitted

Note: Possible orientations for KMA mounting brackets. For mounting brackets pre-fitted without strain relief, please add index **.A**. For types pre-fitted with strain relief please add index **.A1**, **.A2**, **.A3** or **.A4**.



For the C-profile option please add index **.C**.

Interior separation | Increase cable service life

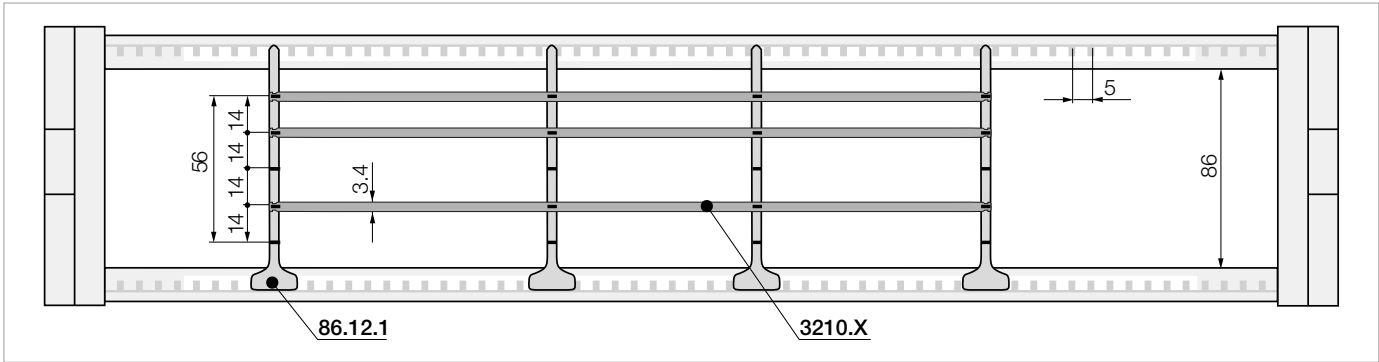


No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-chain® link!

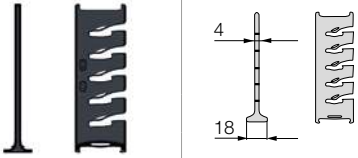
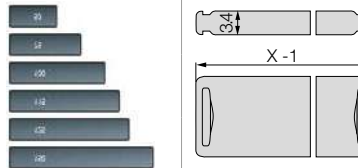
		Part No. Standard separator unassembled 86.1 assembled 86.1.1	For all applications Standard separator with a wide base for maximum holding force.
		Part No. Separator, narrow top unassembled 86.2 assembled 86.2.1	For even faster installation Wide on one side for high holding force, narrow on opposite side for easy cable fitting.
		Part No. Notch separator* unassembled 86.5 assembled 86.5.1	Locks securely in preset increments Notch separator* for exact positioning. Recommended for side-mounted applications. *Suitable from Bi 75
		Part No. Shelf unassembled 3200.X assembled 3210.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	3200.050	3210.050	115	3200.115	3210.115	175	3200.175	3210.175	250	3200.250	3210.250
075	3200.075	3210.075	125	3200.125	3210.125	200	3200.200	3210.200			
100	3200.100	3210.100	150	3200.150	3210.150	225	3200.225	3210.225			

Interior separation | To allow faster filling



No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-chain® link!

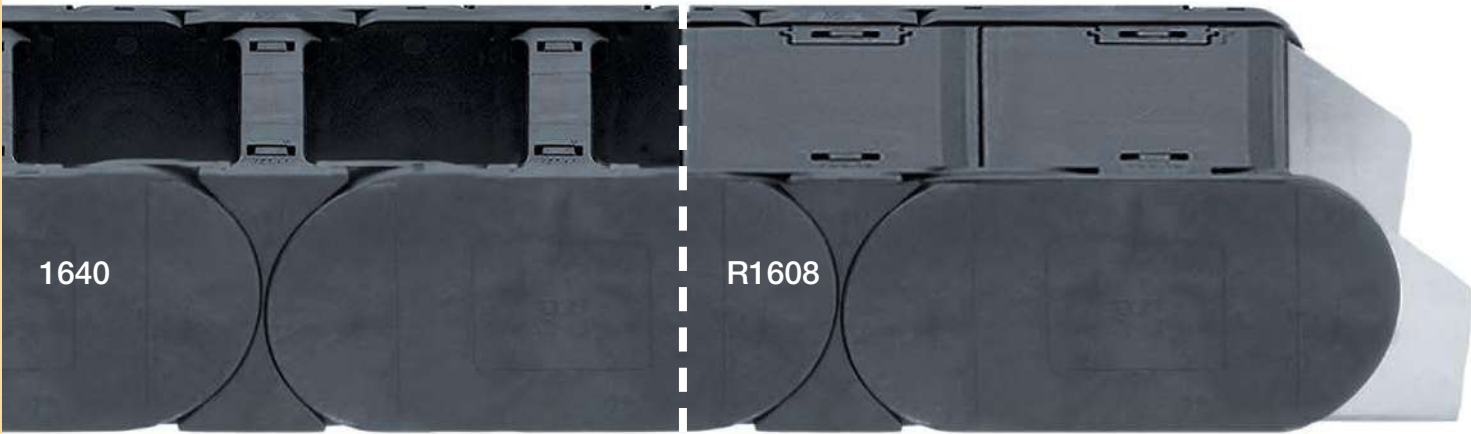
	Part No. Lean separator¹⁾ unassembled 86.12 assembled 86.12.1	Lean separators¹⁾ Quick fitting of shelves in several layers. Enables extremely fast replacement of individual cables in very full e-chains®. Only suitable for e-chains®.
	Part No. Shelf unassembled 3200.X assembled 3210.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width	Part No.	Part No.	Width	Part No.	Part No.	Width	Part No.	Part No.	Width	Part No.	Part No.
[mm]	unassembled	assembled	[mm]	unassembled	assembled	[mm]	unassembled	assembled	[mm]	unassembled	assembled
050	3200.050	3210.050	115	3200.115	3210.115	175	3200.175	3210.175	250	3200.250	3210.250
075	3200.075	3210.075	125	3200.125	3210.125	200	3200.200	3210.200			
100	3200.100	3210.100	150	3200.150	3210.150	225	3200.225	3210.225			



Lean separator for even faster filling: quickly insert several layers of cables into the e-chain® and reduce the installation time by up to 50%. Measured on a 4m long e-chain® fitted with 12 cables. **1) Note: Please combine a maximum of four lean separators with one shelf. Not suitable for side-mounted e-chains®!**

Product range



Part No. e-chains® with crossbars every link	Part No. e-tubes closed	Bi [mm]	Ba [mm]	1640 [kg/m]	R1608 [kg/m]
1640. 05.□.0	–	50	84	≈ 5.10	–
1640. 055.□.0	–	55	89	≈ 5.14	–
1640. 06.□.0	–	65	99	≈ 5.18	–
1640. 07.□.0	–	75	109	≈ 5.27	–
1640. 08.□.0	–	87	121	≈ 5.31	–
1640. 10.□.0	–	100	134	≈ 5.36	–
1640. 11.□.0	–	112	146	≈ 5.45	–
1640. 12.□.0	–	125	159	≈ 5.54	–
1640. 13.□.0	–	137	171	≈ 5.63	–
1640. 15.□.0	–	150	184	≈ 5.67	–
1640. 16.□.0	–	162	196	≈ 5.74	–
1640. 169.□.0	–	169	204	≈ 5.82	–
1640. 17.□.0	–	175	209	≈ 5.81	–
1640. 182.□.0	–	182	217	≈ 5.85	–
1640. 18.□.0	–	187	221	≈ 5.88	–
1640. 20.□.0	1608.20.□.0	200	234	≈ 5.89	≈ 7.69
1640. 207.□.0	–	207	242	≈ 5.95	–
1640. 21.□.0	–	212	246	≈ 5.96	–
1640. 22.□.0	–	225	259	≈ 6.01	–
1640. 23.□.0	–	237	271	≈ 6.09	–
1640. 25.□.0	1608.25.□.0	250	284	≈ 6.15	≈ 8.39
1640. 26.□.0	–	262	296	≈ 6.20	–
1640. 27.□.0	–	275	309	≈ 6.27	–

Part No. e-chains® with crossbars every link	Part No. e-tubes closed	Bi [mm]	Ba [mm]	1640 [kg/m]	R1608 [kg/m]
1640. 28.□.0	–	287	321	≈ 6.29	–
1640. 30.□.0	1608.30.□.0	300	334	≈ 6.34	≈ 9.09
1640. 31.□.0	–	312	346	≈ 6.41	–
1640. 32.□.0	–	325	359	≈ 6.48	–
1640. 33.□.0	–	337	371	≈ 6.59	–
1640. 35.□.0	1608.35.□.0	350	384	≈ 6.61	≈ 9.79
1640. 36.□.0	–	362	396	≈ 6.67	–
1640. 37.□.0	–	375	409	≈ 6.71	–
1640. 38.□.0	–	387	421	≈ 6.76	–
1640. 40.□.0	1608.40.□.0	400	434	≈ 6.89	≈ 10.49
1640. 41.□.0	–	412	446	≈ 6.99	–
1640. 42.□.0	–	425	459	≈ 7.08	–
1640. 43.□.0	–	437	471	≈ 7.13	–
1640. 45.□.0	–	450	484	≈ 7.17	–
1640. 46.□.0	–	462	496	≈ 7.18	–
1640. 47.□.0	–	475	509	≈ 7.22	–
1640. 48.□.0	–	487	521	≈ 7.27	–
1640. 50.□.0	1608.50.□.0	500	534	≈ 7.35	≈ 11.78
1640. 51.□.0	–	512	546	≈ 7.36	–
1640. 52.□.0	–	525	559	≈ 7.39	–
1640. 53.□.0	–	537	571	≈ 7.49	–
1640. 55.□.0	–	550	584	≈ 7.80	–
1640. 60.□.0	–	600	634	≈ 7.92	–

Available bend radii *R* [mm] | 200* | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 |

* Radius not available for e-tubes.

Order key

1640.30.300.0

Series	Width index	Bend radius	Colour index
--------	-------------	-------------	--------------

Order example:

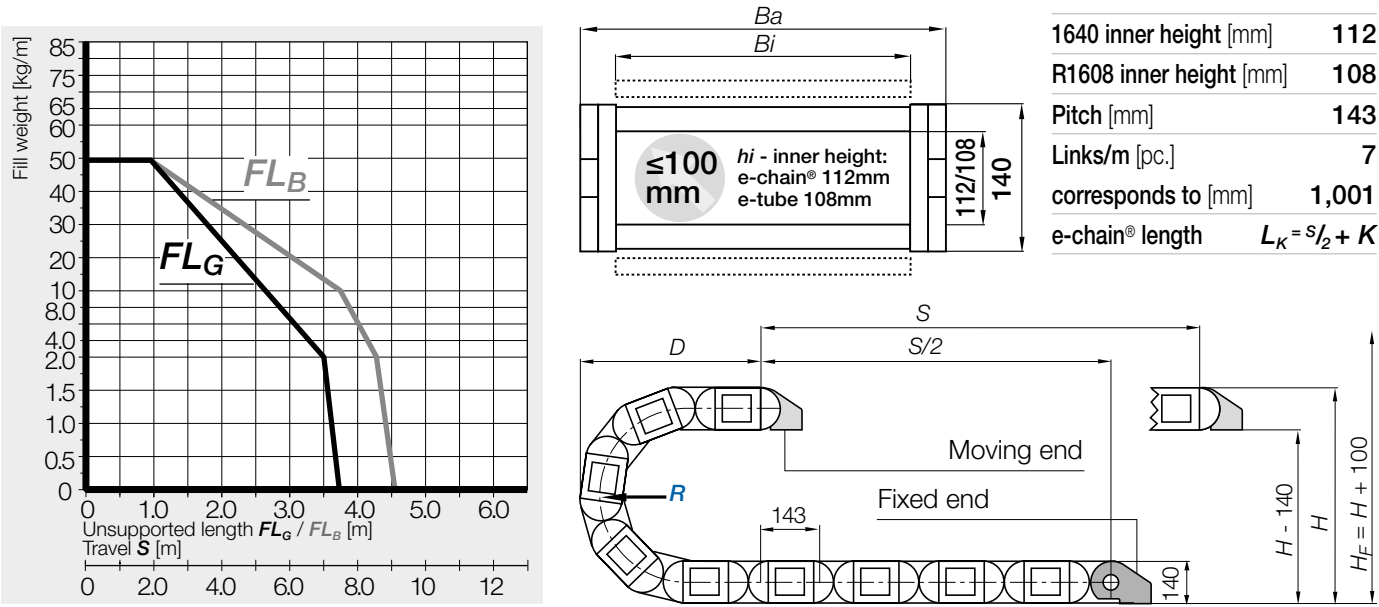
Complete Part No. with the required radius *R*. Example:

1640.30.300.0 = crossbars removable along the inner and outer radius

1608.30.300.0 = lids openable along the outer radius from one side

Order index for colour options ► www.igus.eu/info-colours

Unsupported applications | Short travels

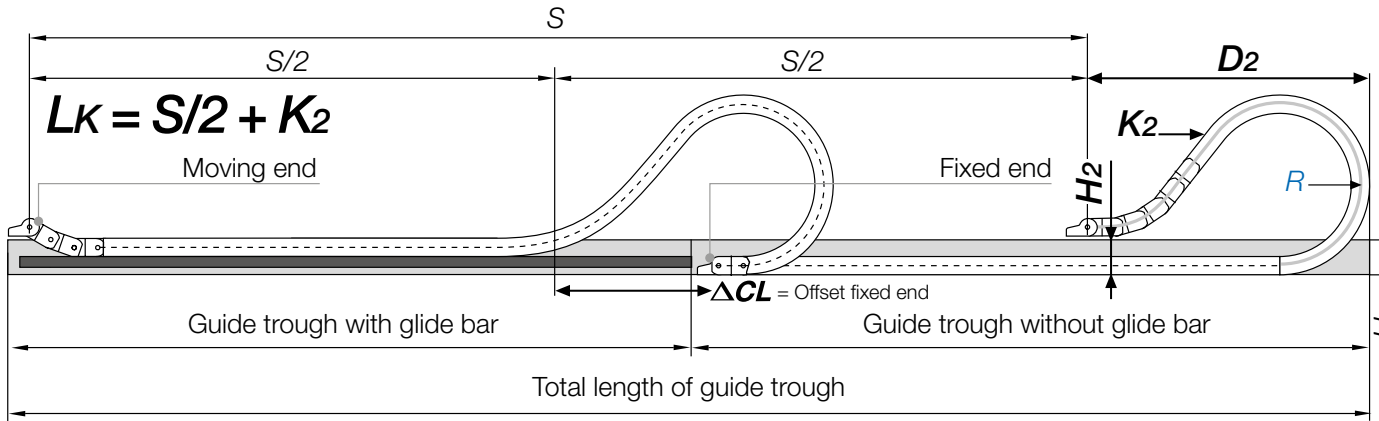


<i>R</i>	200*	250	300	350	400	450	500	550	600
<i>H</i>	540	640	740	840	940	1,040	1,140	1,240	1,340
<i>D</i>	485	535	585	635	685	735	785	835	885
<i>K</i>	915	1,075	1,230	1,390	1,545	1,700	1,860	2,015	2,175

The required clearance height: $H_F = H + 100\text{mm}$ (with 5.0kg/m fill weight)

* Radius not available for e-tubes.

Gliding applications | For travel lengths from 14m to max. 400m



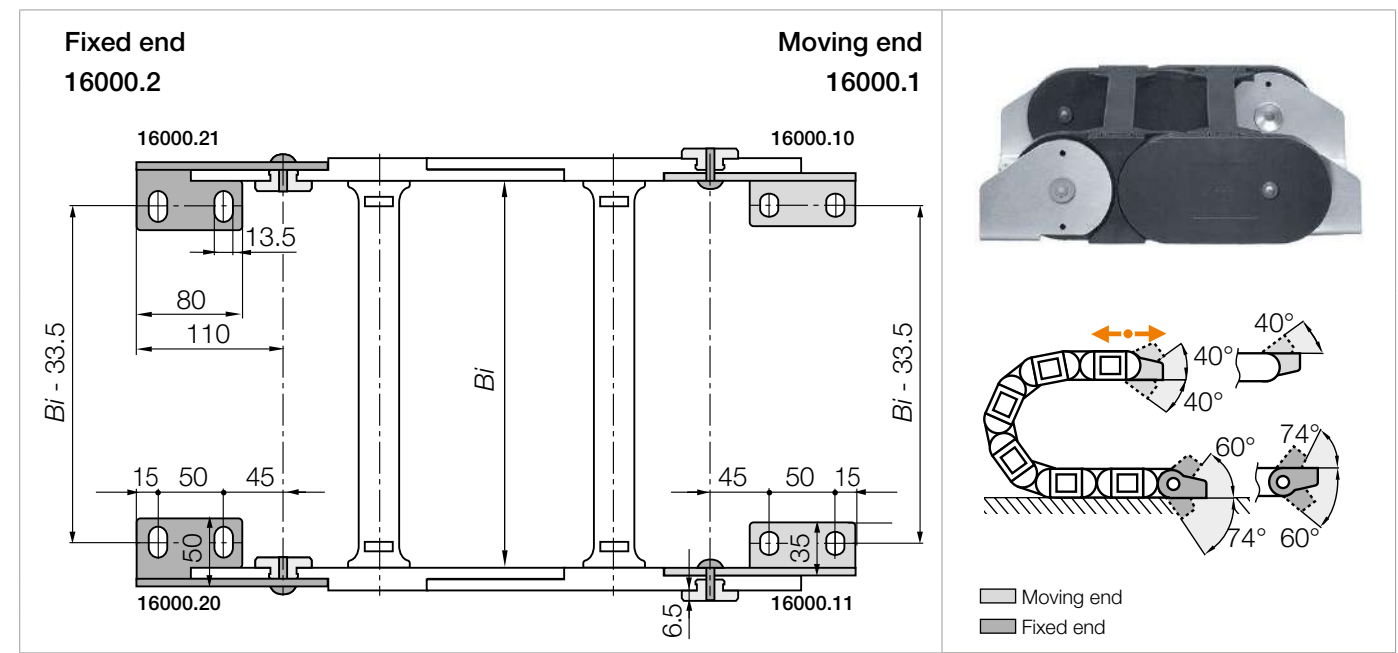
<i>R</i>	200*	250	300	350	400	450	500	550	600
<i>H</i> ₂	325	325	325	325	325	325	325	325	325
<i>D</i> ₂ ⁺⁵⁰	900	1,000	1,100	1,250	1,450	1,600	1,700	1,900	2,050
<i>K</i> ₂	1,573	1,716	1,859	2,288	2,574	2,860	3,146	3,432	3,861
ΔCL	450	500	550	650	800	900	950	1,100	1,200

Note: In case of travels between 9 and 14m we recommend an e-chain® with a longer unsupported length.

* Radius not available for e-tubes.

Available from stock
Upon request

Steel mounting brackets | Attachment from any side | Pivoting



Part No. Full set	Description
Steel pivoting	Mounting bracket
16000. 1 .12.VS.E45	Full set (both ends) ending with outer side link, screwed - standard
16000. 3 .12.VS.E45	Full set (both ends) beginning with outer side link (moving end) - ending with inner side link (fixed end), screwed - standard

Stainless steel version available. Please add index **.E45** (material: AISI 304)

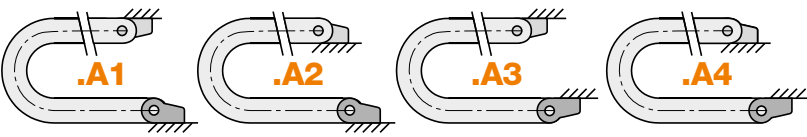
Note: The e-chains® may end with either an inner or an outer side link. An outer side link should always be the first e-chain® link at the moving end. Please specify the index **1** (for odd) or **3** (for even) depending on an even or odd number of links required. For the best appearance, make sure the e-chain® ends with **1** outer side links whenever possible (with odd number of links).

Order key

16000.**1**.12.VS.**A2**

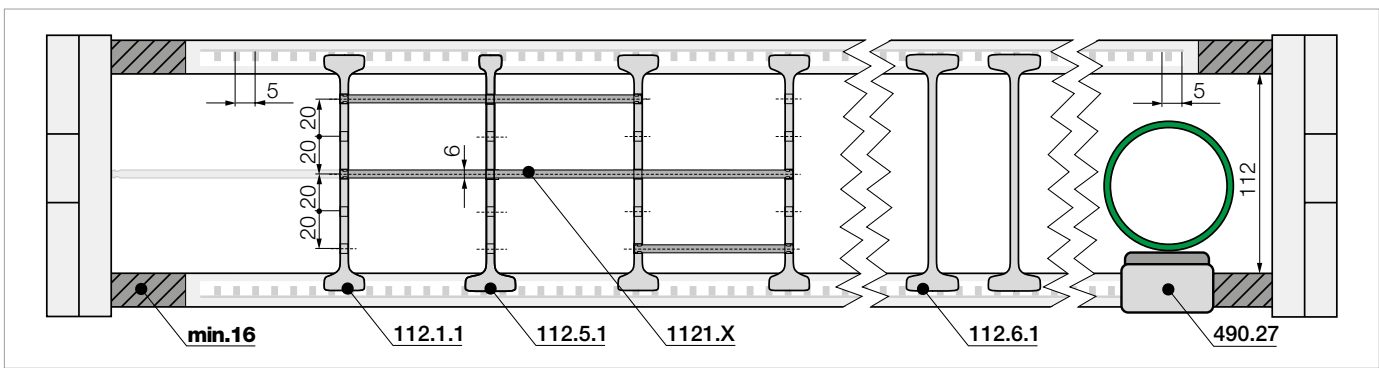
Series	Odd number of links	Full set, locking	Pre-fitted	Pre-fitted
--------	---------------------	-------------------	------------	------------

Note: Possible variations for pre-fitted mounting brackets. To receive steel mounting brackets pre-fitted please add index **.A1**, **.A2**, **.A3** or **.A4**.



Available from stock
Upon request

Interior separation | Increase cable service life



Note: Please be aware of the minimum lateral gap to the side links! **e-chain®: =16mm**
As standard separators are fitted every 2nd e-chain® link!

		Part No. Standard separator unassembled 112.1 assembled 112.1.1	For all applications Standard separator with a wide base for maximum holding force.
		Part No. Notch separator unassembled 112.5 assembled 112.5.1	Locks securely in preset increments Notch separator for exact positioning. Recommended for side-mounted applications.
		Part No. Shelf unassembled 1120.X assembled 1121.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

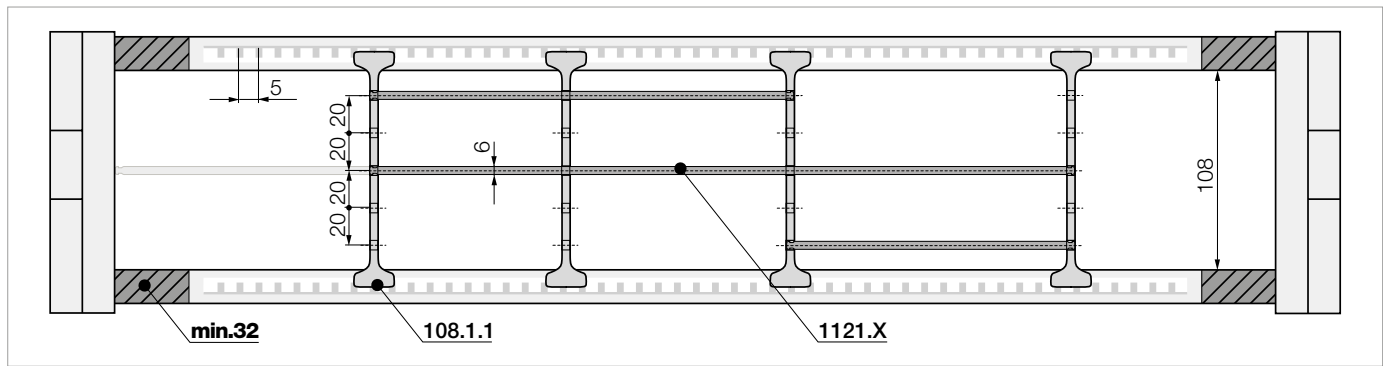
Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	1120.050	1121.050	125	1120.125	1121.125	225	1120.225	1121.225	375	1120.375	1121.375
065	1120.065	1121.065	150	1120.150	1121.150	250	1120.250	1121.250	387	1120.387	1121.387
075	1120.075	1121.075	175	1120.175	1121.175	300	1120.300	1121.300	450	1120.450	1121.450
100	1120.100	1121.100	200	1120.200	1121.200	350	1120.350	1121.350			

Interior separation | Other optional elements

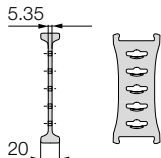
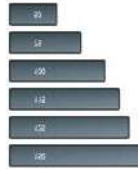
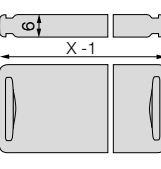
		Part No. Notch locking separator unassembled 112.6 assembled 112.6.1	Notch locking separator for increased holding force For higher crossbar opening forces for high humidity and/or large hydraulic hoses. They can be positioned precisely and then locked in position.
		Part No. Rollclip unassembled 489.27 assembled 490.27	Minimises abrasion of sensitive hoses The rollclip simply clamps onto the opening crossbar. The movable rollers compensate for relative movement between the e-chain® and hose.

All interior separations on this page are only suitable for e-chains®!

Interior separation | Increase cable service life



 **Note:** Please be aware of the minimum lateral gap to the side links! **e-tubes: 32mm**
As standard separators are fitted every 2nd e-chain® link!

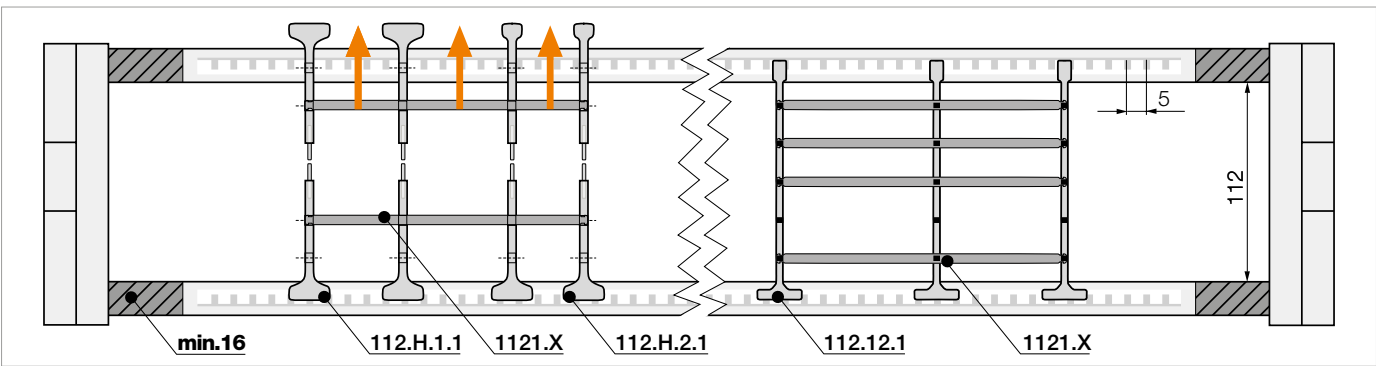
		Part No. Standard separator unassembled 108.1 assembled 108.1.1	For all applications Standard separator with a wide base for maximum holding force.
		Part No. Shelf unassembled 1120.X assembled 1121.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	1120.050	1121.050	125	1120.125	1121.125	225	1120.225	1121.225	375	1120.375	1121.375
065	1120.065	1121.065	150	1120.150	1121.150	250	1120.250	1121.250	387	1120.387	1121.387
075	1120.075	1121.075	175	1120.175	1121.175	300	1120.300	1121.300	450	1120.450	1121.450
100	1120.100	1121.100	200	1120.200	1121.200	350	1120.350	1121.350			

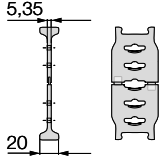
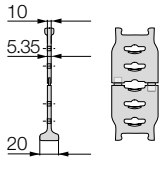
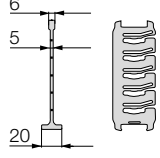
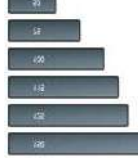
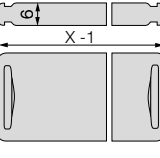
All interior separations on this page are only suitable for e-tubes!

 Available from stock
Upon request

Interior separation | To allow faster filling



 **Note:** Please be aware of the minimum lateral gap to the side links! **e-chain®: =16mm**
As standard separators are fitted every 2nd e-chain® link!

		Part No. Split separator, wide top unassembled 112.H.1 assembled 112.H.1.1	Split separators In order to fill e-chains® more easily and effectively, these separators can be split in the middle. This allows easier access to middle shelf partitions. Fast assembly and easy retrofit. 2 types available: with wide or narrow top.
		Part No. Split separator, narrow top unassembled 112.H.2 assembled 112.H.2.1	
		Part No. Lean separator¹⁾ unassembled 112.12 assembled 112.12.1	Lean separators¹⁾ Quick fitting of shelves in several layers. Enables extremely fast replacement of individual cables in very full e-chains®. Only suitable for e-chains®.
		Part No. Shelf unassembled 1120.X assembled 1121.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

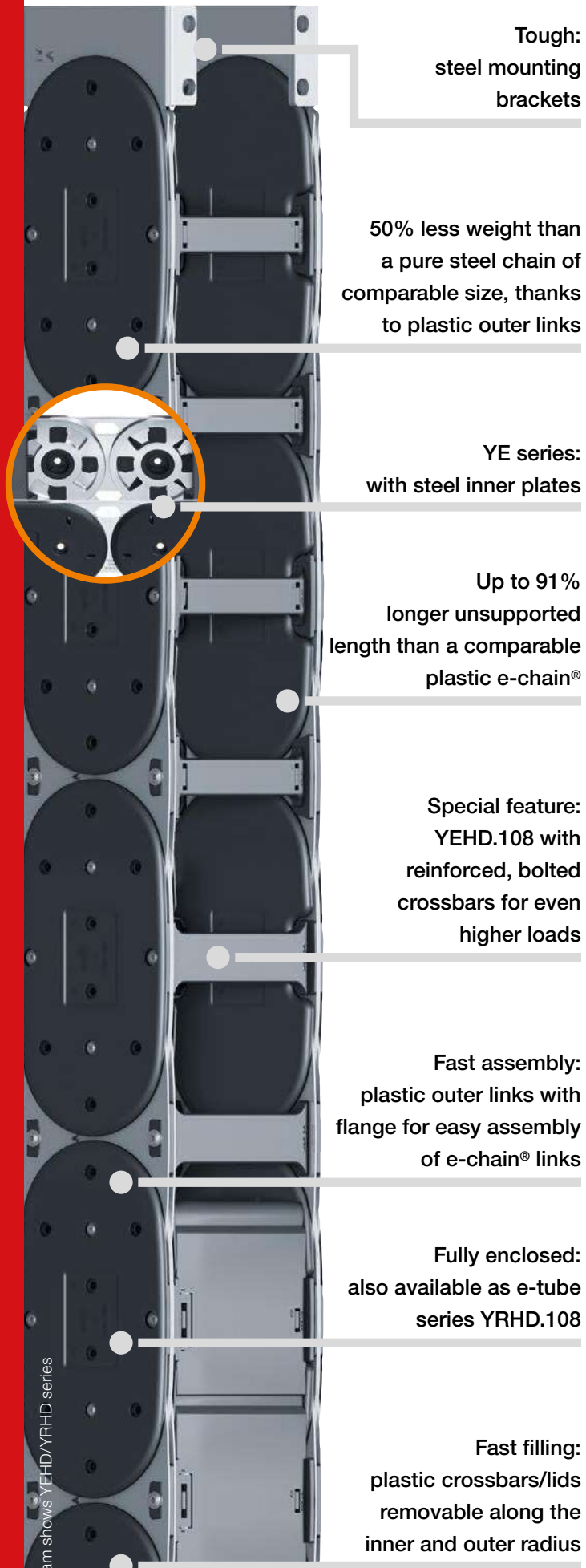
Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
50	1.120.050	1.121.050	125	1.120.125	1.121.125	225	1.120.225	1.121.225	375	1.120.375	1.121.375
65	1.120.065	1.121.065	150	1.120.150	1.121.150	250	1.120.250	1.121.250	387	1.120.387	1.121.387
75	1.120.075	1.121.075	175	1.120.175	1.121.175	300	1.120.300	1.121.300	450	1.120.450	1.121.450
100	1.120.100	1.121.100	200	1.120.200	1.121.200	350	1.120.350	1.121.350			



Lean separator for even faster filling: quickly insert several layers of cables into the e-chain® and reduce the installation time by up to 50%. Measured on a 4m long e-chain® fitted with 12 cables. **1) Note:** Please combine a maximum of four lean separators with one shelf. Not suitable for side-mounted e-chains®!

All interior separations on this page are only suitable for e-chains®!

 Available from stock
Upon request



Tough, vibration-proof and compact - YE and YEHD hybrid e-chains®

The hybrid energy chain YE is the best mix of lightweight plastic and tough steel that can easily handle high unsupported travels. It was developed to meet the requirements of construction machinery and lifting equipment. The requirement was to offer the maximum possible unsupported length with compact dimensions and the lowest possible weight. However, pure steel energy chains have the disadvantages of high assembly costs and weight. The YE system combines the higher strength of steel elements with the low weight and flexibility of plastic components. In addition, no screws, rivets or bolts are used, which can loosen under vibration.

Benefits

- Almost 50% lighter than comparable steel chains
- YE.42: 91% longer unsupported length compared to E4.42 series
- YE.56: 61% longer unsupported length compared to E4.56 series
- YEHD.112: 68% longer unsupported length compared to E4.112 series
- High tensile strength
- Easy installation of plastic outer links with flange for easy e-chain® link assembly
- Smooth operation due to plastic pin connection
- Flexible interior separation thanks to proven E4 components
- Available as HD version for maximum strength in combination with high fill weights and extreme environments
- Available as ready-to-install readychain® system with cables, hoses and hydraulic components

Tough: steel mounting brackets

50% less weight than a pure steel chain of comparable size, thanks to plastic outer links

YE series: with steel inner plates

Up to 91% longer unsupported length than a comparable plastic e-chain®

Special feature: YEHD.108 with reinforced, bolted crossbars for even higher loads

Fast assembly: plastic outer links with flange for easy assembly of e-chain® links

Fully enclosed: also available as e-tube series YRHD.108

Fast filling: plastic crossbars/lids removable along the inner and outer radius

Selection table

Part No.	Inner height <i>hi</i> [mm]	Outer height <i>ha</i> [mm]	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Bend radius <i>R</i> [mm]	Unsupported length ≤ [m]	Page
----------	--------------------------------	--------------------------------	-------------------------------	-------------------------------	------------------------------	--------------------------	------

YE - plastic-steel hybrid e-chains® with crossbars every 2nd link
Crossbars removable along the inner and outer radius.

YE.42	42	76	100 ¹⁾ - 400	118 - 418	100 - 150	**	336
YE.56	56	90	100 ¹⁾ - 600	124 - 624	100 - 500	**	342

YR - plastic-steel hybrid e-tubes
Lids openable along the outer radius, from one side.

YR.42	42	76	100 ¹⁾ - 300	118 - 318	125 - 150	**	336
YR.56	56	90	100 ¹⁾ - 462	124 - 486	150 - 500	**	342

YEHD - plastic-steel hybrid e-chains® with crossbars every link, heavy-duty design
Crossbars removable along the inner and outer radius.

YEHD.108	108	146	387 - 550	435 - 598	250 - 600	**	348
YEHD.112	112	146	200 - 600	248 - 648	250 - 600	**	348

YRHD - plastic-steel hybrid e-tubes and tubes, heavy-duty design
Lids openable along the outer radius, from one side.

YRHD.108	108	146	200 - 500	248 - 548	250 - 600	**	348
----------	-----	-----	-----------	-----------	-----------	----	-----

1) Widths under **Bi 100** available upon request. Here, an inspection and dimensioning by igus® engineering is required in advance.
** Unsupported lengths depending on the angle of inclination, see corresponding graphs on the series pages.

Technical data

General properties

Speed <i>FL_G</i> /acceleration <i>FL_G</i>	≤ 1m/s / ≤ 1m/s²
Speed <i>FL_B</i> /acceleration <i>FL_B</i>	≤ 1m/s / ≤ 1m/s²
Material - permitted temperature °C	-40°C/+120°C
Flammability class	VDE 0304 IIC UL94-HB

Typical application areas



YE e-chains® and YR e-tubes

- Work platforms
- Construction machinery
- Breakdown lorry
- Telescopic loaders
- Articulated telescopic platforms
- Horizontal drilling rigs
- Articulated arm systems
- Low loaders



YEHD e-chains® and YRHD e-tubes

- Drill rigs
- Large gantry milling machines
- Deep drilling rigs
- Horizontal drilling rigs
- Steel mills
- Large unsupported lengths
- Mechanical engineering
- Plant construction

Product range



Part No. e-chains® with crossbars every 2nd link	Part No. e-tubes closed	Bi [mm]	Ba [mm]	YE.42 [kg/m]	YR.42 [kg/m]
YE.42. 05.□.0*	YR.42. 05.□.0*1)	50	68	≈ 4.020	≈ 4.131
YE.42. 06.□.0*	YR.42. 06.□.0*1)	68	86	≈ 4.067	≈ 4.217
YE.42. 07.□.0*	YR.42. 07.□.0*	75	93	≈ 4.085	≈ 4.251
YE.42. 087.□.0*	YR.42. 087.□.0*	87	105	≈ 4.116	≈ 4.309
YE.42. 10.□.0	YR.42. 10.□.0	100	118	≈ 4.150	≈ 4.371
YE.42. 11.□.0	YR.42. 11.□.0	108	126	≈ 4.171	≈ 4.410
YE.42. 112.□.0	–	112	130	≈ 4.181	–
YE.42. 12.□.0	YR.42. 12.□.0	125	143	≈ 4.215	≈ 4.491
YE.42. 137.□.0	–	137	155	≈ 4.246	–
YE.42. 15.□.0	YR.42. 15.□.0	150	168	≈ 4.280	≈ 4.612
YE.42. 162.□.0	–	162	180	≈ 4.311	–
YE.42. 17.□.0	YR.42. 17.□.0	168	186	≈ 4.327	≈ 4.698
YE.42. 18.□.0	–	175	193	≈ 4.345	–
YE.42. 187.□.0	–	187	205	≈ 4.376	–
YE.42. 20.□.0	YR.42. 20.□.0	200	218	≈ 4.410	4.852
YE.42. 212.□.0	–	212	230	≈ 4.441	–

Part No. e-chains® with crossbars every 2nd link	Part No. e-tubes closed	Bi [mm]	Ba [mm]	YE.42 [kg/m]	YR.42 [kg/m]
YE.42. 23.□.0	–	225	243	≈ 4.475	–
YE.42. 237.□.0	–	237	255	≈ 4.506	–
YE.42. 25.□.0	YR.42. 25.□.0	250	268	≈ 4.540	≈ 5.093
YE.42. 262.□.0	–	262	280	≈ 4.571	–
YE.42. 28.□.0	–	275	293	≈ 4.605	–
YE.42. 29.□.0	–	287	305	≈ 4.636	–
YE.42. 30.□.0	YR.42. 30.□.0	300	318	≈ 4.670	≈ 5.334
YE.42. 312.□.0	–	312	330	≈ 4.701	–
YE.42. 325.□.0	–	325	343	≈ 4.735	–
YE.42. 337.□.0	–	337	355	≈ 4.766	–
YE.42. 350.□.0	–	350	368	≈ 4.800	–
YE.42. 362.□.0	–	362	380	≈ 4.831	–
YE.42. 375.□.0	–	375	393	≈ 4.865	–
YE.42. 387.□.0	–	387	405	≈ 4.896	–
YE.42. 400.□.0	–	400	418	≈ 4.930	–

Available bend radii *R* [mm] | 100²⁾ | 125 | 150 |

*Widths under *Bi* 100 available upon request. Here, an inspection and dimensioning by igus® engineering is required in advance.

- 1) Lid removable, non-openable
2) Radius not available for e-tubes.

Order key

YE.42.11.100.0

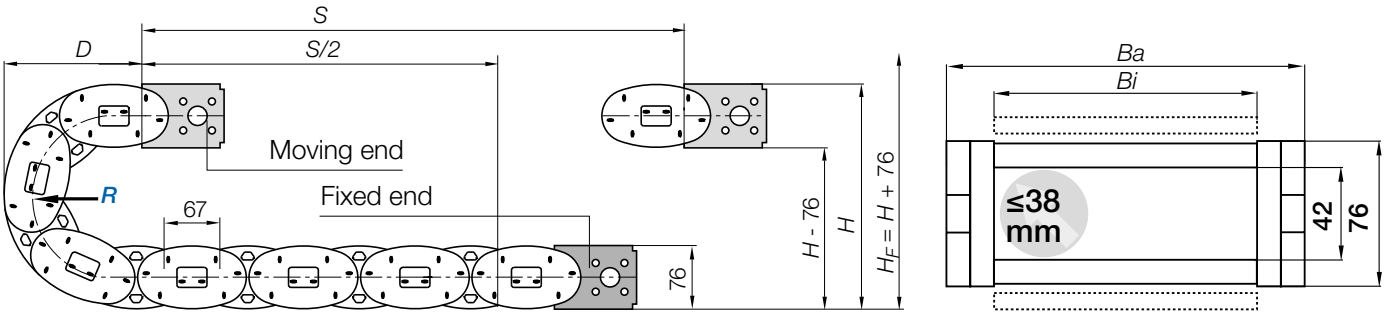
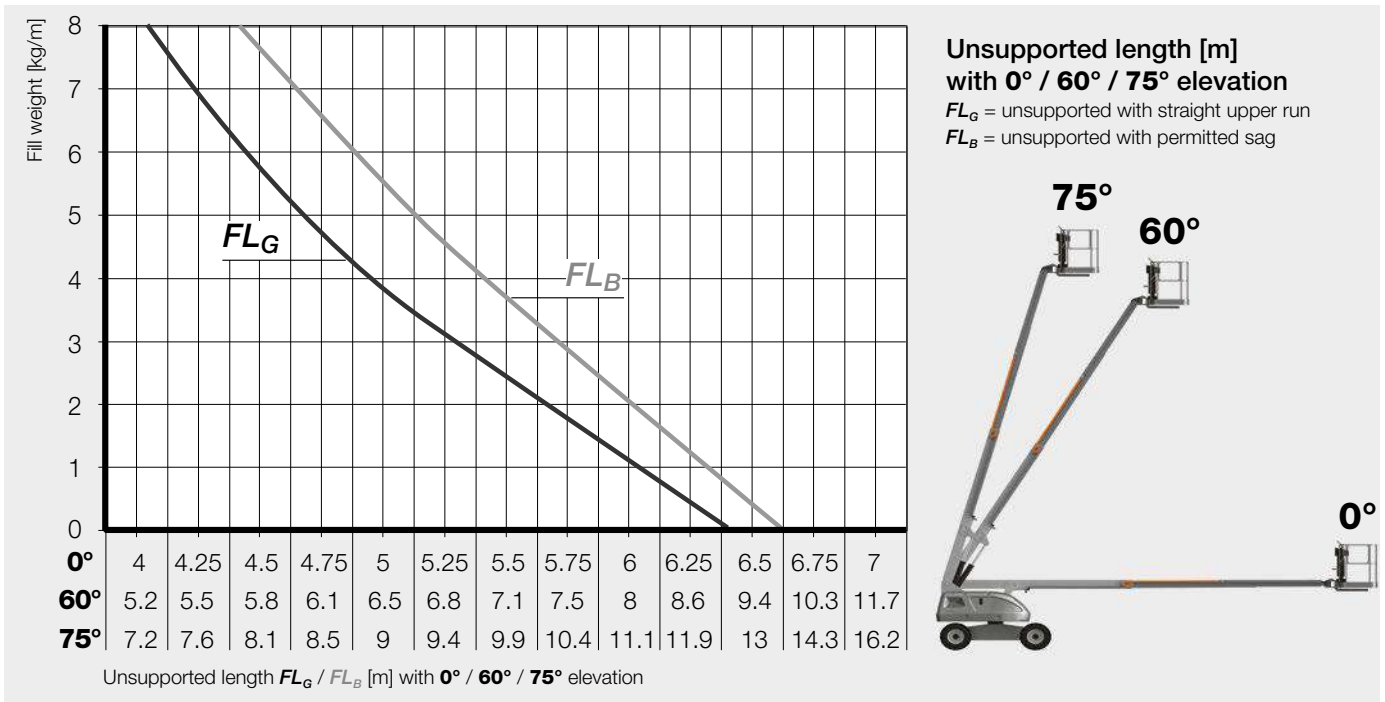
Series / Type	Inner height	Width index	Bend radius	Colour index
---------------	--------------	-------------	-------------	--------------

Order example:

Complete Part No. with the required radius *R*. Example:
YE.42.11.100.0 = crossbars removable along the inner and outer radius
YR.42.11.150.0 = lids openable along the outer radius from one side
Order index for colour options ► www.igus.eu/info-colours

Available from stock
Upon request

Unsupported applications | Long unsupported lengths, ideal for inclined axes



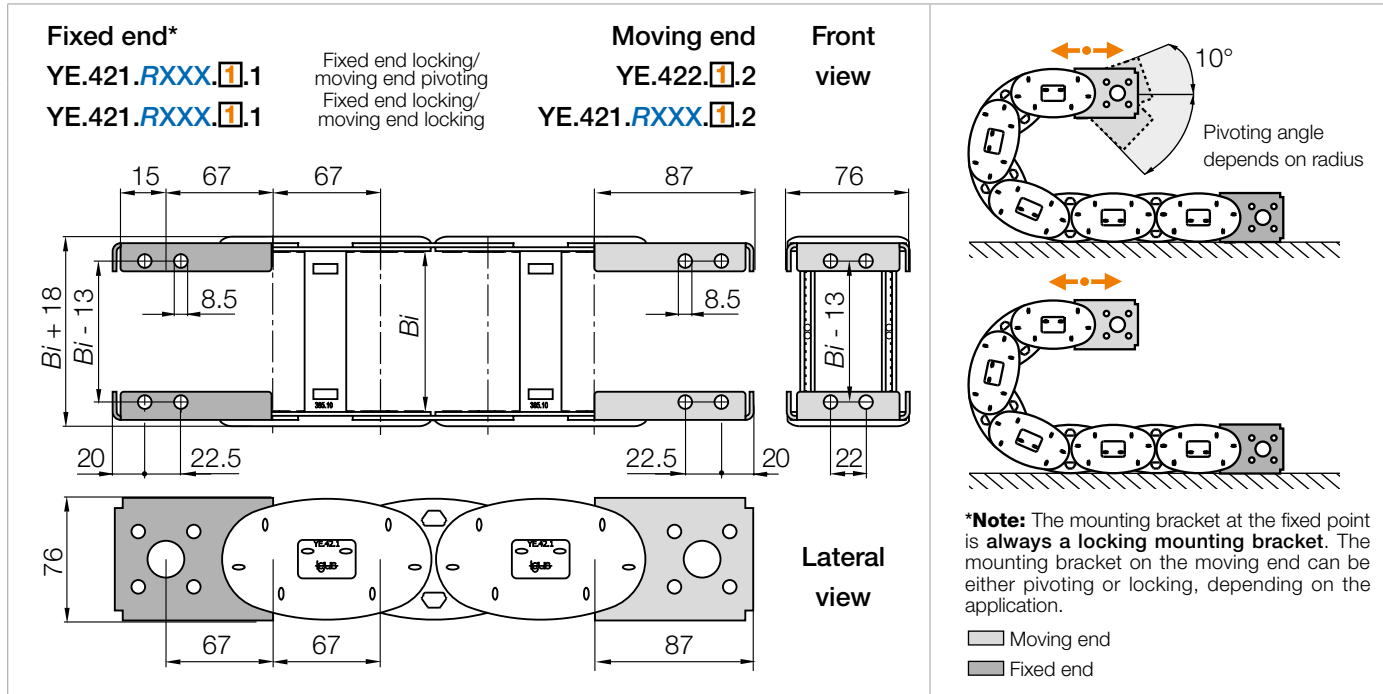
<i>R</i>	100 ²⁾	125	150
<i>H</i>	320	370	420
<i>D</i>	240	265	340
<i>K</i>	450	530	610

The required clearance height: $H_F = H + 76\text{mm}$ (with 2.5kg/m fill weight)
2) Radius not available for e-tubes.

Inner height [mm]	42
Pitch [mm]	67
Links/m [pc.]	15
corresponds to [mm]	1,005
e-chain® length	$L_K = \frac{S}{2} + K$

Available from stock
Upon request

Steel mounting brackets | Locking | Pivoting



Part No. Full set	Part No. Full set	Description
Moving end pivoting, fixed end* locking	Moving end locking, fixed end* locking	Full set (both ends)
YE.422. RXXX .1.12. A	YE.421. RXXX .1.12. A	These e-chains® always start and end with outer links, pre-assembled.

Part No. Steel mounting brackets as individual parts	Part No. Steel mounting brackets as individual parts	Description
Only fixed end*, locking	Only moving end, locking	Only moving end, pivoting
YE.421. RXXX .1.1. A	YE.421. RXXX .1.2. A	YE.422.1.2. A

Available from stock
Upon request

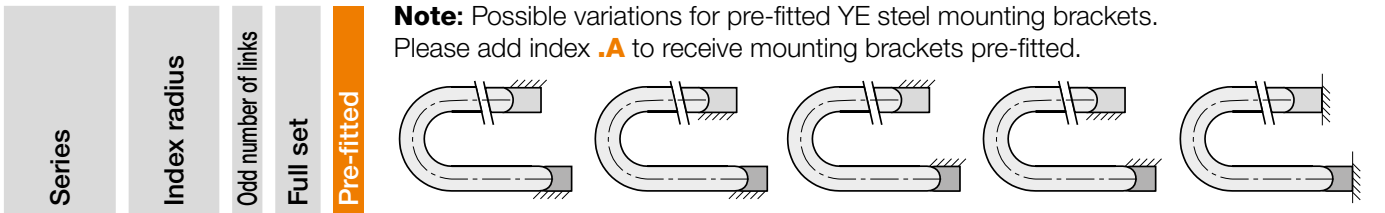
Steel mounting brackets | Locking | Pivoting

Note: The YE plastic-steel hybrid e-chains® can only be ordered with an odd number of links. This is because these e-chains® always end with outer links (odd number of links). The mounting brackets at the moving end and fixed end always form the end of the e-chain® and are inner links. **For odd number of links, please add index 1.**

Order key

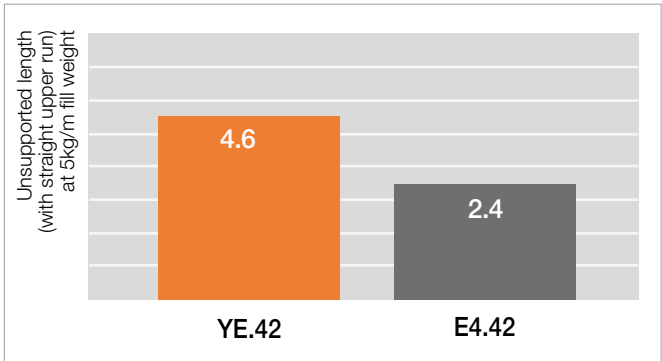
YE.422.**R100**.1.12.**A**

Note: Possible variations for pre-fitted YE steel mounting brackets. Please add index **.A** to receive mounting brackets pre-fitted.



Complete Part No. with the required radius **R**.

Test - unsupported length FL_G with 5kg/m fill weight

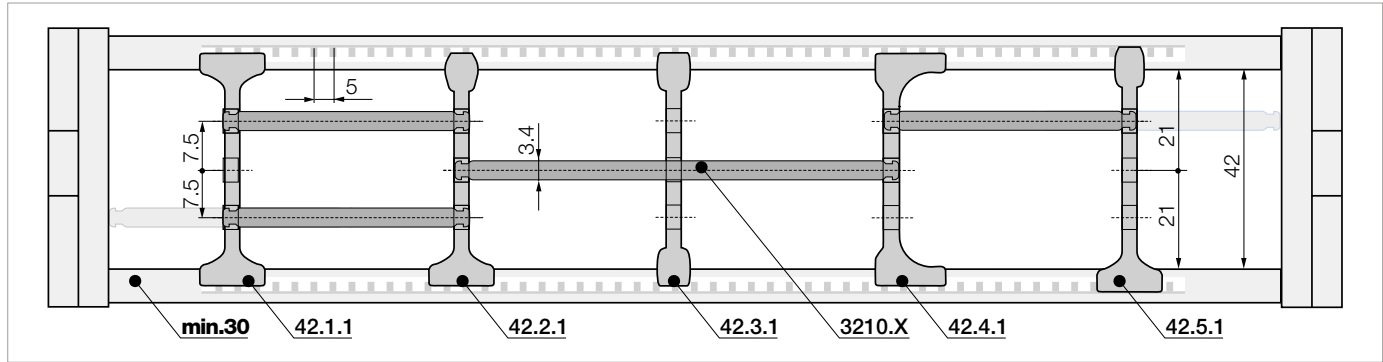


In a comparison test in its test laboratory, which is the largest in the industry, igus® compared the YE and E4.1 series with each other. The two systems were evaluated with regard to their unsupported length (with straight upper run) with a 5kg/m fill weight.

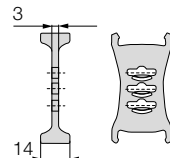
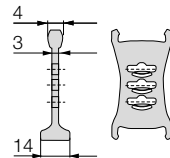
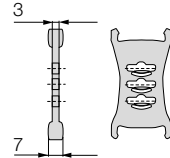
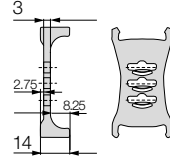
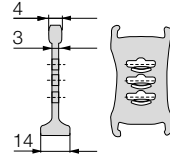
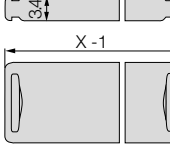
Result: With a fill weight of 5kg/m, the YE.42 series can travel up to 4.6m unsupported versus only 2.4m for the E4.42.

Available from stock
Upon request

Interior separation | Increase cable service life

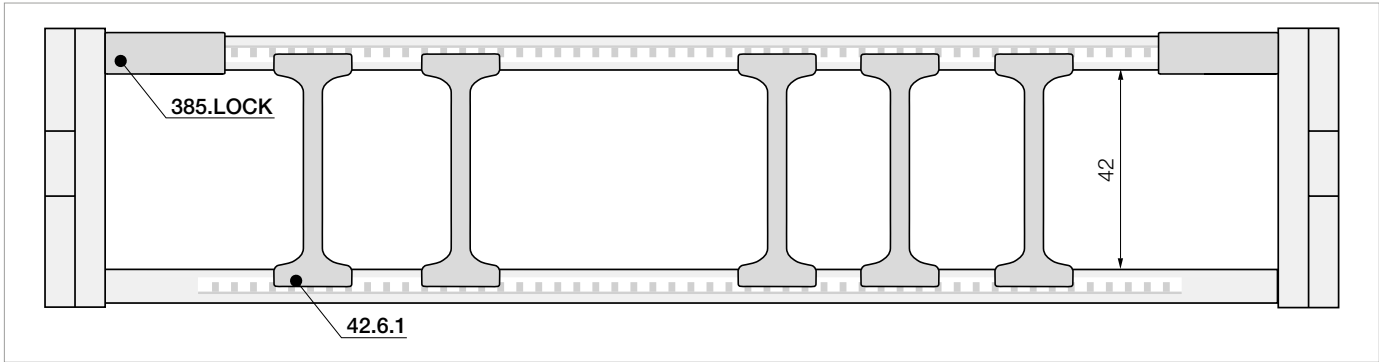


No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-chain® link!

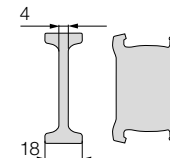
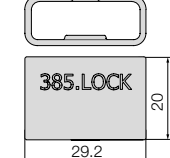
 	Part No. Standard separator unassembled 42.1 assembled 42.1.1	For all applications Standard separator with a wide base for maximum holding force.
 	Part No. Separator, narrow top unassembled 42.2 assembled 42.2.1	For even faster installation Wide on one side for high holding force, narrow on opposite side for easy cable fitting.
 	Part No. Separator, narrow unassembled 42.3 assembled 42.3.1	For a large number of thin cables Separator with a narrow base for a large number of thin cables side by side. Saves space.
 	Part No. Separator, asymmetrical unassembled 42.4 assembled 42.4.1	For side-mounted applications Asymmetrical separator, for defined gap distance. No additional spacers required.
 	Part No. Notch separator* unassembled 42.5 assembled 42.5.1	Locks securely in preset increments Notch separator* for exact positioning. Recommended for side-mounted applications. *Suitable from Bi 75
 	Part No. Shelf unassembled 3200.X assembled 3210.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width	Part No.	Part No.	Width	Part No.	Part No.	Width	Part No.	Part No.	Width	Part No.	Part No.
[mm]	unassembled	assembled	[mm]	unassembled	assembled	[mm]	unassembled	assembled	[mm]	unassembled	assembled
050	3200.050	3210.050	115	3200.115	3210.115	175	3200.175	3210.175	250	3200.250	3210.250
075	3200.075	3210.075	125	3200.125	3210.125	200	3200.200	3210.200			
100	3200.100	3210.100	150	3200.150	3210.150	225	3200.225	3210.225			

Interior separation | Other optional elements for higher holding force



No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-chain® link!

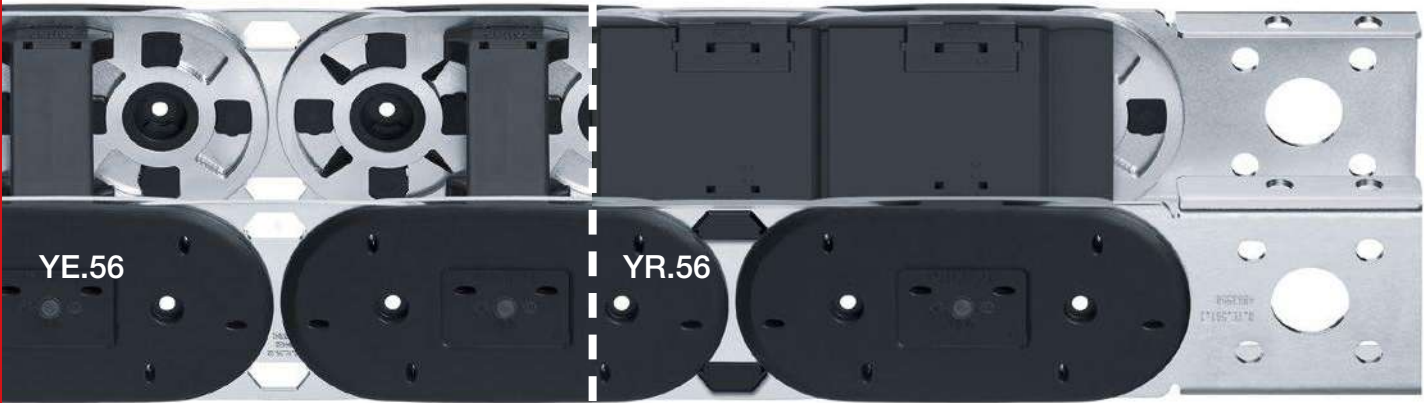
 	Part No. Notch locking separator unassembled 42.6 assembled 42.6.1	Notch locking separator for increased holding force For higher crossbar opening forces for high humidity and/or large hydraulic hoses. They can be positioned precisely and then locked in position.
 	Part No. Locking clip unassembled 385.LOCK	385.LOCK for increased opening force For high humidity and/or large hydraulic hoses. They lock the crossbar.

YE.42 hybrid chains for retrofitting a Genie work platform



The YE.42 series with a chain length of 7.5m is used in a Genie work platform. Flawless function after installation. The engineers on site particularly emphasised the ease of installation. It took much longer to remove the existing steel chain than to install the new YE hybrid energy chain, which was done within an hour in this application.

Product range



Part No. e-chains® with crossbars every 2nd link	Part No. e-tubes closed	Bi [mm]	Ba [mm]	YE.56 [kg/m]	YR.56 [kg/m]
YE.56. 05.□.0*	–	50	74	≈ 6.405	–
YE.56. 06.□.0*	–	65	89	≈ 6.455	–
YE.56. 07.□.0*	YR.56.07.□.0*1)	75	99	≈ 6.489	≈ 6.762
YE.56. 08.□.0*	–	87	111	≈ 6.530	–
YE.56. 10.□.0	YR.56.10.□.0	100	124	≈ 6.574	≈ 6.938
YE.56. 11.□.0	–	112	136	≈ 6.614	–
YE.56. 12.□.0	YR.56.12.□.0	125	149	≈ 6.658	≈ 7.113
YE.56. 13.□.0	–	137	161	≈ 6.698	–
YE.56. 15.□.0	YR.56.15.□.0	150	174	≈ 6.742	≈ 7.288
YE.56. 16.□.0	–	162	186	≈ 6.824	–
YE.56.169.□.0	–	170	194	≈ 6.853	–
YE.56. 17.□.0	YR.56.17.□.0	175	199	≈ 6.871	≈ 7.463
YE.56.182.□.0	–	183	207	≈ 6.901	–
YE.56. 18.□.0	–	187	211	≈ 6.915	–
YE.56. 20.□.0	YR.56.20.□.0	200	224	≈ 6.962	≈ 7.639
YE.56.207.□.0	–	208	232	≈ 7.004	–
YE.56. 21.□.0	–	212	236	≈ 7.019	–
YE.56. 22.□.0	–	225	249	≈ 7.067	–
YE.56. 23.□.0	–	237	261	≈ 7.111	–
YE.56. 25.□.0	YR.56.25.□.0	250	274	≈ 7.159	≈ 7.989
YE.56. 26.□.0	–	262	286	≈ 7.203	–
YE.56. 27.□.0	YR.56.27.□.0	275	299	≈ 7.251	≈ 8.165
YE.56. 28.□.0	–	287	311	≈ 7.296	–

Part No. e-chains® with crossbars every 2nd link	Part No. e-tubes closed	Bi [mm]	Ba [mm]	YE.56 [kg/m]	YR.56 [kg/m]
YE.56. 30.□.0	YR.56.30.□.0	300	324	≈ 7.344	≈ 8.340
YE.56. 31.□.0	–	312	336	≈ 7.388	–
YE.56. 32.□.0	–	325	349	≈ 7.436	–
YE.56. 33.□.0	–	337	361	≈ 7.480	–
YE.56. 35.□.0	YR.56.35.□.0	350	374	≈ 7.528	≈ 8.691
YE.56. 36.□.0	–	362	386	≈ 7.614	–
YE.56. 37.□.0	–	375	399	≈ 7.663	–
YE.56. 38.□.0	–	387	411	≈ 7.709	–
YE.56. 40.□.0	YR.56.40.□.0	400	424	≈ 7.759	≈ 9.041
YE.56. 41.□.0	–	412	436	≈ 7.804	–
YE.56. 42.□.0	–	425	449	≈ 7.854	–
YE.56. 43.□.0	–	437	461	≈ 7.899	–
YE.56. 45.□.0	–	450	474	≈ 7.949	–
YE.56. 46.□.0	YR.56.46.□.0	462	486	≈ 7.995	≈ 9.476
YE.56. 47.□.0	–	475	499	≈ 8.044	–
YE.56. 48.□.0	–	487	511	≈ 8.090	–
YE.56. 50.□.0	–	500	524	≈ 8.139	–
YE.56. 51.□.0	–	512	536	≈ 8.198	–
YE.56. 52.□.0	–	525	549	≈ 8.248	–
YE.56. 53.□.0	–	537	561	≈ 8.294	–
YE.56. 55.□.0	–	550	574	≈ 8.344	–
YE.56. 60.□.0	–	600	624	≈ 8.535	–

Available bend radii R [mm] | 100²⁾ | 125²⁾ | 150 | 200 | 250 | 300 | 350 | 400 | 500 |

*Widths under Bi 100 available upon request. Here, an inspection and dimensioning by igus® engineering is required in advance.
1) Lid removable, non-openable.2) Radius not available for e-tubes.



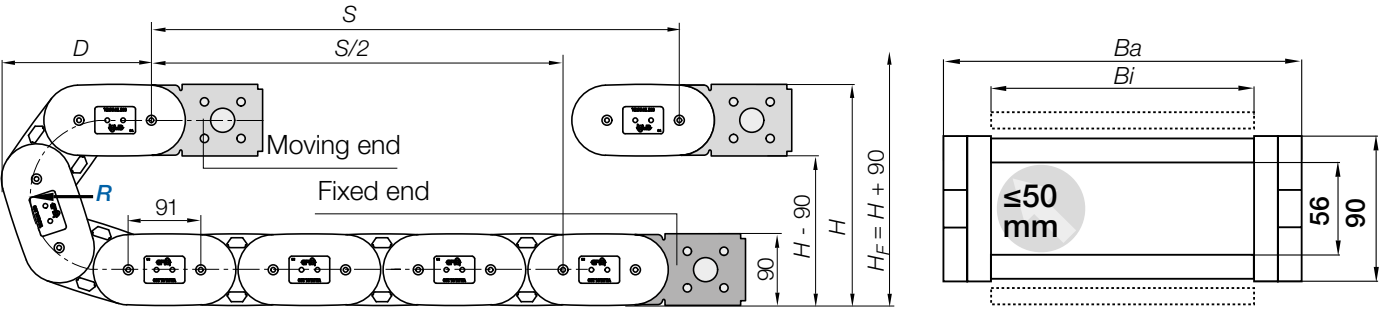
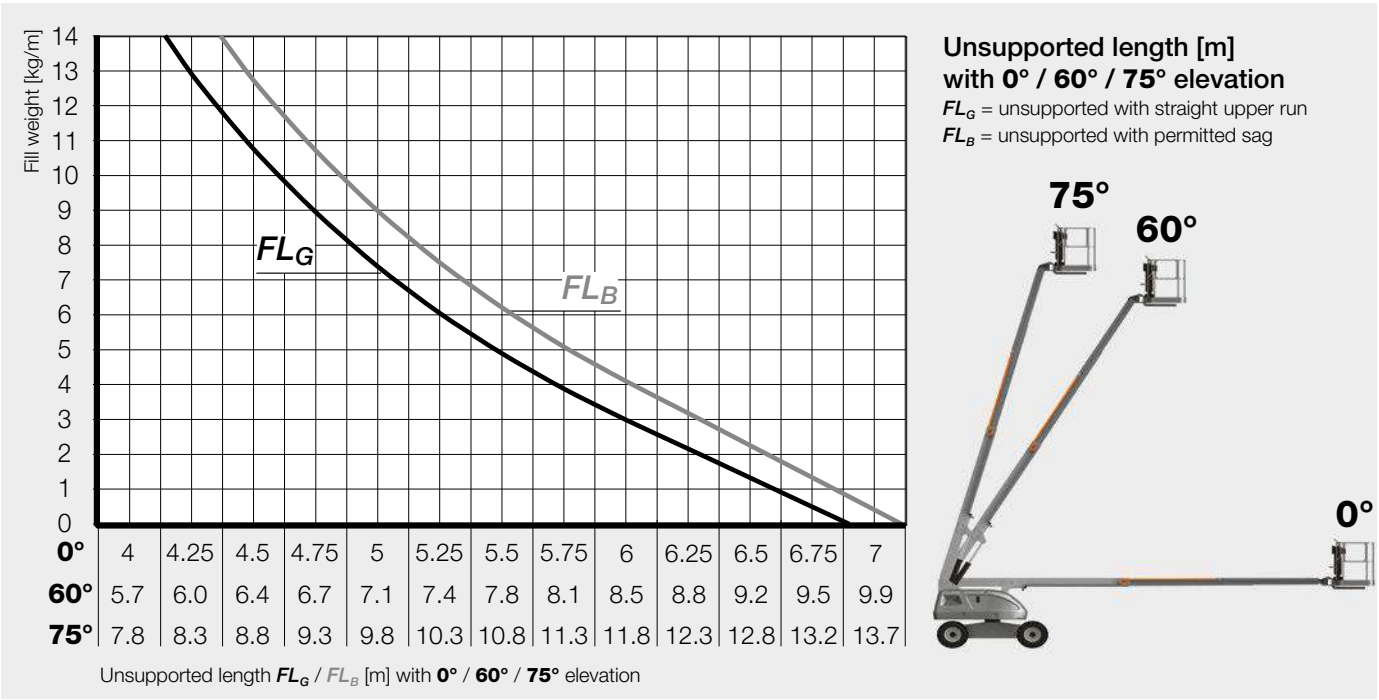
Order key

YE.56.10.150.0

Series / Type	Inner height	Width index	Bend radius	Colour index
---------------	--------------	-------------	-------------	--------------

Order example:
Complete Part No. with the required radius R . Example:
YE.56.10.100.0 = crossbars removable along the inner and outer radius
YR.56.10.150.0 = lids openable along the outer radius from one side
Order index for colour options ► www.igus.eu/info-colours

Unsupported applications | Long unsupported lengths, ideal for inclined axes



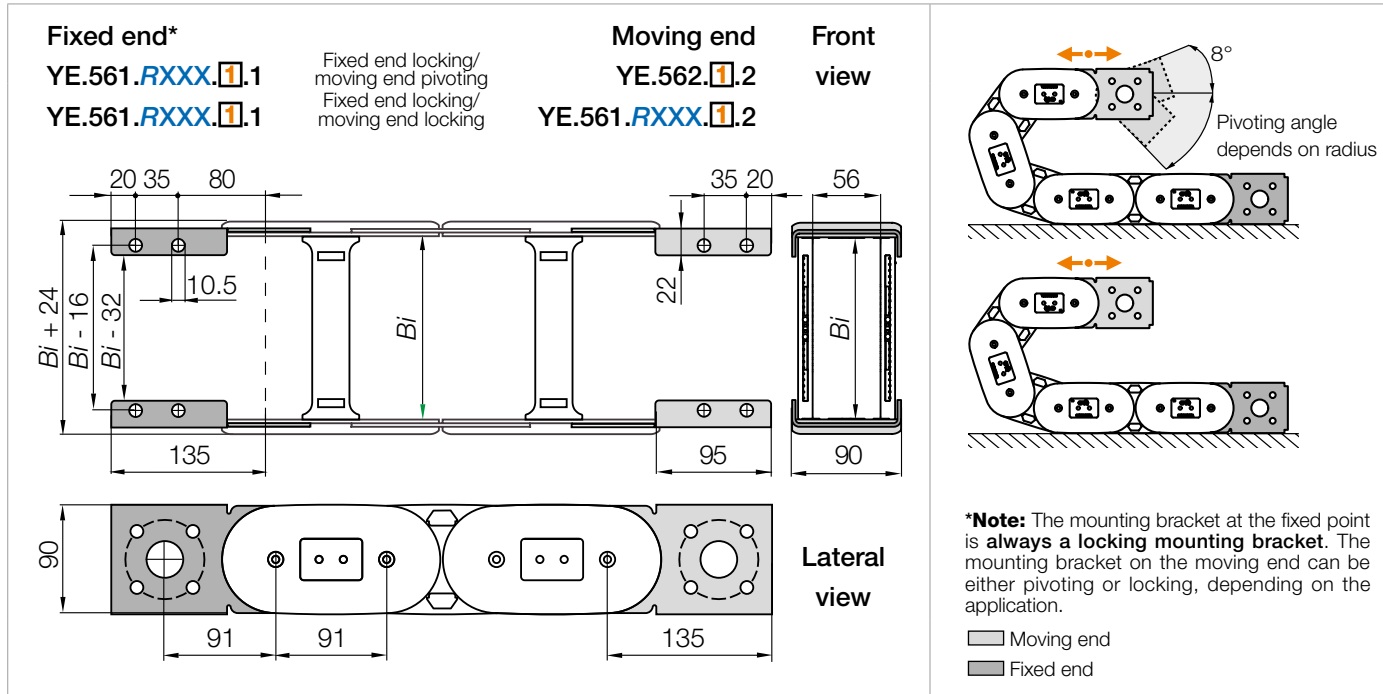
R	100 ²⁾	125 ²⁾	150	200	250	300	350	400	500
H	335	385	435	535	635	735	835	935	1,135
D	281.5	306.5	331.5	381.5	431.5	481.5	531.5	581.5	681.5
K	500	575	655	815	970	1,125	1,285	1,440	1.755

The required clearance height: $H_F = H + 90\text{mm}$ (with 3.0kg/m fill weight)
2) Radius not available for e-tubes.

Inner height [mm]	56
Pitch [mm]	91
Links/m [pc.]	11
corresponds to [mm]	1,001
e-chain® length	$L_K = \frac{S}{2} + K$

Available from stock
Upon request

Steel mounting brackets | Locking | Pivoting

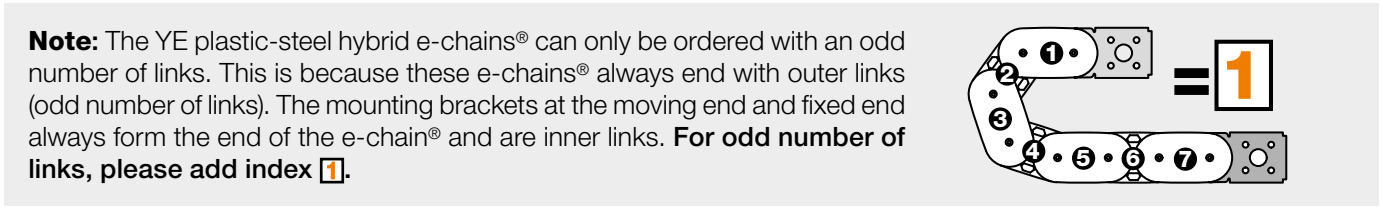


Part No. Full set	Part No. Full set	Description
Moving end pivoting, fixed end* locking	Moving end locking, fixed end* locking	Full set (both ends)
YE.562. RXXX .1.12. A	YE.561. RXXX .1.12. A	These e-chains® always start and end with outer links, pre-assembled.

Part No. Steel mounting brackets as individual parts		
Only fixed end*, locking	Only moving end, locking	Only moving end, pivoting
YE.561. RXXX .1.1. A	YE.561. RXXX .1.2. A	YE.562.1.2. A

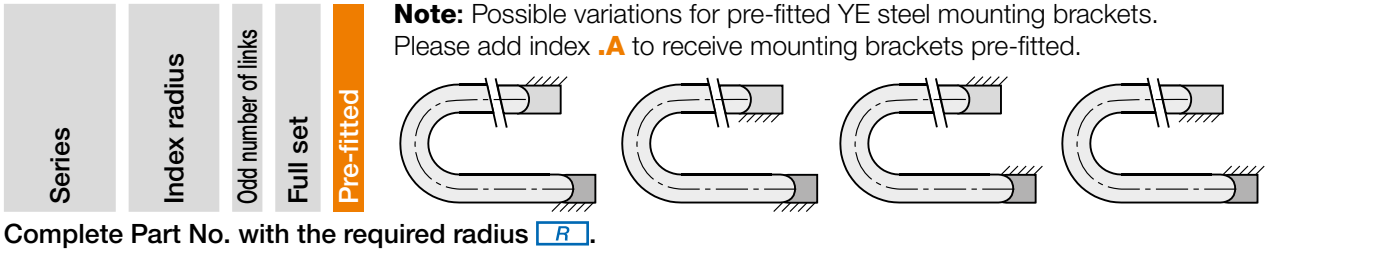
Available from stock
Upon request

Steel mounting brackets | Locking | Pivoting

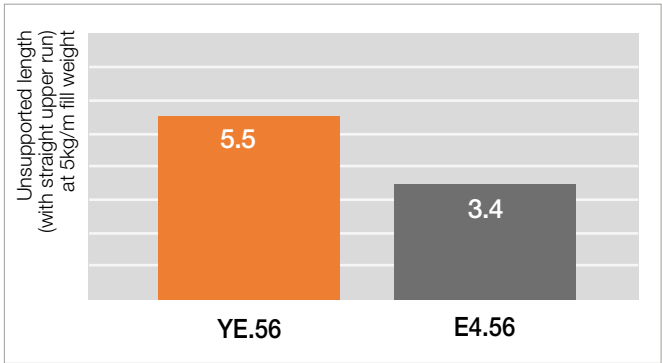


Order key

YE.562.**R100**.1.12.**A**



Test - unsupported length FL_G with 5kg/m fill weight

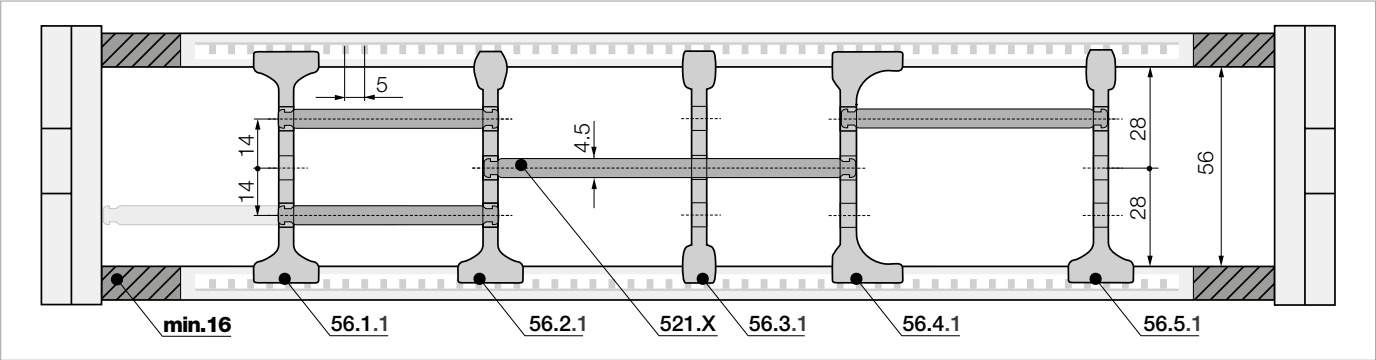


In a comparison test in its test laboratory, which is the largest in the industry, igus® compared the YE and E4.1 series with each other. The two systems were evaluated with regard to their unsupported length (with straight upper run) with a 5kg/m fill weight.

Result: With a fill weight of 5kg/m, the YE.56 series can travel up to 5.5m unsupported versus only 3.4m for the E4.56.

Available from stock
Upon request

Interior separation | Increase cable service life

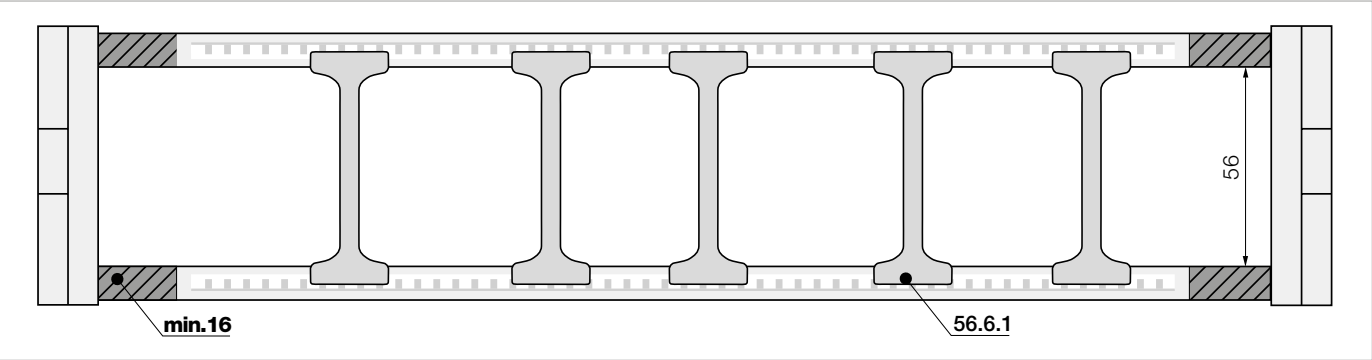


Note: Please be aware of the minimum lateral gap to the side links! **e-tube: 40mm** | **e-chain®: 16mm**
As standard separators are fitted every 2nd e-chain® link!

		Part No. Standard separator unassembled 56.1 assembled 56.1.1	For all applications Standard separator with a wide base for maximum holding force.
		Part No. Separator, narrow top unassembled 56.2 assembled 56.2.1	For even faster installation Wide on one side for high holding force, narrow on opposite side for easy cable fitting.
		Part No. Separator, narrow unassembled 56.3 assembled 56.3.1	For a large number of thin cables Separator with a narrow base for a large number of thin cables side by side. Saves space.
		Part No. Separator, asymmetrical unassembled 56.4 assembled 56.4.1	For side-mounted applications Asymmetrical separator, for defined gap distance. No additional spacers required.
		Part No. Notch separator unassembled 56.5 assembled 56.5.1	Locks securely in preset increments Notch separator for exact positioning. Recommended for side-mounted applications.
		Part No. Shelf unassembled 520.X assembled 521.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	520.050	521.050	125	520.125	521.125	225	520.225	521.225	375	520.375	521.375
065	520.065	521.065	150	520.150	521.150	250	520.250	521.250	387	520.387	521.387
075	520.075	521.075	175	520.175	521.175	300	520.300	521.300	450	520.450	521.450
100	520.100	521.100	200	520.200	521.200	350	520.350	521.350			

Interior separation | Other optional elements for higher holding force



Note: Please be aware of the minimum lateral gap to the side links! **e-tube: 40mm** | **e-chain®: 16mm**
As standard separators are fitted every 2nd e-chain® link!

		Part No. Notch locking separator* unassembled 56.6 assembled 56.6.1	Notch locking separator for increased holding force For higher crossbar opening forces for high humidity and/or large hydraulic hoses. They can be positioned precisely and then locked in position.
--	--	--	--

The Chinese company LGMG builds vehicles with telescopic work platforms



Installing street lighting, repairing ships, taking photos: the Chinese company LGMG builds vehicles with telescopic work platforms for these purposes. For the guidance of power and data cables, the company uses hybrid e-chains® (YE.42.10.100.0) and chainflex® cables from igus® over a travel of around 40 metres. As the hybrid chains are made of steel and high-performance plastic, they were able to reduce the weight of the telescopic arm. The solution also optimised the straightness and torsional strength of the cable guidance.

Product range



Part No. e-chains® with crossbars every link	Part No. e-tubes closed		Bi [mm]	Ba [mm]	E4.112 [kg/m]	R4.112 [kg/m]
YEHD.112.	YRHD.112.	20.□.0	200	248	≈ 21.724	≈ 23.492
YEHD.112.	-	207.□.0	207	255	≈ 21.780	-
YEHD.112.	-	21.□.0	212	260	≈ 21.797	-
YEHD.112.	-	22.□.0	225	273	≈ 21.858	-
YEHD.112.	-	23.□.0	237	285	≈ 21.914	-
YEHD.112.	YRHD.112.	25.□.0	250	298	≈ 21.976	≈ 24.165
YEHD.112.	-	26.□.0	262	310	≈ 22.032	-
YEHD.112.	-	27.□.0	275	323	≈ 22.093	-
YEHD.112.	-	28.□.0	287	335	≈ 22.150	-
YEHD.112.	YRHD.112.	30.□.0	300	348	≈ 22.211	≈ 24.838
YEHD.112.	-	31.□.0	312	360	≈ 22.267	-
YEHD.112.	-	32.□.0	325	373	≈ 22.328	-
YEHD.112.	-	33.□.0	337	385	≈ 22.385	-
YEHD.112.	YRHD.112.	35.□.0	350	398	≈ 22.446	≈ 25.505
YEHD.112.	-	36.□.0	362	410	≈ 22.553	-
YEHD.112.	-	37.□.0	375	423	≈ 22.616	-
YEHD.112.	-	38.□.0	387	435	≈ 22.674	-

Part No. e-chains® with crossbars every link	Part No. e-tubes closed		Bi [mm]	Ba [mm]	E4.112 [kg/m]	R4.112 [kg/m]
YEHD.108.		387.□.0*	387	435	≈ 23.265	-
YEHD.112.	YRHD.112.	40.□.0	400	448	≈ 22.737	≈ 26.190
YEHD.112.	-	41.□.0	412	460	≈ 22.795	-
YEHD.112.	-	42.□.0	425	473	≈ 22.858	-
YEHD.112.	-	43.□.0	437	485	≈ 22.916	-
YEHD.112.	-	45.□.0	450	498	≈ 22.979	-
YEHD.112.	-	46.□.0	462	510	≈ 23.037	-
YEHD.112.	-	47.□.0	475	523	≈ 23.100	-
YEHD.112.	-	48.□.0	487	535	≈ 23.159	-
YEHD.112.	YRHD.112.	50.□.0	500	548	≈ 23.222	≈ 27.394
YEHD.112.	-	51.□.0	512	560	≈ 23.296	-
YEHD.112.	-	52.□.0	525	573	≈ 23.360	-
YEHD.112.	-	53.□.0	537	585	≈ 23.418	-
YEHD.112.	-	55.□.0	550	598	≈ 23.482	-
YEHD.108.		550.□.0*	550	598	≈ 24.322	-
YEHD.112.	-	60.□.0	600	648	≈ 23.726	-

Available bend radii R [mm] | 250 | 325 | 400 | 500 | 600 |

Note: *YEHD.108 series heavy-duty version with reinforced, bolted crossbars for higher loads,
Part No. YEHD.108.387.□.0 and YEHD.108.550.□.0.

Order key

YE. 112. 20. 400. 0

Series / Type	Inner height	Width index	Bend radius	Colour index
---------------	--------------	-------------	-------------	--------------

Order example:

Complete Part No. with the required radius R . Example:

YEHD.112.20.400.0 = crossbars removable along the inner and outer radius

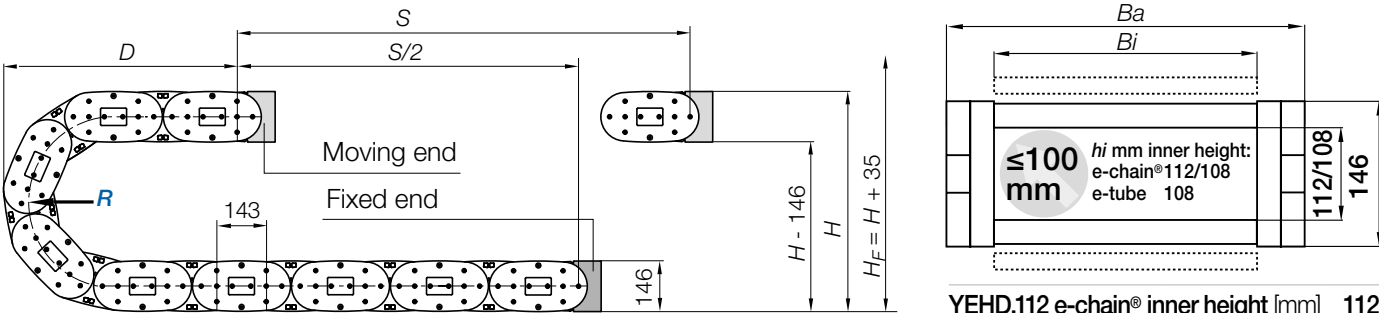
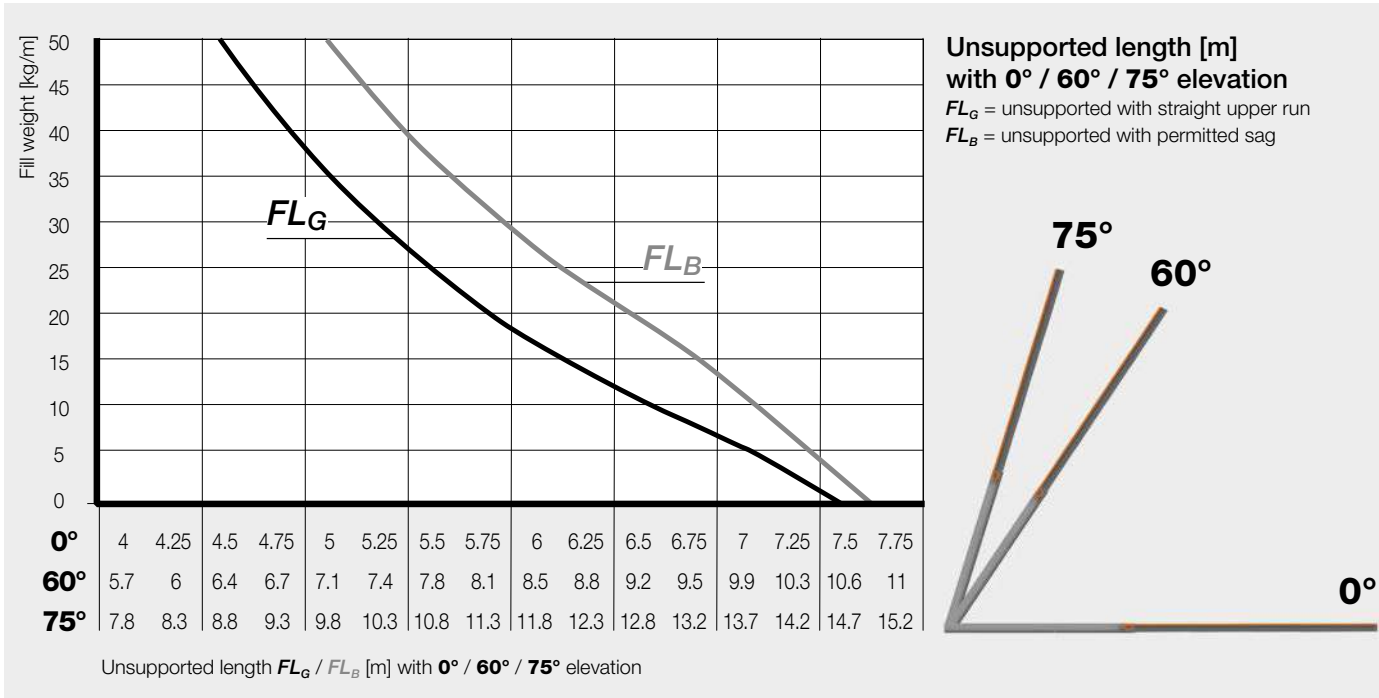
YEHD.108.387.400.0 = reinforced, bolted crossbars, removable

YRHD.108.20.400.0 = lids openable along the outer radius from one side

Order index for colour options ► www.igus.eu/info-colours

Available from stock
Upon request

Unsupported applications | Long unsupported lengths, ideal for inclined axes

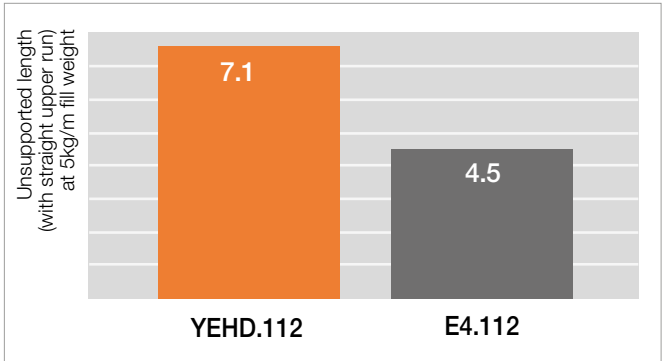


R	250	325	400	500	600
H	670	820	970	1,170	1,370
D	540	615	690	790	890
K	1,075	1,310	1,545	1,860	2,175

The required clearance height: $H_F = H + 35$ mm (with 10kg/m fill weight)

YEHD.112 e-chain® inner height [mm]	112
YEHD.108 e-chain® inner height [mm]	108
YERD.108 e-tube inner height [mm]	108
Pitch [mm]	143
Links/m [pc.]	7
corresponds to [mm]	1,001
e-chain® length	$L_K = S/2 + K$

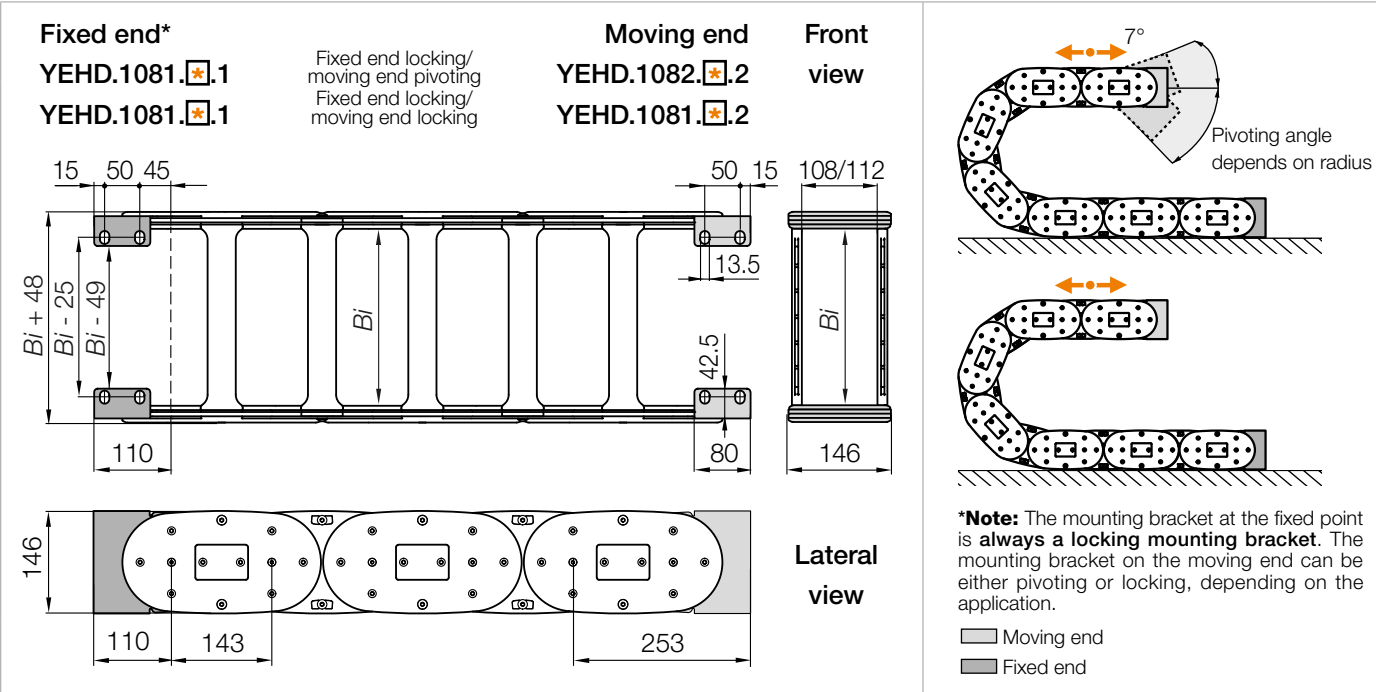
Test - unsupported length FL_G with 5kg/m fill weight



In a comparison test in its test laboratory, which is the largest in the industry, igus® compared the YEHD and E4.1 series with each other. The two systems were evaluated with regard to their unsupported length (with straight upper run) with a 5kg/m fill weight.

Result: With a fill weight of 5kg/m, the YEHD.112 series can travel up to 7.1m unsupported versus only 3.4m for the E4.112.

Steel mounting brackets | Locking | Pivoting



Part No. Full set	Part No. Full set
Moving end pivoting, fixed end* locking	Moving end locking, fixed end* locking

YEHD.1082.12.A YEHD.1081.12.A

Part No. Steel mounting brackets as individual parts	Part No. Steel mounting brackets as individual parts	Part No. Steel mounting brackets as individual parts
Only fixed end*, locking	Only moving end, locking	Only moving end, pivoting

YEHD.1081.1.A YEHD.1081.2.A YEHD.1082.2.A

Note: The e-chains® may end with either an inner or an outer side link. An outer side link should always be the first e-chain® link at the moving end. Please specify the index 1 (for odd) or 2 (for even) depending on an even or odd number of links required.

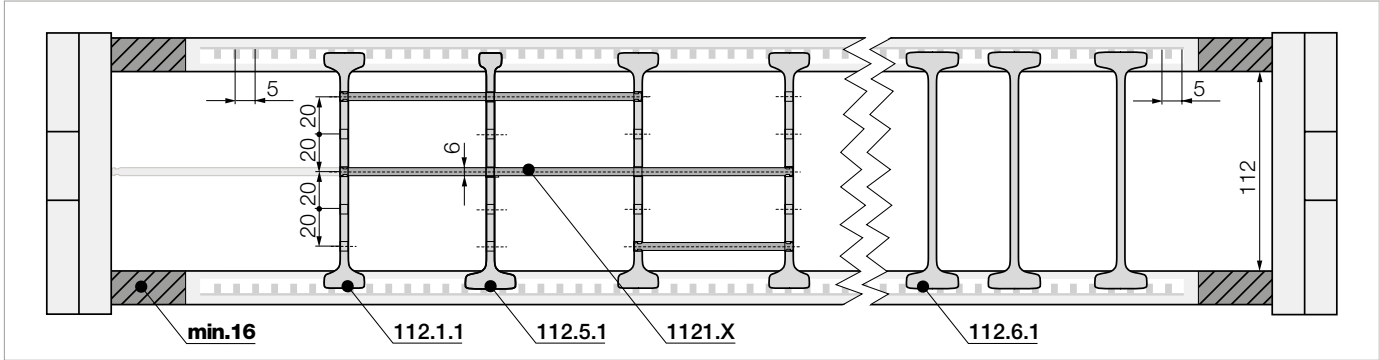
Order key

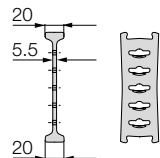
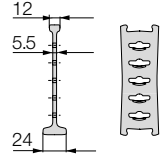
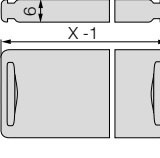
YEHD.1081.1.12.A

Note: Possible variations for pre-fitted YE steel mounting brackets. Please add index .A to receive mounting brackets pre-fitted.

Series: Moving end locking / Fixed end* locking, Odd number of links, Full set, Pre-fitted

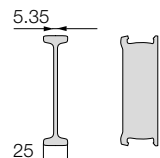
Interior separation | Increase cable service life



		Part No. Standard separator unassembled 112.1 assembled 112.1.1	For all applications Standard separator with a wide base for maximum holding force.
		Part No. Notch separator unassembled 112.5 assembled 112.5.1	Locks securely in preset increments Notch separator for exact positioning. Recommended for side-mounted applications.
		Part No. Shelf unassembled 1120.X assembled 1121.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

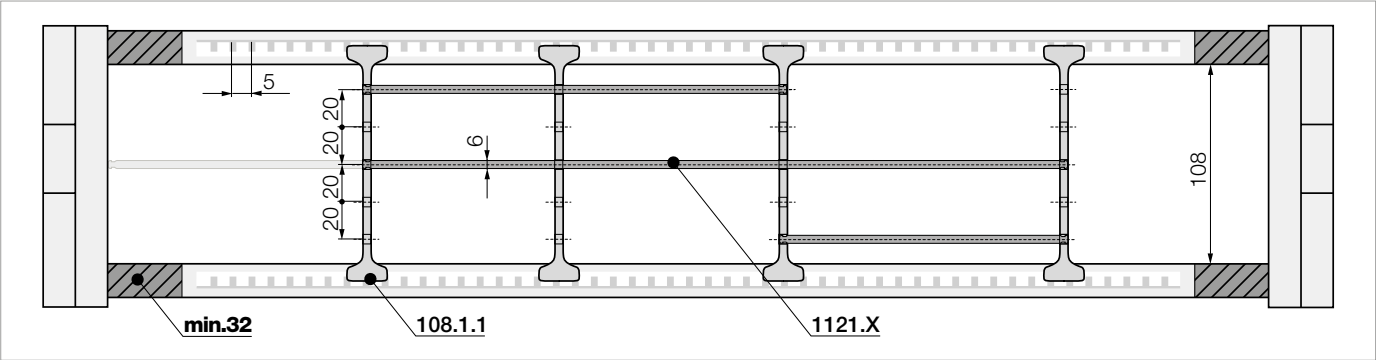
Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	1120.050	1121.050	125	1120.125	1121.125	225	1120.225	1121.225	375	1120.375	1121.375
065	1120.065	1121.065	150	1120.150	1121.150	250	1120.250	1121.250	387	1120.387	1121.387
075	1120.075	1121.075	175	1120.175	1121.175	300	1120.300	1121.300	450	1120.450	1121.450
100	1120.100	1121.100	200	1120.200	1121.200	350	1120.350	1121.350			

Interior separation | Other optional elements

		Part No. Notch locking separator unassembled 112.6 assembled 112.6.1	Notch locking separator for increased holding force For higher crossbar opening forces for high humidity and/or large hydraulic hoses. They can be positioned precisely and then locked in position.
---	---	---	--

Available from stock
Upon request

Interior separation | Increase cable service life



Note: Please be aware of the minimum lateral gap to the side links! **e-tubes: 32mm**
As standard separators are fitted every 2nd e-chain® link!

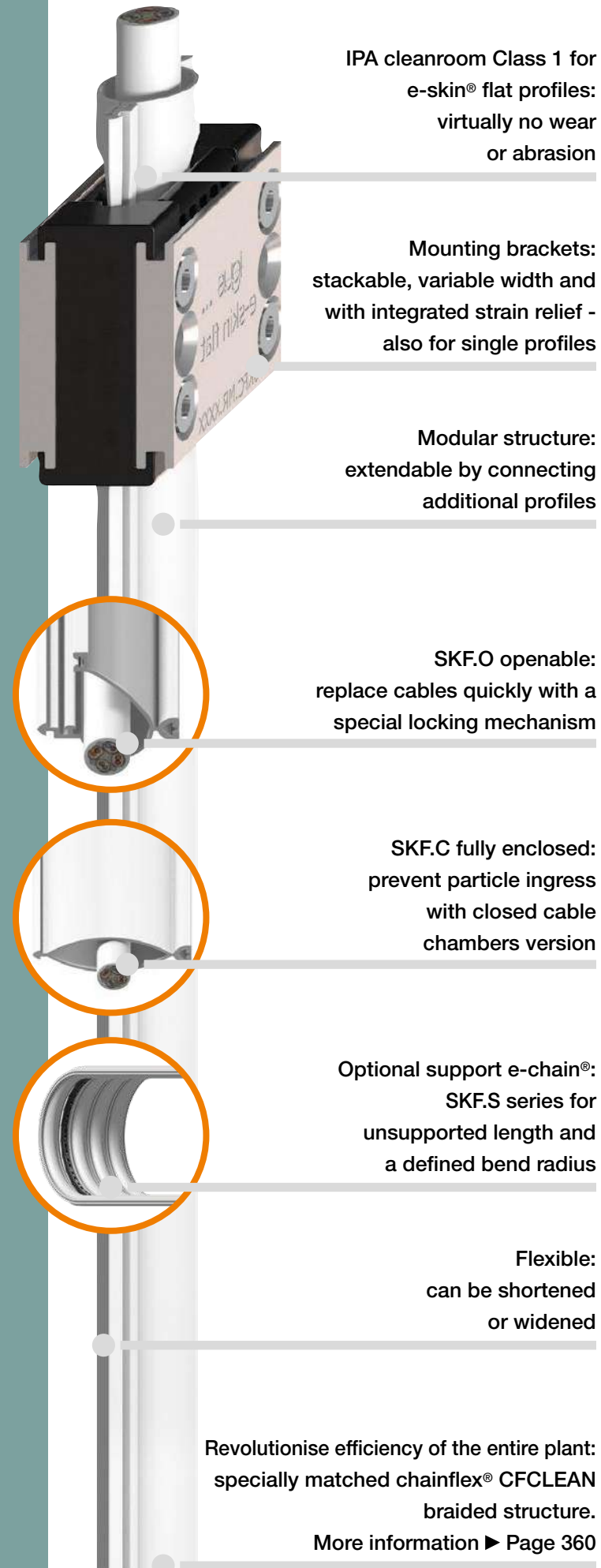
		Part No. Standard separator unassembled 108.1 assembled 108.1.1	For all applications Standard separator with a wide base for maximum holding force.
		Part No. Shelf unassembled 1120.X assembled 1121.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	1120.050	1121.050	125	1120.125	1121.125	225	1120.225	1121.225	375	1120.375	1121.375
065	1120.065	1121.065	150	1120.150	1121.150	250	1120.250	1121.250	387	1120.387	1121.387
075	1120.075	1121.075	175	1120.175	1121.175	300	1120.300	1121.300	450	1120.450	1121.450
100	1120.100	1121.100	200	1120.200	1121.200	350	1120.350	1121.350			

Hybrid tube YRHD used at DWK Drahtwerk Köln as a replacement for steel tube



High strength and high fill weight - both requirements of the DKW Drahtwerk Köln have led to the selection of the hybrid chain YRHD.108.25.500.0 (e-tube variant) in order to implement the unsupported travel length of 12.5m with a fill weight of 28kg/m. The lid and shelves of the energy tube can be opened so that it is possible to add or replace cables later.



Connectable e-skin® flat profiles - SKF

The cable guides for automation systems and robots in the manufacture of displays, semiconductors, and microelectronic components have to meet special particle-free requirements. In contrast to commercially available solutions using fixed flat ribbon cables where cables are firmly fixed, the e-skin® flat energy supply system offers an openable chamber design that can be individually adjusted. Flexible braided cable elements (with or without connectors), e-skin® flat with support chains, hoses and so on, can now be changed or added in a few minutes.

Benefits

- Available in 2 versions: closed and openable with a special closure system
- Modular and compact design
- Optional with support e-chain® for longer unsupported lengths
- Multi-layer model possible
- Flexible, standard modular system, no special production, short delivery times
- Saving resources, as only individual elements are replaced in case of damage
- Replaces customer-specific flat ribbon cable
- chainflex® CFCLEAN cable offers high reliability thanks to its balanced braided structure

Typical application areas

- Cleanroom applications with compact installation spaces
- Short travels
- Display and semiconductor production
- LCD/LED panel production

Selection table

Series Flat profiles	Inner height <i>hi</i> [mm]	Outer height <i>ha</i> [mm]	Number of clamps per layer	Cable ≤ Ø [mm]	Page
SKF.C - e-skin® flat, with closed cable chambers					
SKF10C	10	11	1 - 6	8	356
SKF12C*	12	13	1 - 6	10	356
SKF15C*	15	16	1 - 6	13	356

SKF.O - e-skin® flat, openable with a special locking mechanism

SKF10O.	10	11	1 - 6	8	356
SKF12O	12	13	1 - 6	10	356
SKF15O	15	16	1 - 6	13	356

Series Support e-chain®	Width [mm]	Height [mm]	Bend radius <i>R</i> [mm]	Pitch [mm]	Page
----------------------------	---------------	----------------	------------------------------	---------------	------

SKF.S - support e-chain® for unsupported length and a defined bend radius

SKF.S.08	8	8	040 -100	18 -25	357
SKF.S.10	10	10	125	30	357

* Support e-chain® optional.

Technical data

General properties

Energy supply system, igumer SKF material - permitted temperature °C	+10°C up to +50°C
Mounting bracket, aluminium - permitted temperature °C	+10°C up to +50°C
Flammability class	UL94-HB

Proof IPA classification

IPA classification - report IG 2102-1212 for SKF, one layer with support chain

IPA classification - report IG 2107-1242 for SKF, three layers with support chain

Test parameters		Result
$v_1 = 0.5\text{m/s}$	$a_1 = 1.0\text{m/s}^2$	Cleanroom class 1
$v_2 = 1.0\text{m/s}$	$a_2 = 2.0\text{m/s}^2$	Cleanroom class 1
$v_3 = 2.0\text{m/s}$	$a_3 = 4.0\text{m/s}^2$	Cleanroom class 1
Overall result		ISO Class 1

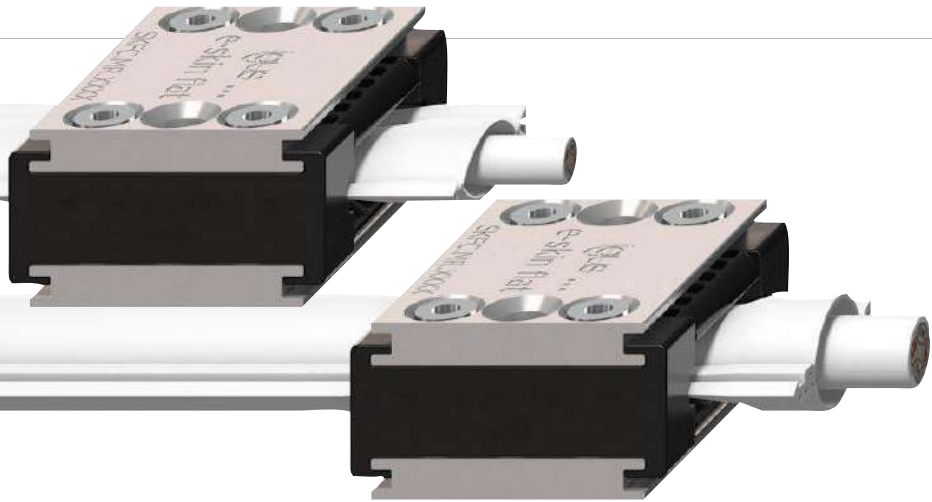


Note: This type of system should be designed in conjunction with our engineering team. All information about these series is for guidance only - cleanroom solutions of this type should be designed in conjunction with igus® ► www.igus.eu/contact

Product range

SKF.C

SKF.O

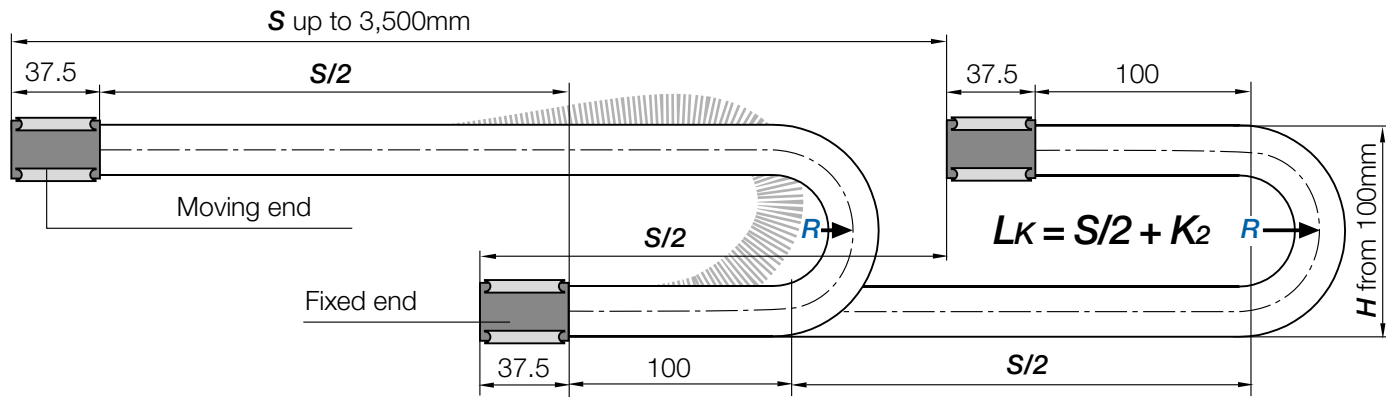


Part No.	Inner height <i>hi</i> [mm]	Outer height <i>ha</i> [mm]	Number of chambers	Cable ≤ <i>ø</i> [mm]	Weight [kg/m]
SKF.C fully enclosed, can be combined with support e-chain®					
SKF10C.1.1.10	10	11	2 - 6	8	≈ 0.032
SKF12C.1.1.10*	12	13	2 - 6	10	≈ 0.036
SKF15C.1.1.10*	15	16	2 - 6	13	≈ 0.042
SKF.O openable, with a special locking mechanism					
SKF10O.1.1.10	10	11	2 - 6	8	≈ 0.043
SKF12O.1.1.10	12	13	2 - 6	10	≈ 0.046
SKF15O.1.1.10	15	16	2 - 6	13	≈ 0.055

*Support e-chain® for unsupported length and an optionally available, defined bend radius ► please see next page.

Note: This type of system should be designed in conjunction with our engineering team.

Installation dimensions



Note: The nominal clearance height = *H* and the allowance for the bend radius = *K* in the calculation of the energy supply length depend on the largest bend radius of the routed cables and their stiffness.

The following generally applies: $H = 2 \times R$ (largest bend radius of fitted cables) and or the used support chain $K = \pi \times R$ (largest bend radius of fitted cables) + 2 x 100mm + 2 x 37.5mm.



Note: This type of system should be designed in conjunction with our engineering team. All information about these series is for guidance only - cleanroom solutions of this type should be designed in conjunction with igus® ► www.igus.eu/contact

Product range SKF.S | Support e-chain®



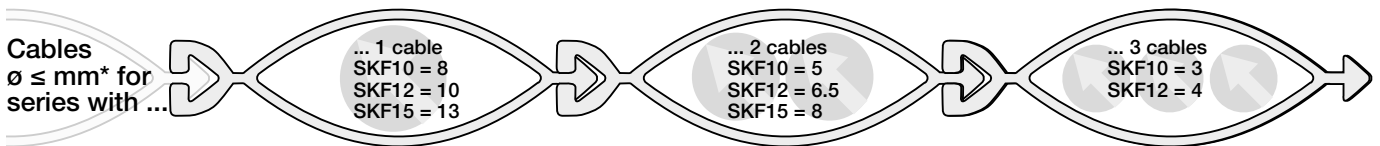
Part No.	Height [mm]	<i>R</i> [mm]	Pitch [mm]	Max. travel [m]*	Weight [kg/m]	For e-skin® SKF.C series
Support e-chain® SKF.S.08 for e-skin® SKF12C						
SKF.S.08.040.01.0	8	040	18	1.4	≈ 0.073	SKF12C.1.1.10
SKF.S.08.070.01.0	8	070	25	2.6	≈ 0.073	SKF12C.1.1.10
SKF.S.08.100.01.0	8	100	25	3.0	≈ 0.073	SKF12C.1.1.10
Support e-chain® SKF.S.10 for e-skin® SKF15C						
SKF.S.10.125.01.0	10	125	30	3.5	≈ 0.165	SKF15C.1.1.10

*Depending on the load, can only be realised with several e-skin® flat with support chains.

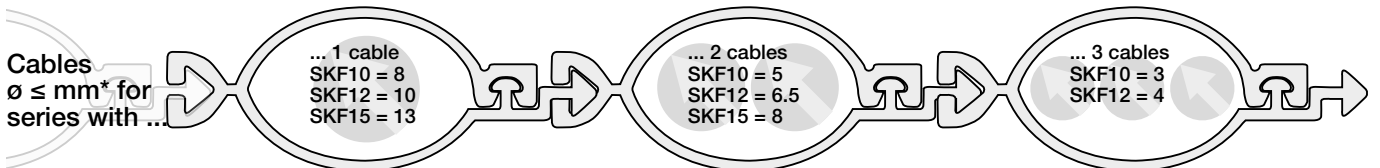
Note: This type of system should be designed in conjunction with our engineering team.

e-skin® flat variants | Openable, closed and closed with support e-chain®

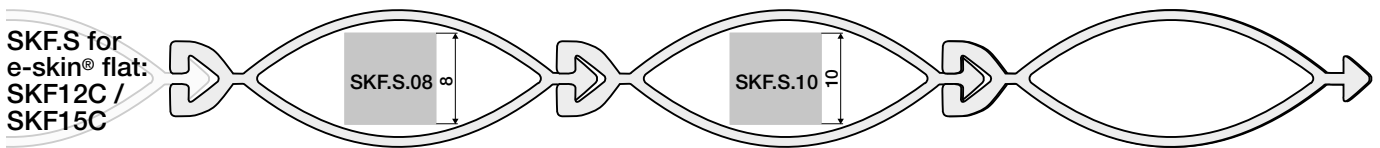
The e-skin® flat profiles consist of individually connectable cable chambers. One or more cables can be put into these chambers. Here at least 2 chambers must be connected with each other. One chamber is closed or opened at a time and extended with further chambers until the required width is reached. For the closed single profiles SKF12C and SKF15C, a support chain is available, which equips the e-skin® flat with an unsupported length and the defined radius.



SKF.C fully enclosed. *Max. cable diameter depending on the number of cables fitted.

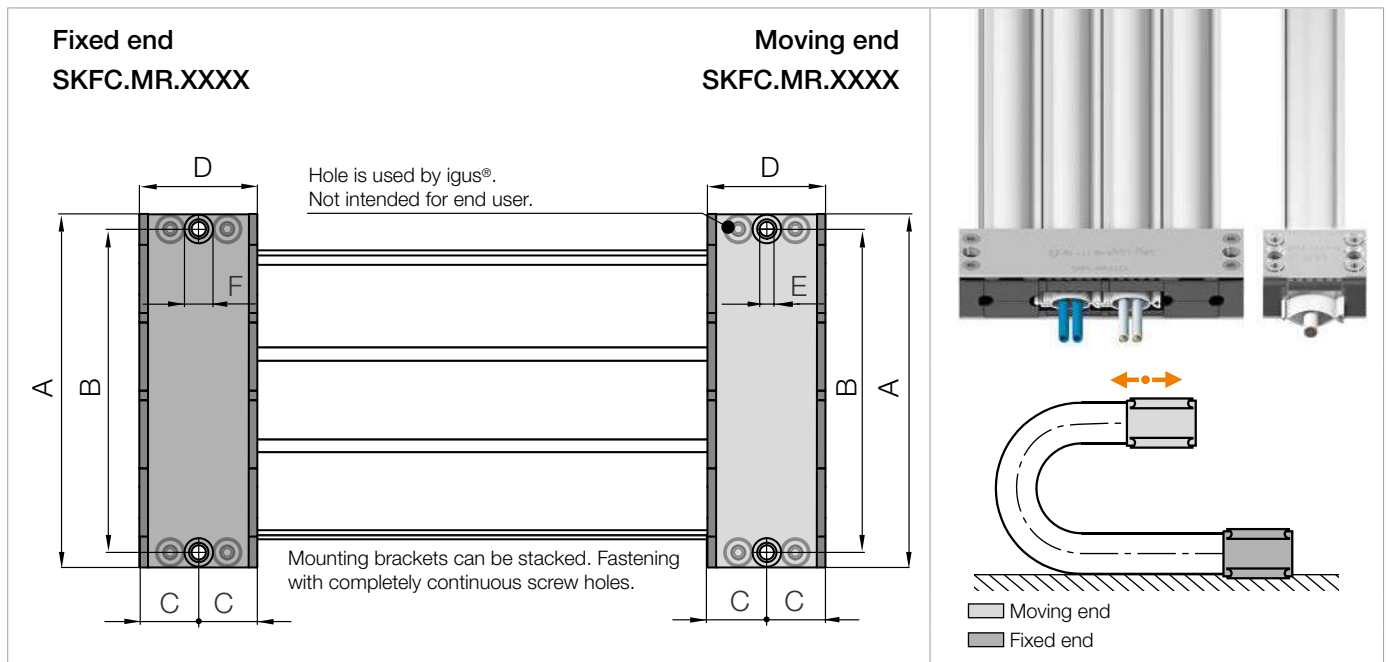


SKF.O openable. *Max. cable diameter depending on the number of cables fitted.



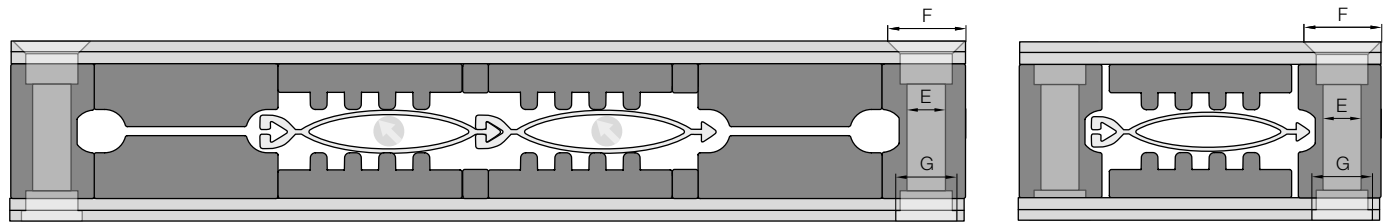
SKF.S support e-chain® (only in combination with SKF.C)

Aluminium mounting brackets | Stackable



KMA	A	B	C	D	E ø	F ø	G ø
without tiwrap plates	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
SKFC.MR.XXXX*	41 - 166.5	31.5 - 157	18.75	37.5	4.5	9	7

*Available for single and connected profiles of the e-skin® flat system.



Schematic representation of the mounting brackets - variable width for connected and single profiles.

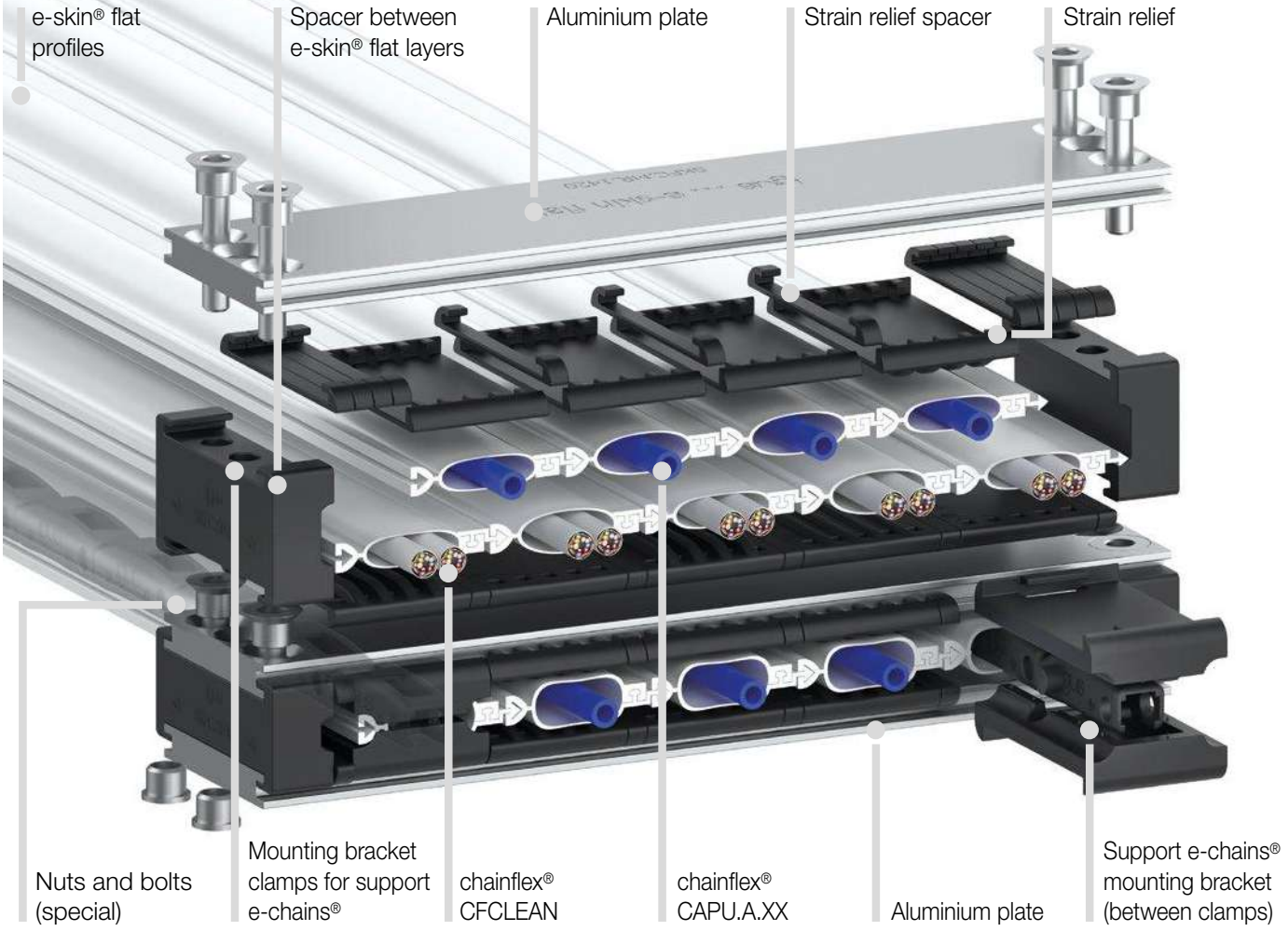


Note: This type of system should be designed in conjunction with our engineering team.
All information about these series is for guidance only - cleanroom solutions of this type should be designed in conjunction with igus® ► www.igus.eu/contact



Available from stock
Upon request

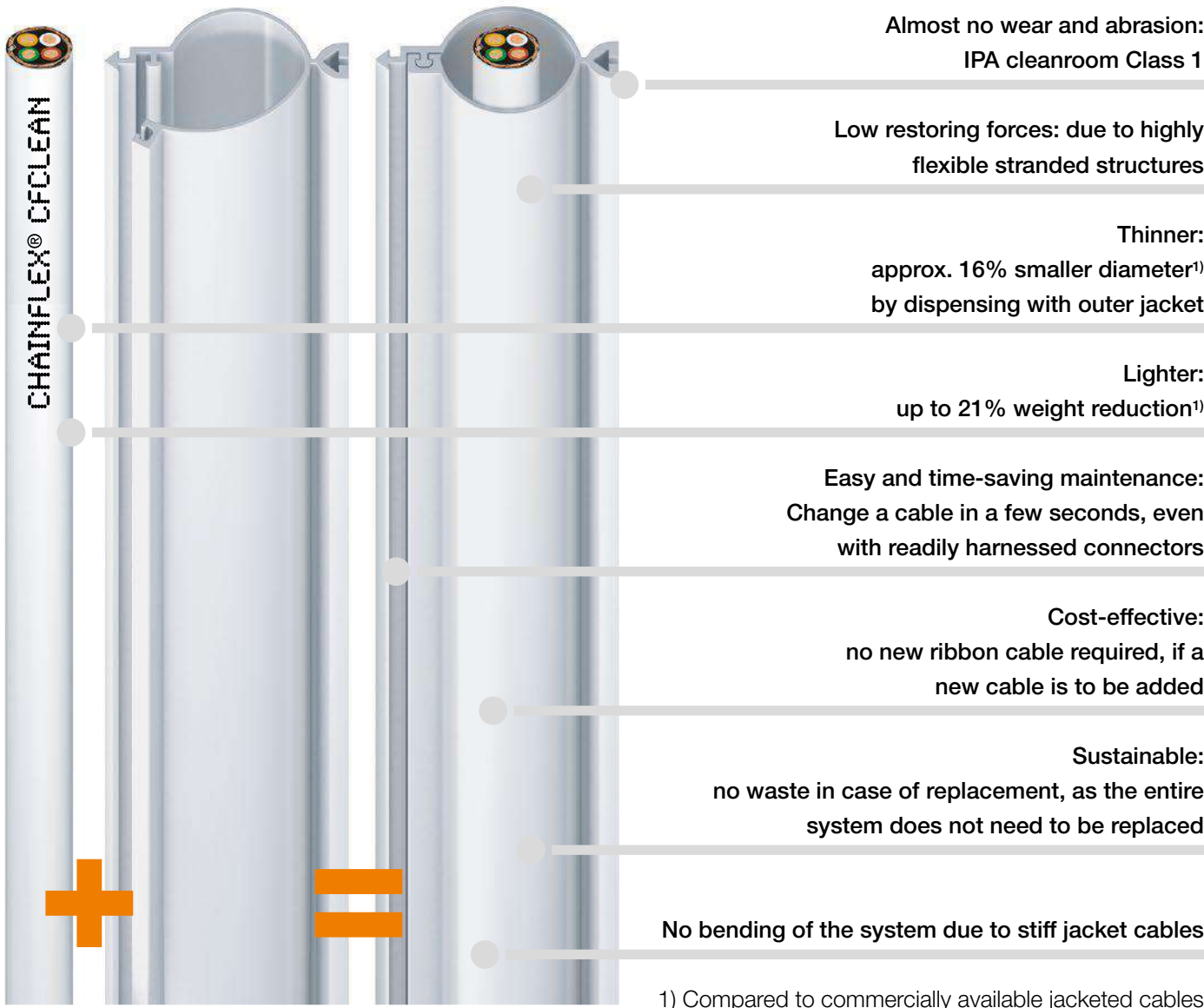
Aluminium mounting brackets design principle



e-skin® flat profiles | Application example - in VPG systems



The e-skin® flat ribbon cable convinced Heidelberg Instruments and is used in Volume Pattern Generator systems (VPG). This compact system allows very small bend radii and is resistant to wear and abrasion during movement so that it can be used in cleanrooms - even in multiple layers, as tests by Fraunhofer IPA confirm.



Powerful combination for your cleanroom - e-skin® flat with chainflex® CFCLEAN

The CFCLEAN product family has been specially developed and tested for use in e-skin® flat. The following goals were pursued during development: Very high flexibility with low restoring forces of maximum weight and diameter reduction. The high degree of flexibility was achieved by particularly fine stranded special conductors in a particularly soft and bend-resistant design. The low restoring forces with weight reduction were realised by dispensing with an outer jacket, the shielded stranded structures being guided by low-adhesion, particularly abrasion-resistant and highly banding based on PTFE with very high flexural strength. From stock, available from 1m.

- Up to 4-year guarantee: for 40 million double strokes with 70mm-bend radius
- Certified for use in cleanrooms
- With UL AWM certification
- All standard core/cross section combinations available

Typical application areas

- Flat Panel Display (FPD) industry
- Semiconductor production
- Production of OLEDs
- Medical technology
- Microelectronics industry

chainflex® cable	Bend radius [factor x d]	Temperature from/to [°C]	Approvals and standards	v max. [m/s] unsupported	a max.
Control elements					
CFCLEAN1	70	-10/+80		2	40
Coax elements					
CFCLEAN2	70	-10/+80		2	40
Data elements					
CFCLEAN3	70	-10/+80		2	40
Measuring system elements					
CFCLEAN4	70	-10/+80		2	40
Motor elements					
CFCLEAN7	70	-10/+80		2	40
Bus elements					
CFCLEAN8	70	-10/+80		2	40

Note: chainflex® CFCLEAN are not cables in the sense of the standards for wires and cables. Due to the absence of the outer jacket in CFCLEAN, which provides mechanical protection for cables, the use of chainflex® CFCLEAN is only permitted in e-skin® flat.

Proof IPA classification

IPA Classification - report IG 2107-1242, material/braided structure CFCLEAN3.01.05.02 and CAPU.A.06.0

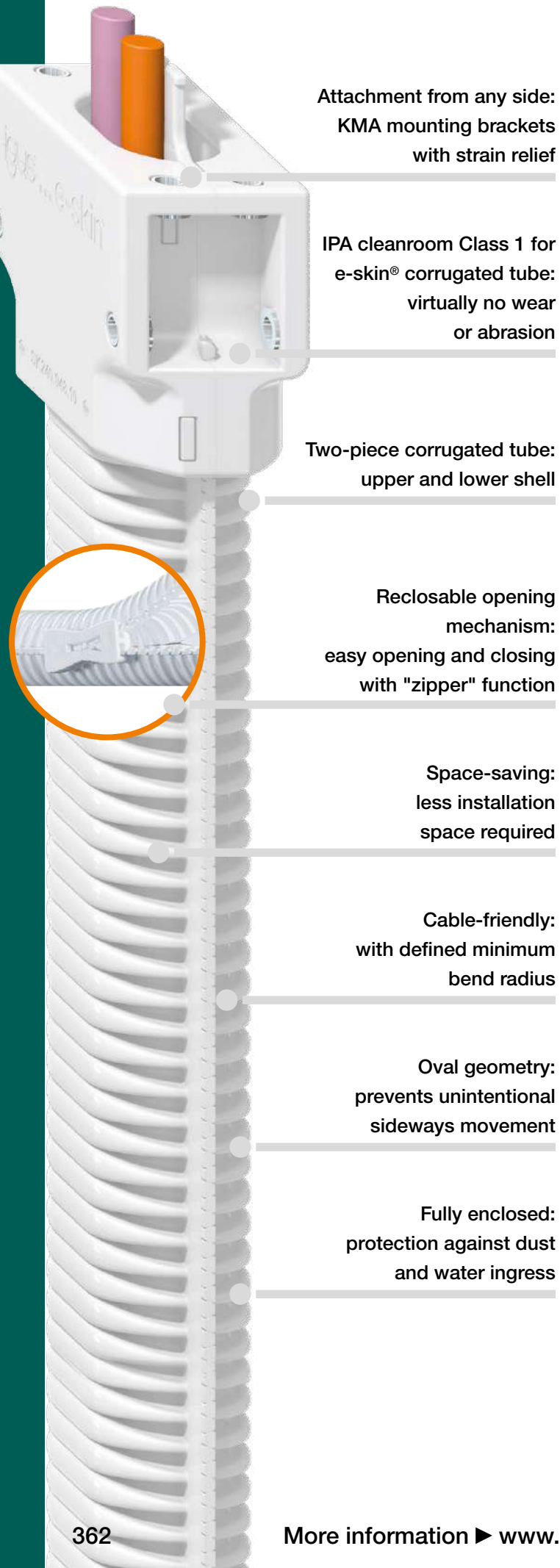
Test parameters		Result
v ₁ = 0.5m/s	a ₁ = 1.0m/s ²	Cleanroom class 1
v ₂ = 1.0m/s	a ₂ = 2.0m/s ²	Cleanroom class 1
v ₃ = 2.0m/s	a ₃ = 4.0m/s ²	Cleanroom class 1
Overall result		ISO Class 1



igus 4-year chainflex cable guarantee and service life calculator based on 2 billion test cycles per year



chainflex® guarantee - as these types are solutions for special applications, please contact us directly for information on the guaranteed service life ► info@igus.de



Attachment from any side:
KMA mounting brackets
with strain relief

IPA cleanroom Class 1 for
e-skin® corrugated tube:
virtually no wear
or abrasion

Two-piece corrugated tube:
upper and lower shell

Reclosable opening
mechanism:
easy opening and closing
with "zipper" function

Space-saving:
less installation
space required

Cable-friendly:
with defined minimum
bend radius

Oval geometry:
prevents unintentional
sideways movement

Fully enclosed:
protection against dust
and water ingress

Cleanroom corrugated tube energy supply system - e-skin® SK, SKS

To keep cleanrooms particle-free, all machine parts, including energy supplies, must be abrasion-resistant. The e-skin® corrugated tube supplies systems with data, media, and energy without unwanted particles contaminating the air. The corrugated tube consists of separable upper and lower shells, which can be easily put together by a "zipper" to a fully enclosed tube. The simple reclosable mechanism enables easy maintenance and inspection of the installed cables.

Benefits

- Abrasion-resistant
- IPA classification ISO Class 1
- Compact and modular design
- Easy to open and flexible filling
- Reclosable opening mechanism
- e-skin® SK for longer unsupported lengths
- e-skin® soft SKS with more elastic material and lower installation height
- 5dB(A) quieter than usual "clean cable"
- Interior separation system consisting of "tribo-optimised" iglidur® material - to further minimise abrasion between the cables

Typical application areas

- Cleanroom
- Fast, short, unsupported applications
- Hanging and standing applications
- Display and semiconductor production
- Pick & place applications
- Medical technology
- All machines that use corrugated tubes

Selection table

Part No.	Inner height <i>hi</i> [mm]	Outer height <i>ha</i> [mm]	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Bend radius <i>R</i> [mm]	Unsupported length ≤ [m]	Page
----------	--------------------------------	--------------------------------	-------------------------------	-------------------------------	------------------------------	-----------------------------	------

e-skin® SK - corrugated tube energy supply for longer unsupported lengths

SK28	28	40	68	95	055	1.1	364
SK40	38	57	85	118	100	2.0	364

e-skin® soft SKS - corrugated tube energy supply with more elastic material and lower clearance height

SKS20	20	25	33	50	055	0.6	364
SKS24	24	36	48	75	055	0.7	364
SKS28	28	40	68	95	055	0.7	364
SKS40	38	57	85	118	100	1.3	364

Technical data

General properties

Speed <i>FL_G</i> /acceleration <i>FL_G</i>	≤ 10m/s / ≤ 75m/s ²
SK energy supply system, igumer S material - permitted temperature °C	-10°C / +50°C
SK energy supply system, igumer SKS material - permitted temperature °C	-10°C / +50°C
Mounting bracket, igumid® NB material - permitted temperature °C	-10°C / +50°C
Flammability class	UL94-HB

Installation types, maximum travel lengths

Series	Unsupported	Vertical hanging	Vertical standing	Side mounted, unsupported
SK28	≤ 2.20m	upon request	upon request	upon request
SK40	≤ 4.00m	upon request	upon request	upon request
SKS20	≤ 1.20m	upon request	upon request	upon request
SKS24	≤ 1.40m	upon request	upon request	upon request
SKS28	≤ 1.40m	upon request	upon request	upon request
SKS40	≤ 2.60 m	upon request	upon request	upon request

Proof IPA classification

Report No. IG 1504-755 for 0.SK28.068.02.1 (prototype)
Report No. IG 1907-1125 for SKS28.068.02.1 including cables

Test parameters	Result
$v_1 = 0.5\text{m/s}$ $a_1 = 1.0\text{m/s}^2$	Cleanroom class 1
$v_2 = 1.0\text{m/s}$ $a_2 = 2.0\text{m/s}^2$	Cleanroom class 1
$v_3 = 2.0\text{m/s}$ $a_3 = 4.0\text{m/s}^2$	Cleanroom class 1
Overall result	ISO Class 1



Product range



Part No. SK	Part No. SKS	hi [mm]	ha [mm]	Bi [mm]	Ba [mm]	R min. [mm]	SK H _F [mm]	SKS H _F [mm]	Weight [kg/m]
–	SKS20.033.02.1	20	25	33	50	055	–	160 ¹⁾ /200 ¹⁾	≈ 0.20
–	SKS24.048.02.1	24	36	48	75	055	–	200 ²⁾	≈ 0.40
SK28.068.02.1	SKS28.068.02.1	28	40	68	95	055	265 ²⁾	200 ²⁾	≈ 0.54
SK40.085.02.1	SKS40.085.02.1	38	57	85	118	100	450 ²⁾	350 ²⁾	≈ 1.15

Note: *min. R.* The minimum bend radius is determined by the inner side corrugated tube!

1) Required clearance height: **H_F** with 0.50kg/m fill weight

2) Required clearance height: **H_F** with 0.75kg/m fill weight

***H_F**: 160mm at S < 200m / **H_F**: 200mm at S > 200m

Order key

SKS28.068.02.1

Series / Type	Inner height	Width index	Version	Colour index
---------------	--------------	-------------	---------	--------------

Note:
The minimum bend radius is determined by the inner side corrugated tube! No bend radius is specified in the part number, since it depends on travel and fill weight. The smallest specified radius below is the minimum to guarantee the service life of the cables. In most applications, however, the radius remains larger because the shape of the tube defines this.

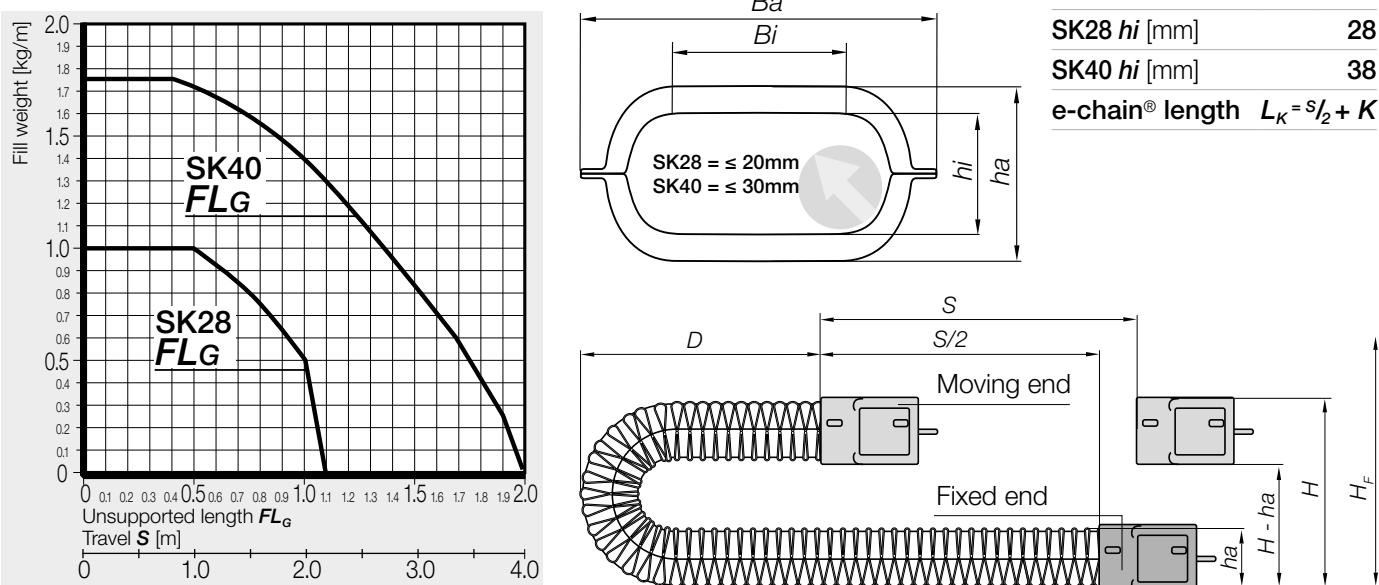
Also available - e-skin® hybrid corrugated tubes SKY

- e-skin® hybrid SKY combines the advantages of e-skin® SK and e-skin® soft SKF, available upon request
- 13% lower clearance height than e-skin® SK28 und 28% longer unsupported length than SKS28 (based on test results in the igus® laboratory)
- For unsupported length up to 1.4m and installation space from 200mm



Available from stock
Upon request

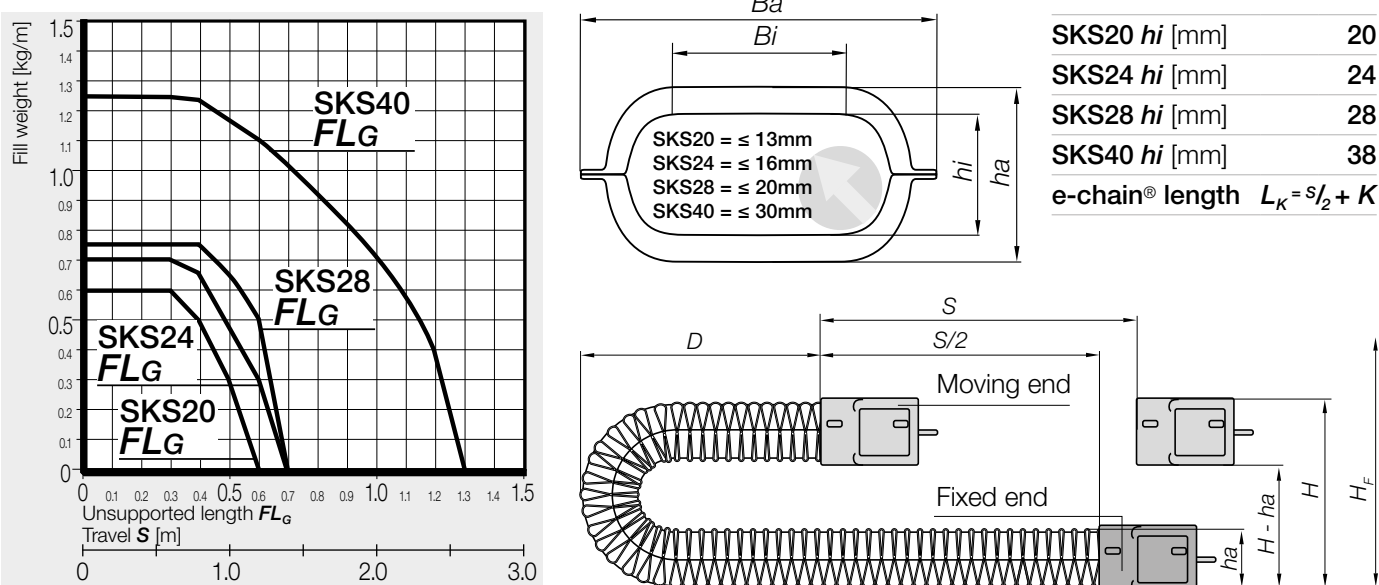
Installation dimensions SK



Series	SK28	SK40
<i>R min.</i>	055	100
H	250	350
D	160	300
K	399	707

Note: *min. R.* The minimum bend radius is determined by the inner side corrugated tube!

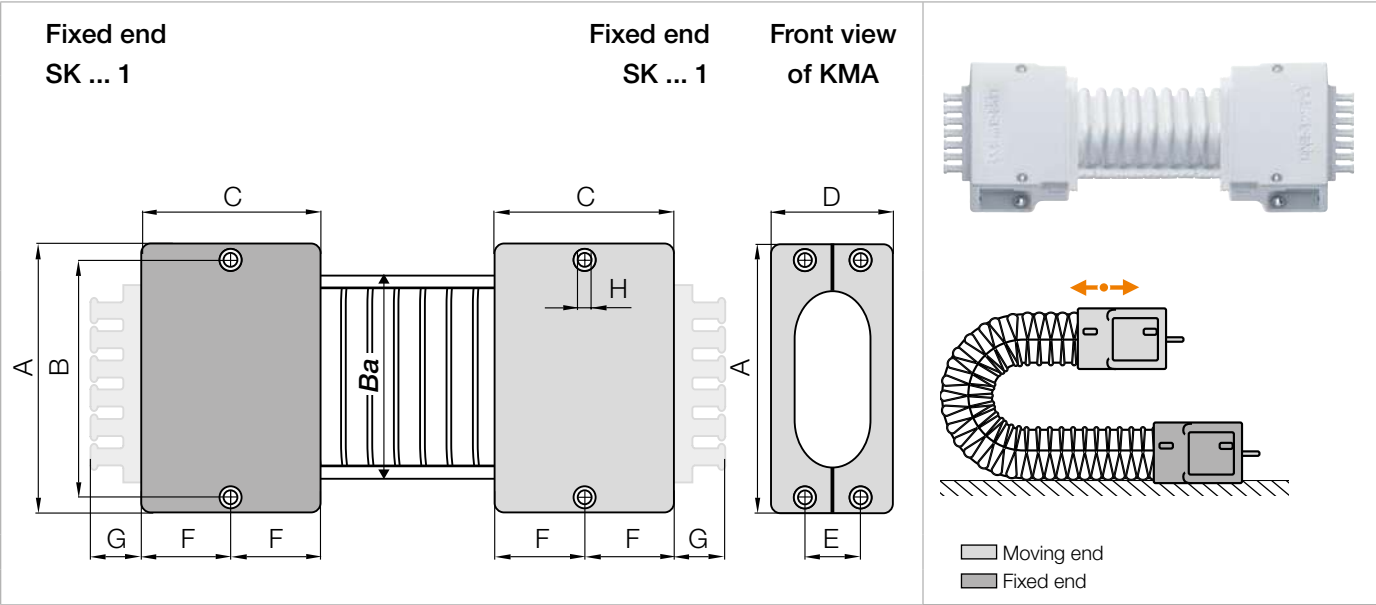
Installation height SKS



Series	SKS20	SKS24	SKS28	SKS40
<i>R min.</i>	055	055	055	100
H	150	150	150	300
D	125	150	160	300
K	300	310	280	630

Note: *min. R.* The minimum bend radius is determined by the inner side corrugated tube!

KMA mounting brackets | Attachment from any side



Width index	Part No. Full set		A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	Number of teeth
	KMA without tiewrap plates	KMA with tiewrap plates									
033.	–	SK200.033.12ZB.1	53	44	25	28	–	5	7	4.4	2 x 3
033.	–	SK201.033.12ZB.1*	56	44	40	31	12	10	7	4.4	2 x 3
048.	SK240.048.12.1	SK240.048.12ZB.1	84	72	68	42	17	35	18	5.8	4
068.	SK280.068.12.1	SK280.068.12ZB.1	104	92	68	46	21	35	18	5.8	6
085.	SK400.085.12.1	SK400.085.12ZB.1	126	114	70	66	41	35	18	5.8	8

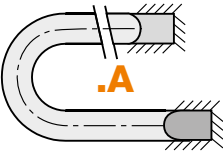
*Larger, reinforced mounting bracket for the smallest e-skin® soft SKS20.
(KMA = polymer metal mounting bracket)

Order key

SK280.068.12ZB.1 .A

Series	Width index	Full set	With integrated strain relief tiewrap plates	Colour index	Pre-fitted
--------	-------------	----------	--	--------------	------------

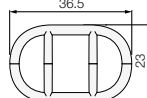
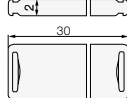
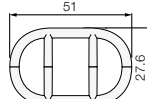
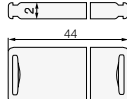
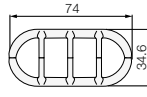
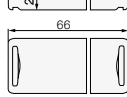
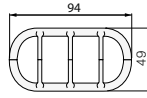
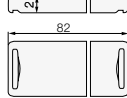
Note: The bracket orientations are set automatically when using this igus® KMA mounting bracket. To receive a KMA mounting bracket pre-fitted please add index **.A**.



Available from stock
Upon request

Interior separation | Smooth, round interior separation, iglidur® J material



Installation dimensions [mm]	Part No. Smooth, round interior separation*		Installation dimensions [mm]	Part No. Full-width shelf, continuous			
For SKS20 series							
		unassembled SK20.2.H.5	assembled SK20.2.H.5.1			unassembled 110.30.J	assembled 111.30.J
For SKS24 series							
		unassembled SK24.2.H.5	assembled SK24.2.H.5.1			unassembled 110.44.J	assembled 111.44.J
For SK28 / SKS28 series							
		unassembled SK28.3.H.5	assembled SK28.3.H.5.1			unassembled 110.66.J	assembled 111.66.J
For SK40 / SKS40 series							
		unassembled SK40.3.H.5	assembled SK40.3.H.5.1			unassembled 110.82.J	assembled 111.82.J

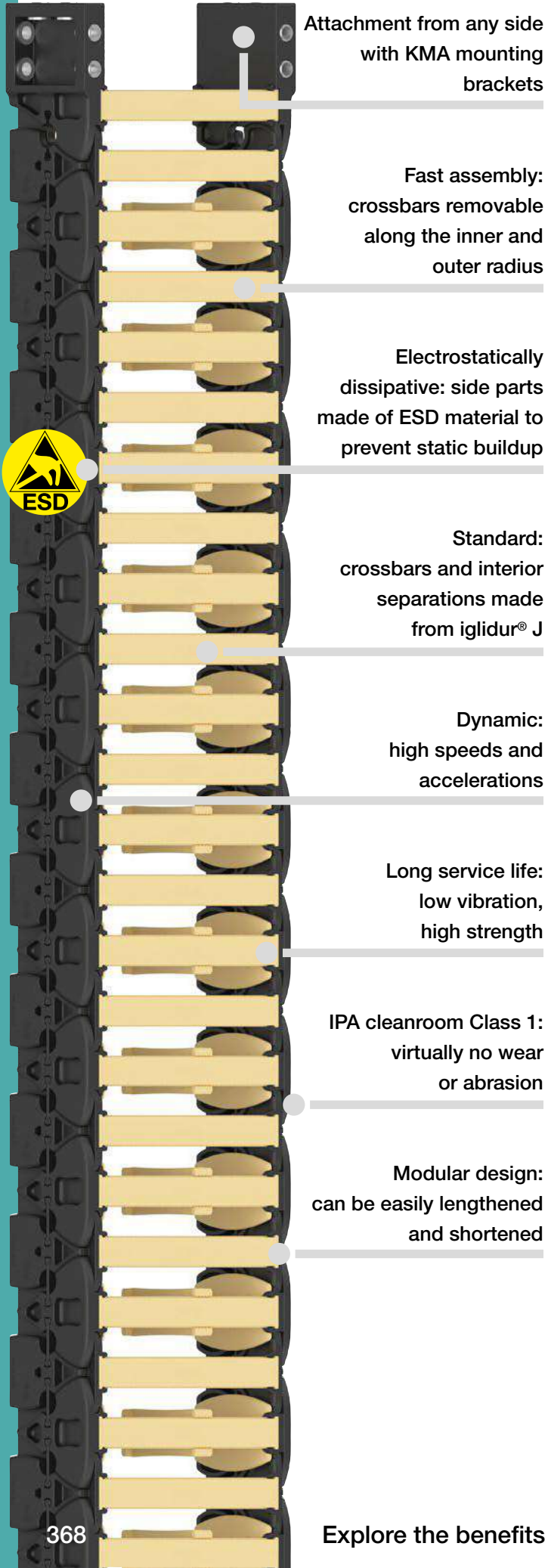
*Note: Always fit onto the connection points.

e-skin® corrugated tubes - designed in seconds

- Create filling options and configure them completely with interior separation, mounting brackets and chainflex® cables
- Automatic creation of a parts list and drawing with dimensioning
- Easy inquiry and order of the complete corrugated tube



Available from stock
Upon request



Highest cleanroom suitability, very low abrasion, high strength - C6

The series meeting the highest cleanroom requirements is available in three inner heights: 29, 38 and 53mm. Optimised with the crossbars every link along the outer radius and as standard with crossbars and interior separations made of iglidur® J, the optimum friction partner for any cable jacket material. The side links are made of tribo-optimised low-wear dissipative ESD material as standard.

Benefits

- Optimised design without any measurable abrasion
- For ISO cleanroom Class 1 applications
- High strength due to tough double stop-dog system
- Very quiet operation
- Side parts made of ESD material
- Long service life due to low life cycle costs
- Easy and therefore cost-saving installation
- Tribo-optimised iglidur® J crossbars and interior separations

Typical application areas

- Electrical manufacturing
- Semiconductor industry
- FPD production
- Microelectronics
- Panel robots
- Packaging
- Plotters/printers
- Pharmaceutical industry

Selection table

Part No.	Inner height <i>hi</i> [mm]	Outer height <i>ha</i> [mm]	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Bend radius <i>R</i> [mm]	Unsupported length ≤ [m]	Page
C6 - e-chains® with crossbars every link, crossbars removable along the inner and outer radius							
C6.29	29	38	30 - 140	46 - 156	055 - 150	≈ 1.75	370
C6.38	38	47	30 - 140	48 - 158	060 - 150	≈ 2.50	374
C6.53	53	67.5	50 - 175	74 - 199	075 - 200	≈ 3.00	378

Technical data

General properties

Speed <i>FL_G</i> /acceleration <i>FL_G</i>	≤ 20m/s / ≤ 200m/s²
Speed <i>FL_B</i> /acceleration <i>FL_B</i>	≤ 3m/s / ≤ 6m/s²
igumid® ESD LW side part material - permitted temperature °C	upon request
igidur® J crossbar material - permitted temperature °C	-50°C / +90°C
Crossbar material, igumid® TE - permitted temperature °C	-40°C / +70°C
Flammability class, igumid® ESD LW, iglidur® J, igumid® TE	VDE 0304 IIC UL94-HB

Installation types, maximum travel lengths

Series	Unsupported	Vertical hanging	Vertical standing	Side mounted, unsupported
C6.29	≤ 3.50m	≤ 25m	≤ 2.0m	upon request
C6.38	≤ 5.00m	≤ 50m	≤ 2.0m	upon request
C6.53	≤ 6.00m	≤ 50m	≤ 2.0m	upon request

Proof

IPA Qualification Certificate - Report IG 2304-1412 for C6 system C6, C6.29.060.100.17 series

Test parameters		Result
<i>v</i> ₁ = 0.5m/s	<i>a</i> ₁ = 1.0m/s²	Cleanroom Class 1
<i>v</i> ₂ = 1.0m/s	<i>a</i> ₂ = 2.0m/s²	Cleanroom Class 1
<i>v</i> ₃ = 2.0m/s	<i>a</i> ₃ = 4.0m/s²	Cleanroom Class 1
Overall result		ISO Class 1



Product range



Part No. e-chains®	<i>Bi</i> [mm]	<i>Ba</i> [mm]	C6.29 [kg/m]
Crossbars removable			
C6.29.030.□.17	30	46	≈ 0.63
C6.29.040.□.17	40	56	≈ 0.68
C6.29.050.□.17	50	66	≈ 0.72
C6.29.060.□.17	60	76	≈ 0.77
C6.29.070.□.17	70	86	≈ 0.80

Part No. e-chains®	<i>Bi</i> [mm]	<i>Ba</i> [mm]	C6.29 [kg/m]
Crossbars removable			
C6.29.080.□.17	80	96	≈ 0.85
C6.29.100.□.17	100	116	≈ 0.95
C6.29.120.□.17	120	136	≈ 1.05
C6.29.140.□.17	140	156	≈ 1.16

Available bend radii *R* [mm] | 055 | 075 | 100 | 150 |



Order key

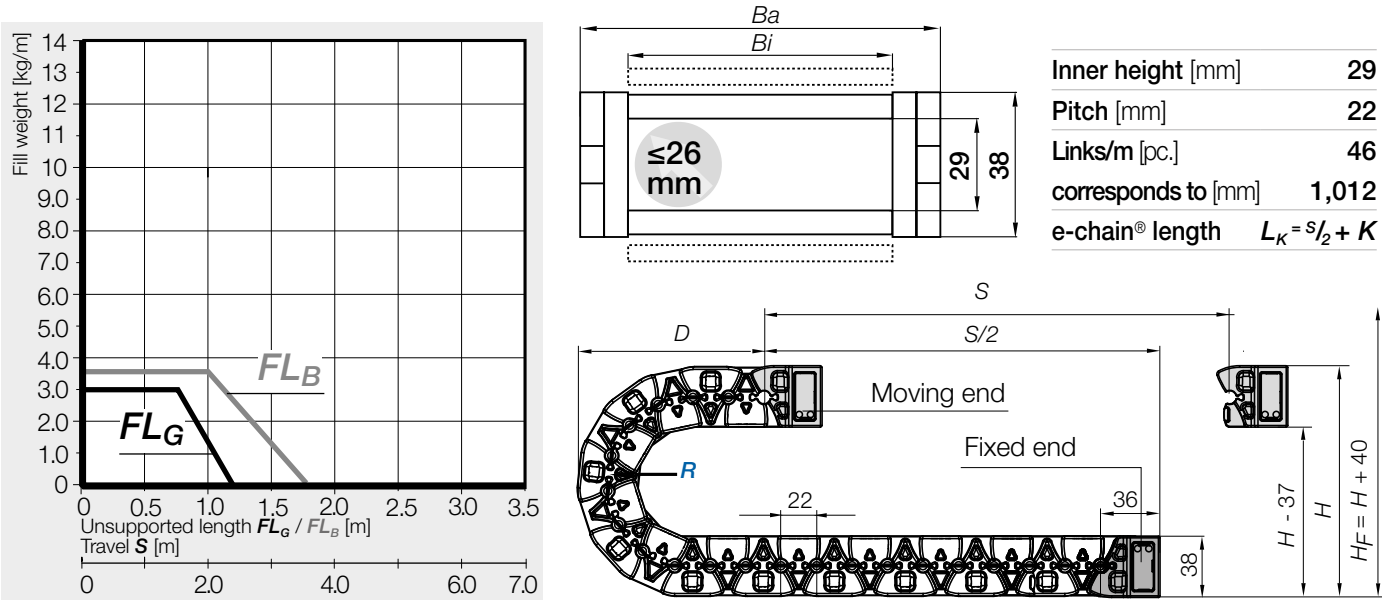
C6.29.100.100.17

Series / Type	Inner height	Width index	Bend radius	Colour index
---------------	--------------	-------------	-------------	--------------

Order example:
Complete Part No. with the required radius R. Example:
C6.29.100.100.17 = openable along inner and outer radius, from both sides

Available from stock
Upon request

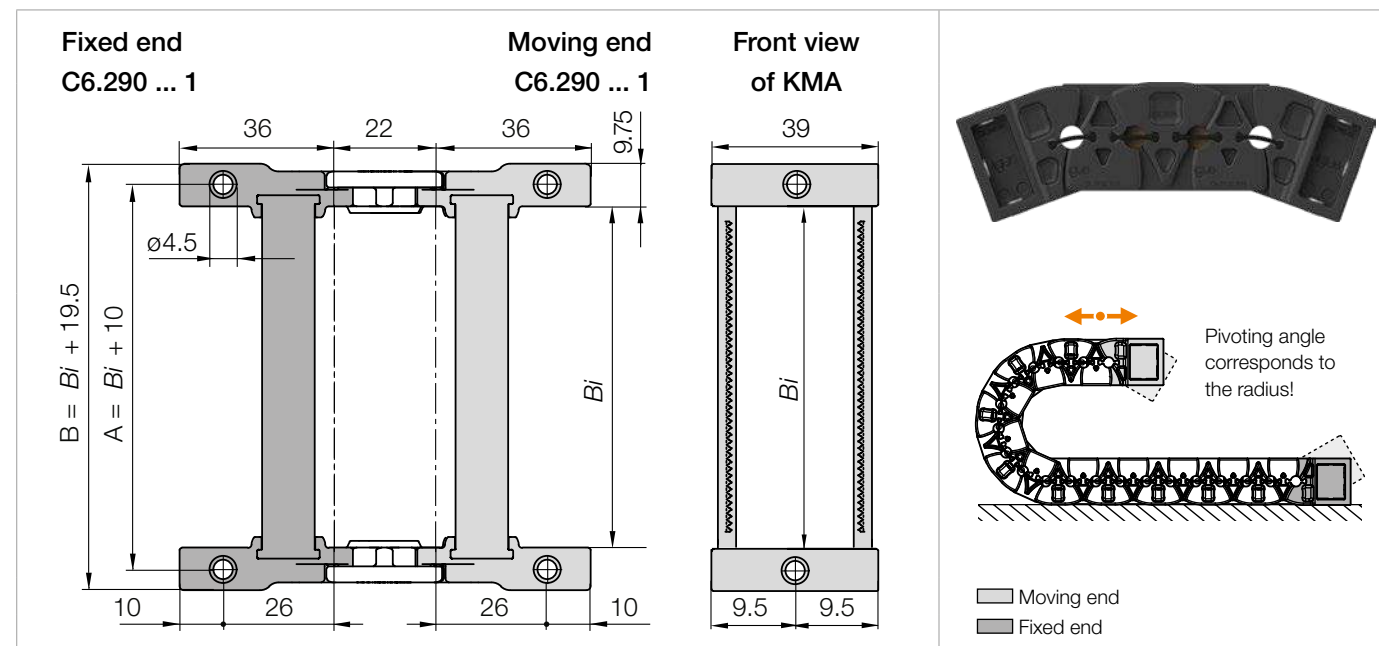
Unsupported applications | Short travels



<i>R</i>	055	075	100	150
<i>H</i>	178	218	268	368
<i>D</i>	107	127	152	202
<i>K</i>	217	236	315	472

The required clearance height: $H_F = H + 40\text{mm}$ (with 2.0kg/m fill weight)

Available from stock
Upon request



Width index	KMA full set			
	Part No. pivoting	A [mm]	B [mm]	<i>Bi</i> [mm]
030.	C6.290.030.12	40	49.5	30
040.	C6.290.040.12	50	59.5	40
050.	C6.290.050.12	60	69.5	50
060.	C6.290.060.12	70	79.5	60
070.	C6.290.070.12	80	89.5	70

(KMA = polymer metal mounting bracket)

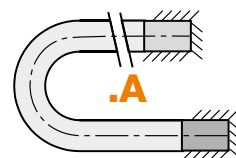


Order key

C6.290.100.12 .A

Series	
Width index	
Full set	
Pre-fitted	

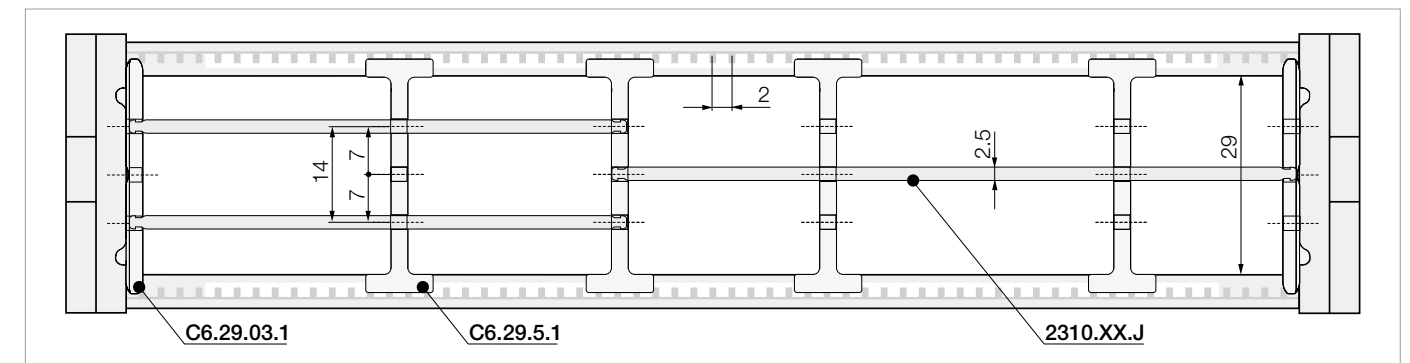
Note: The bracket orientations are set automatically when using this igus® KMA mounting bracket. To receive a KMA mounting bracket pre-fitted please add index **.A**.



KMA mounting brackets only available for an odd number of links.

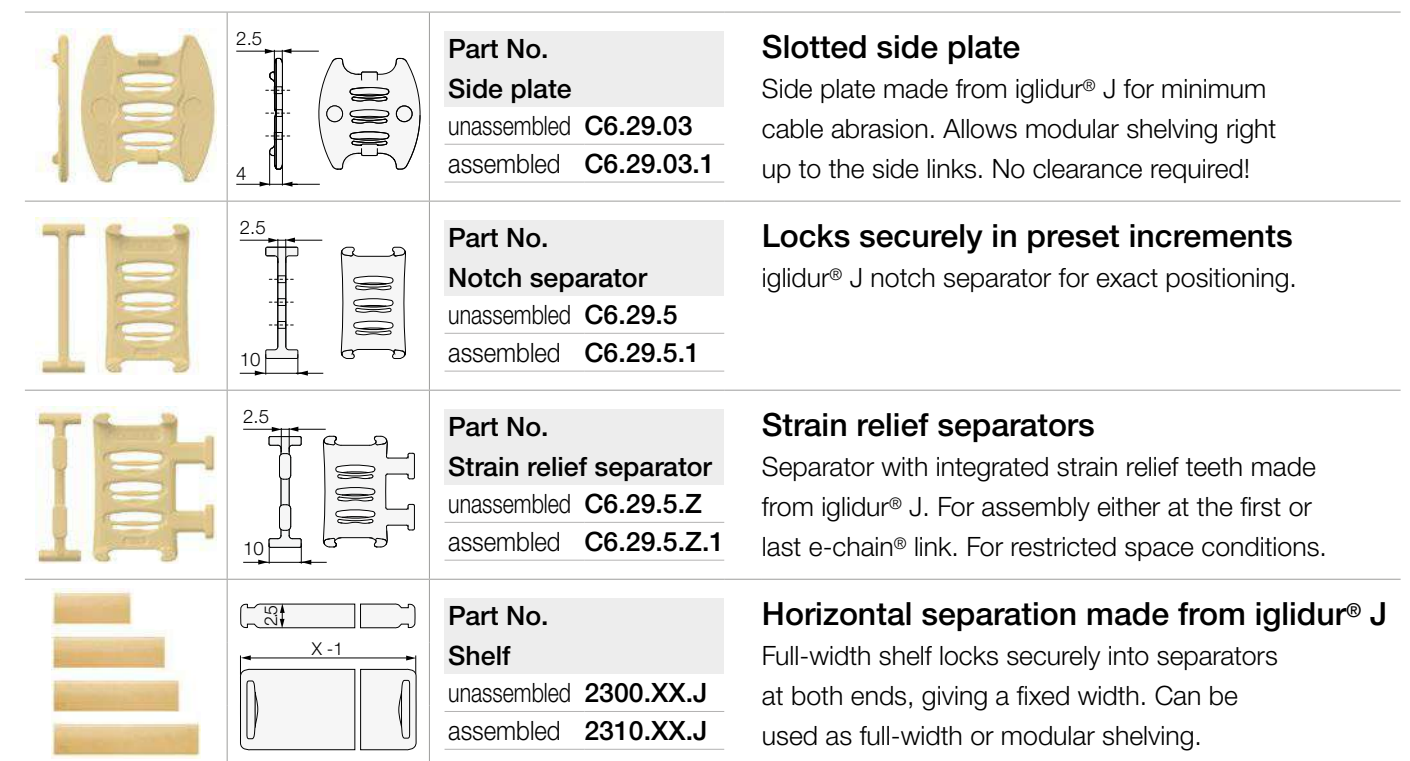


Available from stock
Upon request



No lateral gap to side links necessary.

As standard separators are fitted every 2nd e-chain® link!



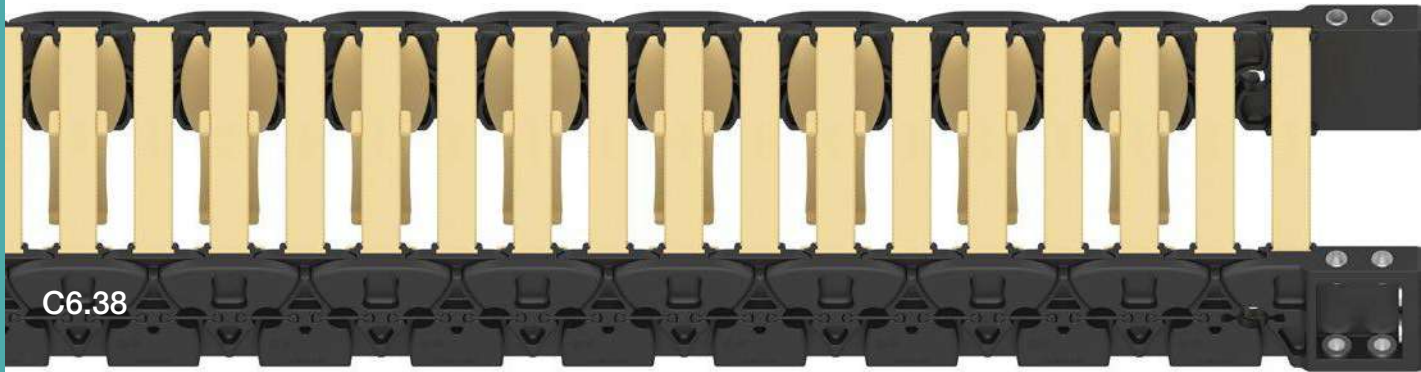
Width	Part No.	Part No.	Width	Part No.	Part No.	Width	Part No.	Part No.	Width	Part No.	Part No.
[mm]	unassembled	assembled	[mm]	unassembled	assembled	[mm]	unassembled	assembled	[mm]	unassembled	assembled
025	2300.025.J	2310.025.J	050	2300.050.J	2310.050.J	080	2300.080.J	2310.080.J	125	2300.125.J	2310.125.J
030	2300.030.J	2310.030.J	060	2300.060.J	2310.060.J	100	2300.100.J	2310.100.J	140	2300.140.J	2310.140.J
040	2300.040.J	2310.040.J	070	2300.070.J	2310.070.J	120	2300.120.J	2310.120.J			

More widths available upon request, please consult igus® for delivery time.



Available from stock
Upon request

Product range



Part No. e-chains®	Bi [mm]	Ba [mm]	C6.38 [kg/m]
Crossbars removable			
C6.38.030.17	30	46	≈ 0.84
C6.38.040.17	40	56	≈ 0.88
C6.38.050.17	50	66	≈ 0.91
C6.38.060.17	60	76	≈ 0.96
C6.38.070.17	70	86	≈ 0.99

Part No. e-chains®	Bi [mm]	Ba [mm]	C6.38 [kg/m]
Crossbars removable			
C6.38.080.17	80	96	≈ 1.03
C6.38.100.17	100	116	≈ 1.11
C6.38.120.17	120	136	≈ 1.20
C6.38.140.17	140	156	≈ 1.29

Available bend radii *R* [mm] | 060 | 075 | 100 | 125 | 150 |

Order key

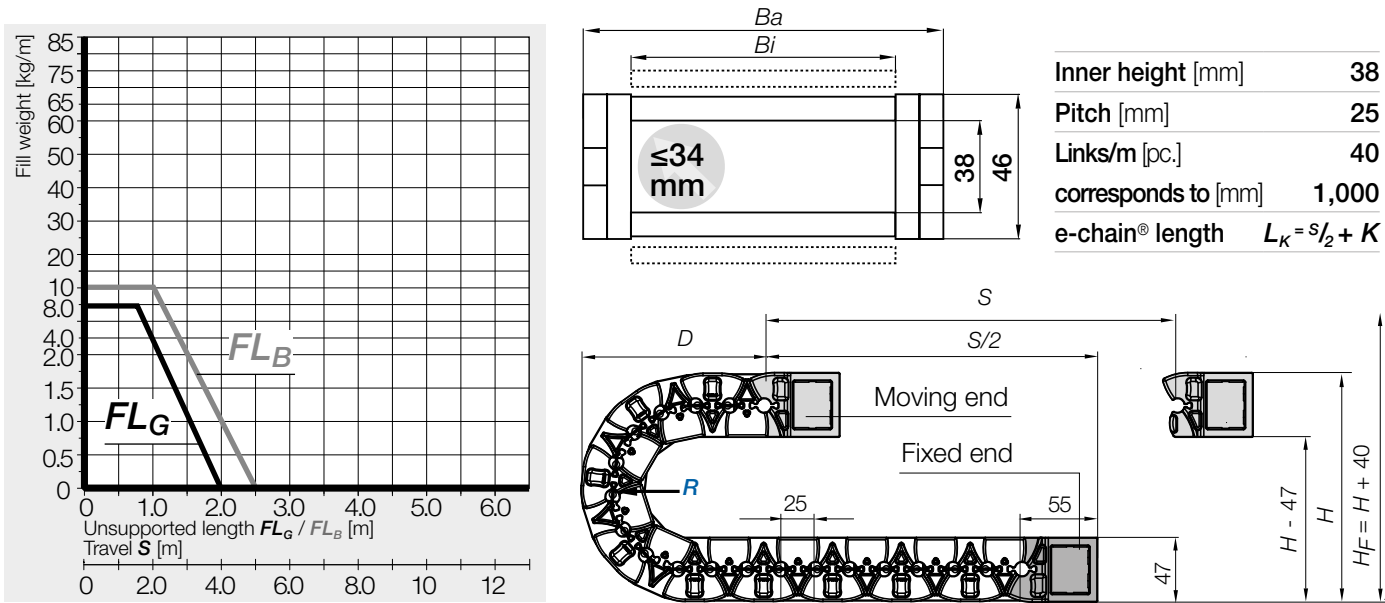
C6.38.100.100.17

Series / Type	Inner height	Width index	Bend radius	Colour index

Order example:
Complete Part No. with the required radius *R*. Example:
C6.38.100.100.17 = crossbars removable along the inner and outer radius

Available from stock
Upon request

Unsupported applications | Short travels

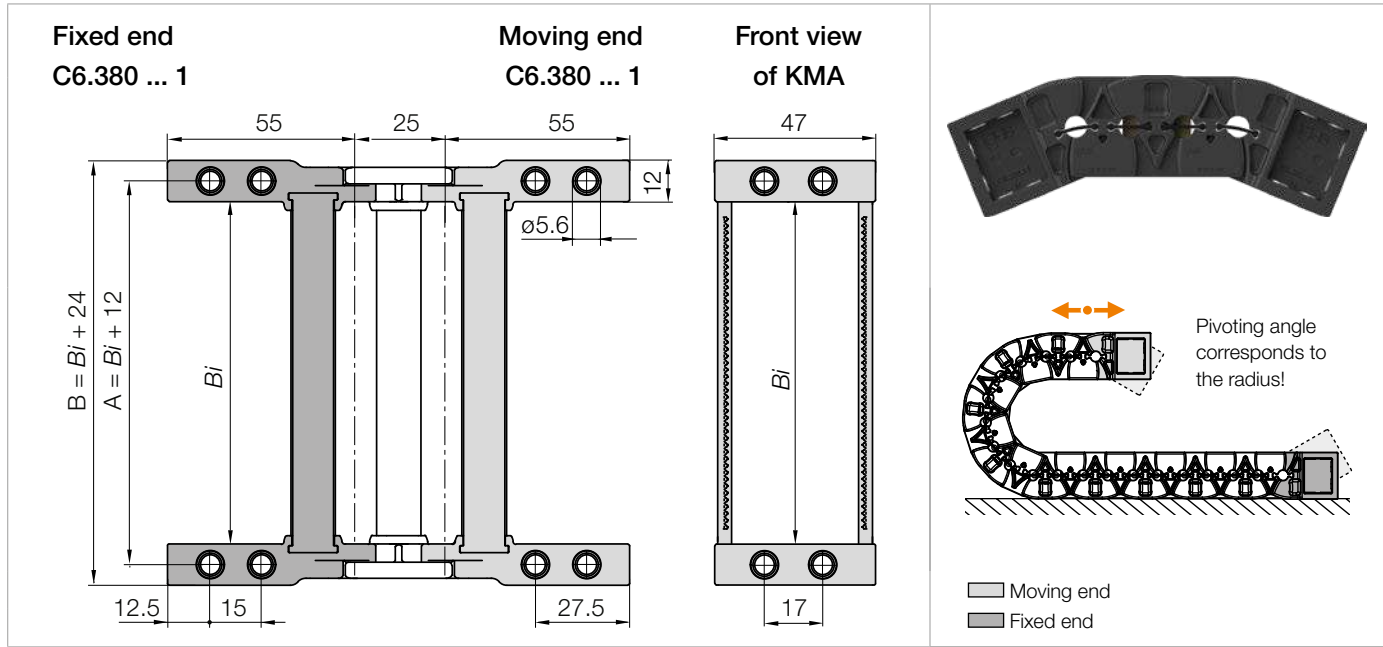


<i>R</i>	060	075	100	125	150
<i>H</i>	205	235	285	335	385
<i>D</i>	121	136	161	186	211
<i>K</i>	239	236	315	393	472

The required clearance height: $H_F = H + 40\text{mm}$ (with 2.0kg/m fill weight)

Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting



Width index	KMA full set			
	Part No. pivoting	A [mm]	B [mm]	Bi [mm]
030.	C6.380.030.12	42	54	30
040.	C6.380.040.12	52	64	40
050.	C6.380.050.12	62	74	50
060.	C6.380.060.12	72	84	60
070.	C6.380.070.12	82	94	70

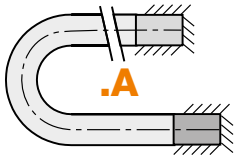
(KMA = polymer metal mounting bracket)

Width index	KMA full set			
	Part No. pivoting	A [mm]	B [mm]	Bi [mm]
080.	C6.380.080.12	92	104	80
100.	C6.380.100.12	112	124	100
120.	C6.380.120.12	132	144	120
140.	C6.380.140.12	152	164	140

Order key
C6.380.100.12 .A

Series	Width index	Full set	Pre-fitted

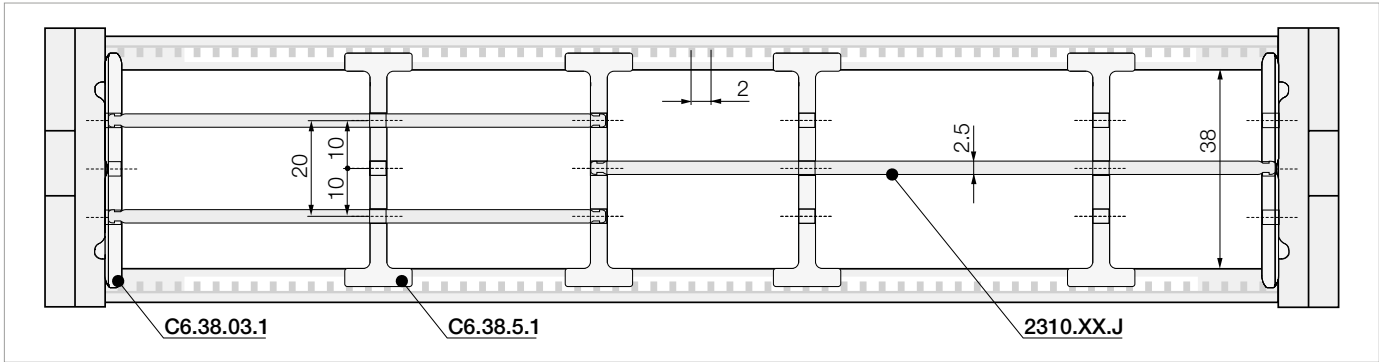
Note: The bracket orientations are set automatically when using this igus® KMA mounting bracket. To receive a KMA mounting bracket pre-fitted please add index **.A**.



KMA mounting brackets only available for an odd number of links.

Available from stock
Upon request

Interior separation | For minimum cable abrasion, made from iglidur® J



No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-chain® link!

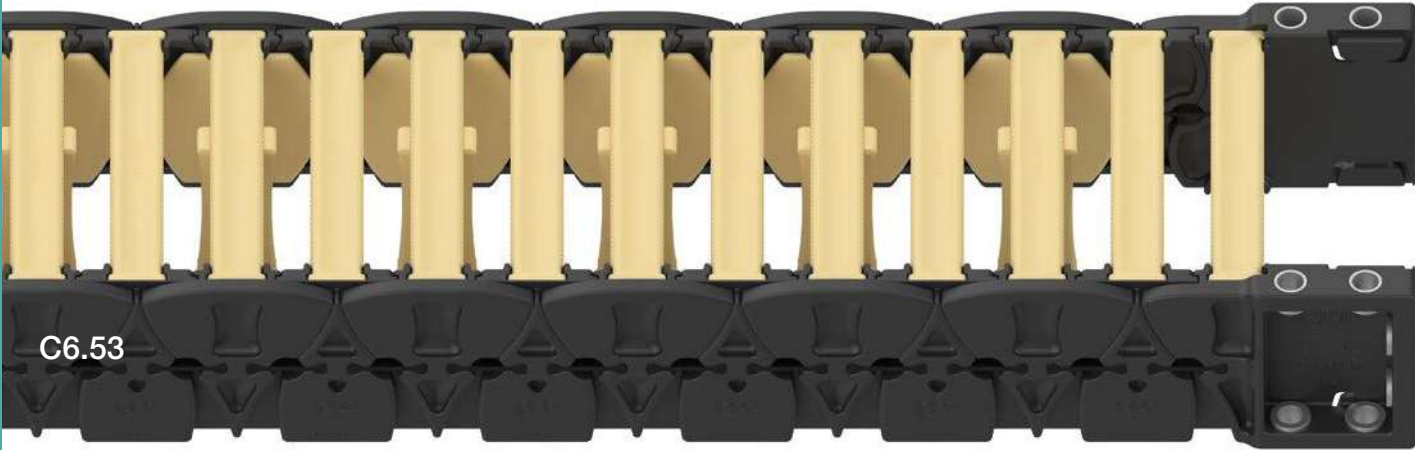
		Part No. Side plate unassembled C6.38.03 assembled C6.38.03.1	Slotted side plate Side plate made from iglidur® J for minimum cable abrasion. Allows modular shelving right up to the side links. No clearance required!
		Part No. Notch separator unassembled C6.38.5 assembled C6.38.5.1	Locks securely in preset increments igidur® J notch separator for exact positioning.
		Part No. Strain relief separator unassembled C6.38.5.Z assembled C6.38.5.Z.1	Strain relief separators Separator with integrated strain relief teeth made from iglidur® J. For assembly either at the first or last e-chain® link. For restricted space conditions.
		Part No. Shelf unassembled 2300.XX.J assembled 2310.XX.J	Horizontal separation made from iglidur® J Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
025	2300.025.J	2310.025.J	050	2300.050.J	2310.050.J	080	2300.080.J	2310.080.J	125	2300.125.J	2310.125.J
030	2300.030.J	2310.030.J	060	2300.060.J	2310.060.J	100	2300.100.J	2310.100.J	140	2300.140.J	2310.140.J
040	2300.040.J	2310.040.J	070	2300.070.J	2310.070.J	120	2300.120.J	2310.120.J			

More widths available upon request, please consult igus® for delivery time.

Available from stock
Upon request

Product range



Part No. e-chains®	<i>Bi</i> [mm]	<i>Ba</i> [mm]	C6.53 [kg/m]
Crossbars removable			
C6.53.050. .17	50	74	≈ 1.53
C6.53.062. .17	62.5	86.5	≈ 1.59
C6.53.075. .17	75	99	≈ 1.67
C6.53.087. .17	87.5	111.5	≈ 1.73

Part No. e-chains®	<i>Bi</i> [mm]	<i>Ba</i> [mm]	C6.53 [kg/m]
Crossbars removable			
C6.53.100. .17	100	124	≈ 1.80
C6.53.125. .17	125	149	≈ 1.92
C6.53.175. .17	175	199	≈ 2.18

Available bend radii *R* [mm] | 075 | 100 | 125 | 150 | 175 | 200 |

 Order key

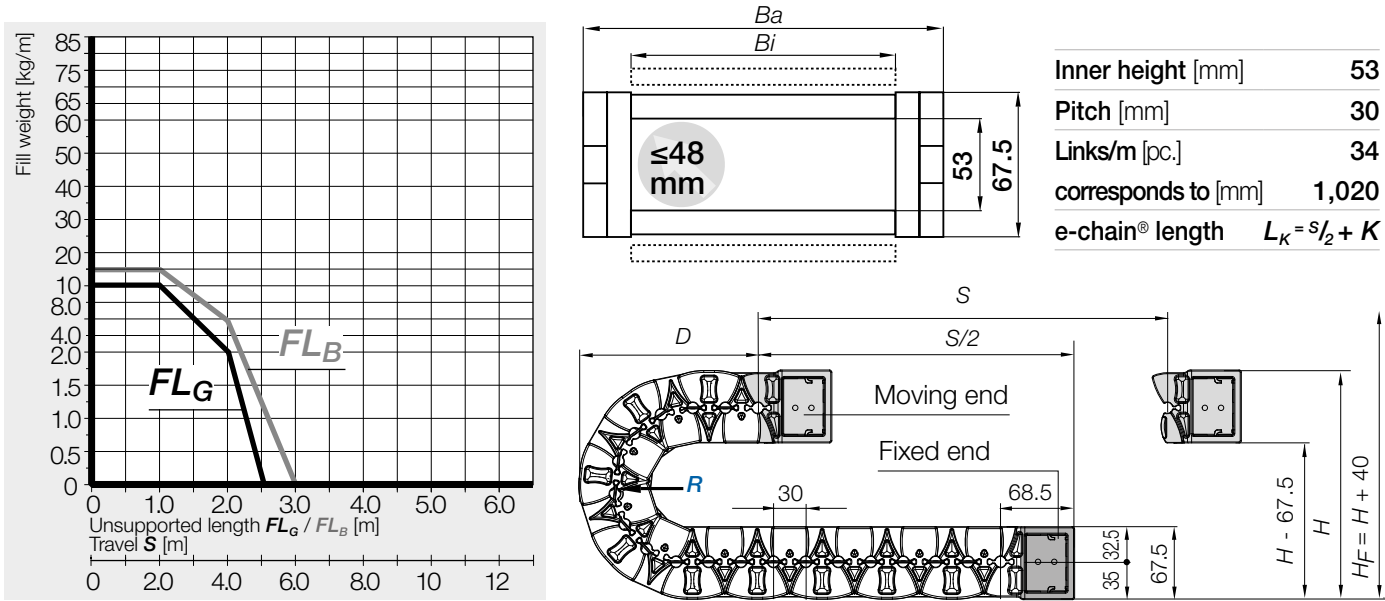
C6.53.100. .17

Series / Type	Inner height	Width index	Bend radius	Colour index
---------------	--------------	-------------	-------------	--------------

Order example:
Complete Part No. with the required radius . Example:
C6.53.100. .17 = crossbars removable along the inner and outer radius

 Available from stock
Upon request

Unsupported applications | Short travels

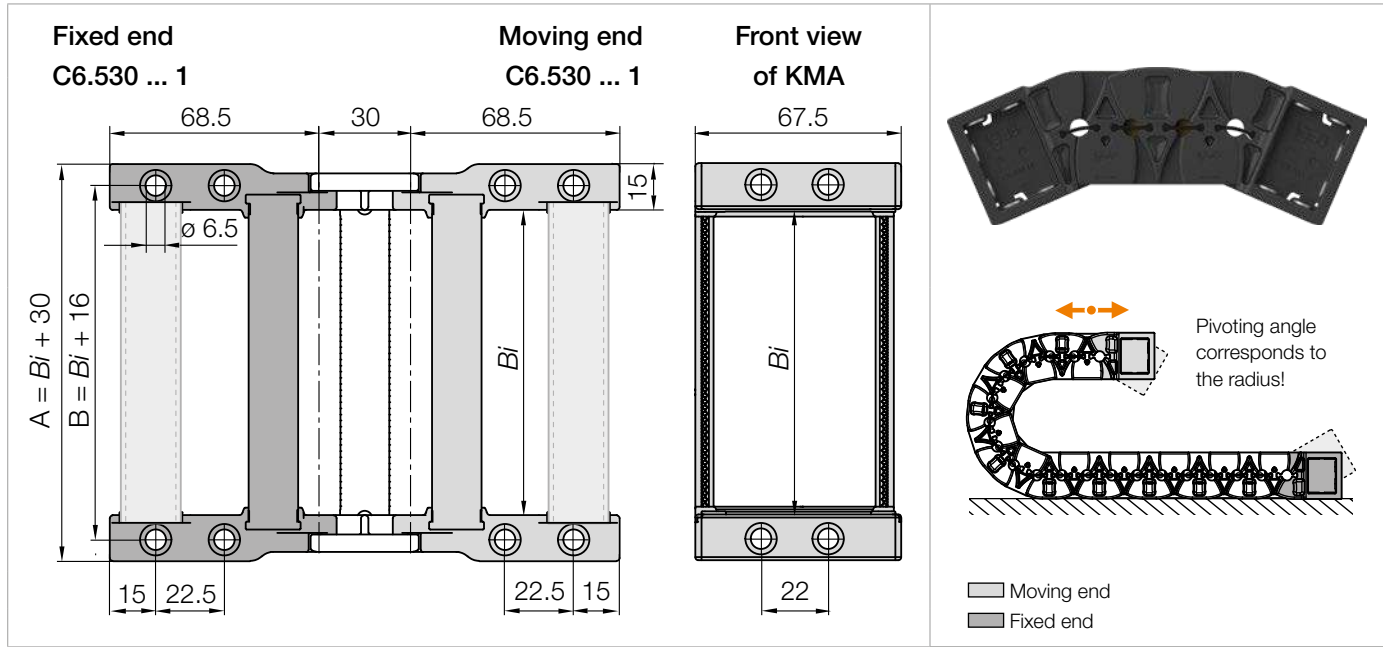


<i>R</i>	075	100	125	150	175	200
<i>H</i>	270	320	370	420	470	520
<i>D</i>	155	180	205	230	255	280
<i>K</i>	296	375	453	532	610	689

The required clearance height: $H_F = H + 40\text{mm}$ (with 2.0kg/m fill weight)

 Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting



Width index	KMA full set			
	Part No. pivoting	A [mm]	B [mm]	Bi [mm]
050.	C6.530.050.12.□	80	66	50
062.	C6.530.062.12.□	92.5	78.5	62.5
075.	C6.530.075.12.□	105	91	75
087.	C6.530.087.12.□	117.5	103.5	87.5

(KMA = polymer metal mounting bracket)

Width index	KMA full set			
	Part No. pivoting	A [mm]	B [mm]	Bi [mm]
100.	C6.530.100.12.□	130	116	100
125.	C6.530.125.12.□	155	141	125
175.	C6.530.175.12.□	205	191	175

Order key

C6.530.100.12.C.A2

Series	Width index	Full set	C-profile option	Pre-fitted

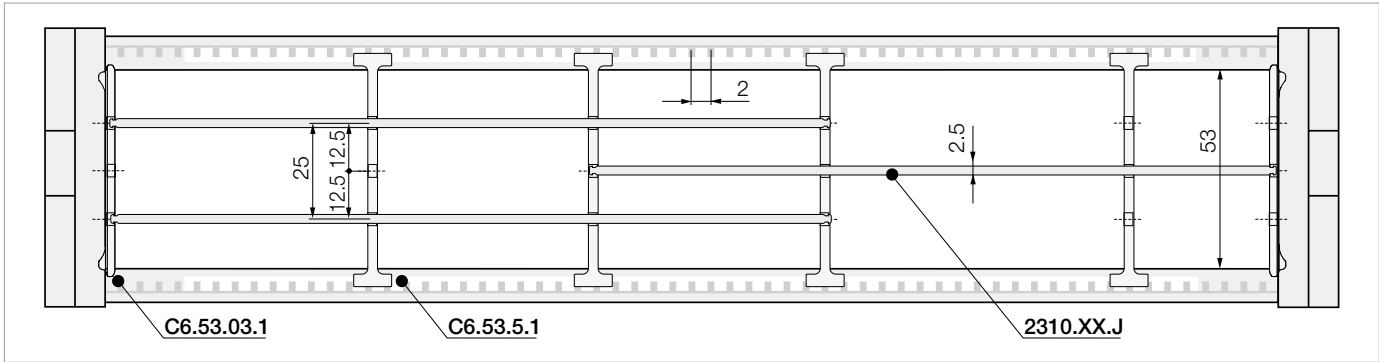
Note: Possible orientations for KMA mounting brackets. For mounting brackets pre-fitted **without strain relief**, please add index **.A**. For types pre-fitted **with strain relief** please add index **.A1**, **.A2**, **.A3** or **.A4**.



For the C-profile option please add index **.C**. KMA mounting brackets are only available for an odd number of links.

Available from stock
Upon request

Interior separation | For minimum cable abrasion, made from iglidur® J



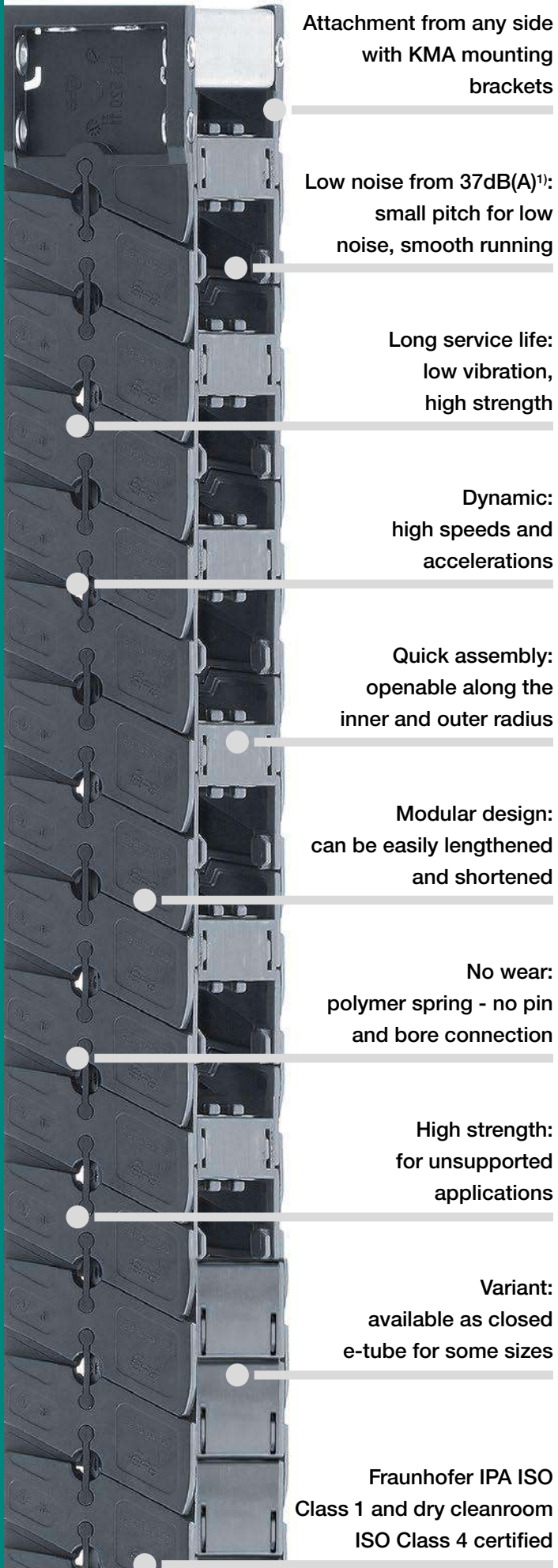
No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-chain® link!

		Part No. Side plate unassembled C6.53.03 assembled C6.53.03.1	Slotted side plate Side plate made from iglidur® J for minimum cable abrasion. Allows modular shelving right up to the side links. No clearance required!
		Part No. Notch separator unassembled C6.53.5 assembled C6.53.5.1	Locks securely in preset increments igidur® J notch separator for exact positioning.
		Part No. Shelf unassembled 2300.XX.J assembled 2310.XX.J	Horizontal separation made from iglidur® J Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
025	2300.025.J	2310.025.J	050	2300.050.J	2310.050.J	080	2300.080.J	2310.080.J	125	2300.125.J	2310.125.J
030	2300.030.J	2310.030.J	060	2300.060.J	2310.060.J	100	2300.100.J	2310.100.J	140	2300.140.J	2310.140.J
040	2300.040.J	2310.040.J	070	2300.070.J	2310.070.J	120	2300.120.J	2310.120.J			

More widths available upon request, please consult igus® for delivery time.

Available from stock
Upon request



Extremely low noise, vibration and abrasion, cleanroom suitable - system E6

The E6 series offers numerous advantages in addition to long life. It provides extremely quiet, low vibration operation, complimenting low vibration linear drives. It has virtually no polygon effect which can occur during the rolling motion of a standard e-chain®. The ultra-low noise levels have been confirmed in a recent report by the Rheinland Technical Inspection Agency. Our extensive product range offers the right e-chain® size for any application; a wide range of interior separation is also available.

Benefits

- For very high speeds and accelerations
- For small bend radii
- High strength
- Dry-room-compatible energy supply system with a long service life
- Low-noise 37dB(A)¹ - extremely low noise and vibration
- A series usable for all areas: cleanroom, dry cleanroom, and standard environments

1) Extremely low-noise - tested at the igus® lab

Typical application areas

- Cleanroom
- Stage and theatre technology
- Printing machines
- Automation
- Machine tools
- Measuring machines
- Semiconductor industry
- Medical technology
- Electronics industry
- Battery production

Selection table

Part No.	Inner height <i>hi</i> [mm]	Outer height <i>ha</i> [mm]	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Bend radius <i>R</i> [mm]	Unsupported length ≤ [m]	Page
E6 - e-chains® with crossbars every 2nd link, crossbars removable along the inner and outer radius							
E6.29	29	35	30 - 140	46 - 156	055 - 150	≈ 1.75	384
E6.35	35	42	30 - 140	50 - 160	055 - 150	≈ 1.90	388
E6.40	40	54	40 - 300	60 - 320	063 - 200	≈ 2.50	392
E6.52	52	65	40 - 300	64 - 324	075 - 250	≈ 3.00	398
E6.62	62	84	50 - 400	86 - 436	115 - 350	≈ 4.00	402
E6.80L	80	108	87 - 550	115 - 578	150 - 300	≈ 2.50	408
E6.80	80	108	50 - 600	100 - 650	150 - 450	≈ 5.25	414

R6 - fully enclosed e-tubes, lids removable along the inner and outer radii

R6.29	28	35	30 - 120	46 - 136	055 - 150	≈ 1.75	384
R6.40	40	54	62	82	063 - 200	≈ 2.50	392
R6.52	52	65	50 - 200	74 - 224	075 - 250	≈ 3.00	398

Proof

Certified for cleanrooms and dry cleanrooms



Technical data

General properties

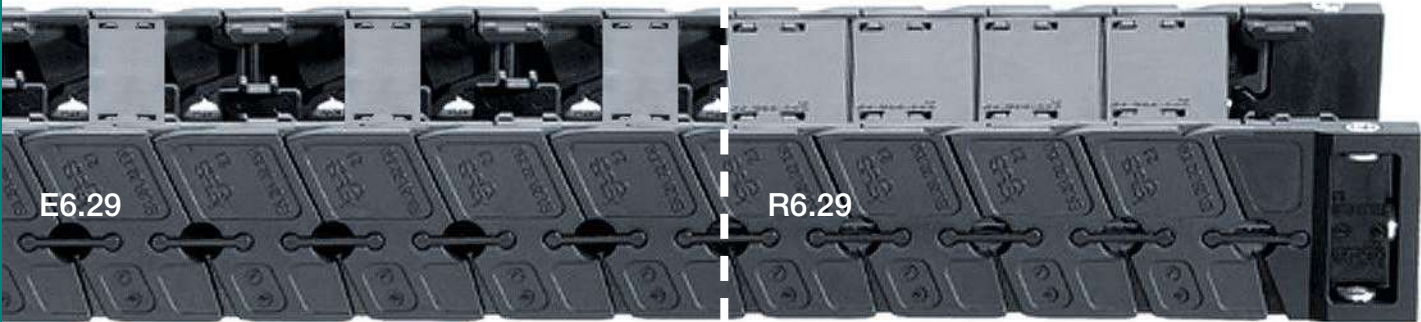
Speed gliding¹) / acceleration gliding¹)	upon request
Speed <i>FL_G</i> /acceleration <i>FL_G</i>	≤ 20 [m/s] / ≤ 200 [m/s²]
Speed <i>FL_B</i> /acceleration <i>FL_B</i>	≤ 3 [m/s] / ≤ 6 [m/s²]
igumid® GE side part material - permitted temperature °C	-40°C / +120°C
igumid® G LW crossbar material - permitted temperature °C	-40°C / +120°C
Crossbar material, igumid® TE - permitted temperature °C	-40°C / +70°C
Flammability class	VDE 0304 IIC UL94-HB

Installation types, maximum travel lengths

Series	Unsupported	Gliding¹)	Vertical hanging	Vertical standing	Side mounted, unsupported
E6.29 / R6.29	≤ 3.50m	upon request	≤ 30m	≤ 2.0m	upon request
E6.35	≤ 3.80m	upon request	≤ 30m	≤ 2.0m	upon request
E6.40 / R6.40	≤ 5.00m	upon request	≤ 30m	≤ 2.0m	upon request
E6.52 / R6.52	≤ 6.00m	upon request	≤ 50m	≤ 2.0m	upon request
E6.62	≤ 8.00m	upon request	≤ 60m	≤ 3.0m	upon request
E6.80L	≤ 5.00m	upon request	≤ 60m	≤ 4.0m	upon request
E6.80	≤ 10.5m	upon request	≤ 60m	≤ 4.0m	upon request

1) If a gliding application is required for a long travel, please consult igus®.

Product range



Part No.	Part No.	<i>Bi</i>	<i>Ba</i>	E6.29	R6.29
e-chains® cross-bars removable	e-tubes lids removable	[mm]	[mm]	[kg/m]	[kg/m]
E6.29.030.□.0	R6.29.030.□.0	30	46	≈ 0.73	≈ 0.80
E6.29.040.□.0	R6.29.040.□.0	40	56	≈ 0.75	≈ 0.85
E6.29.050.□.0	R6.29.050.□.0	50	66	≈ 0.78	≈ 0.89
E6.29.060.□.0	R6.29.060.□.0	60	76	≈ 0.80	≈ 0.94
E6.29.070.□.0	–	70	86	≈ 0.83	≈ 0.97
E6.29.080.□.0	R6.29.080.□.0	80	96	≈ 0.85	≈ 1.03

Part No.	Part No.	<i>Bi</i>	<i>Ba</i>	E6.29	R6.29
e-chains® cross-bars removable	e-tubes lids removable	[mm]	[mm]	[kg/m]	[kg/m]
E6.29.090.□.0	–	90	106	≈ 0.88	≈ 1.08
E6.29.100.□.0	–	100	116	≈ 0.90	≈ 1.13
E6.29.110.□.0	R6.29.110.□.0	110	126	≈ 0.93	≈ 1.18
E6.29.120.□.0	R6.29.120.□.0	120	136	≈ 0.95	≈ 1.22
E6.29.140.□.0	–	140	156	≈ 1.00	–

Available bend radii *R* [mm] | 055 | 075 | 100 | 150 |

Order key

E6.29.080.100.0

Series / Type	Inner height	Width index	Bend radius	Colour index

Order example:

Complete Part No. with the required radius *R*. Example:

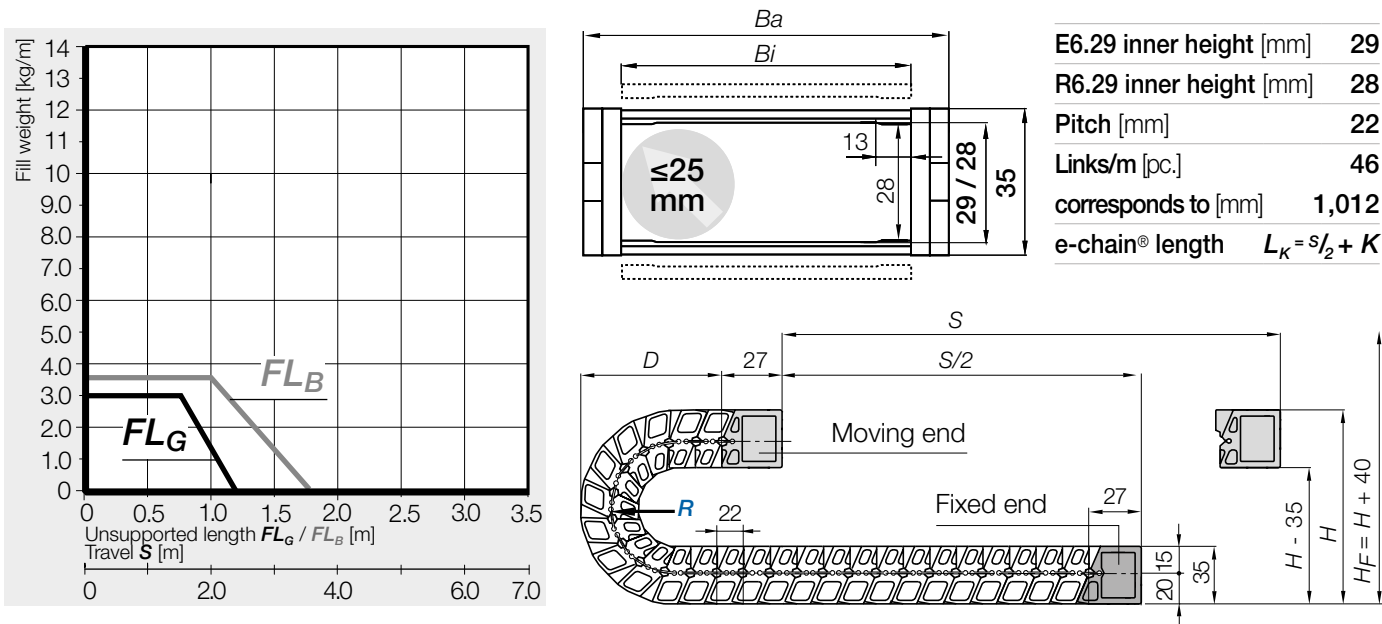
E6.29.080.100.0 = crossbars removable along the inner and outer radius

R6.29.080.100.0 = lids removable along the inner and outer radii

Order index for colour options ► www.igus.eu/info-colours

Available from stock
Upon request

Unsupported applications | Short travels



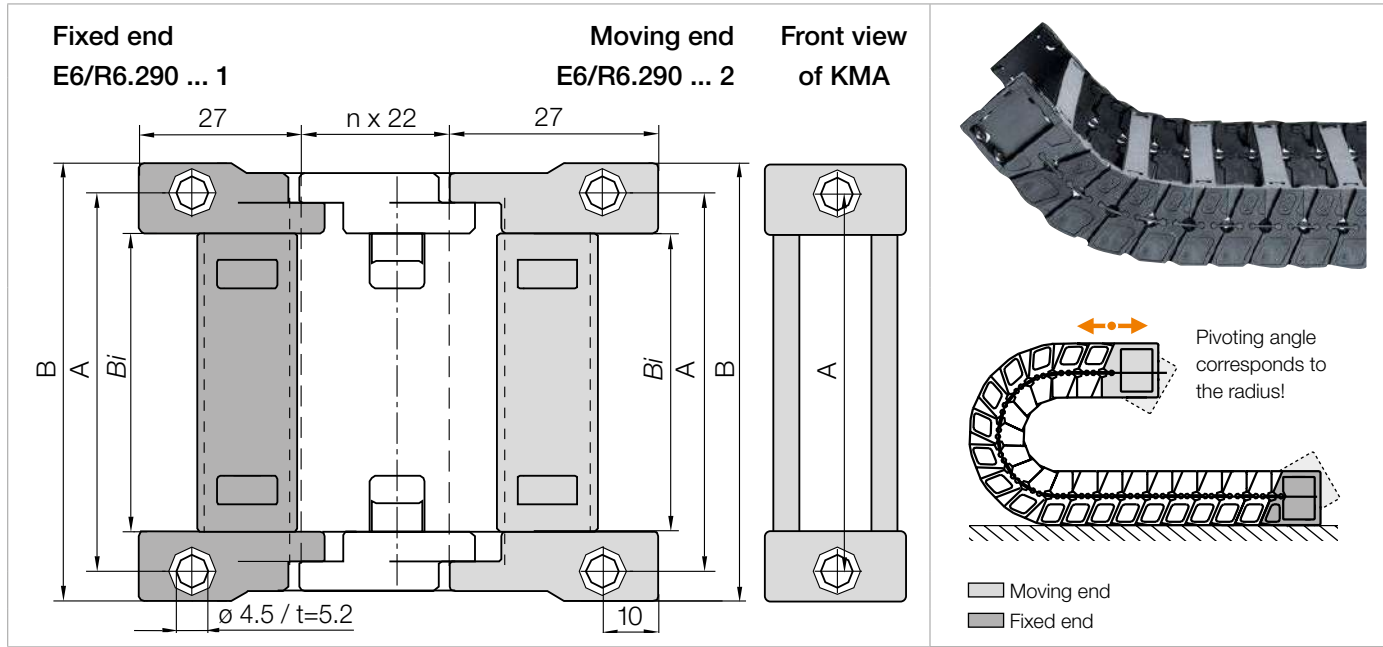
<i>R</i>	055	075	100	150
<i>H</i>	180	220	270	370
<i>D</i>	108	128	153	203
<i>K</i>	220	280	360	520

The required clearance height: $H_F = H + 40\text{mm}$ (with 2.0kg/m fill weight)

Note: If a gliding application is required for a long travel, please consult igus®.

Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting



Width index	Full set KMA, pivoting				
	Part No. e-chains®	Part No. e-tubes	A [mm]	B [mm]	Bi [mm]
030.	E6.290.030.12	R6.290.030.12	40	59.5	30
040.	E6.290.040.12	R6.290.040.12	50	69.5	40
050.	E6.290.050.12	R6.290.050.12	60	79.5	50
060.	E6.290.060.12	R6.290.060.12	70	89.5	60
070.	E6.290.070.12	–	80	99.5	70
080.	E6.290.080.12	R6.290.080.12	90	109.5	80

(KMA = polymer metal mounting bracket)

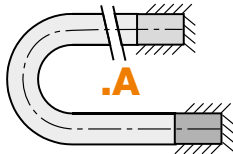
Width index	Full set KMA, pivoting				
	Part No. e-chains®	Part No. e-tubes	A [mm]	B [mm]	Bi [mm]
090.	E6.290.090.12	–	100	119.5	90
100.	E6.290.100.12	–	110	129.5	100
110.	E6.290.110.12	R6.290.110.12	120	139.5	110
120.	E6.290.120.12	R6.290.120.12	130	149.5	120
140.	E6.290.140.12	–	150	169.5	140

Order key

E6.290 . 080.12 . A

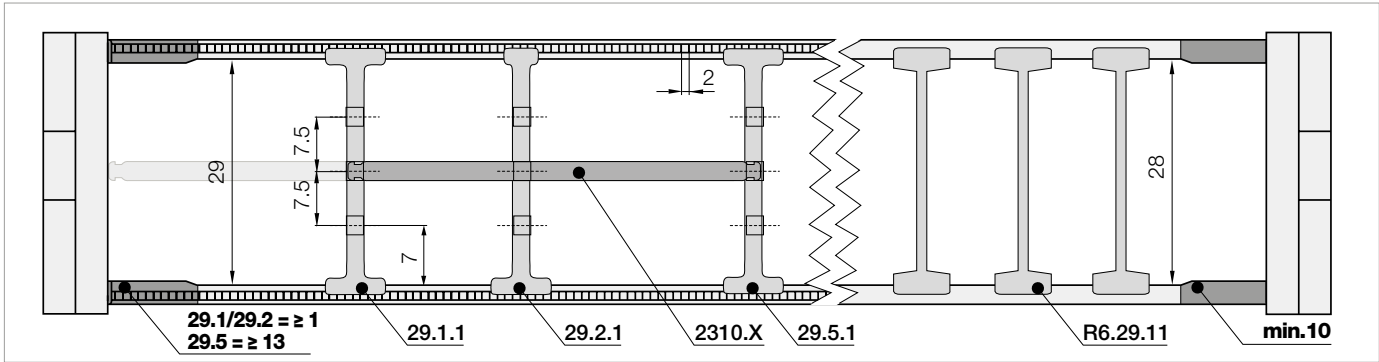
Series	Width index	Full set	Pre-fitted

Note: The bracket orientations are set automatically when using this igus® KMA mounting bracket. To receive a KMA mounting bracket pre-fitted please add index **.A**.



Available from stock
Upon request

Interior separation | Increase cable service life (only for e-chains®, for e-tubes ► next page)



Note for e-tubes: Please be aware of the minimum lateral gap to the side links! **10mm**
e-chains®: Please be aware of the minimum lateral gap to the side links! **29.1/29.2 = 1mm / 29.5 = 13mm**
As standard separators are fitted every 2nd e-chain® link!

		Part No. Standard separator unassembled 29.1 assembled 29.1.1	For all applications Standard separator with a wide base for maximum holding force.
		Part No. Separator, narrow top unassembled 29.2 assembled 29.2.1	For even faster installation Wide on one side for high holding force, narrow on opposite side for easy cable fitting.
		Part No. Notch separator unassembled 29.5 assembled 29.5.1	Locks securely in preset increments Notch separator for exact positioning. Recommended for side-mounted applications.
		Part No. Shelf unassembled 2300.X assembled 2310.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
015	2300.015	2310.015	057	2300.057	2310.057	077	2300.077	2310.077	110	2300.110	2310.110
025	2300.025	2310.025	060	2300.060	2310.060	080	2300.080	2310.080	120	2300.120	2310.120
030	2300.030	2310.030	062	2300.062	2310.062	087	2300.087	2310.087	125	2300.125	2310.125
038	2300.038	2310.038	065	2300.065	2310.065	090	2300.090	2310.090			
040	2300.040	2310.040	070	2300.070	2310.070	100	2300.100	2310.100			
050	2300.050	2310.050	075	2300.075	2310.075	103	2300.103	2310.103			

Interior separation (only for e-tubes)

		Part No. Separator for e-tubes unassembled R6.29.1 assembled R6.29.1.1	Separator for e-tubes Notches on the separator indicate the clamping side of the separator. The notches on this separator mark the side that fixes to the lid.
--	--	---	--

Product range



Part No. e-chains® crossbars removable	Bi [mm]	Ba [mm]	E6.35 [kg/m]
E6.35.030.0	30	50	≈ 0.88
E6.35.040.0	40	60	≈ 0.90
E6.35.050.0	50	70	≈ 0.92
E6.35.060.0	60	80	≈ 0.94
E6.35.070.0	70	90	≈ 0.96
E6.35.080.0	80	100	≈ 0.99

Part No. e-chains® crossbars removable	Bi [mm]	Ba [mm]	E6.35 [kg/m]
E6.35.090.0	90	110	≈ 1.01
E6.35.100.0	100	120	≈ 1.03
E6.35.110.0	110	130	≈ 1.05
E6.35.120.0	120	140	≈ 1.07
E6.35.140.0	140	160	≈ 1.11

Available bend radii *R* [mm] | 055 | 075 | 100 | 150 |



Order key

E6.35.100.100.0

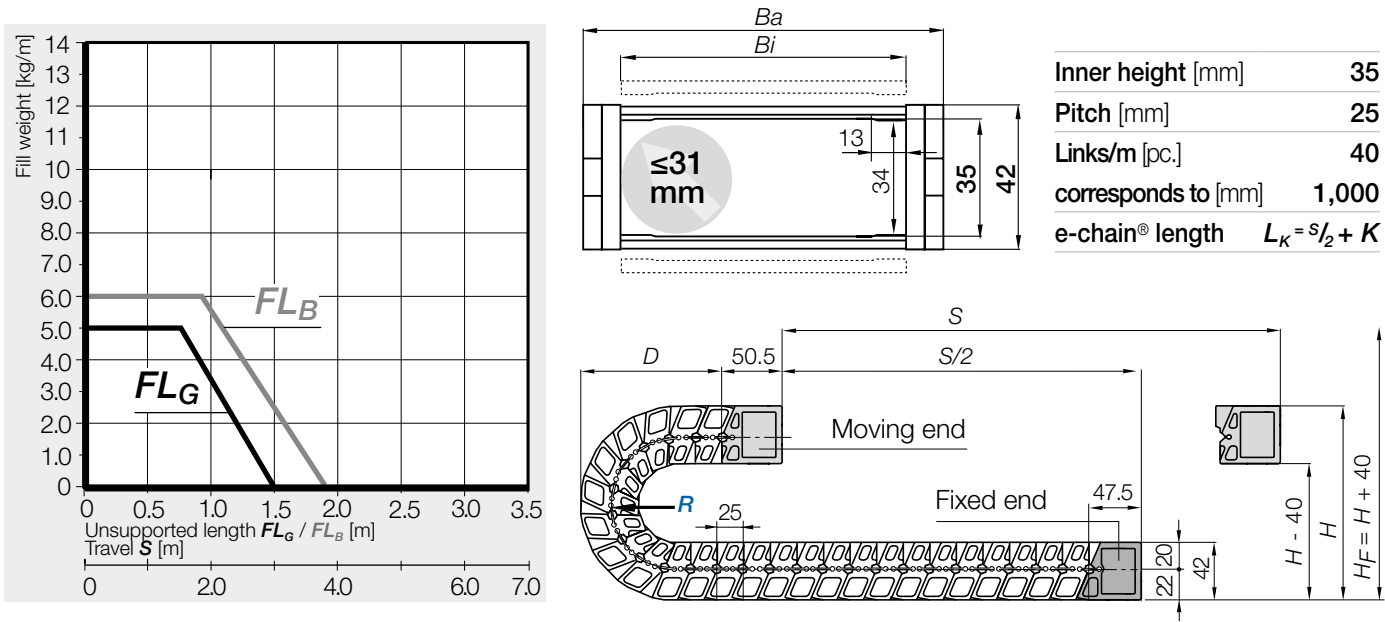
Series / Type	Inner height	Width index	Bend radius	Colour index

Order example:

Complete Part No. with the required radius *R*. Example:
E6.35.100.100.0 = crossbars removable along the inner and outer radius
Order index for colour options ► www.igus.eu/info-colours

E6 | Series E6.35

Unsupported applications | Short travels



<i>R</i>	055	075	100	150
<i>H</i>	189	229	279	379
<i>D</i>	115	135	160	210
<i>K</i>	225	290	365	525

The required clearance height: $H_F = H + 40\text{mm}$ (with 2.0kg/m fill weight)

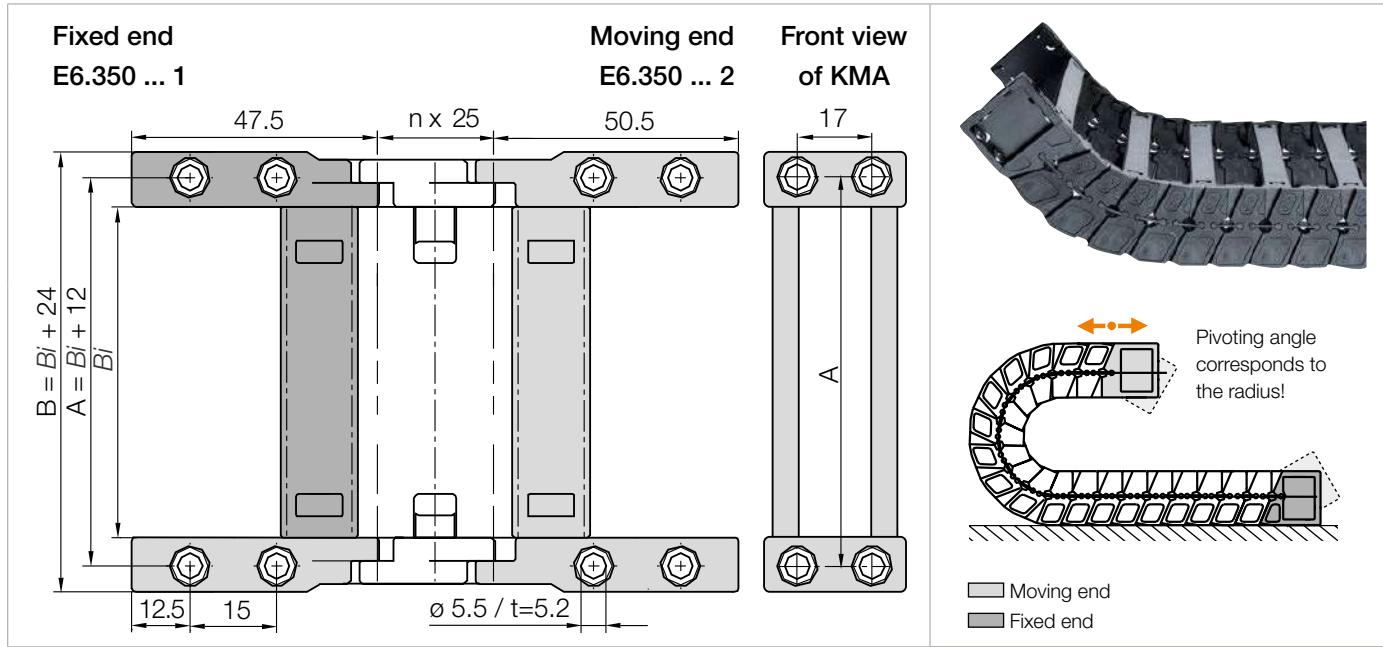


Note: If a gliding application is required for a long travel, please consult igus®.

 Available from stock
Upon request

 Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting



Width index	KMA full set			
	Part No. pivoting	A [mm]	B [mm]	Bi [mm]
030.	E6.350.030.12	42	54	30
040.	E6.350.040.12	52	64	40
050.	E6.350.050.12	62	74	50
060.	E6.350.060.12	72	84	60
070.	E6.350.070.12	82	94	70
080.	E6.350.080.12	92	104	80

(KMA = polymer metal mounting bracket)

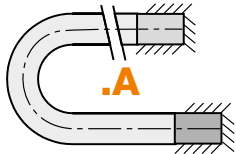
Width index	KMA full set			
	Part No. pivoting	A [mm]	B [mm]	Bi [mm]
090.	E6.350.090.12	102	114	90
100.	E6.350.100.12	112	124	100
110.	E6.350.110.12	122	134	110
120.	E6.350.120.12	132	144	120
140.	E6.350.140.12	152	164	140

Order key

E6.350 . 100.12 . A

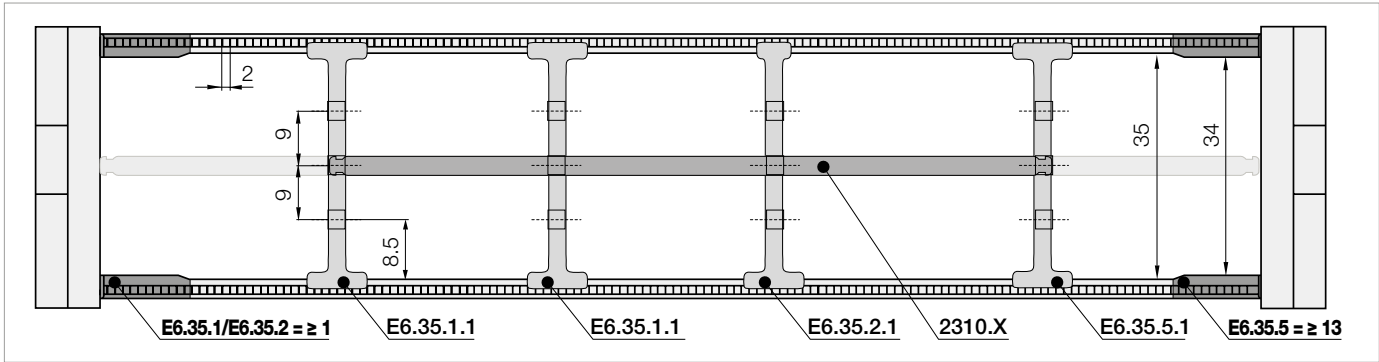
Series	Width index	Full set	Pre-fitted

Note: The bracket orientations are set automatically when using this igus® KMA mounting bracket. To receive a KMA mounting bracket pre-fitted please add index **.A**.



Available from stock
Upon request

Interior separation | Increase cable service life



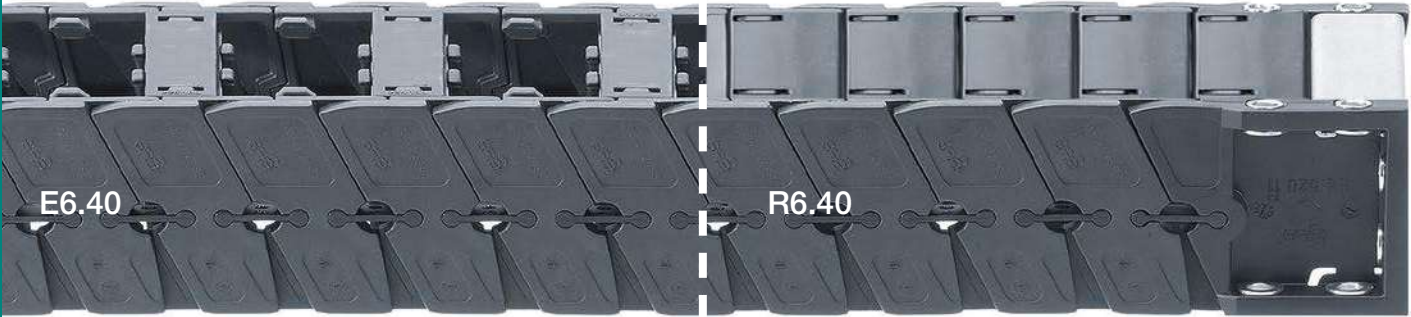
Note: Please be aware of the minimum lateral gap to the side links! $E6.35.1/E6.35.2 = 1\text{mm}$ / $E6.35.5 = 13\text{mm}$
As standard separators are fitted every 2nd e-chain® link!

		Part No. Standard separator unassembled E6.35.1 assembled E6.35.1.1	For all applications Standard separator with a wide base for maximum holding force.
		Part No. Separator, narrow top unassembled E6.35.2 assembled E6.35.2.1	For even faster installation Wide on one side for high holding force, narrow on opposite side for easy cable fitting.
		Part No. Notch separator unassembled E6.35.5 assembled E6.35.5.1	Locks securely in preset increments Notch separator for exact positioning. Recommended for side-mounted applications.
		Part No. Shelf unassembled 2300.X assembled 2310.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
015	2300.015	2310.015	057	2300.057	2310.057	077	2300.077	2310.077	110	2300.110	2310.110
025	2300.025	2310.025	060	2300.060	2310.060	080	2300.080	2310.080	120	2300.120	2310.120
030	2300.030	2310.030	062	2300.062	2310.062	087	2300.087	2310.087	125	2300.125	2310.125
038	2300.038	2310.038	065	2300.065	2310.065	090	2300.090	2310.090			
040	2300.040	2310.040	070	2300.070	2310.070	100	2300.100	2310.100			
050	2300.050	2310.050	075	2300.075	2310.075	103	2300.103	2310.103			

Available from stock
Upon request

Product range



Part No.	Part No.	<i>Bi</i>	<i>Ba</i>	E6.40	R6.40
e-chains® cross-bars removable	e-tubes lids removable	[mm]	[mm]	[kg/m]	[kg/m]
E6.40.040.□.0	–	40	60	≈ 1.29	–
E6.40.050.□.0	–	50	70	≈ 1.33	–
E6.40.052.□.0	–	52	72	≈ 1.34	–
E6.40.062.□.0	R6.40.062.□.0	62	82	≈ 1.38	≈ 1.59
E6.40.070.□.0	–	70	90	≈ 1.41	–
E6.40.075.□.0	–	75	95	≈ 1.43	–
E6.40.087.□.0	–	87	107	≈ 1.48	–
E6.40.100.□.0	–	100	120	≈ 1.53	–

Part No.	Part No.	<i>Bi</i>	<i>Ba</i>	E6.40	R6.40
e-chains® cross-bars removable	e-tubes lids removable	[mm]	[mm]	[kg/m]	[kg/m]
E6.40.125.□.0	–	125	145	≈ 1.63	–
E6.40.150.□.0	–	150	170	≈ 1.73	–
E6.40.175.□.0	–	175	195	≈ 1.83	–
E6.40.200.□.0	–	200	220	≈ 1.93	–
E6.40.225.□.0	–	225	245	≈ 2.02	–
E6.40.250.□.0	–	250	270	≈ 2.12	–
E6.40.275.□.0	–	275	295	≈ 2.22	–
E6.40.300.□.0	–	300	320	≈ 2.32	–

Available bend radii *R* [mm] | 063 | 075 | 100 | 125 | 150 | 200 |

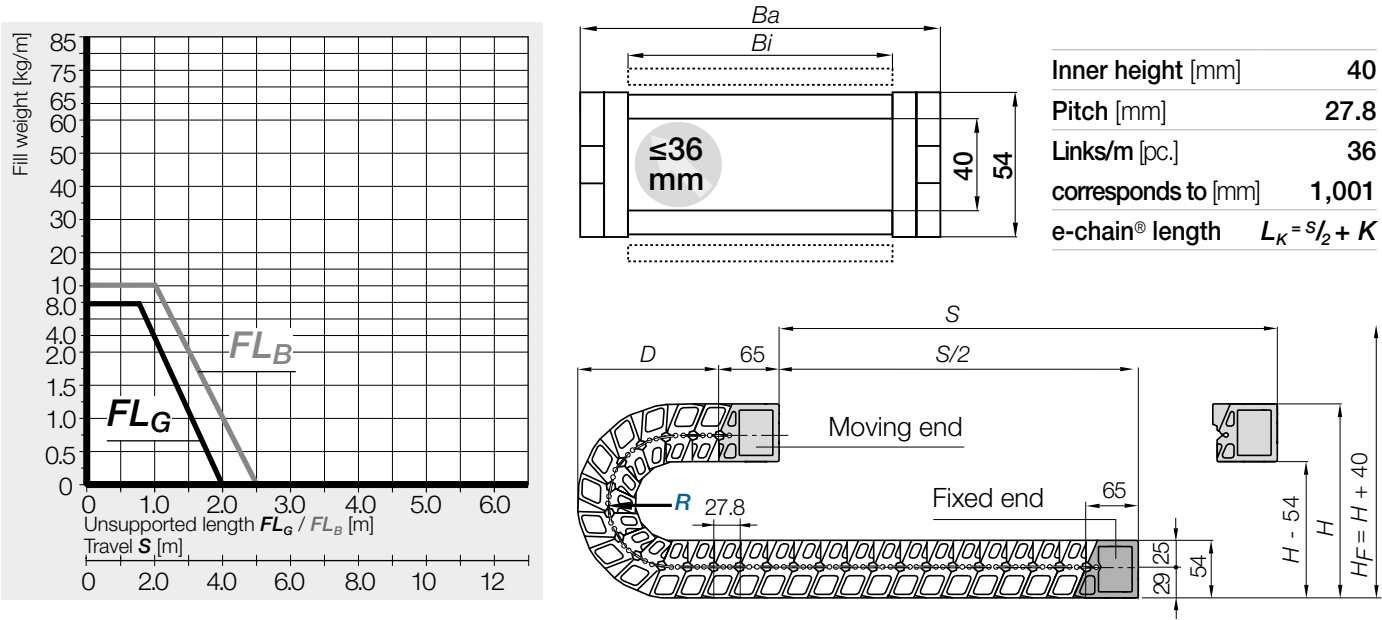
Order key
E6.40.062.100.0

Series / Type	Inner height	Width index	Bend radius	Colour index
---------------	--------------	-------------	-------------	--------------

Order example:
Complete Part No. with the required radius *R*. Example:
E6.40.062.100.0 = crossbars removable along the inner and outer radius
R6.40.062.100.0 = lids removable along the inner and outer radii
Order index for colour options ► www.igus.eu/info-colours

Available from stock
Upon request

Unsupported applications | Short travels



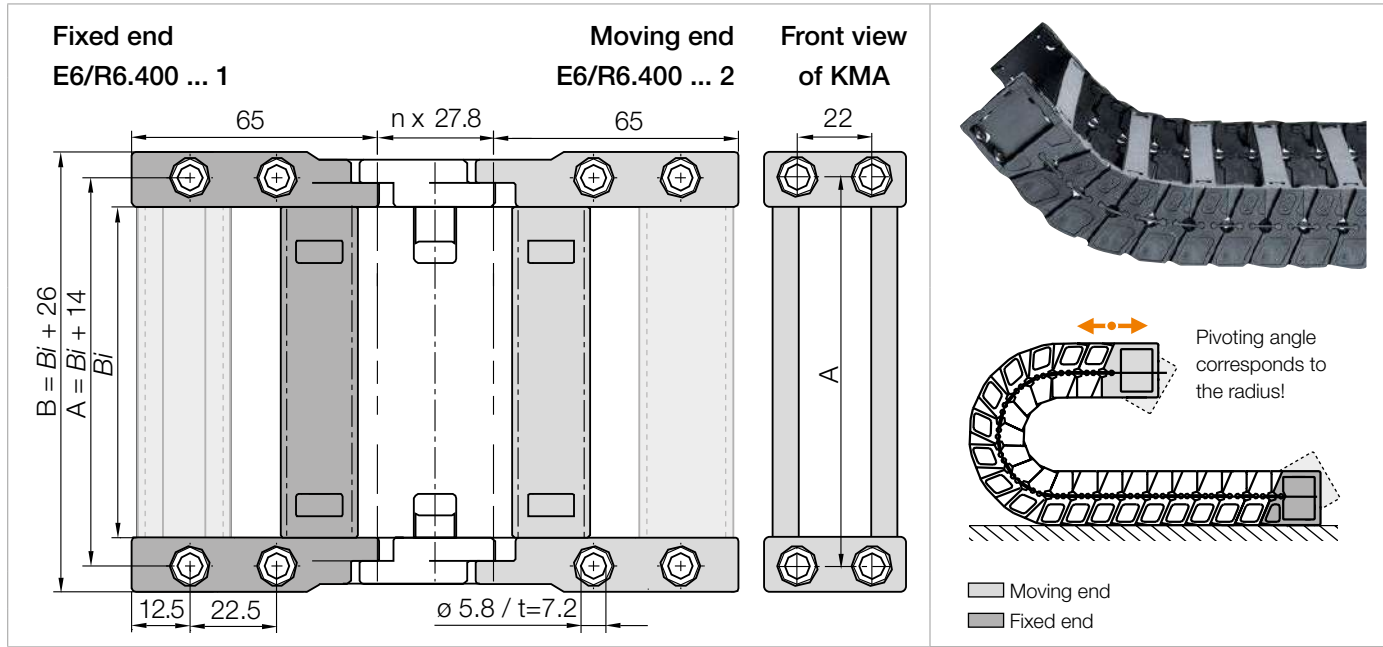
<i>R</i>	063	075	100	125	150	200
<i>H</i>	224	248	298	348	398	498
<i>D</i>	134	146	171	196	221	271
<i>K</i>	255	295	370	450	530	685

The required clearance height: $H_F = H + 40\text{mm}$ (with 2.0kg/m fill weight)

Note: If a gliding application is required for a long travel, please consult igus®.

Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting



Width index	Full set KMA, pivoting				
	Part No. e-chains®	Part No. e-tubes	A [mm]	B [mm]	B_i [mm]
040.	E6.400.040.12.□	–	54	66	40
050.	E6.400.050.12.□	–	64	76	50
052.	E6.400.052.12.□	–	66	78	52
062.	E6.400.062.12.□	R6.400.062.12.□	76	88	62
070.	E6.400.070.12.□	–	84	96	70
075.	E6.400.075.12.□	–	89	101	75
087.	E6.400.087.12.□	–	101	113	87
100.	E6.400.100.12.□	–	114	126	100

(KMA = polymer metal mounting bracket)

Order key

E6.400.100.12.□.C.A2



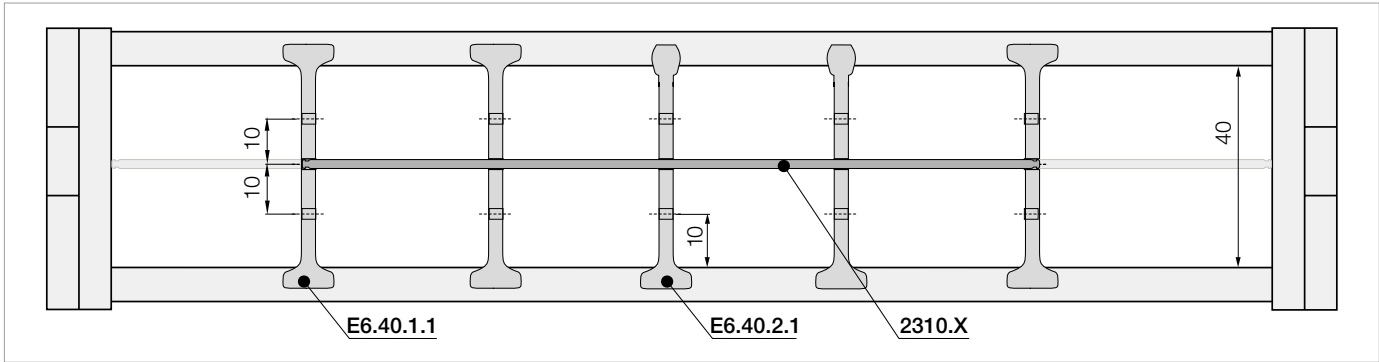
Note: Possible orientations for KMA mounting brackets. For mounting brackets pre-fitted **without strain relief**, please add index **.A**. For types pre-fitted **with strain relief** please add index **.A1**, **.A2**, **.A3** or **.A4**.



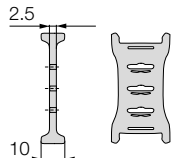
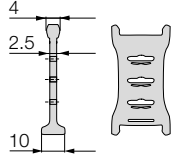
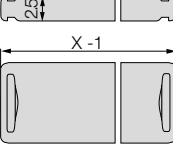
For the C-profile option please add index **.C**.

Available from stock
Upon request

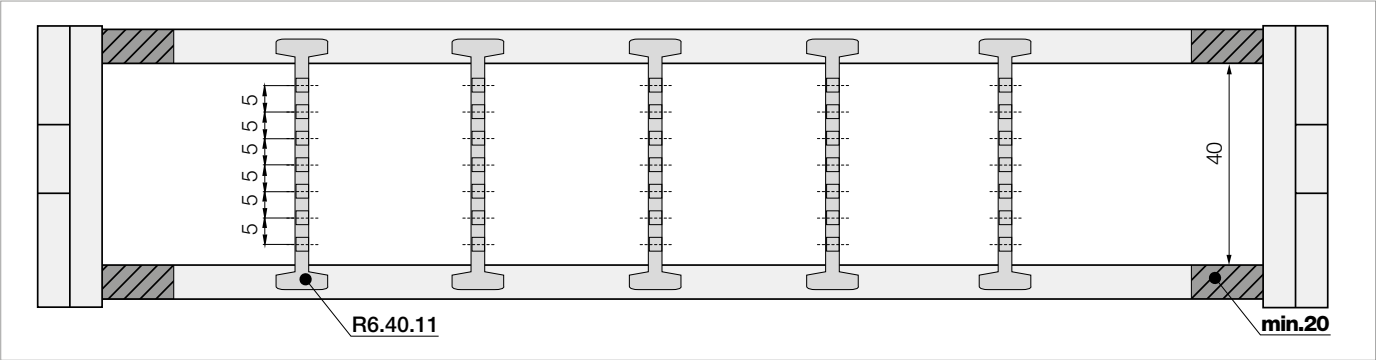
Interior separation | Increase cable service life (only for e-chains®, for e-tubes ► next page)



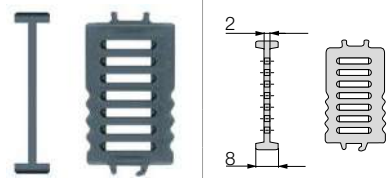
No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-chain® link!

		Part No. Standard separator unassembled E6.40.1 assembled E6.40.1.1	For all applications Standard separator with a wide base for maximum holding force.
		Part No. Separator, narrow top unassembled E6.40.2 assembled E6.40.2.1	For even faster installation Wide on one side for high holding force, narrow on opposite side for easy cable fitting.
		Part No. Shelf unassembled 2300.X assembled 2310.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Interior separation (only for e-tubes, for e-chains® ► previous page)

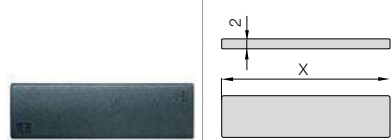


 **Note:** Please be aware of the minimum lateral gap to the side links! **e-tubes: 20mm**
As standard separators are fitted every 2nd e-chain® link!



Part No.
Separator for e-tubes
unassembled **R6.40.1**
assembled **R6.40.1.1**

Separator for e-tubes
Notches on the separator indicate the clamping side of the separator. The notches on this separator mark the side that fixes to the lid.

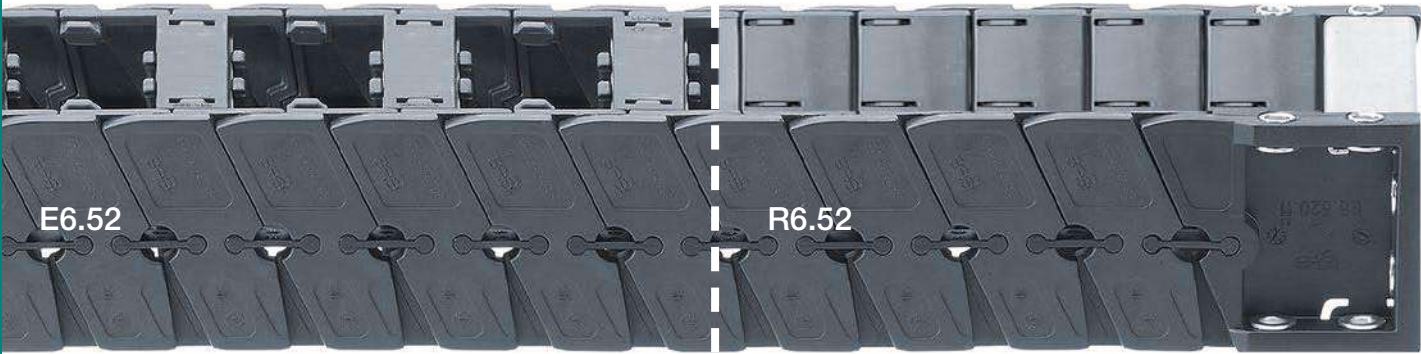


Part No.
Full-width shelf
unassembled **110.X**
assembled **111.X**

Horizontal separation
Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
30	110.30	111.30	60	110.60	111.60	90	110.90	111.90	120	110.120	111.120
40	110.40	111.40	70	110.70	111.70	100	110.100	111.100			
50	110.50	111.50	80	110.80	111.80	110	110.110	111.110			

Product range



Part No.	Part No.	<i>Bi</i>	<i>Ba</i>	E6.52	R6.52
e-chains® cross-bars removable	e-tubes lids removable	[mm]	[mm]	[kg/m]	[kg/m]
E6.52.040.0	–	40	64	≈ 1.76	≈ 1.78
E6.52.050.0	R6.52.050.0	50	74	≈ 1.80	≈ 1.89
E6.52.052.0	–	52	66	≈ 1.81	≈ 1.92
E6.52.062.0	–	62	86	≈ 1.84	≈ 1.97
E6.52.070.0	–	70	94	≈ 1.87	≈ 2.07
E6.52.075.0	R6.52.075.0	75	99	≈ 1.89	≈ 2.12
E6.52.087.0	–	87	111	≈ 1.94	≈ 2.21
E6.52.100.0	R6.52.100.0	100	124	≈ 1.98	≈ 2.35

Part No.	Part No.	<i>Bi</i>	<i>Ba</i>	E6.52	R6.52
e-chains® cross-bars removable	e-tubes lids removable	[mm]	[mm]	[kg/m]	[kg/m]
E6.52.125.0	R6.52.125.0	125	149	≈ 2.07	≈ 2.57
E6.52.150.0	R6.52.150.0	150	174	≈ 2.17	≈ 2.80
E6.52.175.0	R6.52.175.0	175	199	≈ 2.26	≈ 3.03
E6.52.200.0	R6.52.200.0	200	224	≈ 2.36	≈ 3.25
E6.52.225.0	–	225	249	≈ 2.45	≈ 3.46
E6.52.250.0	–	250	274	≈ 2.54	≈ 3.68
E6.52.275.0	–	275	299	≈ 2.64	≈ 3.92
E6.52.300.0	–	300	324	≈ 2.73	≈ 4.15

Available bend radii *R* [mm] | 075 | 100 | 125 | 150 | 200 | 250 |



Order key

E6.52.100.100.0

Series / Type	Inner height	Width index	Bend radius	Colour index
---------------	--------------	-------------	-------------	--------------

Order example:

Complete Part No. with the required radius *R*. Example:

E6.52.100.100.0 = crossbars removable along the inner and outer radius

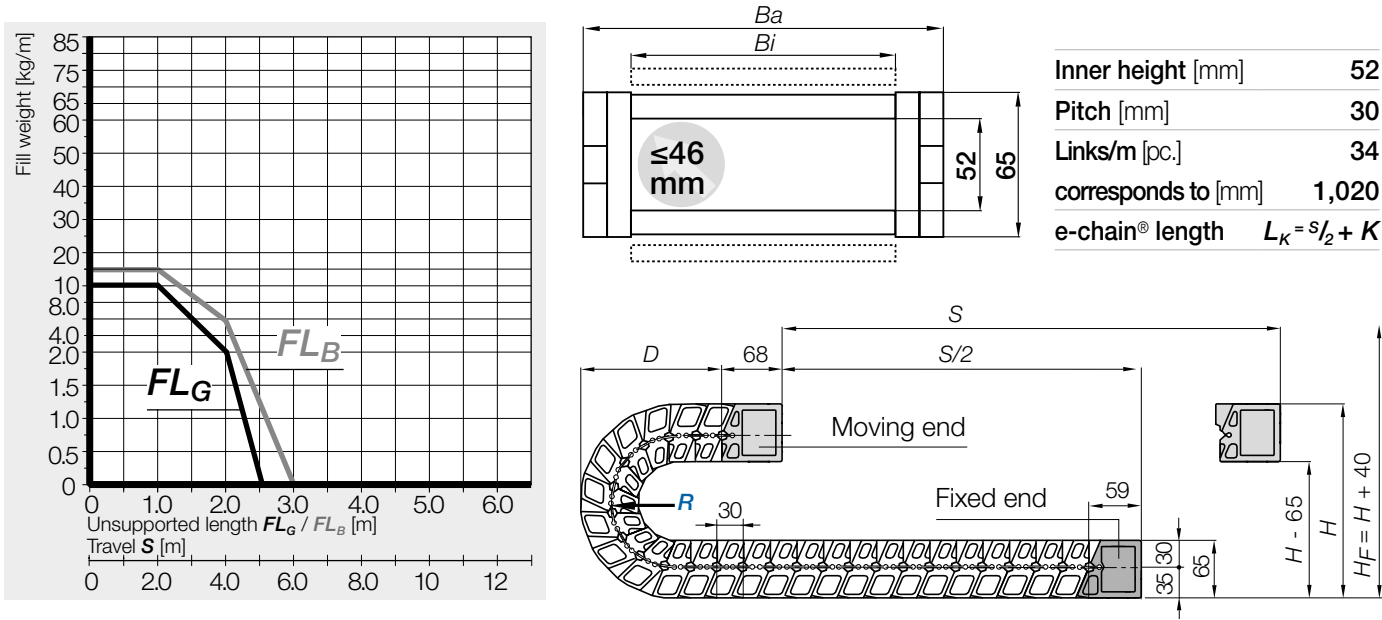
R6.52.100.100.0 = lids removable along the inner and outer radii

Order index for colour options ► www.igus.eu/info-colours



Available from stock
Upon request

Unsupported applications | Short travels



<i>R</i>	075	100	125	150	200	250
<i>H</i>	270	320	365	420	520	620
<i>D</i>	155	180	203	230	280	330
<i>K</i>	300	375	455	535	690	850

The required clearance height: $H_F = H + 40\text{mm}$ (with 2.0kg/m fill weight)

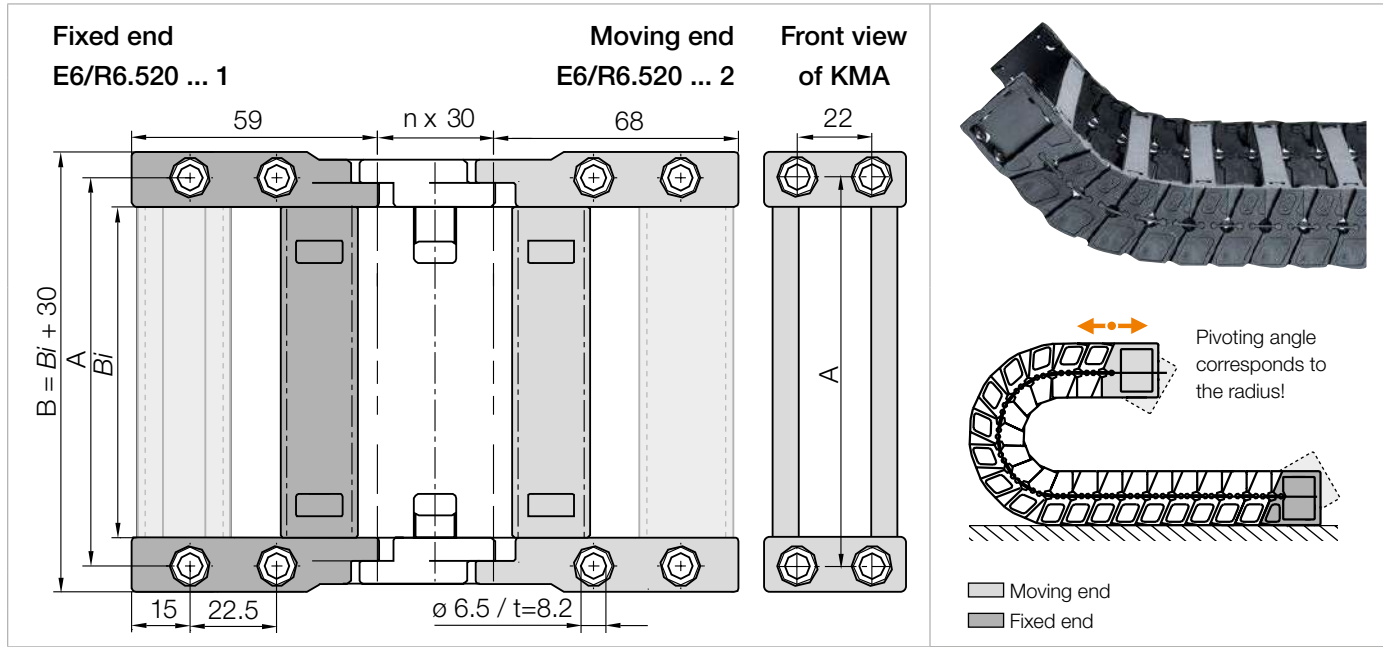


Note: If a gliding application is required for a long travel, please consult igus®.



Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting

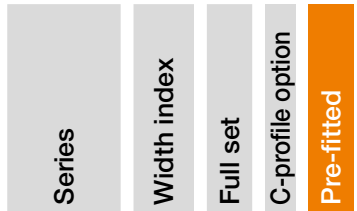


Width index	Full set KMA, pivoting				
	Part No. e-chains®	Part No. e-tubes	A [mm]	B [mm]	B_i [mm]
040.	E6.520.040.12.□	–	56	70	40
050.	E6.520.050.12.□	R6.520.050.12.□	66	80	50
052.	E6.520.052.12.□	–	68	82	52
062.	E6.520.062.12.□	–	78	92	62
070.	E6.520.070.12.□	–	86	100	70
075.	E6.520.075.12.□	R6.520.075.12.□	91	105	75
087.	E6.520.087.12.□	–	103	117	87
100.	E6.520.100.12.□	R6.520.100.12.□	116	130	100

(KMA = polymer metal mounting bracket)

Order key

E6.520.100.12.□.C.A2



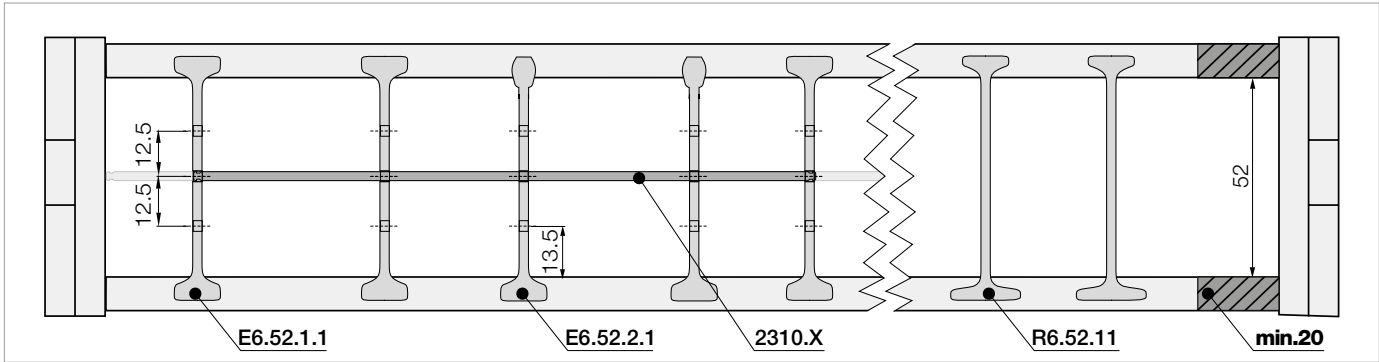
Note: Possible orientations for KMA mounting brackets. For mounting brackets pre-fitted **without strain relief**, please add index **.A**. For types pre-fitted **with strain relief** please add index **.A1**, **.A2**, **.A3** or **.A4**.



For the C-profile option please add index **.C**.

Available from stock
Upon request

Interior separation | Increase cable service life (only for e-chains®)



Note for e-tubes: Please be aware of the minimum lateral gap to the side links! **20mm**

e-chains®: No lateral gap to side links necessary.

As standard separators are fitted every 2nd e-chain® link!

		Part No. Standard separator unassembled E6.52.1 assembled E6.52.1.1	For all applications Standard separator with a wide base for maximum holding force.
		Part No. Separator, narrow top unassembled E6.52.2 assembled E6.52.2.1	For even faster installation Wide on one side for high holding force, narrow on opposite side for easy cable fitting.
		Part No. Shelf unassembled 2300.X assembled 2310.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
015	2300.015	2310.015	057	2300.057	2310.057	077	2300.077	2310.077	110	2300.110	2310.110
025	2300.025	2310.025	060	2300.060	2310.060	080	2300.080	2310.080	120	2300.120	2310.120
030	2300.030	2310.030	062	2300.062	2310.062	087	2300.087	2310.087	125	2300.125	2310.125
038	2300.038	2310.038	065	2300.065	2310.065	090	2300.090	2310.090			
040	2300.040	2310.040	070	2300.070	2310.070	100	2300.100	2310.100			
050	2300.050	2310.050	075	2300.075	2310.075	103	2300.103	2310.103			

Interior separation (only for e-tubes)

		Part No. Separator for e-tubes unassembled R6.52.1 assembled R6.52.1.1	Separator for e-tubes Notches on the separator indicate the clamping side of the separator. The notches on this separator mark the side that fixes to the lid.
--	--	---	--

Available from stock
Upon request

Product range



Part No. e-chains®	Bi [mm]	Ba [mm]	E6.62 [kg/m]
crossbars removable			
E6.62.05. .0	50	86	≈ 3.22
E6.62.06. .0	68	104	≈ 3.28
E6.62.07. .0	75	111	≈ 3.31
E6.62.087. .0	87	123	≈ 3.35
E6.62.097. .0	97	133	≈ 3.38
E6.62.10. .0	100	136	≈ 3.39
E6.62.11. .0	108	144	≈ 3.42
E6.62.112. .0	112	148	≈ 3.43
E6.62.12. .0	125	161	≈ 3.48
E6.62.137. .0	137	173	≈ 3.52
E6.62.15. .0	150	186	≈ 3.57
E6.62.162. .0	162	198	≈ 3.61
E6.62.17. .0	168	204	≈ 3.63
E6.62.18. .0	175	211	≈ 3.65
E6.62.187. .0	187	223	≈ 3.69
E6.62.20. .0	200	236	≈ 3.74

Part No. e-chains®	Bi [mm]	Ba [mm]	E6.62 [kg/m]
crossbars removable			
E6.62.212. .0	212	248	≈ 3.78
E6.62.23. .0	225	261	≈ 3.83
E6.62.237. .0	237	273	≈ 3.87
E6.62.25. .0	250	286	≈ 3.91
E6.62.262. .0	262	298	≈ 3.95
E6.62.28. .0	275	311	≈ 4.00
E6.62.29. .0	287	323	≈ 4.04
E6.62.30. .0	300	336	≈ 4.09
E6.62.312. .0	312	348	≈ 4.13
E6.62.325. .0	325	361	≈ 4.17
E6.62.337. .0	337	373	≈ 4.21
E6.62.350. .0	350	386	≈ 4.26
E6.62.362. .0	362	398	≈ 4.30
E6.62.375. .0	375	411	≈ 4.35
E6.62.387. .0	387	423	≈ 4.39
E6.62.400. .0	400	436	≈ 4.43

Available bend radii *R* [mm] | 115 | 150 | 200 | 250 | 300 | 350 |



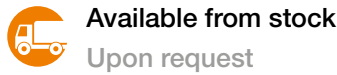
Order key

E6.62.10.250.0

Series / Type	Inner height	Width index	Bend radius	Colour index
			250	

Order example:

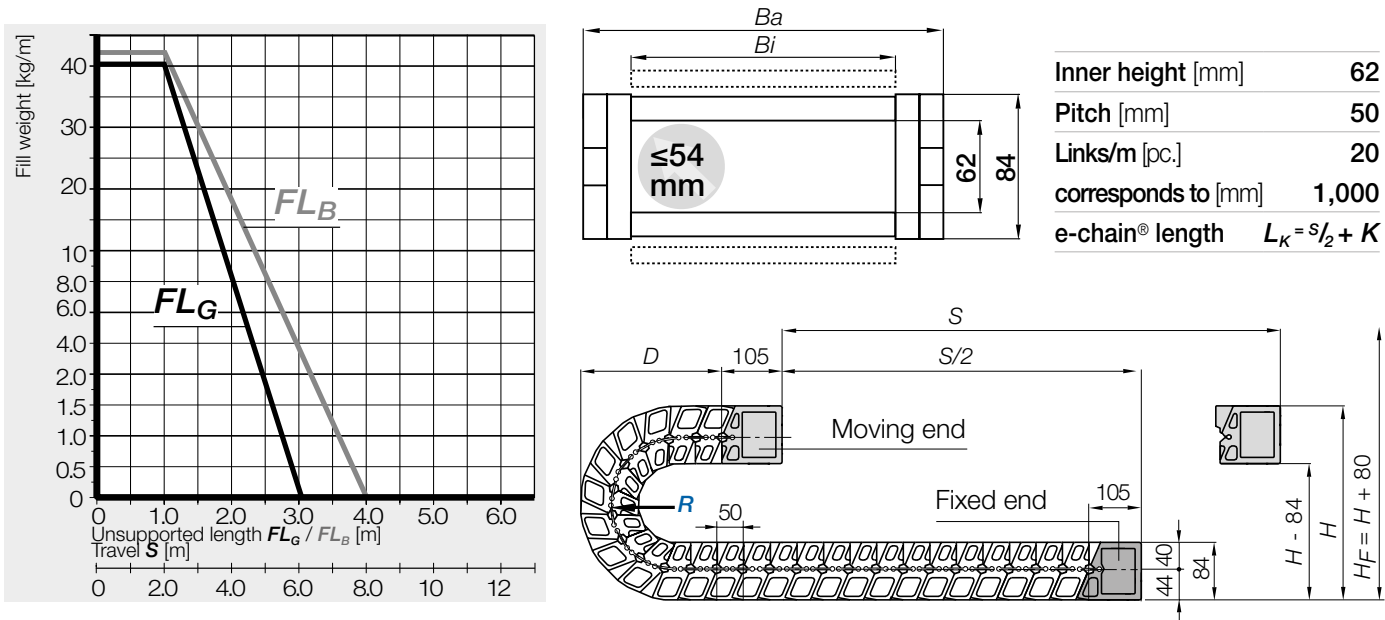
Complete Part No. with the required radius . Example:
E6.62.10.250.0 = crossbars removable along the inner and outer radius
Order index for colour options ► www.igus.eu/info-colours



Available from stock
Upon request

E6 | Series E6.62

Unsupported applications | Short travels



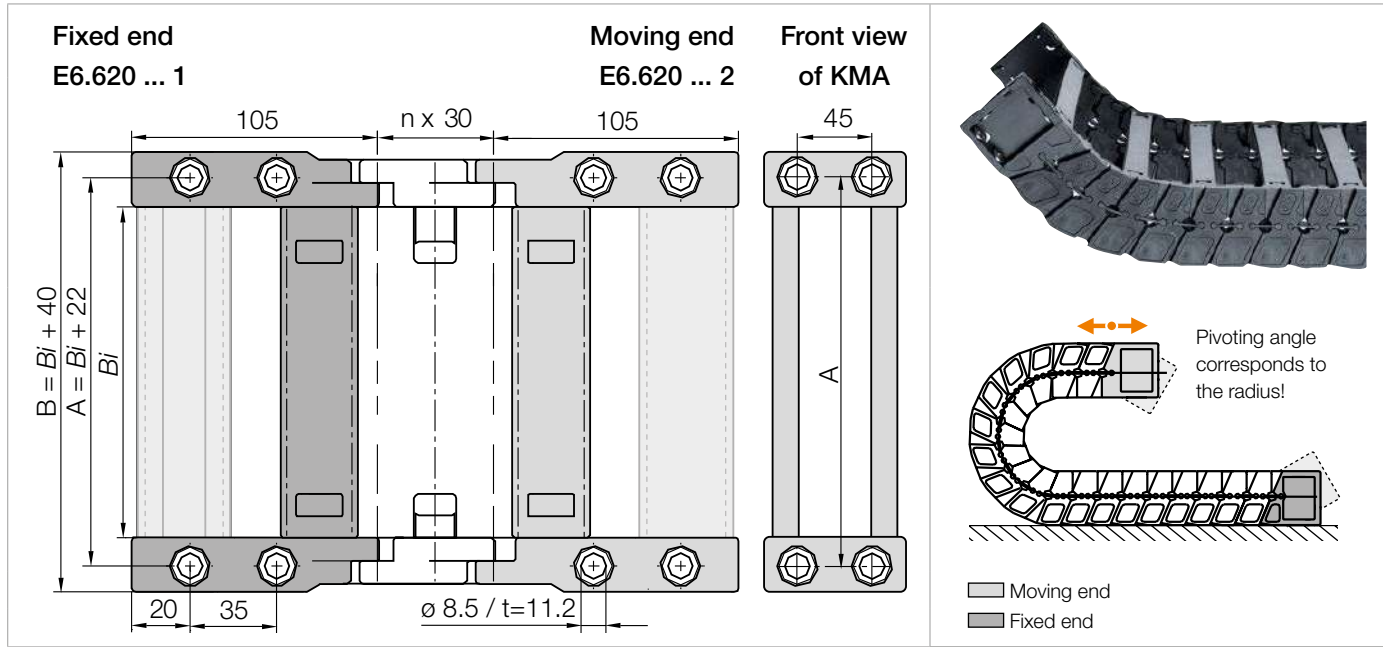
<i>R</i>	115	150	200	250	300	350
<i>H</i>	388	458	558	658	758	858
<i>D</i>	234	269	319	369	419	469
<i>K</i>	465	575	730	890	1,045	1,200

The required clearance height: $H_F = H + 80\text{mm}$ (with 2.0kg/m fill weight)



Note: If a gliding application is required for a long travel, please consult igus®.

KMA mounting brackets | Attachment from any side | Pivoting



Width index	KMA full set				
	Part No. pivoting	A [mm]	B [mm]	Bi [mm]	
05.	E6.620.05. 12.□	72	90	50	
06.	E6.620.06. 12.□	90	108	68	
07.	E6.620.07. 12.□	97	115	75	
087.	E6.620.087. 12.□	109	127	87	
097.	E6.620.097. 12.□	119	137	97	
10.	E6.620.10. 12.□	122	140	100	
11.	E6.620.11. 12.□	130	148	108	
112.	E6.620.112. 12.□	134	152	112	
12.	E6.620.12. 12.□	147	165	125	
137.	E6.620.137. 12.□	159	177	137	
15.	E6.620.15. 12.□	172	190	150	
162.	E6.620.162. 12.□	184	202	162	
17.	E6.620.17. 12.□	190	208	168	
18.	E6.620.18. 12.□	197	215	175	
187.	E6.620.187. 12.□	209	227	187	
20.	E6.620.20. 12.□	222	240	200	

Width index	KMA full set				
	Part No. pivoting	A [mm]	B [mm]	Bi [mm]	
212.	E6.620.212. 12.□	234	252	212	
23.	E6.620.23. 12.□	247	265	225	
237.	E6.620.237. 12.□	259	277	237	
25.	E6.620.25. 12.□	272	290	250	
262.	E6.620.262. 12.□	284	302	262	
28.	E6.620.28. 12.□	297	315	275	
29.	E6.620.29. 12.□	309	327	287	
30.	E6.620.30. 12.□	322	340	300	
312.	E6.620.312. 12.□	334	352	312	
325.	E6.620.325. 12.□	347	365	325	
337.	E6.620.337. 12.□	359	377	337	
350.	E6.620.350. 12.□	372	390	350	
362.	E6.620.362. 12.□	384	402	362	
375.	E6.620.375. 12.□	397	415	375	
387.	E6.620.387. 12.□	409	427	387	
400.	E6.620.400. 12.□	422	440	400	

(KMA = polymer metal mounting bracket)

Order key

E6.620.10.12.C.A2

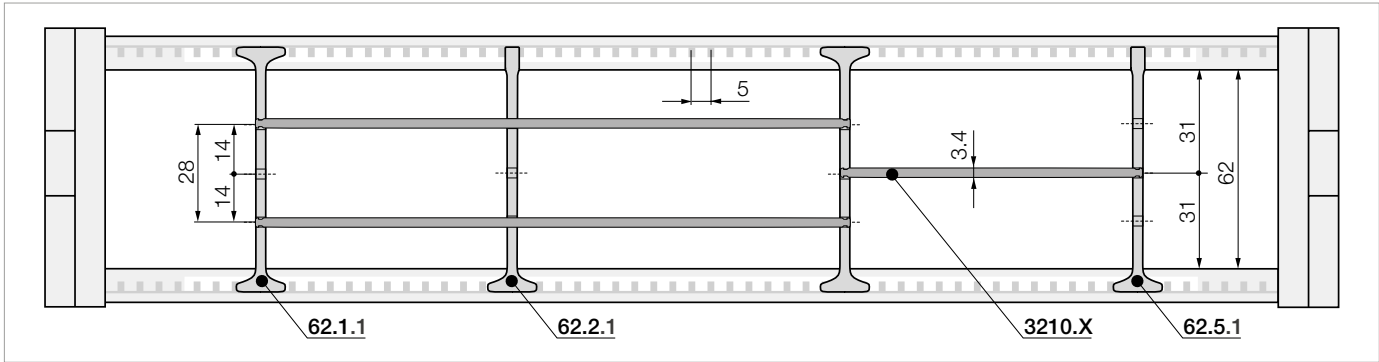
Series	Width index	Full set	C-profile option	Pre-fitted

Note: Possible orientations for KMA mounting brackets. For mounting brackets pre-fitted without strain relief, please add index **.A**. For types pre-fitted with strain relief please add index **.A1**, **.A2**, **.A3** or **.A4**.



For the C-profile option please add index **.C**.

Interior separation | Increase cable service life



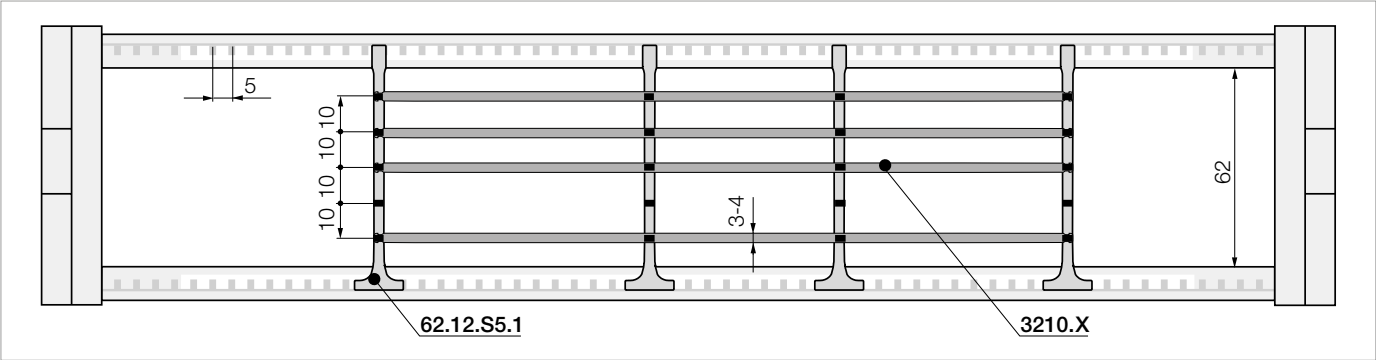
No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-chain® link!

		Part No. Standard separator unassembled 62.1 assembled 62.1.1	For all applications Standard separator with a wide base for maximum holding force.
		Part No. Separator, narrow top unassembled 62.2 assembled 62.2.1	For even faster installation Wide on one side for high holding force, narrow on opposite side for easy cable fitting.
		Part No. Notch separator* unassembled 62.5 assembled 62.5.1	Locks securely in preset increments Notch separator* for exact positioning. Recommended for side-mounted applications. *Suitable from Bi 75
		Part No. Shelf unassembled 3200.X assembled 3210.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

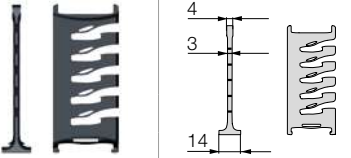
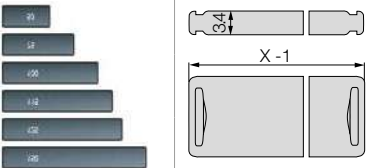
Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	3200.050	3210.050	115	3200.115	3210.115	175	3200.175	3210.175	250	3200.250	3210.250
075	3200.075	3210.075	125	3200.125	3210.125	200	3200.200	3210.200			
100	3200.100	3210.100	150	3200.150	3210.150	225	3200.225	3210.225			

Available from stock
Upon request

Interior separation | To allow faster filling



No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-chain® link!

	Part No. Lean separator unassembled 62.12.S5 assembled 62.12.S5.1	Lean separators¹⁾ Quick fitting of shelves in several layers. Enables extremely fast replacement of individual cables in very full e-chains®. Only suitable for e-chains®.
	Part No. Shelf unassembled 3200.X assembled 3210.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	3200.050	3210.050	115	3200.115	3210.115	175	3200.175	3210.175	250	3200.250	3210.250
075	3200.075	3210.075	125	3200.125	3210.125	200	3200.200	3210.200			
100	3200.100	3210.100	150	3200.150	3210.150	225	3200.225	3210.225			



Lean separator for even faster filling: quickly insert several layers of cables into the e-chain® and reduce the installation time by up to 50%. Measured on a 4m long e-chain® fitted with 12 cables. **1) Note: Please combine a maximum of four lean separators with one shelf. Not suitable for side-mounted e-chains®!**

Product range



Part No. e-chains® crossbars removable	Bi [mm]	Ba [mm]	E6.80L [kg/m]
E6.80L.08.□.0	87	115	≈ 3.28
E6.80L.10.□.0	100	128	≈ 3.33
E6.80L.11.□.0	112	140	≈ 3.38
E6.80L.12.□.0	125	153	≈ 3.43
E6.80L.13.□.0	137	165	≈ 3.49
E6.80L.15.□.0	150	178	≈ 3.55
E6.80L.16.□.0	162	190	≈ 3.61
E6.80L.17.□.0	175	203	≈ 3.67
E6.80L.18.□.0	187	215	≈ 3.73
E6.80L.20.□.0	200	228	≈ 3.79
E6.80L.21.□.0	212	240	≈ 3.85
E6.80L.22.□.0	225	253	≈ 3.91
E6.80L.23.□.0	237	265	≈ 3.97
E6.80L.25.□.0	250	278	≈ 4.02
E6.80L.26.□.0	262	290	≈ 4.09
E6.80L.27.□.0	275	303	≈ 4.14
E6.80L.28.□.0	287	315	≈ 4.20
E6.80L.30.□.0	300	328	≈ 4.26
E6.80L.31.□.0	312	340	≈ 4.32

Part No. e-chains® crossbars removable	Bi [mm]	Ba [mm]	E6.80L [kg/m]
E6.80L.32.□.0	325	353	≈ 4.38
E6.80L.33.□.0	337	365	≈ 4.44
E6.80L.35.□.0	350	378	≈ 4.50
E6.80L.36.□.0	362	390	≈ 4.56
E6.80L.37.□.0	375	403	≈ 4.62
E6.80L.38.□.0	387	415	≈ 4.68
E6.80L.40.□.0	400	428	≈ 4.74
E6.80L.41.□.0	412	440	≈ 4.80
E6.80L.42.□.0	425	453	≈ 4.85
E6.80L.43.□.0	437	465	≈ 4.92
E6.80L.45.□.0	450	478	≈ 5.03
E6.80L.46.□.0	462	490	≈ 5.09
E6.80L.47.□.0	475	503	≈ 5.15
E6.80L.48.□.0	487	515	≈ 5.21
E6.80L.50.□.0	500	528	≈ 5.27
E6.80L.51.□.0	512	540	≈ 5.33
E6.80L.52.□.0	525	553	≈ 5.39
E6.80L.53.□.0	537	565	≈ 5.45
E6.80L.55.□.0	550	578	≈ 5.51

Available bend radii R [mm] | 150 | 175 | 200 | 250 | 300 |

Order key

E6.80L.10.175.0

Series / Type	Inner height	Width index	Bend radius	Colour index

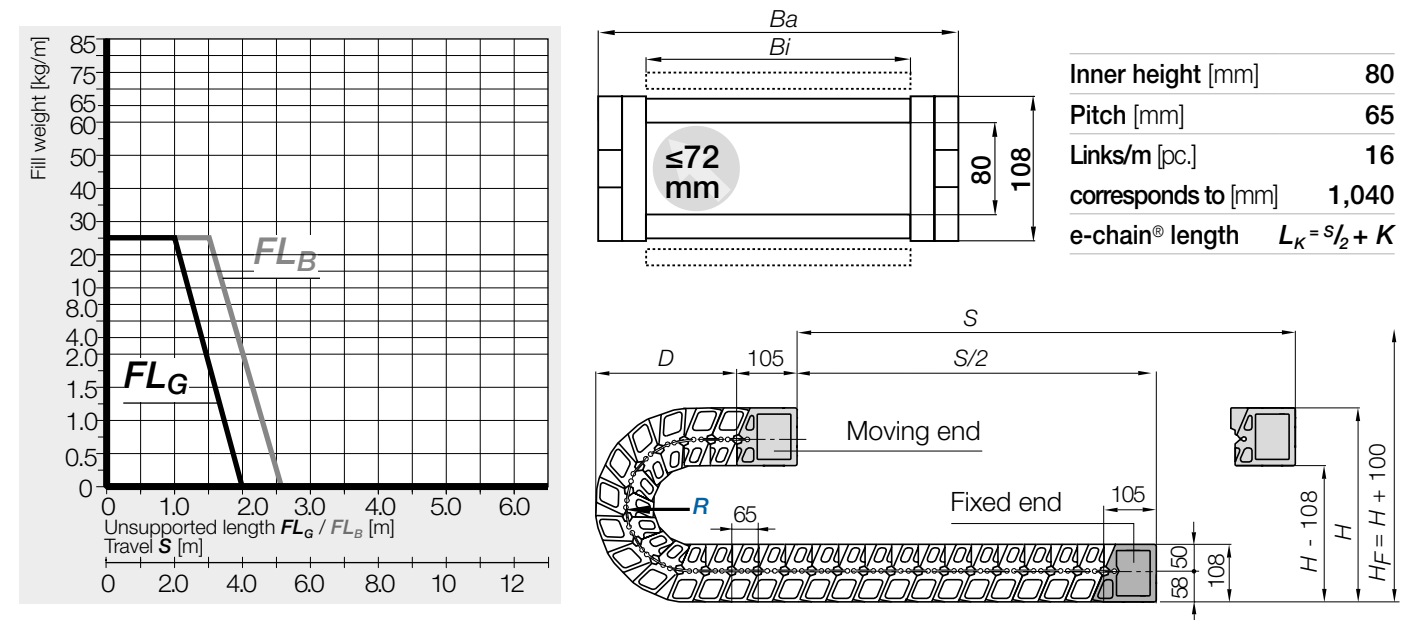
Order example:

Complete Part No. with the required radius R . Example:

E6.80L.10.175.0 = crossbars removable along the inner and outer radius

Order index for colour options ► www.igus.eu/info-colours

Unsupported applications | Short travels



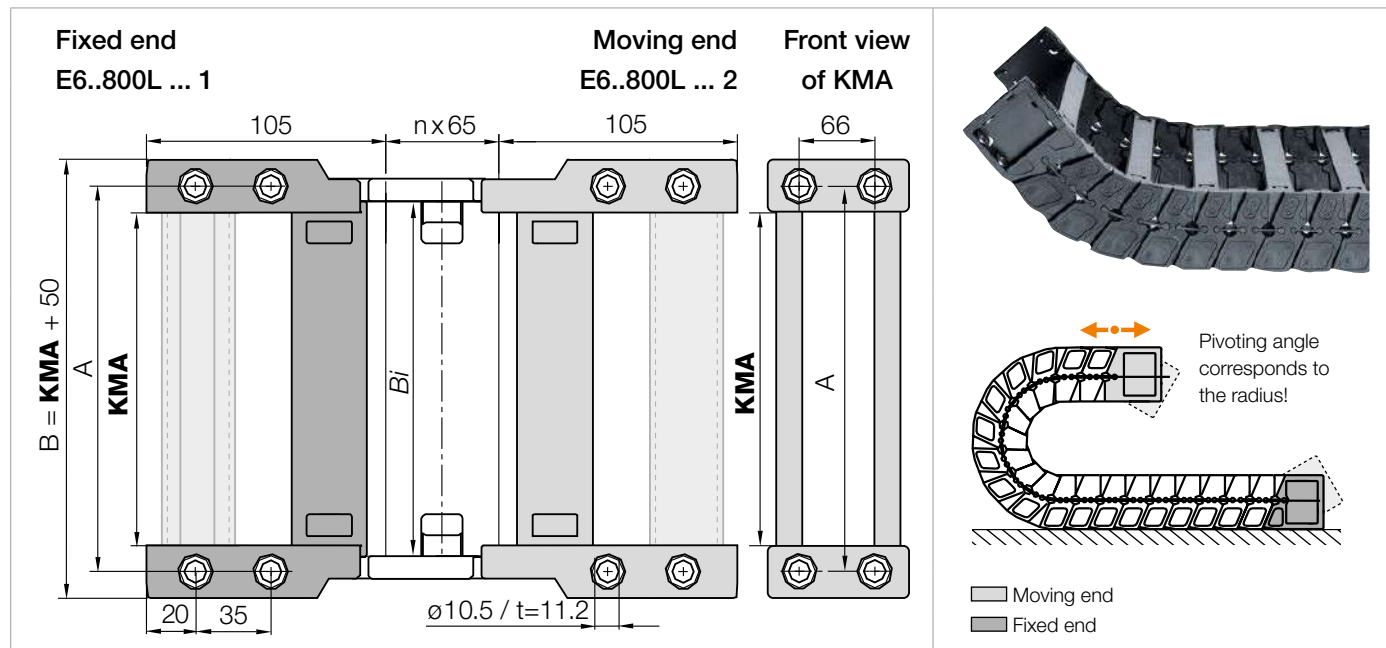
R	150	175	200	250	300
H	516	566	616	716	816
D	306	331	356	406	456
K	605	680	760	915	1,075

The required clearance height: $H_F = H + 100\text{mm}$ (with 5.0kg/m fill weight)

Note: If a gliding application is required for a long travel, please consult igus®.

Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting



Width index	KMA full set		
	Part No. pivoting	A [mm]	KMA [mm]
08.	E6.800L.08. 12.□	103	75
10.	E6.800L.10. 12.□	115	87
11.	E6.800L.11. 12.□	128	100
12.	E6.800L.12. 12.□	140	112
13.	E6.800L.13. 12.□	153	125
15.	E6.800L.15. 12.□	165	137
16.	E6.800L.16. 12.□	178	150
17.	E6.800L.17. 12.□	190	162
18.	E6.800L.18. 12.□	203	175
20.	E6.800L.20. 12.□	215	187
21.	E6.800L.21. 12.□	228	200
22.	E6.800L.22. 12.□	240	212
23.	E6.800L.23. 12.□	253	225
25.	E6.800L.25. 12.□	265	237
26.	E6.800L.26. 12.□	278	250
27.	E6.800L.27. 12.□	290	262
28.	E6.800L.28. 12.□	303	275
30.	E6.800L.30. 12.□	315	287
31.	E6.800L.31. 12.□	328	300

Width index	KMA full set		
	Part No. pivoting	A [mm]	KMA [mm]
32.	E6.800L.32. 12.□	340	312
33.	E6.800L.33. 12.□	353	325
35.	E6.800L.35. 12.□	365	337
36.	E6.800L.36. 12.□	378	350
37.	E6.800L.37. 12.□	390	362
38.	E6.800L.38. 12.□	403	375
40.	E6.800L.40. 12.□	415	387
41.	E6.800L.41. 12.□	428	400
42.	E6.800L.42. 12.□	440	412
43.	E6.800L.43. 12.□	453	425
45.	E6.800L.45. 12.□	465	437
46.	E6.800L.46. 12.□	478	450
47.	E6.800L.47. 12.□	490	462
48.	E6.800L.48. 12.□	503	475
50.	E6.800L.50. 12.□	515	487
51.	E6.800L.51. 12.□	528	500
52.	E6.800L.52. 12.□	540	512
53.	E6.800L.53. 12.□	553	525
55.	E6.800L.55. 12.□	565	537

(KMA = polymer metal mounting bracket)

Order key

E6.800L.10.12.C.A2

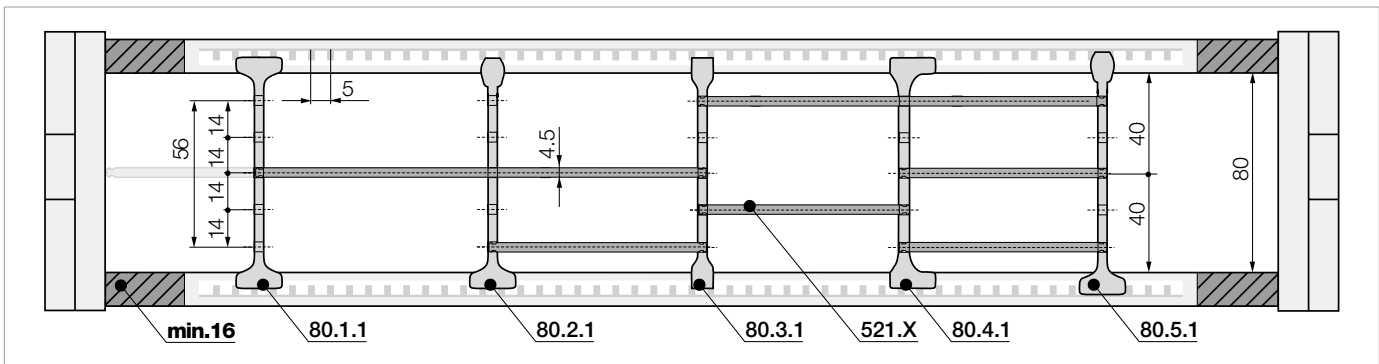
Series	Width index	Full set	C-profile option	Pre-fitted

Note: Possible orientations for KMA mounting brackets. For mounting brackets pre-fitted **without strain relief**, please add index **.A**. For types pre-fitted **with strain relief** please add index **.A1**, **.A2**, **.A3** or **.A4**.



For the C-profile option please add index **.C**.

Interior separation | Increase cable service life

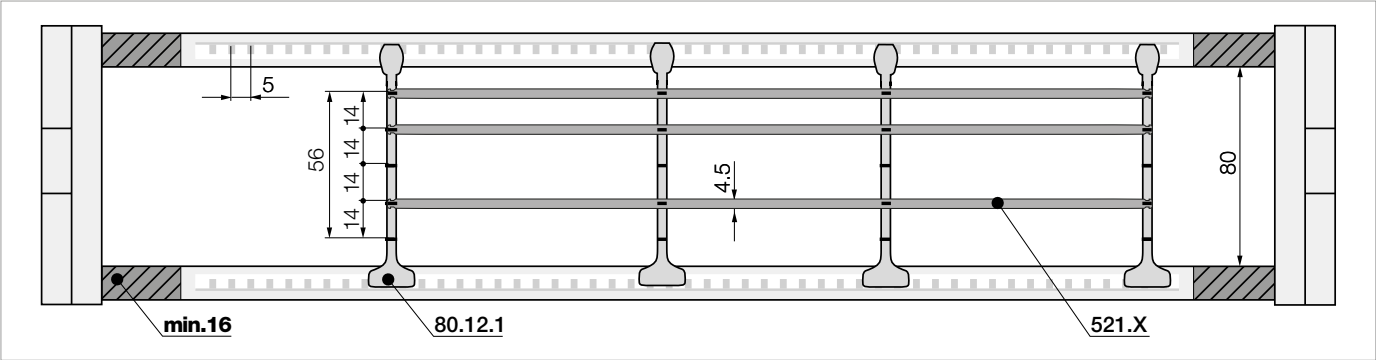


Note: Please be aware of the minimum lateral gap to the side links! **e-chain®: =16mm**
As standard separators are fitted every 2nd e-chain® link!

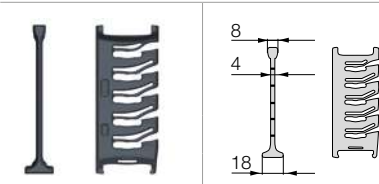
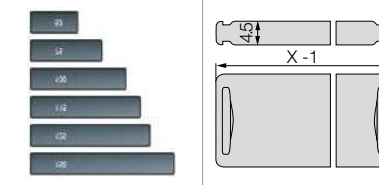
		Part No. Standard separator unassembled 80.1 assembled 80.1.1	For all applications Standard separator with a wide base for maximum holding force.
		Part No. Separator, narrow top unassembled 80.2 assembled 80.2.1	For even faster installation Wide on one side for high holding force, narrow on opposite side for easy cable fitting.
		Part No. Separator, narrow unassembled 80.3 assembled 80.3.1	For a large number of thin cables Separator with a narrow base for a large number of thin cables side by side. Saves space.
		Part No. Separator, asymmetrical unassembled 80.4 assembled 80.4.1	For side-mounted applications Asymmetrical separator, for defined gap distance. No additional spacers required.
		Part No. Notch separator unassembled 80.5 assembled 80.5.1	Locks securely in preset increments Notch separator for exact positioning. Recommended for side-mounted applications.
		Part No. Shelf unassembled 520.X assembled 521.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	520.050	521.050	125	520.125	521.125	225	520.225	521.225	375	520.375	521.375
065	520.065	521.065	150	520.150	521.150	250	520.250	521.250	387	520.387	521.387
075	520.075	521.075	175	520.175	521.175	300	520.300	521.300	450	520.450	521.450
100	520.100	521.100	200	520.200	521.200	350	520.350	521.350			

Interior separation | To allow faster filling



 **Note:** Please be aware of the minimum lateral gap to the side links! **e-chain®: =16mm**
As standard separators are fitted every 2nd e-chain® link!

	Part No. Lean separator unassembled 80.12 assembled 80.12.1	Lean separators¹⁾ Quick fitting of shelves in several layers. Enables extremely fast replacement of individual cables in very full e-chains®. Only suitable for e-chains®.
	Part No. Shelf unassembled 520.X assembled 521.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	520.050	521.050	125	520.125	521.125	225	520.225	521.225	375	520.375	521.375
065	520.065	521.065	150	520.150	521.150	250	520.250	521.250	387	520.387	521.387
075	520.075	521.075	175	520.175	521.175	300	520.300	521.300	450	520.450	521.450
100	520.100	521.100	200	520.200	521.200	350	520.350	521.350			



Lean separator for even faster filling: quickly insert several layers of cables into the e-chain® and reduce the installation time by up to 50%. Measured on a 4m long e-chain® fitted with 12 cables. **1) Note:** Please combine a maximum of four lean separators with one shelf. Not suitable for side-mounted e-chains®!

Product range



Part No. e-chains® crossbars removable	Bi [mm]	Ba [mm]	E6.80 [kg/m]
E6.80.05.□.0	50	100	≈ 5.21
E6.80.06.□.0	65	115	≈ 5.28
E6.80.07.□.0	75	125	≈ 5.33
E6.80.08.□.0	87	137	≈ 5.38
E6.80.10.□.0	100	150	≈ 5.45
E6.80.11.□.0	112	162	≈ 5.50
E6.80.12.□.0	125	175	≈ 5.57
E6.80.13.□.0	137	187	≈ 5.62
E6.80.15.□.0	150	200	≈ 5.68
E6.80.16.□.0	162	212	≈ 5.74
E6.80.17.□.0	175	225	≈ 5.80
E6.80.18.□.0	187	237	≈ 5.86
E6.80.20.□.0	200	250	≈ 5.92
E6.80.21.□.0	212	262	≈ 5.98
E6.80.22.□.0	225	275	≈ 6.04
E6.80.23.□.0	237	287	≈ 6.10
E6.80.25.□.0	250	300	≈ 6.16
E6.80.26.□.0	262	312	≈ 6.21
E6.80.27.□.0	275	325	≈ 6.28
E6.80.28.□.0	287	337	≈ 6.33
E6.80.30.□.0	300	350	≈ 6.39

Part No. e-chains® crossbars removable	Bi [mm]	Ba [mm]	E6.80 [kg/m]
E6.80.31.□.0	312	362	≈ 6.45
E6.80.32.□.0	325	375	≈ 6.51
E6.80.33.□.0	337	387	≈ 6.57
E6.80.35.□.0	350	400	≈ 6.63
E6.80.36.□.0	362	412	≈ 6.69
E6.80.37.□.0	375	425	≈ 6.75
E6.80.38.□.0	387	437	≈ 6.80
E6.80.40.□.0	400	450	≈ 6.88
E6.80.41.□.0	412	462	≈ 6.92
E6.80.42.□.0	425	475	≈ 6.99
E6.80.43.□.0	437	487	≈ 7.04
E6.80.45.□.0	450	500	≈ 7.10
E6.80.46.□.0	462	512	≈ 7.16
E6.80.47.□.0	475	525	≈ 7.22
E6.80.48.□.0	487	537	≈ 7.28
E6.80.50.□.0	500	550	≈ 7.34
E6.80.51.□.0	512	562	≈ 7.40
E6.80.52.□.0	525	575	≈ 7.46
E6.80.53.□.0	537	587	≈ 7.52
E6.80.55.□.0	550	600	≈ 7.58
E6.80.60.□.0	600	650	≈ 7.81

Available bend radii *R* [mm] | 150 | 200 | 250 | 300 | 350 | 400 | 450 |



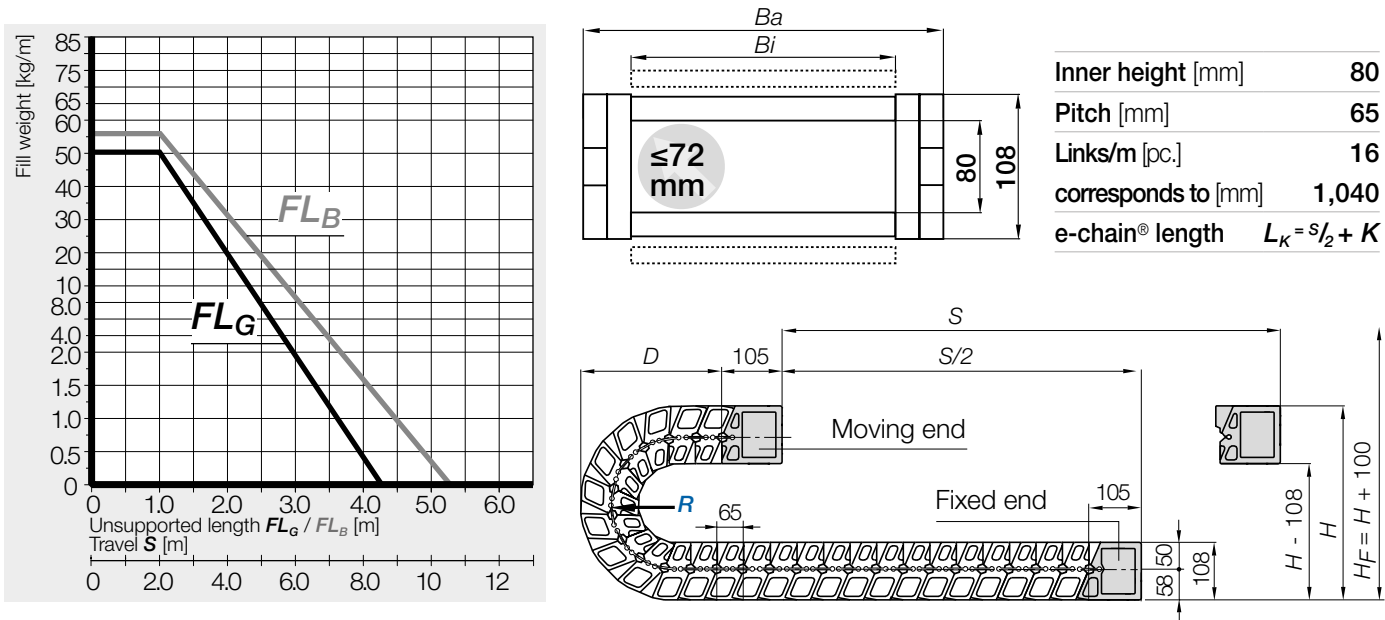
E6.80.10.300.0

Series / Type	Inner height	Width index	Bend radius	Colour index
---------------	--------------	-------------	-------------	--------------

Order example:
Complete Part No. with the required radius R. Example:
E6.80.10.300.0 = crossbars removable along the inner and outer radius
Order index for colour options ► www.igus.eu/info-colours

E6 | Series E6.80

Unsupported applications | Short travels



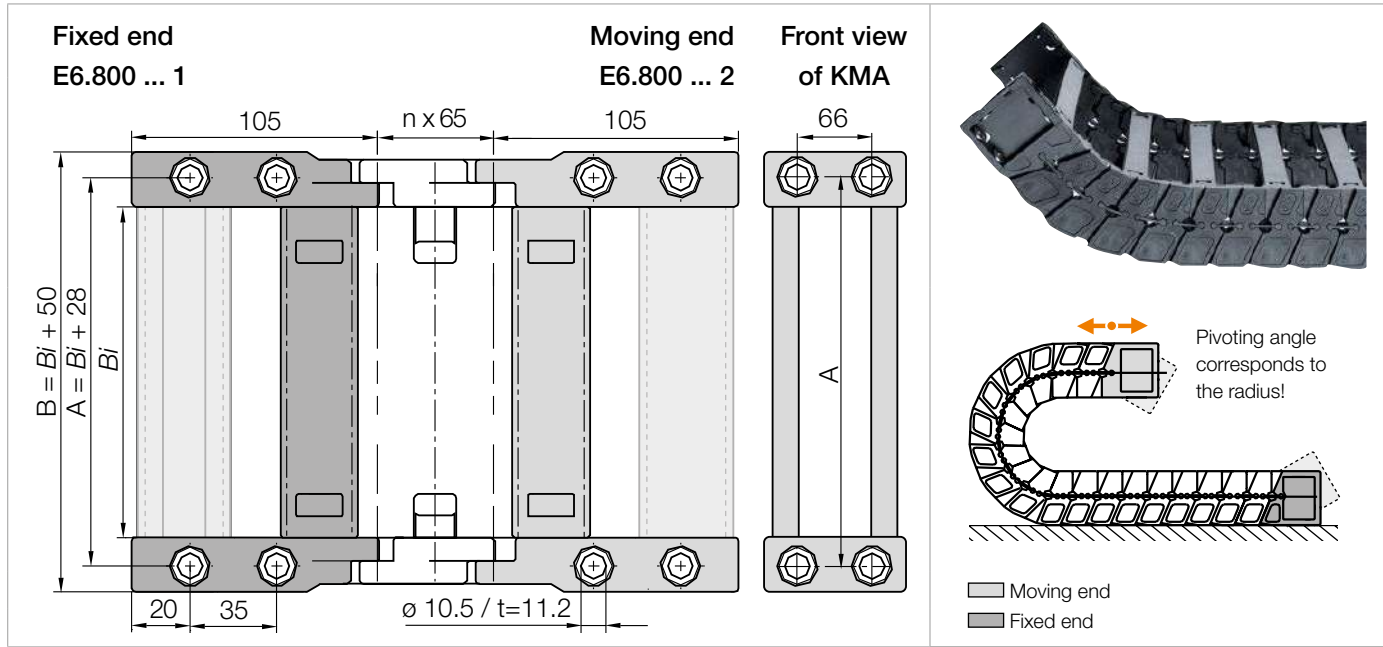
<i>R</i>	150	200	250	300	350	400	450
<i>H</i>	516	616	716	816	916	1,016	1,116
<i>D</i>	306	356	406	456	506	556	606
<i>K</i>	605	760	920	1,075	1,230	1,390	1,545

The required clearance height: $H_F = H + 100\text{mm}$ (with 5.0kg/m fill weight)

Note: If a gliding application is required for a long travel, please consult igus®.

Available from stock
Upon request

KMA mounting brackets | Attachment from any side | Pivoting



Width index	KMA full set			
	Part No. pivoting	A [mm]	B [mm]	B_i [mm]
05.	E6.800.05.12.□	78	100	50
06.	E6.800.06.12.□	93	115	65
07.	E6.800.07.12.□	103	125	75
08.	E6.800.08.12.□	115	137	87
10.	E6.800.10.12.□	128	150	100
11.	E6.800.11.12.□	140	162	112
12.	E6.800.12.12.□	153	175	125
13.	E6.800.13.12.□	165	187	137
15.	E6.800.15.12.□	178	200	150
16.	E6.800.16.12.□	190	212	162
17.	E6.800.17.12.□	203	225	175
18.	E6.800.18.12.□	215	237	187
20.	E6.800.20.12.□	228	250	200
21.	E6.800.21.12.□	240	262	212
22.	E6.800.22.12.□	253	275	225
23.	E6.800.23.12.□	265	287	237
25.	E6.800.25.12.□	278	300	250
26.	E6.800.26.12.□	290	412	262
27.	E6.800.27.12.□	303	325	275
28.	E6.800.28.12.□	315	337	287
30.	E6.800.30.12.□	328	350	300

Width index	KMA full set			
	Part No. pivoting	A [mm]	B [mm]	B_i [mm]
31.	E6.800.31.12.□	340	362	312
32.	E6.800.32.12.□	353	375	325
33.	E6.800.33.12.□	365	387	337
35.	E6.800.35.12.□	378	400	350
36.	E6.800.36.12.□	390	412	362
37.	E6.800.37.12.□	403	425	375
38.	E6.800.38.12.□	415	437	387
40.	E6.800.40.12.□	428	450	400
41.	E6.800.41.12.□	440	462	412
42.	E6.800.42.12.□	453	475	425
43.	E6.800.43.12.□	465	487	437
45.	E6.800.45.12.□	478	500	450
46.	E6.800.46.12.□	490	512	462
47.	E6.800.47.12.□	503	525	475
48.	E6.800.48.12.□	515	537	487
50.	E6.800.50.12.□	528	550	500
51.	E6.800.51.12.□	540	562	512
52.	E6.800.52.12.□	553	575	525
53.	E6.800.53.12.□	565	587	537
55.	E6.800.55.12.□	578	600	550
60.	E6.800.60.12.□	628	650	600

(KMA = polymer metal mounting bracket)

Order key

E6.800.10.12.C.A2

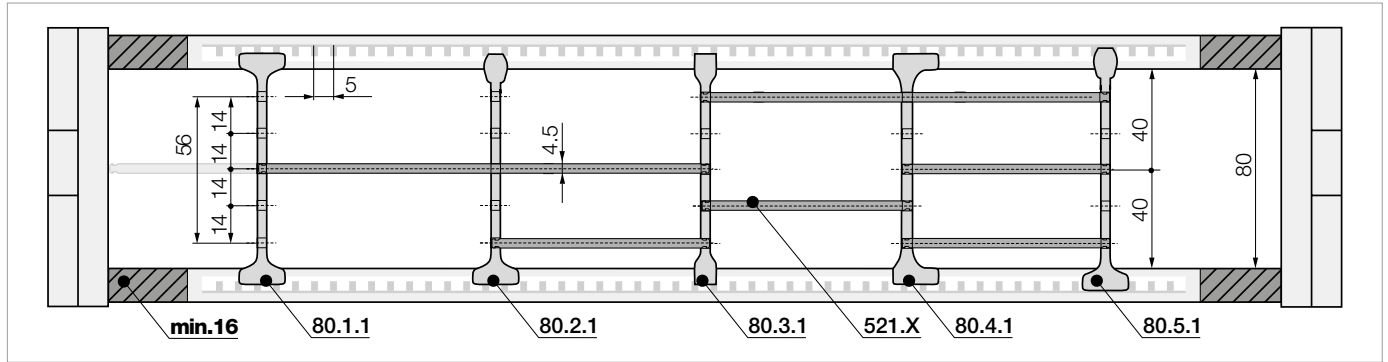
Series	Width index	Full set	C-profile option	Pre-fitted

Note: Possible orientations for KMA mounting brackets. For mounting brackets pre-fitted without strain relief, please add index **.A**. For types pre-fitted with strain relief please add index **.A1**, **.A2**, **.A3** or **.A4**.



For the C-profile option please add index **.C**.

Interior separation | Increase cable service life

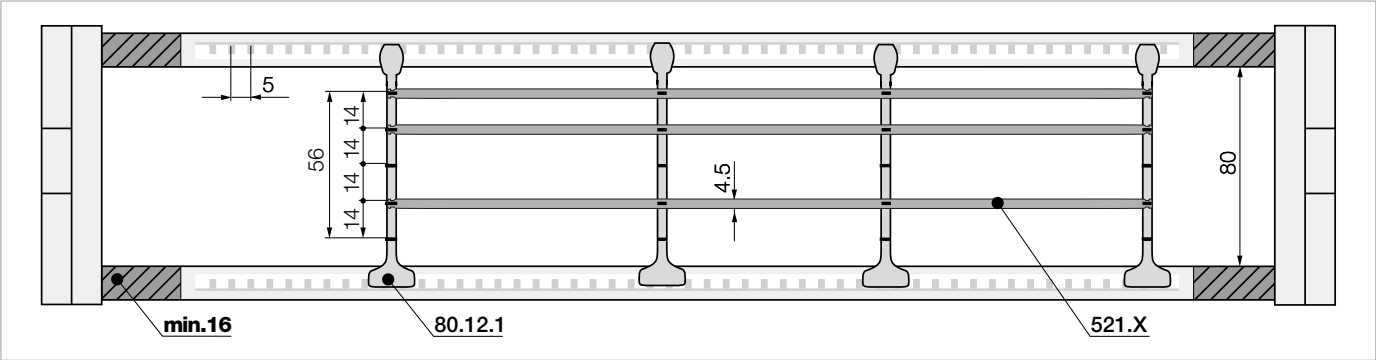


Note: Please be aware of the minimum lateral gap to the side links! **e-chain®: =16mm**
As standard separators are fitted every 2nd e-chain® link!

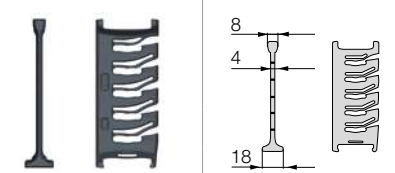
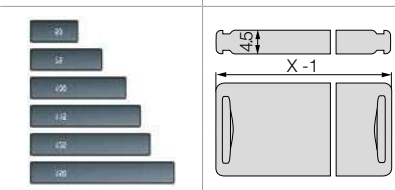
		Part No. Standard separator unassembled 80.1 assembled 80.1.1	For all applications Standard separator with a wide base for maximum holding force.
		Part No. Separator, narrow top unassembled 80.2 assembled 80.2.1	For even faster installation Wide on one side for high holding force, narrow on opposite side for easy cable fitting.
		Part No. Separator, narrow unassembled 80.3 assembled 80.3.1	For a large number of thin cables Separator with a narrow base for a large number of thin cables side by side. Saves space.
		Part No. Separator, asymmetrical unassembled 80.4 assembled 80.4.1	For side-mounted applications Asymmetrical separator, for defined gap distance. No additional spacers required.
		Part No. Notch separator unassembled 80.5 assembled 80.5.1	Locks securely in preset increments Notch separator for exact positioning. Recommended for side-mounted applications.
		Part No. Shelf unassembled 520.X assembled 521.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	520.050	521.050	125	520.125	521.125	225	520.225	521.225	375	520.375	521.375
065	520.065	521.065	150	520.150	521.150	250	520.250	521.250	387	520.387	521.387
075	520.075	521.075	175	520.175	521.175	300	520.300	521.300	450	520.450	521.450
100	520.100	521.100	200	520.200	521.200	350	520.350	521.350			

Interior separation | To allow faster filling



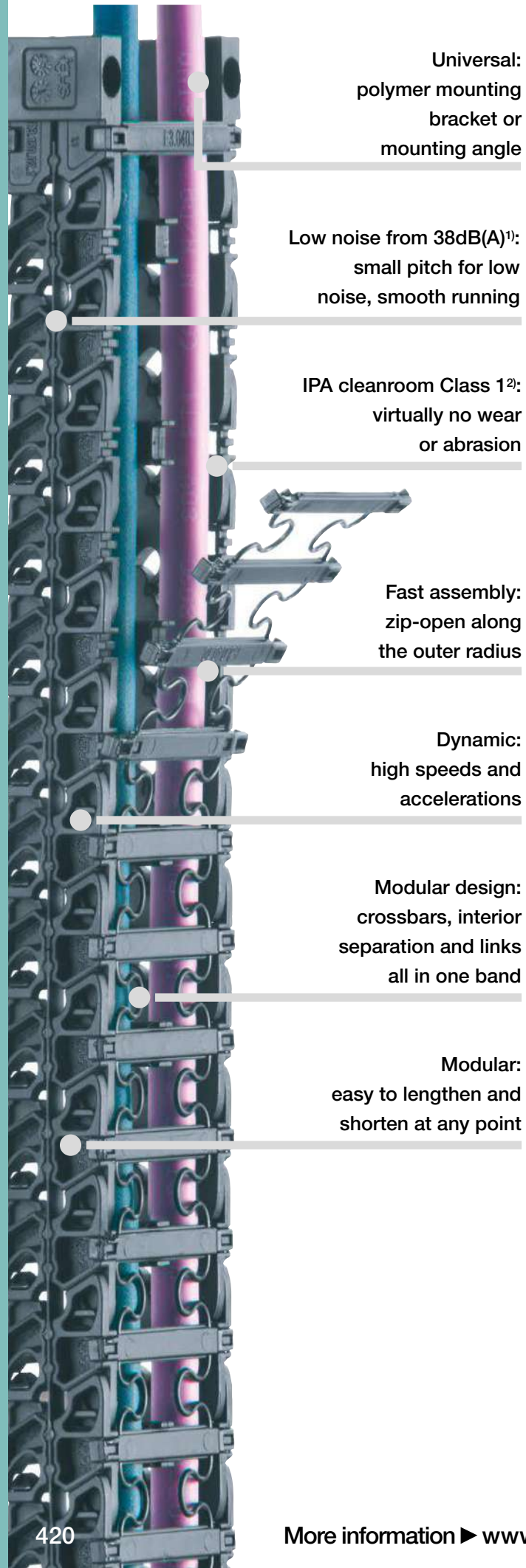
 **Note:** Please be aware of the minimum lateral gap to the side links! **e-chain®: =16mm**
As standard separators are fitted every 2nd e-chain® link!

	Part No. Lean separator unassembled 80.12 assembled 80.12.1	Lean separators¹⁾ Quick fitting of shelves in several layers. Enables extremely fast replacement of individual cables in very full e-chains®. Only suitable for e-chains®.
	Part No. Shelf unassembled 520.X assembled 521.X	Horizontal separation Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or modular shelving.

Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled	Width [mm]	Part No. unassembled	Part No. assembled
050	520.050	521.050	125	520.125	521.125	225	520.225	521.225	375	520.375	521.375
065	520.065	521.065	150	520.150	521.150	250	520.250	521.250	387	520.387	521.387
075	520.075	521.075	175	520.175	521.175	300	520.300	521.300	450	520.450	521.450
100	520.100	521.100	200	520.200	521.200	350	520.350	521.350			



Lean separator for even faster filling: quickly insert several layers of cables into the e-chain® and reduce the installation time by up to 50%. Measured on a 4m long e-chain® fitted with 12 cables. **1) Note:** Please combine a maximum of four lean separators with one shelf. Not suitable for side-mounted e-chains®!



High dynamics and cleanroom compatible - E3 system

E3 combines small pitch, smooth running, low noise, stability, easy assembly and low cost. The spring connector element replaces the pin and bore and avoids relative movement between the joints. This means virtually no wear or abrasion (cleanroom). To reduce production and assembly costs, the spring connector is on a segment of ten e-chain® links.

Benefits

- For high speeds and accelerations
- For extremely fast opening and closing
- Low noise 38dB(A)¹ - small pitch for low noise, smooth running
- Suitable for cleanrooms according to IPA cleanroom Class 1²)

1) Extremely low-noise - tested at the igus® lab
2) Cleanroom - Series E3.15.040.075.0

Typical application areas

- Semiconductor production and machining
- Pick and place machines
- Optics
- Material handling
- Measuring technology
- Printers and plotters
- Cleanroom applications
- General mechanical engineering

Selection table

Part No.	Inner height <i>hi</i> [mm]	Outer height <i>ha</i> [mm]	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Bend radius <i>R</i> [mm]	Unsupported length ≤ [m]	Page
E3 - three-piece e-chain®, crossbars on a strip - zip-open along the outer radius							
E3.10	10	15	20 - 60	32 - 72	015 - 048	≈ 0.70	422
E3.15	15	20	20 - 60	32 - 72	032 - 075	≈ 0.90	426
E3.22	22	27	20 - 60	32 - 72	044 - 075	≈ 1.20	430

Technical data

General properties	
Speed <i>FL_G</i> /acceleration <i>FL_G</i>	≤ 20m/s / ≤ 200m/s²
Speed <i>FL_B</i> /acceleration <i>FL_B</i>	≤ 3m/s / ≤ 6m/s²
e-chain® link material, igumid® G LW - permitted temperature °C	upon request
Crossbar material, igumid® TE - permitted temperature °C	upon request
Flammability class	VDE 0304 IIC UL94-HB

Proof

IPA classification - report IG 0704-400 for E3 system, series E3.15.040.075.0

Test parameters	Result
<i>v</i> ₁ = 0.5m/s <i>a</i> ₁ = 1.0m/s²	Cleanroom class 1
<i>v</i> ₂ = 1.0m/s <i>a</i> ₂ = 2.0m/s²	Cleanroom class 1
<i>v</i> ₃ = 2.0m/s <i>a</i> ₃ = 4.0m/s²	Cleanroom class 1
Overall result	ISO Class 1



Another solution for cleanrooms

Smooth running "T-band", quiet, cost-effective - T3 system

- For high speeds and accelerations
- Virtually no polygon effect
- Low noise 33dB(A) - small pitch for low noise, smooth running
- Suitable for cleanrooms according to IPA cleanroom Class 2



Product range



Image with plastic mounting bracket

Part No. zip-open along the outer radius	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Available bend radii <i>R</i> [mm]	Weight [kg/m]
E3.10.020.0	20	32	015 028 - -	≈ 0.12
E3.10.040.0	40	52	015 - 038 048	≈ 0.15
E3.10.060.0	60	72	015 - 038 -	≈ 0.20

Order key

E3.10.060.015.0

Series / Type

Inner height

Width index

Bend radius

Colour index

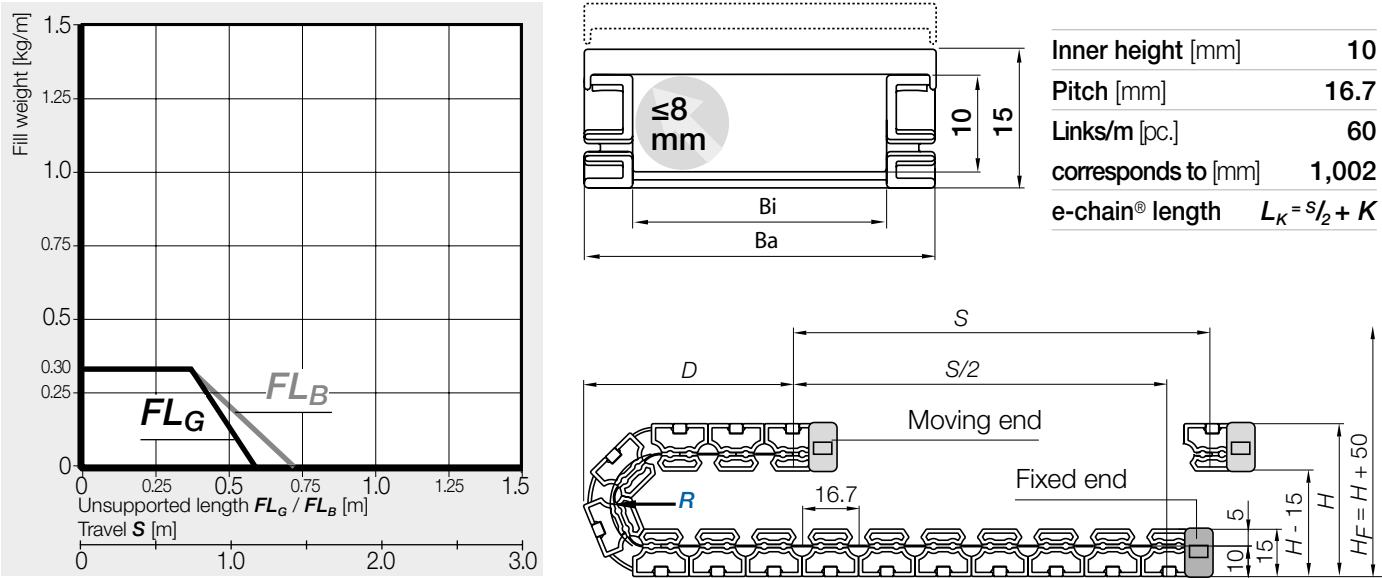
Example:
Complete Part No. with the required radius R. Example:
E3.10.060.015.0 = crossbars on a strip - zip-open along the outer radius
Order index for colour options ► www.igus.eu/info-colours

Available from stock

Upon request



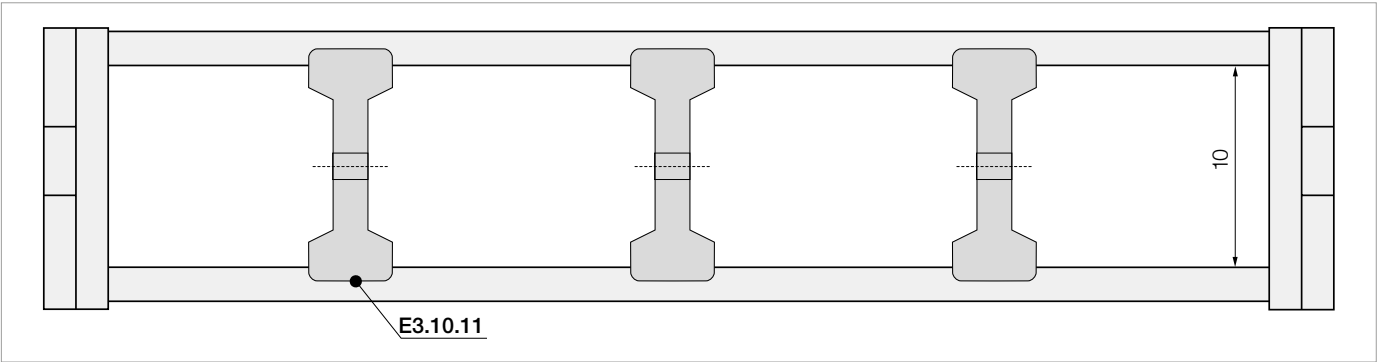
Unsupported applications | Short travels



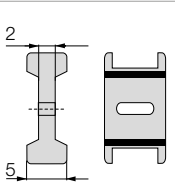
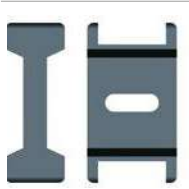
<i>R</i>	015	028	038	048
<i>H</i>	60	86	106	126
<i>D</i>	50	63	73	83
<i>K</i>	85	125	155	185

The required clearance height: $H_F = H + 50\text{mm}$ (with 0.1kg/m fill weight)

Interior separation



No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-chain® link!



Part No.

Separator

unassembled E3.10.01

assembled E3.10.11

Slotted separator

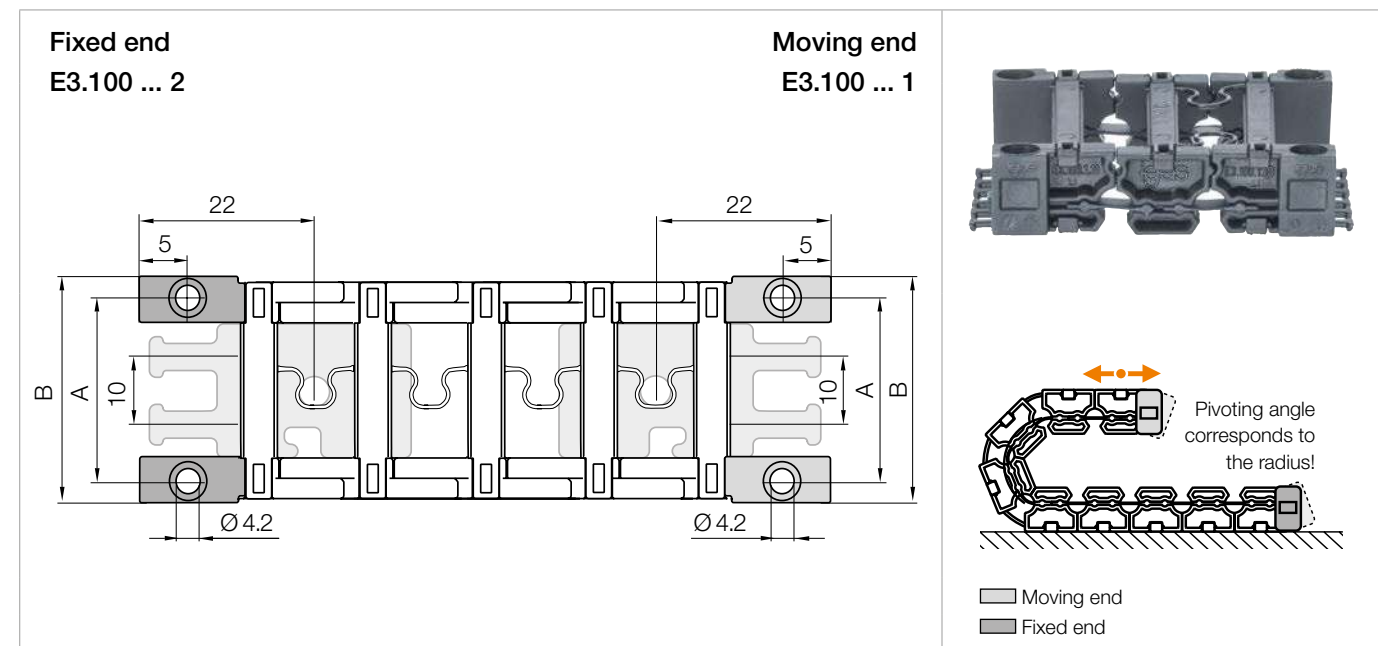
Separators can be arranged at any position in the chain cross section to divide the interior of the e-chain®.

Available from stock

Upon request



Mounting brackets, polymer | Pivoting



Width index	Part No. Full set*			Part No.
	Pivoting without tiewrap plates	A [mm]	B [mm]	Strain relief at both ends
020.	E3.100.020.12	28	36	E3.020.12
040.	E3.100.040.12	48	56	E3.040.12
060.	E3.100.060.12	68	76	E3.060.12

***Note:** Full set without strain relief. Tiewrap plates must be ordered separately.

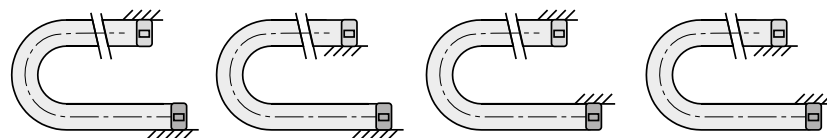


Order key

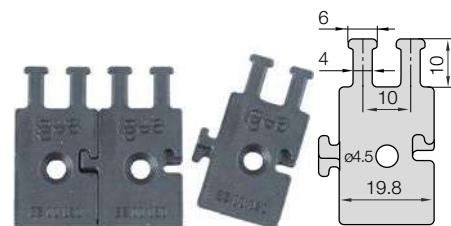
E3.100.060.12

Series	Width index	Full set
--------	-------------	----------

Note: Possible attachments options for assembled polymer mounting angles.

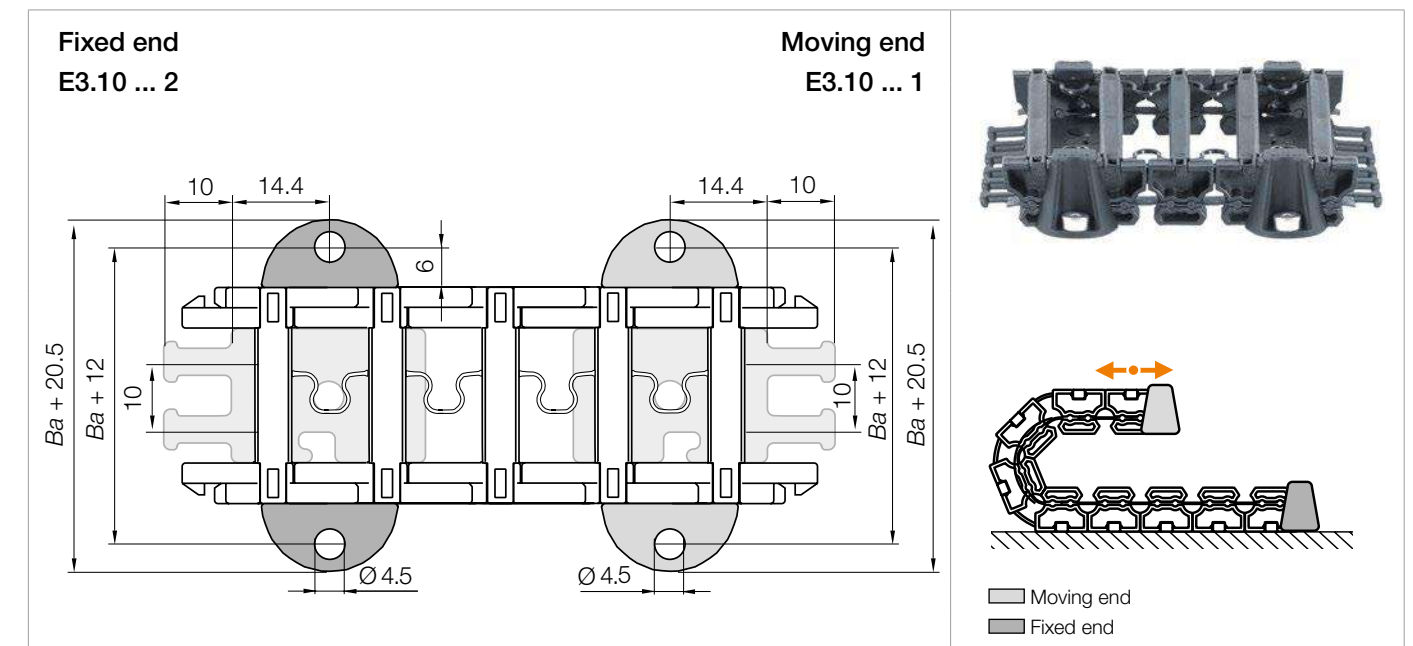


Individual parts | Installation height



Part No. E3.00.020 Tiewrap plate as an individual part. **Note:** only suitable for assembly in front of the mounting bracket.

Mounting angle, polymer | Locking



Width index	Part No. Full set		Part No.	Part No.
	Strain relief at both ends + 4 mounting angles*	Ba [mm]	Mounting angle* (individual part)	Strain relief at both ends
020.	E3.10.020.12	32	E3.10.00	E3.020.12
040.	E3.10.040.12	52	E3.10.00	E3.040.12
060.	E3.10.060.12	72	E3.10.00	E3.060.12

***Note:** If mounting brackets are used, two links each end must be added to the calculated e-chain® length, because the first two links are fixed by the mounting brackets.

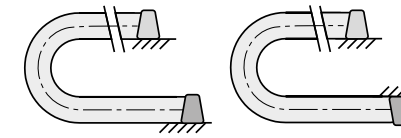


Order key

E3.10.060.12

Series	Width index	Full set
--------	-------------	----------

Note: Possible attachments options for assembled polymer mounting angles.



Individual parts | Installation height



Part No. E3.10.00
Mounting angle as an
individual part.



Part No. E3.00.020 Tiewrap plate as an individual part. **Note:** only suitable for assembly in front of the mounting bracket.

Product range



Image with plastic mounting bracket

Part No. zip-open along the outer radius	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Available bend radii <i>R</i> [mm]	Weight [kg/m]
E3.15.020.0	20	32	032 - - -	≈ 0.22
E3.15.040.0	40	52	032 038 048 075	≈ 0.25
E3.15.060.0	60	72	032 038 048 075	≈ 0.32

Order key

E3.15.060.032.0

Series / Type

Inner height

Width index

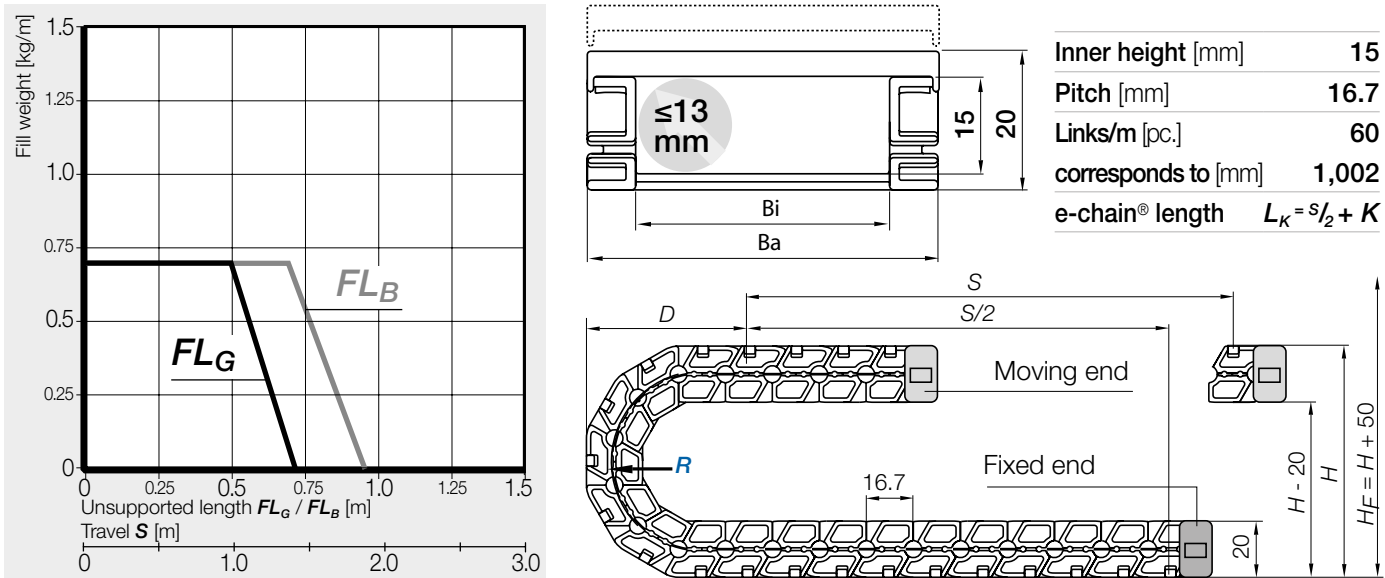
Bend radius

Colour index

Example:
Complete Part No. with the required radius R. Example:
E3.15.060.032.0 = crossbars on a strip - zip-open along the outer radius
Order index for colour options ► www.igus.eu/info-colours

 Available from stock
Upon request

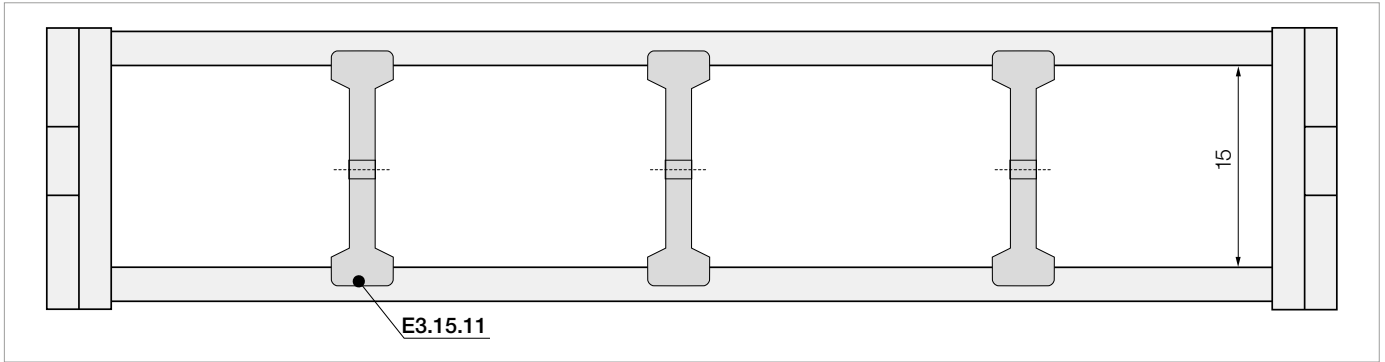
Unsupported applications | Short travels



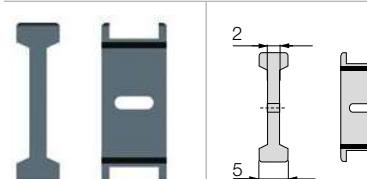
<i>R</i>	032	038	048	075
<i>H</i>	99	111	131	185
<i>D</i>	67	73	83	110
<i>K</i>	135	155	185	270

The required clearance height: $H_F = H + 50\text{mm}$ (with 0.2kg/m fill weight)

Interior separation



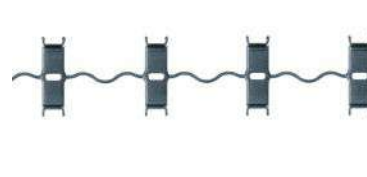
No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-chain® link!



Part No.	
Separator	
unassembled	E3.15.01
assembled	E3.15.11

Slotted separator

Separators can be arranged at any position in the chain cross section to divide the interior of the e-chain®.

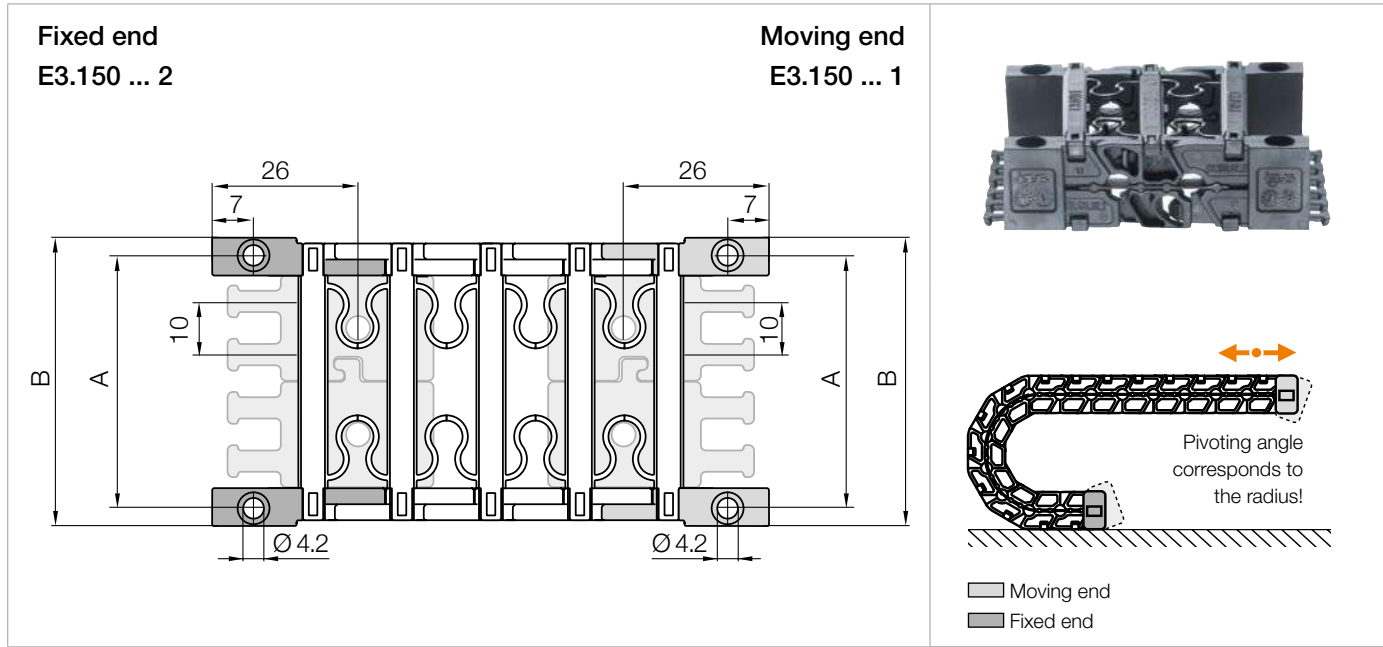


Part No.	
Slotted separator on a strip	
unassembled	E3.15.01.10
assembled	E3.15.11.10

Slotted separator on a strip

Five slotted separators on a strip are assembled on the crossbars. This creates separate chambers to protect the cables - same dimensions as E3.15.01

Mounting brackets, polymer | Pivoting



Width index	Part No. Full set*			Part No. Strain relief at both ends
	Pivoting without tiewrap plates	A [mm]	B [mm]	
020.	E3.150.020.12	28	36	E3.020.12
040.	E3.150.040.12	48	56	E3.040.12
060.	E3.150.060.12	68	76	E3.060.12

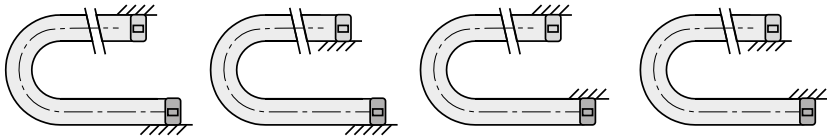
*Note: Full set without strain relief. Tiewrap plates must be ordered separately.

Order key

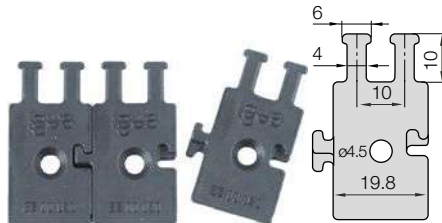
E3.150.060.12

Series	Width index	Full set
--------	-------------	----------

Note: Possible variations for assembled polymer mounting brackets.

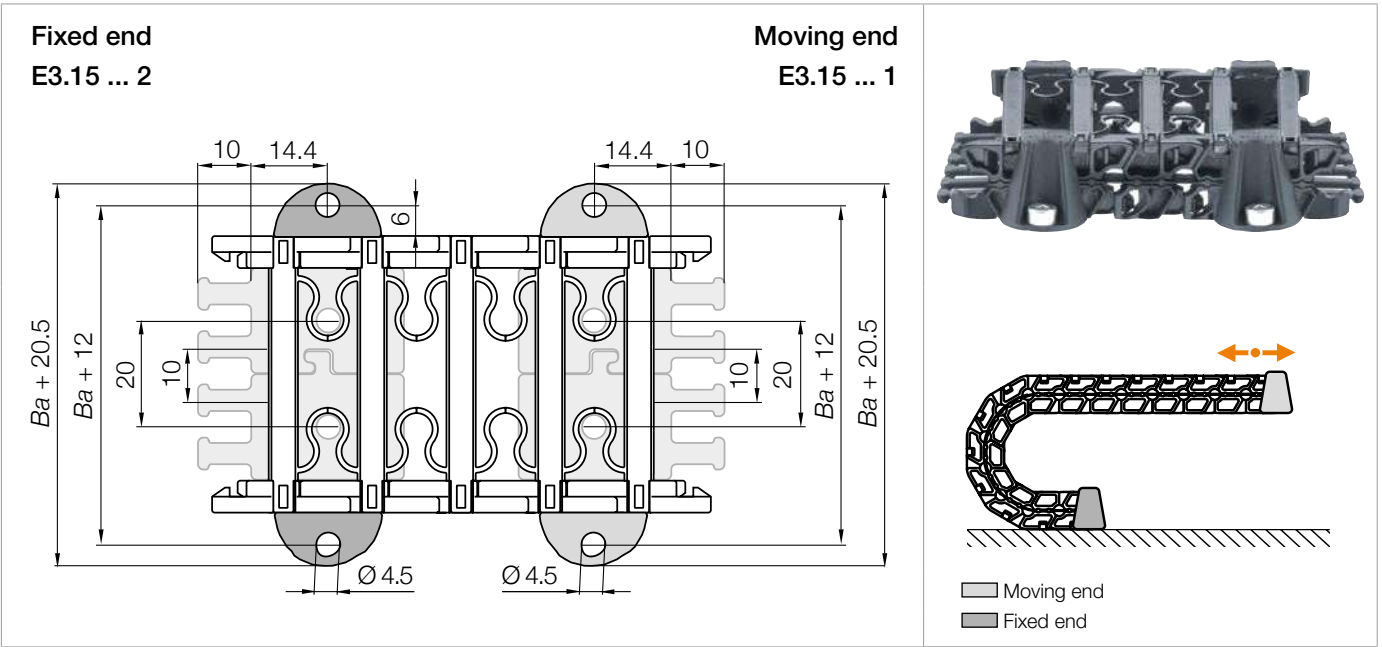


Individual parts | Installation height



Part No. E3.00.020 Tiewrap plate as an individual part. Note: only suitable for assembly in front of the mounting bracket.

Mounting angle, polymer | Locking



Width index	Part No. Full set		Part No. Mounting angle* (individual part)	Part No. Strain relief at both ends
	Strain relief at both ends + 4 mounting angles*	Ba [mm]		
020.	E3.15.020.12	32	E3.15.00	E3.020.12
040.	E3.15.040.12	52	E3.15.00	E3.040.12
060.	E3.15.060.12	72	E3.15.00	E3.060.12

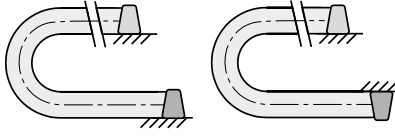
*Note: If mounting brackets are used, two links each end must be added to the calculated e-chain® length, because the first two links are fixed by the mounting brackets.

Order key

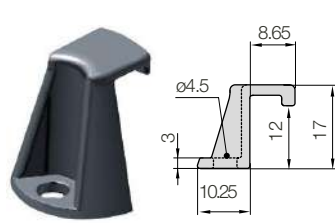
E3.15.060.12

Series	Width index	Full set
--------	-------------	----------

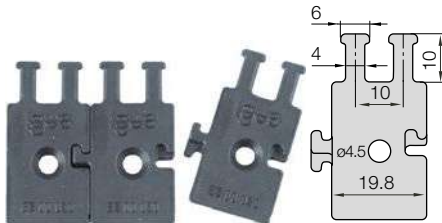
Note: Possible attachments options for assembled polymer mounting angles.



Individual parts | Installation height



Part No. E3.15.00
Mounting angle as an individual part.



Part No. E3.00.020 Tiewrap plate as an individual part. Note: only suitable for assembly in front of the mounting bracket.

Product range



Image with plastic mounting bracket

Part No. zip-open along the outer radius	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Available bend radii <i>R</i> [mm]	Weight [kg/m]
E3.22.020.0	20	32	044 050 075	≈ 0.30
E3.22.040.0	40	52	044 050 075	≈ 0.32
E3.22.060.0	60	72	044 – 075	≈ 0.41



Order key

E3.22.060.044.0

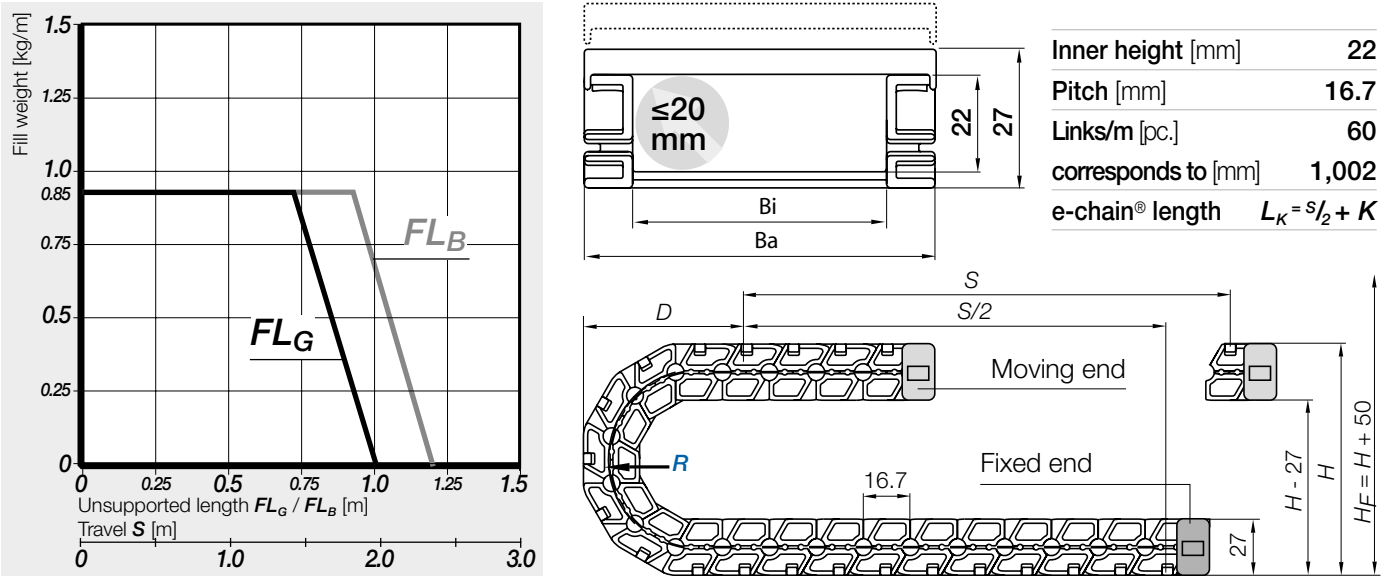
Series / Type	Inner height	Width index	Bend radius	Colour index

Example:

Complete Part No. with the required radius **R**. Example:
E3.22.060.044.0 = crossbars on a strip - zip-open along the outer radius
Order index for colour options ► www.igus.eu/info-colours

E3 | Series E3.22

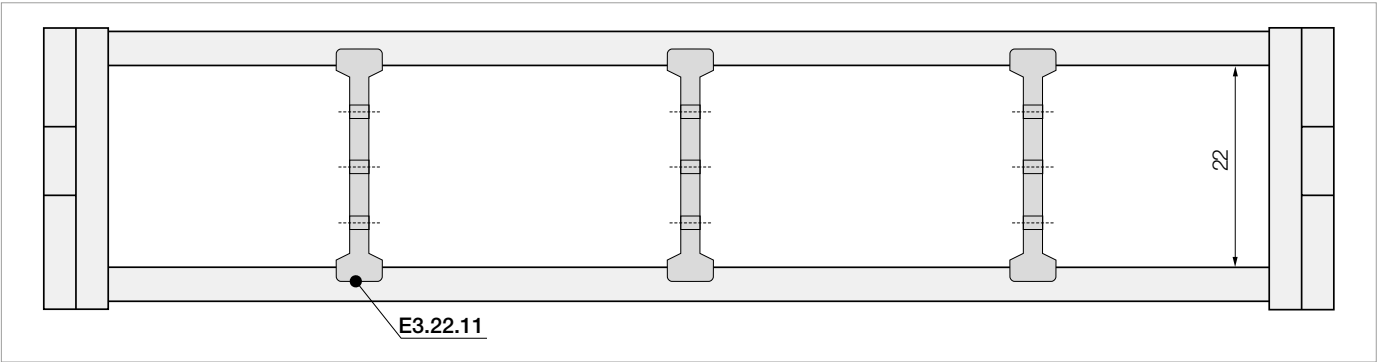
Unsupported applications | Short travels



<i>R</i>	044	050	075
<i>H</i>	134	146	196
<i>D</i>	82	88	113
<i>K</i>	175	195	270

The required clearance height: $H_F = H + 50\text{mm}$ (with 0.3kg/m fill weight)

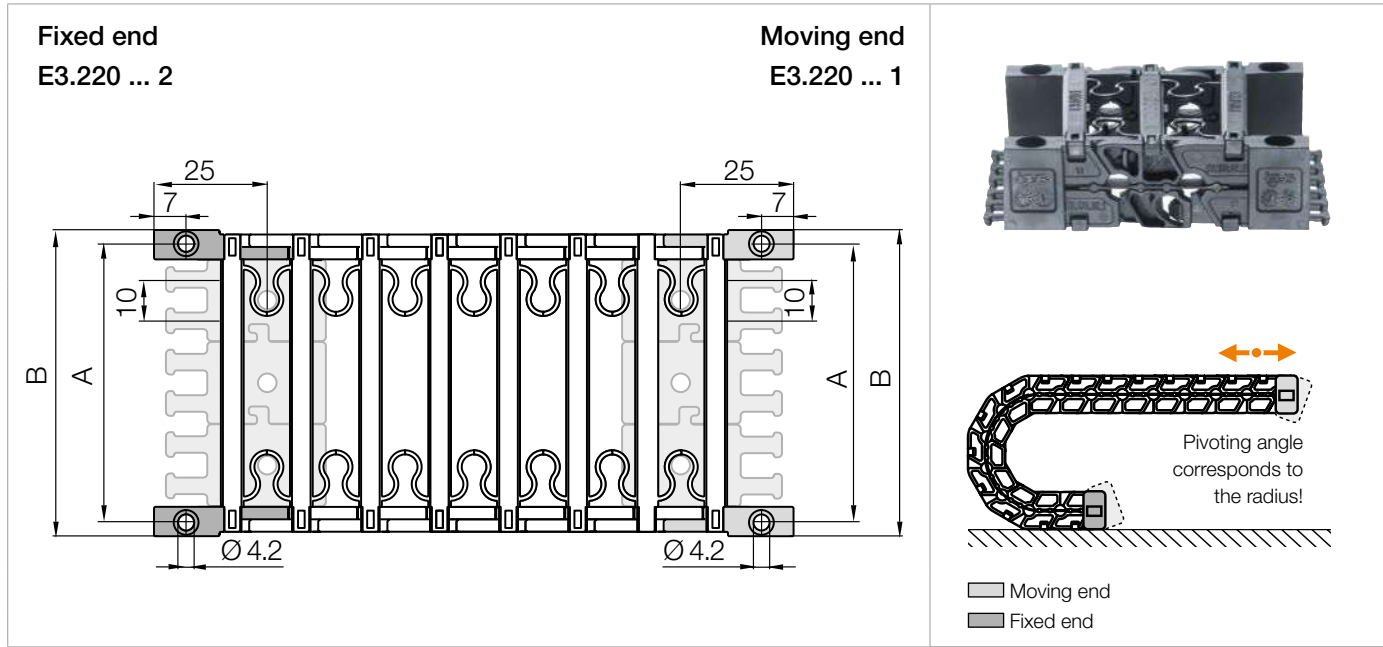
Interior separation



No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-chain® link!

	Part No. Separator unassembled E3.22.01 assembled E3.22.11	Slotted separator Separators can be arranged at any position in the chain cross section to divide the interior of the e-chain®.
--	---	---

Mounting brackets, polymer | Pivoting



Width index	Part No. Full set*			Part No. Strain relief at both ends
	Pivoting without tiewrap plates	A [mm]	B [mm]	
020.	E3.220.020.12	28	36	E3.020.12
040.	E3.220.040.12	48	56	E3.040.12
060.	E3.220.060.12	68	76	E3.060.12

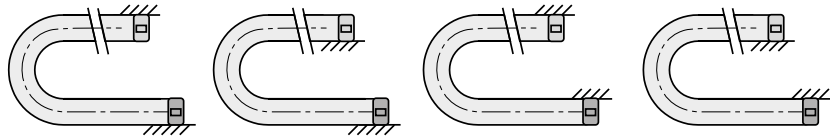
*Note: Full set without strain relief. Tiewrap plates must be ordered separately.

Order key

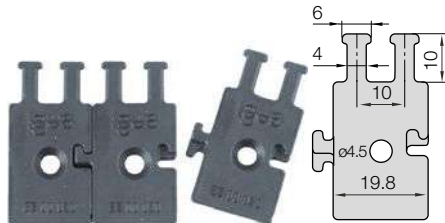
E3.220.060.12

Series	Width index	Full set
--------	-------------	----------

Note:
Possible
orientations for
assembled polymer
mounting brackets.

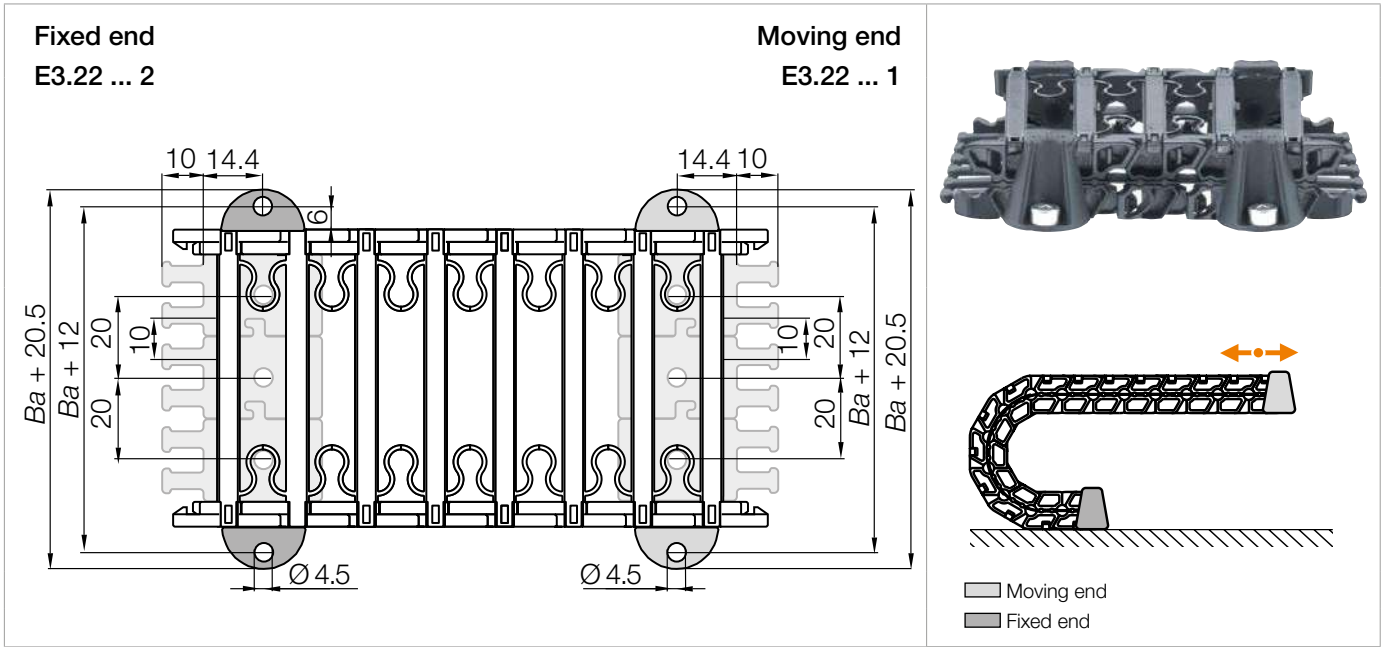


Individual parts | Installation height



Part No. E3.00.020 Tiewrap plate as an individual part. **Note:** only suitable for assembly in front of the mounting bracket.

Mounting angle, polymer | Locking



Width index	Part No. Full set		Part No. Mounting angle* (individual part)	Part No. Strain relief at both ends
	Strain relief at both ends + 4 mounting angles*	Ba [mm]		
020.	E3.22.020.12	32	E3.22.00	E3.020.12
040.	E3.22.040.12	52	E3.22.00	E3.040.12
060.	E3.22.060.12	72	E3.22.00	E3.060.12

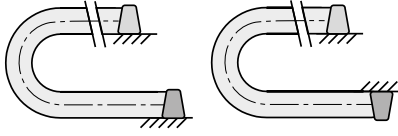
*Note: If mounting brackets are used, two links each end must be added to the calculated e-chain® length, because the first two links are fixed by the mounting brackets.

Order key

E3.22.060.12

Series	Width index	Full set
--------	-------------	----------

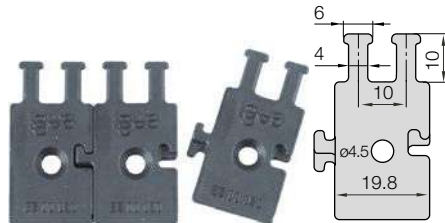
Note: Possible
attachments
options for
assembled polymer
mounting angles.



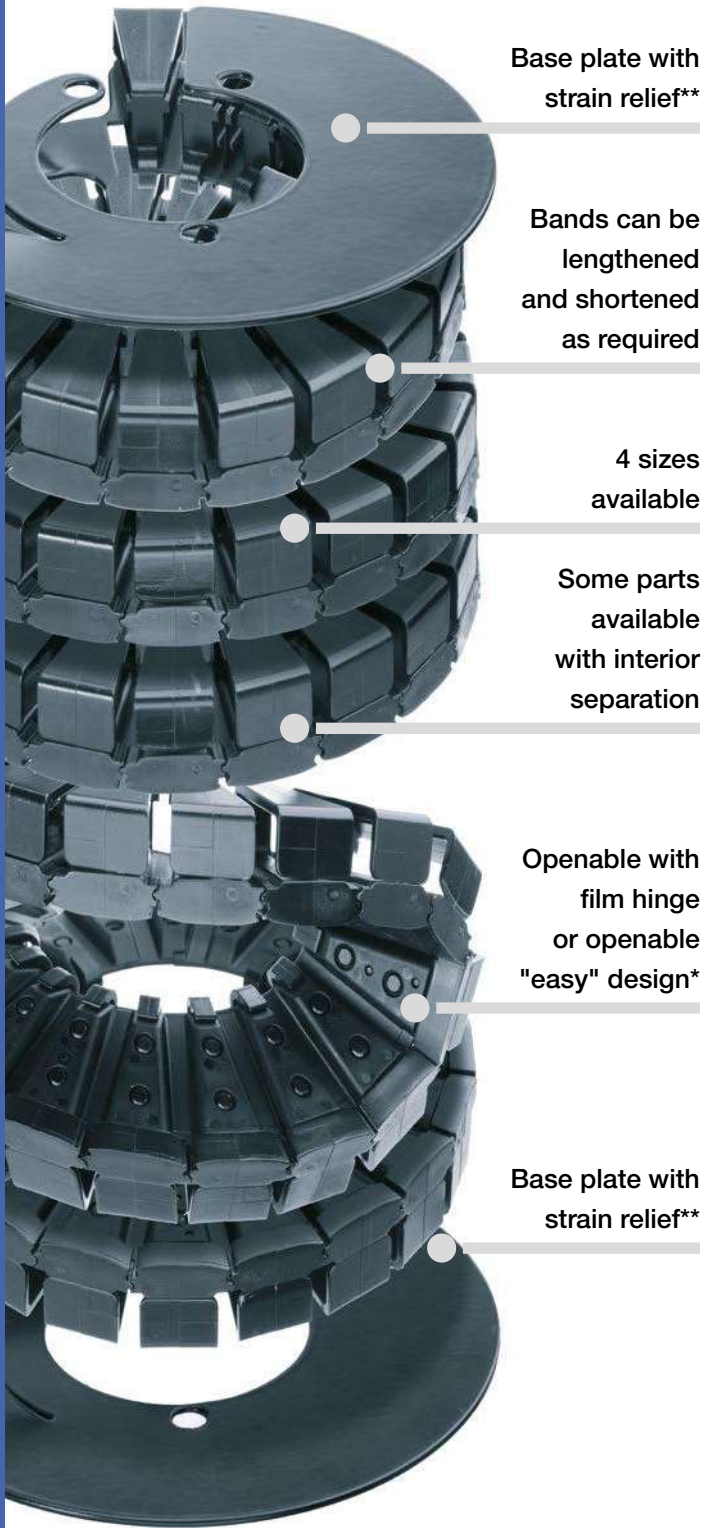
Individual parts | Installation height



Part No. E3.22.00
Mounting angle as an individual part.



Part No. E3.00.020 Tiewrap plate as an individual part. **Note:** only suitable for assembly in front of the mounting bracket.



Up to 7,000°* rotary movements in small spaces - twisterband

With the compact igus® twisterband rotations can be achieved cost-effectively and with low wear and low maintenance, even in confined spaces. Energy, data and media are securely guided. Available in 5 sizes.

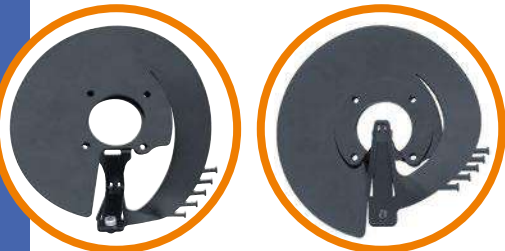
*Rotary movements up to 3,600° can be ordered from stock. Above 3,600°, please contact igus®.

Benefits

- Up to 7,000° rotation horizontally and 3,000° rotation vertically
- Rotary speeds of up to 180°/s possible
- Compact, modular and light
- Strips can be shortened as required
- Minimum installation spaces, fits tightly around the rotary axis
- Can be used reliably in various installation positions (horizontal, vertical, upside down)
- Cost-effective
- Easy filling
- Ideal in combination with igus® chainflex® cables for rotary movements in very limited installation spaces

Typical application areas

- Cable drums
- Robots (axis 1/ 6), Scara robots
- Machine tools
- Leisure rides
- Medical equipment
- Radar and telescope equipment
- Aerospace, test, measurement, handling, lifting and installation equipment
- Wind turbines (e.g. blade adjustment)
- Wherever rotary unions are used



**Base plates are delivered as standard as part of the twisterband module!

Selection table

Part No.	Inner width <i>Bi</i> [mm]	Inner height <i>hi</i> [mm]	<i>X</i> ₁ [mm]	<i>X</i> ₂ [mm]	Bend radius [mm]		Cable <i>d</i> 1 ≤ ∅ [mm]	Page
					<i>R</i> min.	<i>R</i> max.		
TB12.23.9 ¹⁾	23	9	40	140	024	035	7	436
TB20.44.12 ¹⁾	44	12	50	220	034	057	9	436
TB20.44.18 ²⁾	44	18	50	220	034	057	14	436
TB29.27.22 ²⁾	27	22	200	320	069	082	17	436
TB30.75.22 ²⁾	75	22	90	330	044	077	17	436

twisterband - e-chain® links on a strip

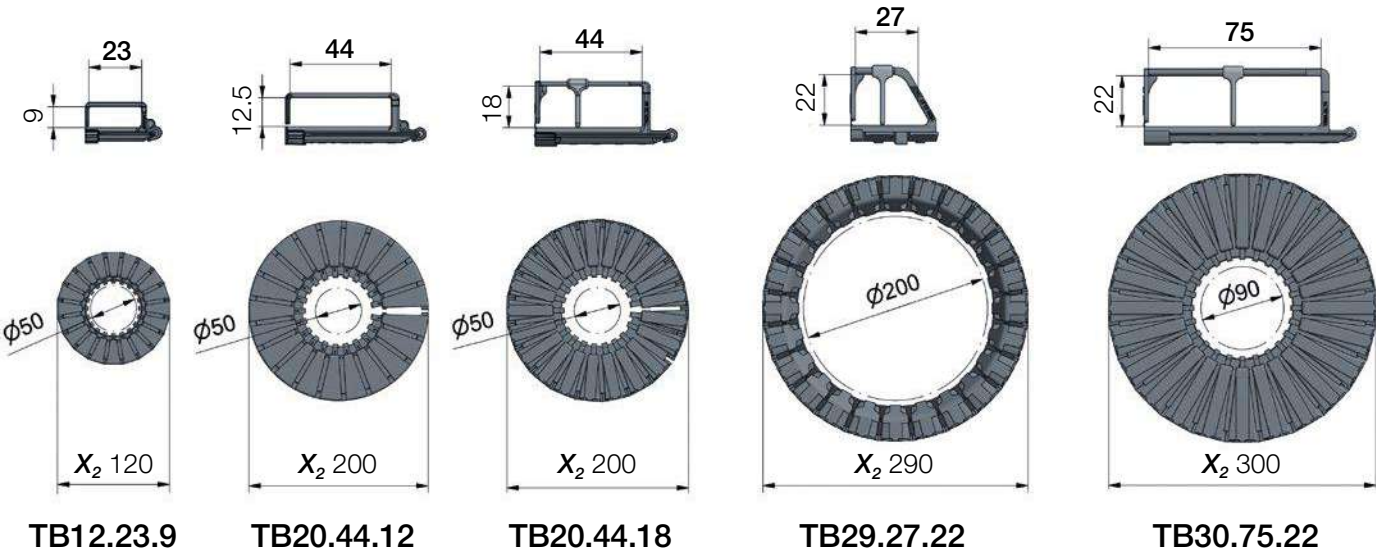
1) Openable with "easy" design 2) Openable with film-hinge
*X*₁ = inner machine installation space *X*₂ = outer machine installation space

Technical data

General properties

Material	igumid® NB and igumid® TE
Speed / acceleration	180°/s
Permitted temperature °C	0°C / +70°C
Flammability class	VDE 0304 IIC UL94-HB

Size overview



Calculation

Number of strips depends on angle of rotation (please always round up number of strips)

TB12: XX ≈	$\frac{XXXX^\circ}{360} + 2 =$	Example: XX ≈	$\frac{1200^\circ}{360} + 2 =$	Result: XX ≈ 6 strips
TB20: XX ≈	$\frac{XXXX^\circ}{340} + 2 =$	Example: XX ≈	$\frac{1200^\circ}{340} + 2 =$	Result: XX ≈ 6 strips
TB29: XX ≈	$\frac{XXXX^\circ}{180} + 2 =$	Example: XX ≈	$\frac{720^\circ}{180} + 2 =$	Result: XX ≈ 6 strips
TB30: XX ≈	$\frac{XXXX^\circ}{180} + 6 =$	Example: XX ≈	$\frac{1200^\circ}{180} + 6 =$	Result: XX ≈ 13 strips

XXXX° = angle of rotation

Product range

Part No.	Inner width <i>Bi</i> [mm]	Inner height <i>hi</i> [mm]	<i>X</i> ₁ [mm]	<i>X</i> ₂ [mm]	Bend radius [mm]		Cable <i>d1</i> ≤ <i>ø</i> [mm]
twisterband	<i>Bi</i> [mm]	<i>hi</i> [mm]	[mm]	[mm]	<i>R</i> min.	<i>R</i> max.	
Openable with "easy" design							
TB12.23.9 . XX .01.0	23	9	40	140	24	35	7
TB20.44.12. XX .01.0	44	12	50	220	34	57	9
Openable with film-hinge							
TB20.44.18. XX .01.0	44	18	50	220	34	57	14
TB29.27.22. XX .02.0*	27	22	200	320	69	82	17
TB30.75.22. XX .01.0	75	22	90	330	44	77	17

Note*: Rotary movement up to max. 720°.
*X*₁ = *ø* inner machine installation space *X*₂ = *ø* outer machine installation space

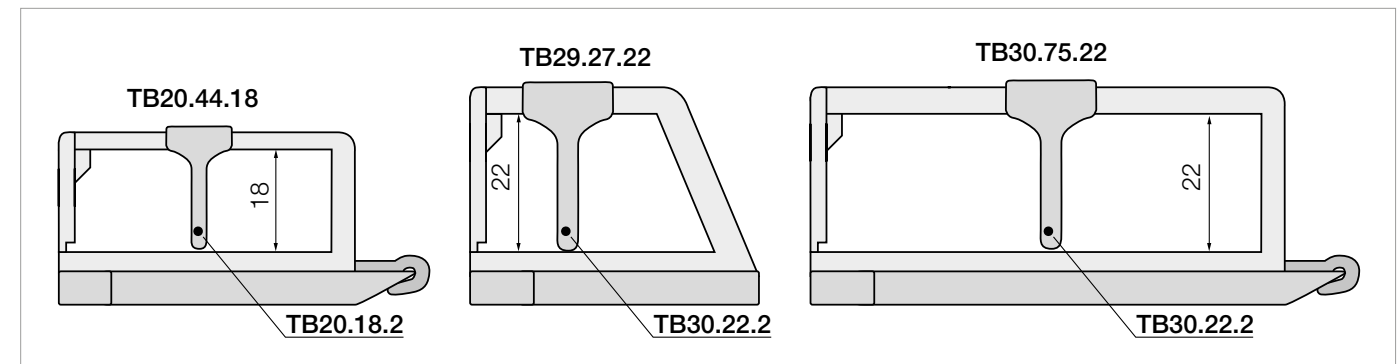
Order key

TB20.44.12.6.02.0

Series	Inner width	Inner height	Number of strips	With integrated strain relief tie-wrap plates	Colour index

Order example:
Complete Part No. with required number of strips XX. Example:
TB20.44.12.6.01.0 = 6 strips, openable with "easy" design
TB29.27.22.6.02.0 = 6 strips, openable with film-hinge

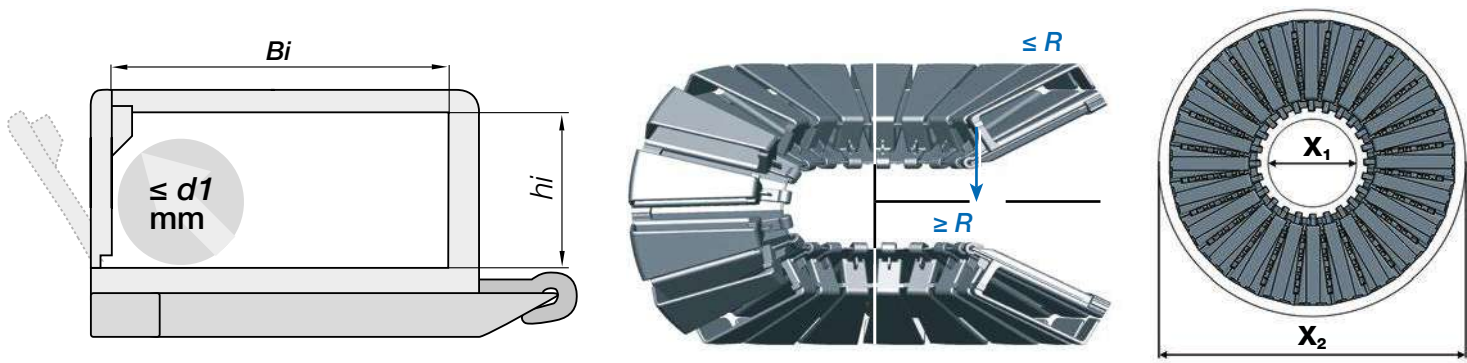
Interior separation



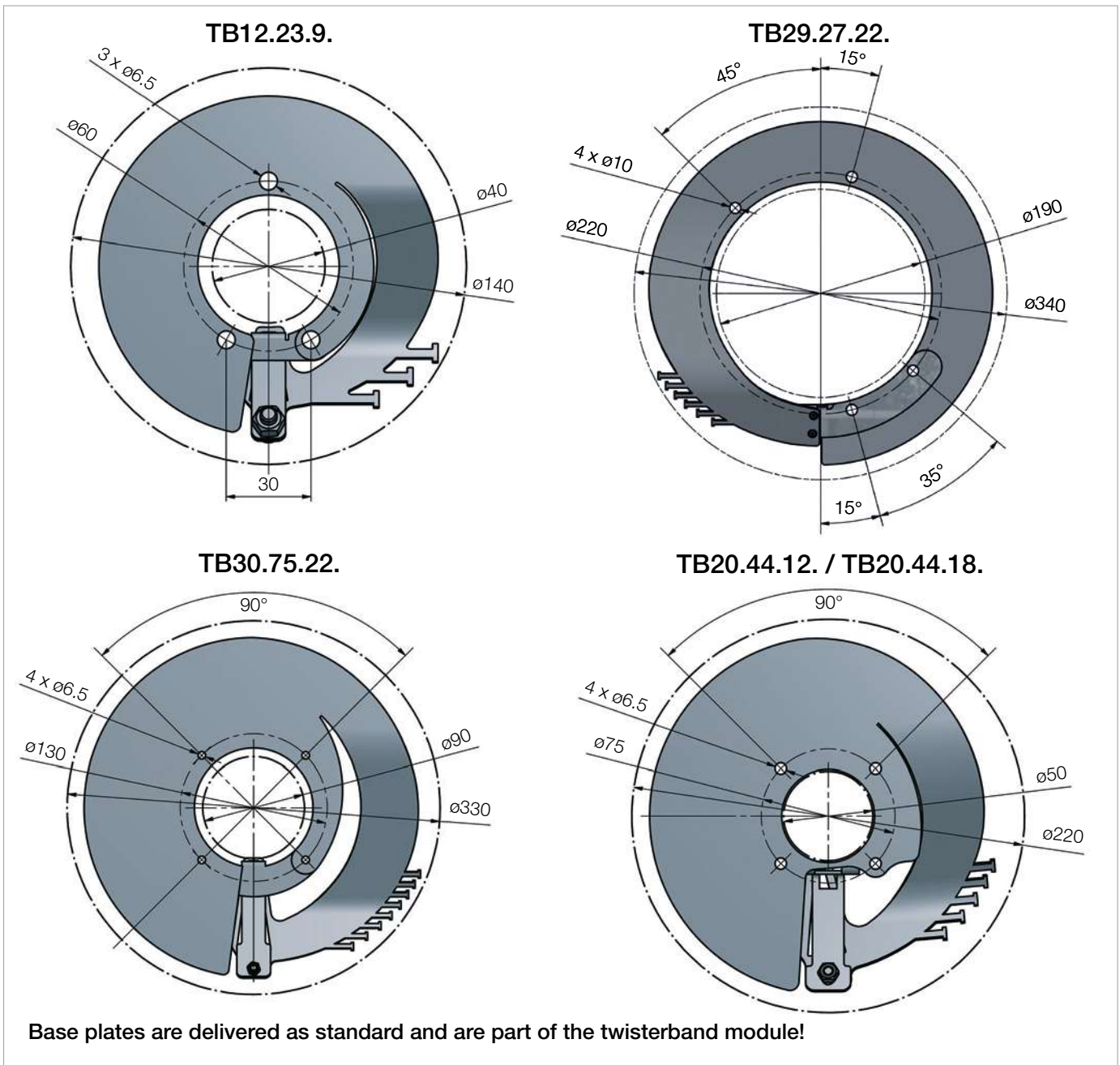
Separators are delivered unassembled. Simply push onto the openable crossbar.

		Part No. Separator for TB20.44.18 unassembled TB20.18.2	Separators To fit, simply open the e-chain®, insert a cable and press the separator onto the crossbar. Then add more cables. The separators provide a clear, cable-friendly interior separation.
		Part No. Separator for TB29.27.22+TB30.75.22 unassembled TB30.22.2	

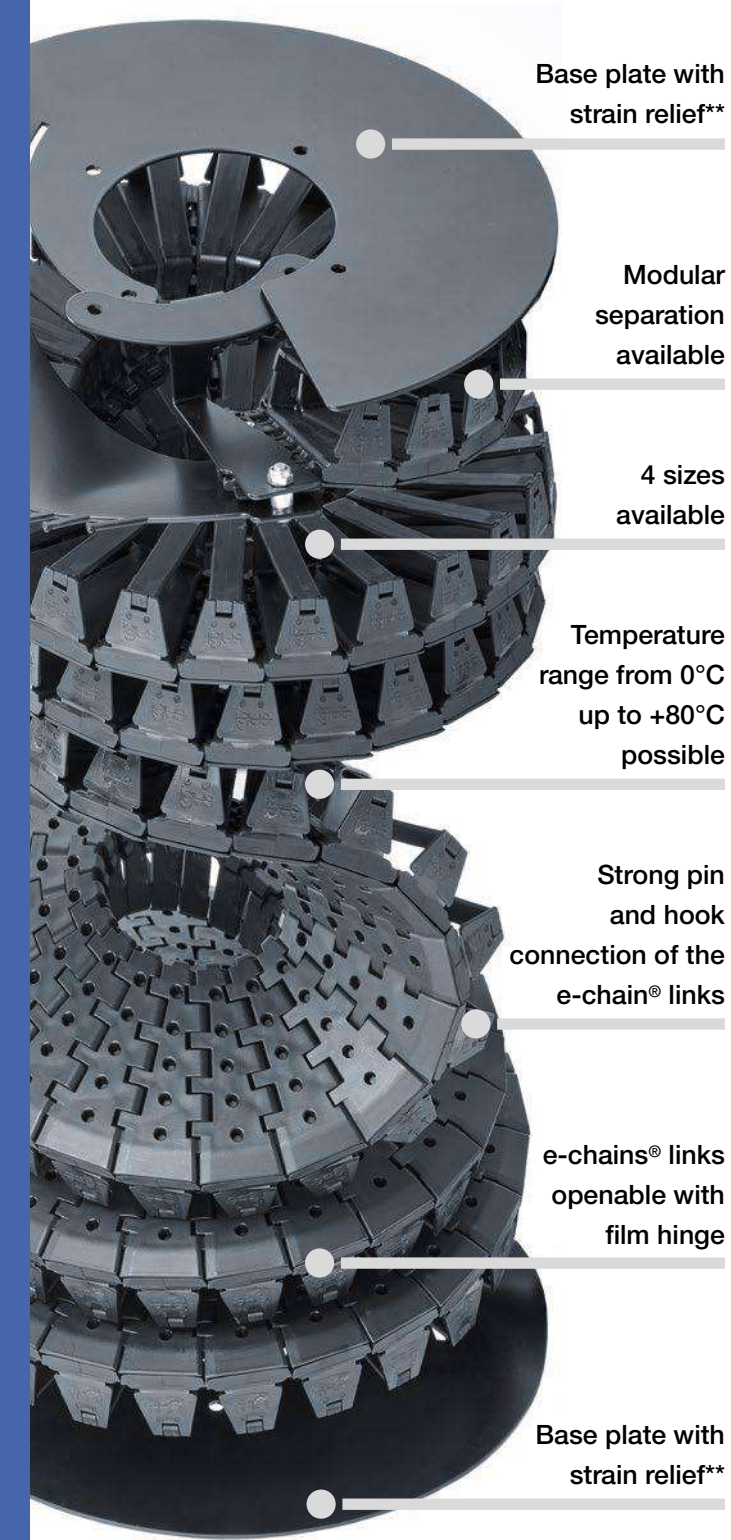
Installation dimensions



Base plate dimensions | Made of steel with strain relief



Base plates are delivered as standard and are part of the twisterband module!



Rotary movement in the most confined spaces, even stronger - twisterband HD

Instead of strips, the twisterband HD has a strong pin/hook connection between the e-chain® links. Longer service life and higher filling are possible.

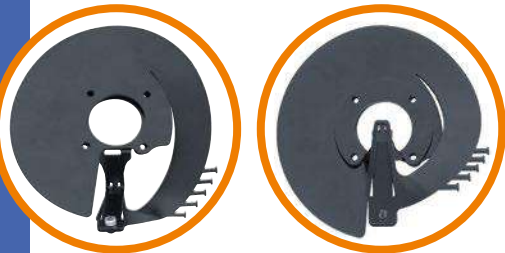
*Rotary movements up to 3,600° can be ordered from stock. Above 3,600°, please contact igus®.

Benefits

- Continuous cable guidance in rotational movements
- Strong pin/hook connection for high load and long service life
- For routing electrical and fibre optic cables and pneumatic lines in one system
- Stop-dogs for defined bend radius
- Cable-friendly thanks to defined radius stops
- Max. rotating speed: 180°/s

Typical application areas

- Machining heads on machine tools
- Rotary tables
- Axis 6 on robots
- Generally all applications that currently work with slip rings



**Base plates are delivered as standard as part of the twisterband module!

Selection table

Part No.	Inner width <i>Bi</i> [mm]	Inner height <i>hi</i> [mm]	<i>X</i> ₁ [mm]	<i>X</i> ₂ [mm]	Bend radius [mm] <i>R min.</i> <i>R max.</i>		Cabled1 ≤ ø [mm]	Page
twisterband HD - openable with film hinge								
TBHD12.24.11	24	11	40	140	024	035	10	440
TBHD20.44.12	44	12	50	220	037	063	11	440
TBHD20.44.18	44	18	50	220	037	063	14	440
TBHD30.75.22	75	22	90	330	044	077	17	440
TBHD42.135.30	135	30	90	500	056	119	24	440

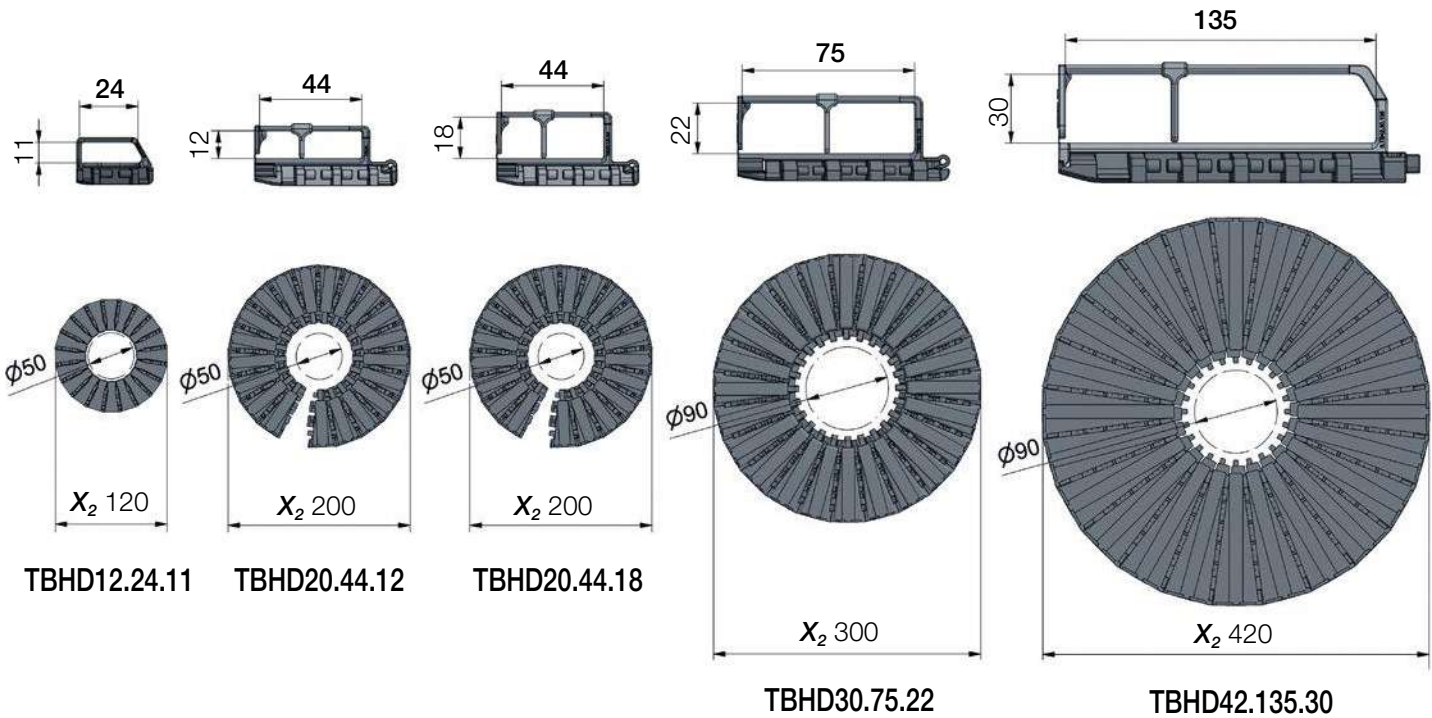
*X*₁ = inner machine installation space *X*₂ = outer machine installation space

Technical data

General properties

Material	igumid® G LW and igumid® NB
Speed / acceleration	180°/s
Permitted temperature °C	0°C / +80°C
Flammability class	VDE 0304 IIC UL94-HB

Size overview



Product range

Part No.	Inner width <i>Bi</i> [mm]	Inner height <i>hi</i> [mm]	<i>X</i> ₁ [mm]	<i>X</i> ₂ [mm]	Bend radius [mm]		Cable <i>d</i> 1 ≤ <i>ø</i> [mm]
twisterband HD					<i>R</i> min.	<i>R</i> max.	
Openable with film-hinge							
TBHD12.24.11. XXX .01.0	24	11	40	140	024	035	10
TBHD20.44.12. XXX .01.0	44	12	50	220	037	063	11
TBHD20.44.18. XXX .01.0	44	18	50	220	037	063	14
TBHD30.75.22. XXX .01.0	75	22	90	330	044	077	17
TBHD42.135.30. XXX .01.0	135	30	90	500	056	119	24

*X*₁ = *ø* inner machine installation space *X*₂ = *ø* outer machine installation space

Order key

TBHD30.75.22.180.01.0

Series

Inner width

Inner height

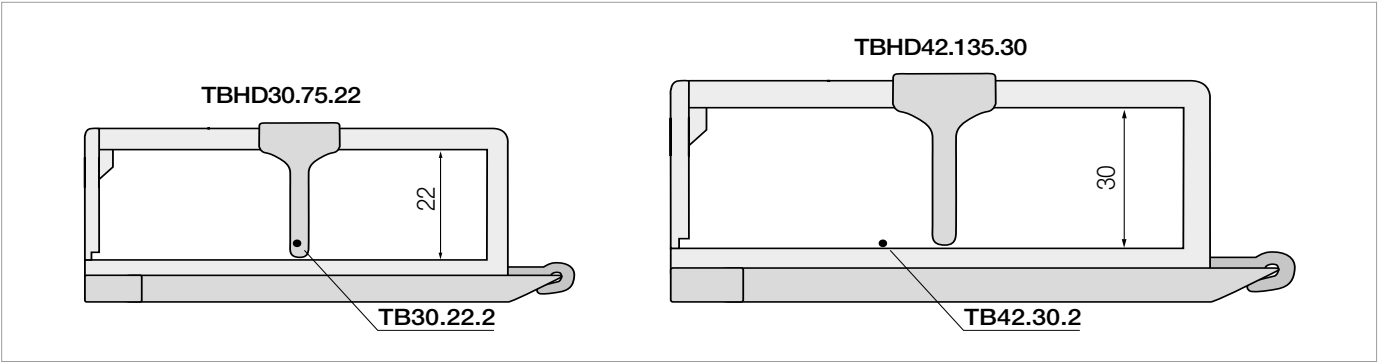
Rotation angle

With mounting bracket

Colour index

Order example:
Complete Part No. with the required rotation angle XXX. Example:
TBHD30.75.22.180.01.0 = openable with film hinge

Interior separation



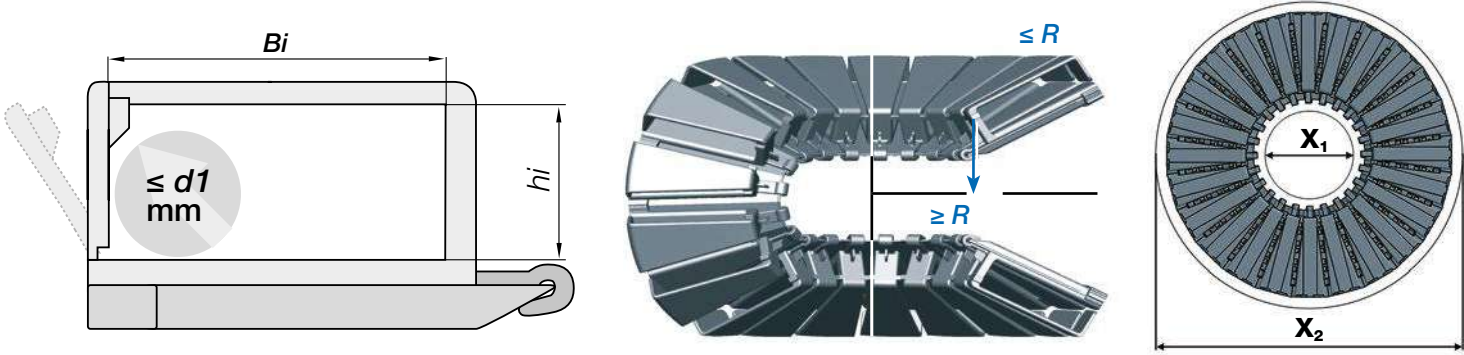
Separators are delivered unassembled. Simply push onto the openable crossbar.

Part No. Separator for
TBHD30.75.22
unassembled TB20.18.2

Part No. Separator for
TBHD42.135.30
unassembled TB30.22.2

Separators
To fit, simply open the e-chain®, insert a cable and press the separator onto the crossbar. Then add more cables. The separators provide a clear, cable-friendly interior separation.

Installation dimensions



Base plate dimensions | Made of steel with strain relief

TBHD12.24.11

TBHD20.44.18 / TBHD20.44.12

TBHD30.75.22

TBHD42.135.30

Base plates are delivered as standard and are part of the twisterband module!



The cable drum without a slip ring - igus® e-spool®

Routing many different cables in a small space: e-spool® uniquely combines two different energy supply systems. The one standard e-chain® is guided by a roller and always provides the correct length and tension of the energy supply system through an integrated retaining spring. In the starting position, the e-chain® is rolled up completely to save space. The twisterband connects the roller with the shaft end block, serving as an interface to the supply side cables. With twisterband no slip ring is needed. This makes data transmission highly reliable, while enabling a high degree of flexibility at the same time. Different media and cable/hose diameters can be carried side by side in one drum (diameters up to 17mm).

Benefits

- Energy supply is possible in all directions (horizontal, vertical, diagonal)
- Space-saving, no "chain station", as the e-chain® is rolled in the starting position, ensuring the paths remain clear
- Cables can be retrospectively added or changed
- Alternative to zig-zag solutions
- Maximum extension and retraction speed 1m/s
- Large standard product range and special projects available

Typical application areas

- Telescopic applications
- Theatre, stage and lighting technology
- Space-saving alternative to zig-zag solutions

Selection table

Part No.	Max. travel distance [m]	Drum ø [mm]	Max. cable ø [mm]	Page
SPFL e-spool® flex light 2.0 - for easy integration into existing customer structures				
SPFL.120	3	120	7	444
SPFL.250	5 - 15	250	5 - 15	444
SPF e-spool® flex 2.0 - continuous panel feed				
SPF.250	5 - 15	250	5 - 15	446
SPF e-spool® flex 2.0 mini - for small installation spaces				
SPF.120	3	120	7	448
SP1 / SPHD1 e-spool® compact - space-saving, spring driven				
SP1.240	2	240	7	450
SP1.400	4	400	12	450
SPHD1.400	4	400	12	450
SPC1 e-spool® for manual operation - cable or hose pulled out by hand				
SPC1.300	5	300	12	452
SP1 e-spool® standard				
SP1.600 / SP2.600*	4	600	17	455
SP1.700 / SP2.700*	7	700	17	455
SP1.850 / SP2.850*	14	850	17	455
SP1 e-spool® HD - for vertical applications, downwards				
SPHD1.600 / SPHD2.600*	4	600	17	456
SPHD1.700 / SPHD2.700*	7	700	17	456
SPHD1.850 / SPHD2.850*	14	850	17	456
e-spool® power - motor-driven, for long extension lengths				
e-spool® power**	25	upon request		458

Part No. SP1 and SPHD1 with 1 twisterband, Part No. SP2 and SPHD2 with 2 twisterbands.

**Please contact us at ► www.igus.eu/contact

Technical data

General properties	
Max. speed	≤ 1m/s
Maximum acceleration	≤ 1m/s²
Permitted temperature °C	0°C to +70°C / HD variants: 0°C to +80°C
Maximum fill weight, vertical	≤ 1kg/m



- Easy handling:
pull-out force is
almost constant and
secure locking
- Without interruption:
for energy,
data and air
- Assembly-friendly:
easy replacement of
the cable, even with
connectors fitted
- Space-saving:
cable retracts into
a compact unit

For easy integration into existing customer structures - e-spool® flex light 2.0

The e-spool® flex 2.0 is the igus® cable drum without a slip ring. Cables diameters from 5mm to 15mm can be used. The cable is safely guided through a feed-through to ensure that it is properly wound up at all times. The intended use of the e-spool® flex light 2.0 is cable guidance with automatic retraction by spring tension for integration into customer structures.

- Benefits**
- Without interruption (no slip ring), for energy, data, and air
 - Space-saving
 - Universal assembly in customer structures
 - Constant tensile strain on the cable
 - Locking mechanism

- Typical application areas**
- Control panels
 - Robotics and automation

Product range

Part No.	Cable diameter from - to max. [mm]	Max. extension length [m]	Required cable length inside the chain [mm]	System weight ¹⁾ [kg]
SPFL				
SPFL.120.07.01.SP*	5 - 7	3	1.1	≈ 2.3
SPFL.250.08.01.SP*	5 - 8	15	4.5	≈ 7.0
SPFL.250.11.01.SP*	8 - 11	10	3.3	≈ 7.0
SPFL.250.15.01.SP*	11 - 15	5	2.4	≈ 7.0

*Index SP = retraction with a retaining spring and locking mechanism.
1) System weight without fill weight.

 Order key
SPFL.250.08.01.SP

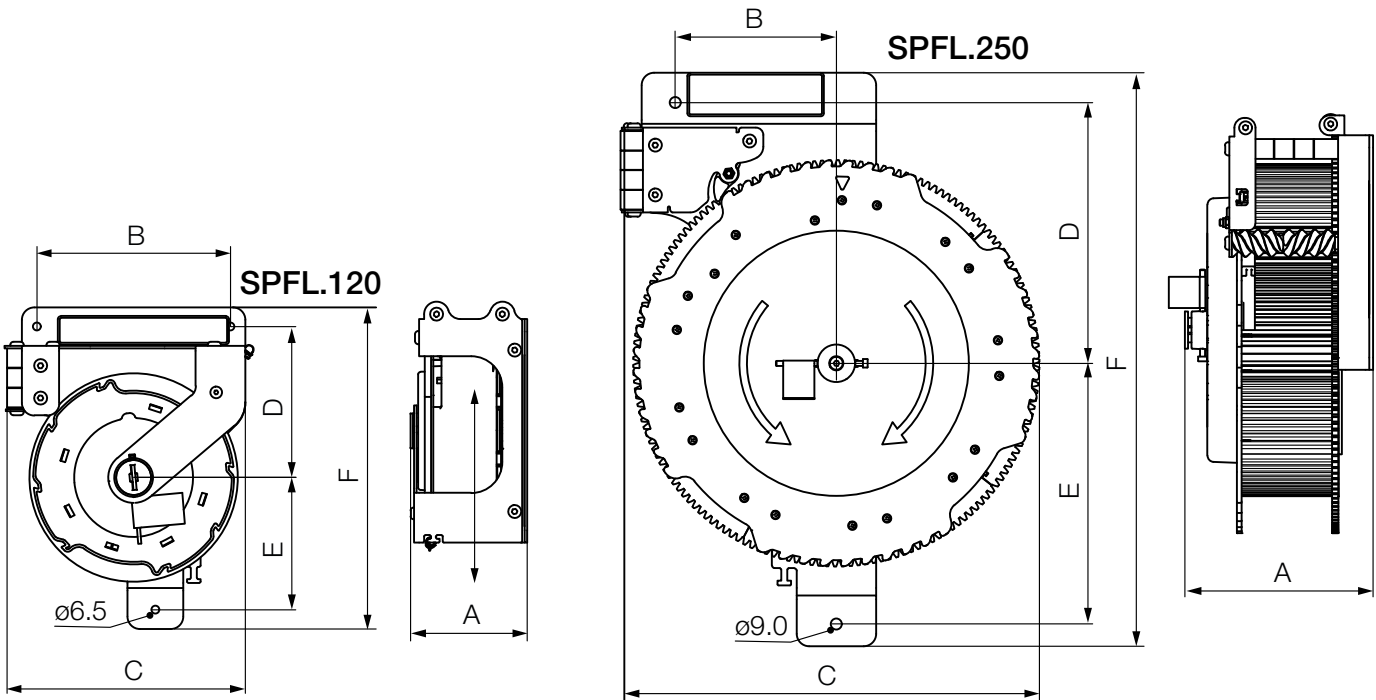
Series / Type	Disc diameter	Cable diameter	Version	Drive type

Order example:
The index corresponds to the required drive type:
SP for retraction with a with retaining spring and locking mechanism

Installation dimensions

Part No.	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]
SPFL						
SPFL.120.07.01.SP	94	156	192	121.5	106,5	259
SPFL.250.08.01.SP	151.5	130	335	210	210	462
SPFL.250.11.01.SP	167.5	130	335	210	210	462
SPFL.250.15.01.SP	184.5	130	335	210	210	462

Note: The spring versions are provided with a ratchet. The locking mechanism can be removed subsequently.



 **Note:** Please consider VDE 0298 part 4 (current carrying capacity and conversion factors for wound cables) when selecting your cables and using e-spool® flex light 2.0.



- Easy handling:
pull-out force is
almost constant and
secure locking
- Without interruption:
for energy,
data and air
- Assembly-friendly:
easy replacement of
the cable, even with
connectors fitted
- Space-saving:
cable retracts into
a compact unit

Continuous panel feed - e-spool® flex 2.0

The e-spool® flex 2.0 is the igus® cable drum without a slip ring. Cables diameters from 5mm to 15mm can be used. The cable is always safely routed through a feed-through to ensure that it is properly wound up at all times.

- Benefits**
- Without interruption (no slip ring), for energy, data, and air
 - Space-saving
 - Universal assembly in customer structures
 - Constant tensile strain on the cable
 - Locking mechanism
 - Available with 3 drive options

- Typical application areas**
- Can be used wherever a cable must move freely during use and must be stowed away safely after use
 - Control pendants for robots
 - Cable retraction system for workshops, measuring and production areas

Product range

Part No.	Cable diameter from - to max. [mm]	Max. extension length [m]	Required cable length inside the chain [mm]	Weight [kg]
SPF				
SPF.250.08.01. *	5 - 8	15	4.5	≈ 8.0
SPF.250.11.01. *	8 - 11	10	3.3	≈ 8.0
SPF.250.15.01. *	11 - 15	5	2.4	≈ 8.0

*Part can be combined with three different drives (Index [H](#)/[SP](#)/[SB](#)).

 Order key

SPF.250.11.01.SP

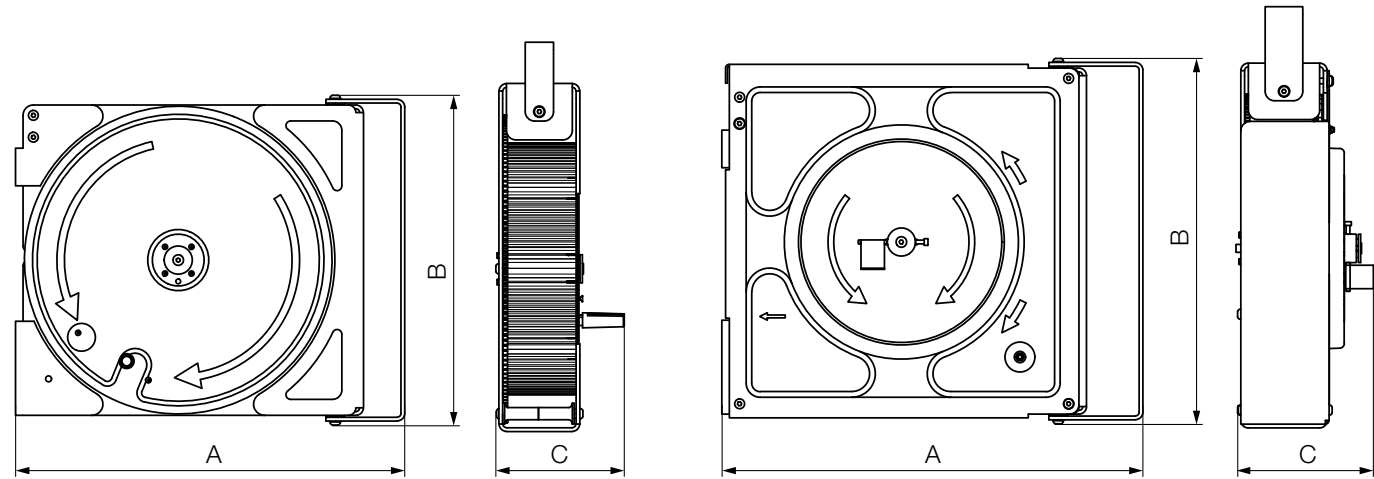
Series / Type	Disc diameter	Cable diameter	Version	Drive type

Order example:
Complete Part No. with index of required drive:
[H](#) for retraction with a hand crank
[SP](#) for retraction with a retaining spring and locking mechanism
[SB](#) for retraction with a spring, locking mechanism and retraction brake

Installation dimensions

Part No.	A [mm]	B [mm]	C [mm]
SPF			
SPF.250.08.01. H	414	350.5	137
SPF.250.08.01. SP / SB	448	388.5	133
SPF.250.11.01. H	414	350.5	152.6
SPF.250.11.01. SP / SB	448	388.5	149
SPF.250.15.01. H	424	350.5	170
SPF.250.15.01. SP / SB	414	350.5	166

Note: The spring versions are provided with a ratchet. The locking mechanism can be removed subsequently.



 **Note:** Please consider VDE 0298 part 4 (current carrying capacity and conversion factors for wound cables) when selecting your cables and using e-spool® flex light 2.0.



- Easy handling:
pull-out force is
almost constant and
secure locking
- Without interruption:
for energy,
data and air
- Assembly-friendly:
easy replacement of
the cable, even with
connectors fitted
- Space-saving:
cable retracts into
a compact unit

For small installation spaces - e-spool® flex mini

The e-spool® flex mini is the smallest igus® cable drum without a slip ring. Cables diameters from 5mm to 7mm can be used. The cable is always safely routed through a feed-through to ensure that it is properly wound up at all times.

Benefits

- No slip ring
- Without interruption (no slip ring), for energy, data, and air
- Space-saving
- Universal assembly
- Constant tensile strain on the cable
- Cost-effective
- Easy in case of repair

Typical application areas

- Control panels
- Robotics and automation
- Office furniture industry

Product range

Part No.	Cable diameter from - to max. [mm]	Max. extension length [m]	Required cable length inside the chain [mm]	Weight [kg]
SPF mini				
SPF.120.07.01.SP*	5 - 7	3	1.1	≈ 2.3
SPF.120.07.01.SPL*	5 - 7	3	1.1	≈ 2.3

*Index **SP** = with a retaining spring and locking mechanism / Index **SPL** = with a spring and ratchet lever

Order key

SPF.120.07.01.SP

Series / Type	Disc diameter	Cable diameter	Version	Drive type
---------------	---------------	----------------	---------	------------

Order example:

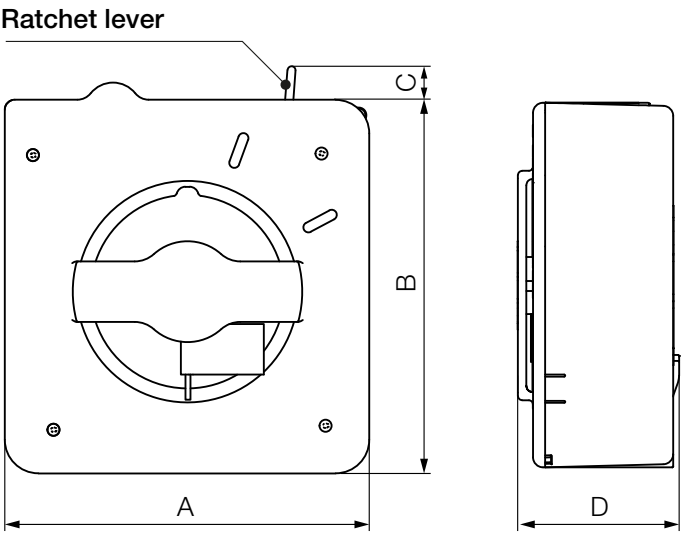
The index **SP** corresponds to the required drive type:
SP for retraction with a spring and locking mechanism
SPL for retraction with a spring and ratchet lever

Installation dimensions

Part No.	A [mm]	B [mm]	C* [mm]	D [mm]
SPF mini				
SPF.120.07.01.SP	181	194	–	80
SPF.120.07.01.SPL	181	194	8	80

*Ratchet lever only for **SPL**

Note: The spring versions are provided with a ratchet. The locking mechanism can be removed subsequently.



i Note: Please consider VDE 0298 part 4 (current carrying capacity and conversion factors for wound cables) when selecting your cables and using e-spool® flex light 2.0.



- Flexible use:
energy supply in any
direction is possible
- Cost-effective:
twisterband enables
rotary movement
- Flexible:
guidance of different
media in one system
- Space-saving:
e-chain® retracts into
a compact unit

Space-saving and spring-driven - e-spool® compact

The compact e-spools® for 2m and 4m extension are optimised for small installation spaces with smaller linear chains and twisterbands for a wide range of applications. As with the larger standard and HD systems, the compact e-spool® systems enable trouble-free guidance and flexible filling.

- Benefits**
- Different media (power, data, air and fluids) can be routed together in one system
 - Energy supply in all directions
 - Space-saving and virtually "invisible"
 - Very lightweight design (SP1.240 series made from aluminium)
 - Extension lengths up to 2m and 4m
 - Cables can be retrospectively added or changed

Typical application areas

- Manual workplaces
- Workstations
- Assembly lines

Product range | With e-chain® and 1 twisterband

Part No. e-spool® with 1 twisterband, extension right or left	Bi [mm]	hi [mm]	Max. travel distance [m]	Inner radius R max.* [mm]	Outer radius R max.* [mm]	Max. cable ø [mm]	Weight [kg]
SP1.240.2000.01. <u>R/L</u> .0	23	9	2	24	35	7	≈ 3.30
SP1.400.4000.01. <u>R/L</u> .0	44	15	4	34	57	12	≈ 13.5
SPHD1.400.4000.01. <u>R</u> .0	44	15	4	34	57	12	≈ 17.2

*The max. bend radii in the inner radius and the outer radius should be observed.

Order key

SP1.240.2000.01.R.0

e-spool® with
1 twisterband

Drum diameter

Extension length

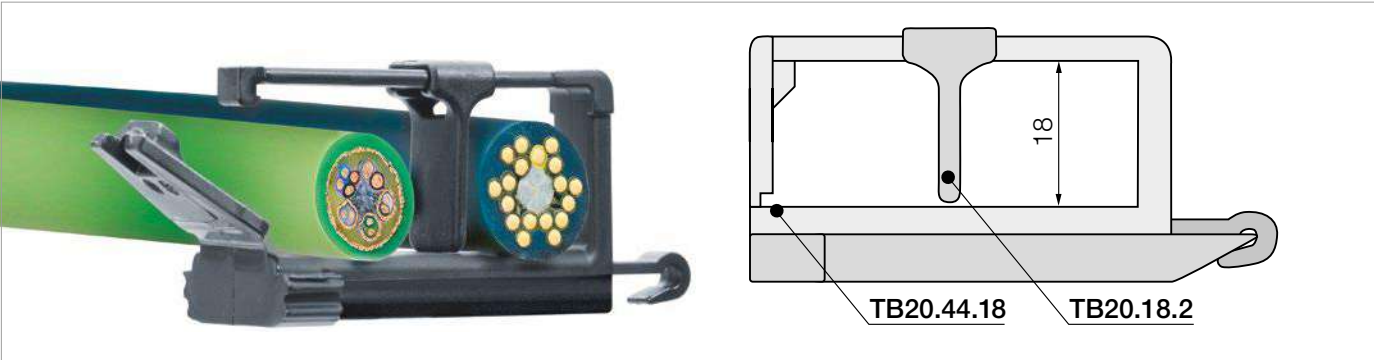
Version

Extension R / L

Colour index

Order example:
The index R/L corresponds to the extension direction:
SP1.240.2000.01.R.0 = e-spool® compact
with a single twisterband with 240mm drum diameter and
2,000mm maximum extension length, extension right.
Order index for colour options ► www.igus.eu/info-colours

Interior separation | For twisterband



Note: Separators are delivered unassembled. Simply pushed onto the openable crossbar. Separators are assembled every 4th e-chain® link.



Part No. Separator
for TB20.44.18
unassembled **TB20.18.2**

Interior separation for twisterband
To fit, simply open the e-chain®, insert a cable
and press the separator onto the crossbar.

i Theatre, stage and lighting technology: the e-spool® systems mentioned here do not meet the DIN EN 17206 guidelines for stage and theatre operations. If you have questions about this, please contact igus®.



- Flexible use:
energy supply in any
direction is possible
- Locking:
inertia locking
function
- Flexible:
for routing of a single
cable or hose
- Space-saving:
cable retracts neatly when
not in use, paths remain free

Cable or hose pulled out by hand - e-spool® for manual operation

The manually operated e-spool® is designed for applications where only one cable or hose is pulled out by hand. The operator pulls out the cable to the required length for a control pendant or tool and can be retracted again after use. To prevent the cable from being under tension all the time, an inertia reel is fitted. In this way, the extension length can be locked. An extension length of up to 5m can be insert achieved.

- Benefits**
- For applications where one cable or hose is pulled out manually
 - Compact, space-saving cable drum without slip ring
 - Integrated ratchet to lock/release the retraction (similar to a vacuum cleaner cable)
 - Also suitable for media or air hoses
 - Handle with mounting option and strain relief

- Typical application areas**
- Robot teach pendants
 - Workstations
 - Assembly lines

Product range | With e-chain® and 1 twisterband

Part No. e-spool® with 1 twisterband, extension right	hi [mm]	Max. travel distance [m]	Bend radius R max.* [mm]	Max. cable ø [mm]	Weight [kg]
SPC1.300.5000.01. R .0	18	5	57	12	≈ 12.5

*The max. bend radius should be observed.

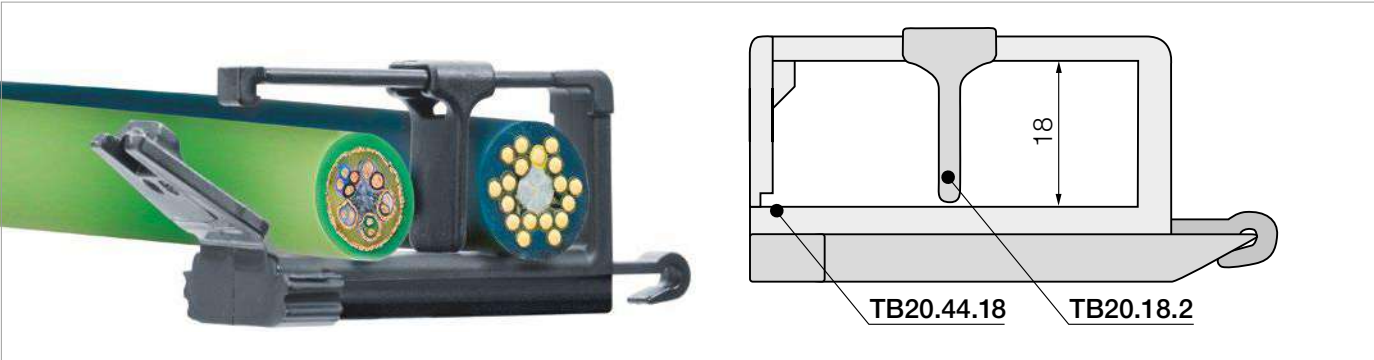
Order key

SPC1.300.5000.01.**R**.0

e-spool® with 1 twisterband	Drum diameter	Extension length	Version	Extension R / L	Colour index
--------------------------------	---------------	------------------	---------	-----------------	--------------

Order example:
The index **R** corresponds to the extension direction:
SPC1.300.5000.01.**R**.0 = e-spool® for manual operation
with a single twisterband with 300mm drum diameter and
5,000mm maximum extension length, extension right.
Order index for colour options ► www.igus.eu/info-colours

Interior separation | For twisterband



Note: Separators are delivered unassembled. Simply pushed onto the openable crossbar. Separators are assembled every 4th e-chain® link.

		Part No. Separator for TB20.44.18 unassembled TB20.18.2	Interior separation for twisterband To fit, simply open the e-chain®, insert a cable and press the separator onto the crossbar.
--	--	--	--



Flexible use:
energy supply in any
direction is possible

Cost-effective:
HD twisterband enables
rotary movement

Flexible:
guidance of different
media in one system

Space-saving:
e-chain® retracts into
a compact unit

Flexible use - igus® e-spool® standard and HD

With igus® e-spools®, cables are wound up in an e-chain® to save space. Various media can be supplied without interruption by the use of the twisterband. Adjustments and extensions of the filling are also possible at any time afterwards. If the e-chain® extension is vertically upwards, igus® recommends the standard e-spool®. For vertical downwards, please use the HD version. For horizontal pull-out direction, the choice of system depends on the application. To select the right system, please get in touch with igus®.

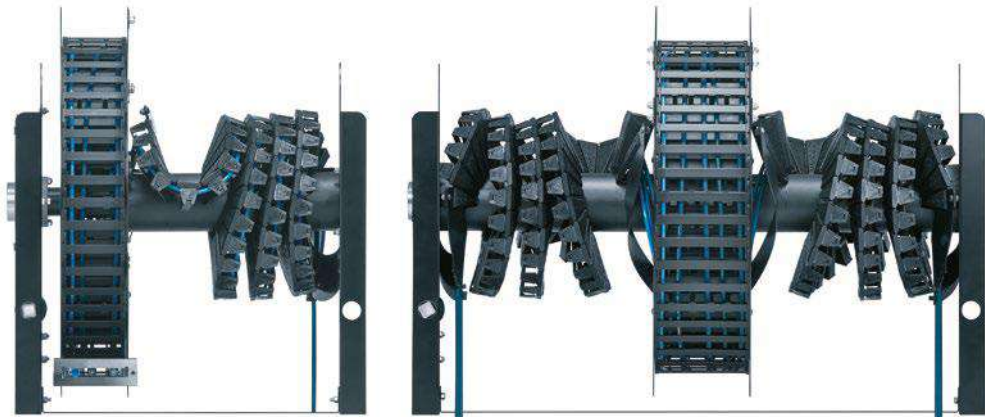
Benefits

- Flexible energy supply - guidance of different media in one system
- No tensile strain on the cables
- Cables can be retrospectively added or changed

Typical application areas

- Telescopic applications
- Theatre, stage and lighting technology
- Space-saving alternative to zig-zag solutions

Standard product range | With e-chain® and 1 or 2 twisterbands



e-spool® standard
Picture left:
with 1 twisterband
Picture right:
with 2 twisterbands

Part No. e-spool® with 1 twisterband, extension right or left	Bi [mm]	hi [mm]	Max. travel distance [m]	Inner radius R max.** [mm]	Outer radius R max.** [mm]	Max. cable ø [mm]	Weight [kg]
SP1.600.4000.03. <u>R/L</u> .0*	75	21	4	44	77	17	≈ 33.0
SP1.700.7000.03. <u>R/L</u> .0*	75	21	7	44	77	17	≈ 38.0
SP1.850.14000.03. <u>R/L</u> .0*	75	21	14	44	77	17	≈ 48.0

*Index **R** = extension right / *Index **L** = extension left
**The max. bend radii in the inner radius and the outer radius should be observed.

Part No. e-spool® with 2 twisterbands, extension right or left	Bi [mm]	hi [mm]	Max. travel distance [m]	Inner radius R max.** [mm]	Outer radius R max.** [mm]	Max. cable ø [mm]	Weight [kg]
SP2.600.4000.03. <u>R/L</u> .0*	125	21	4	44	77	17	≈ 40.0
SP2.700.7000.03. <u>R/L</u> .0*	125	21	7	44	77	17	≈ 45.0
SP2.850.14000.03. <u>R/L</u> .0*	125	21	14	44	77	17	≈ 55.0

*Index **R** = extension right / *Index **L** = extension left
**The max. bend radii in the inner radius and the outer radius should be observed.

Note: If the e-chain® extension is vertically upwards, igus® recommends the standard e-spool®. For vertical downwards, please use the HD version. For horizontal pull-out direction, the choice of system depends on the application. To select the right system, please get in touch with igus®.

Order key

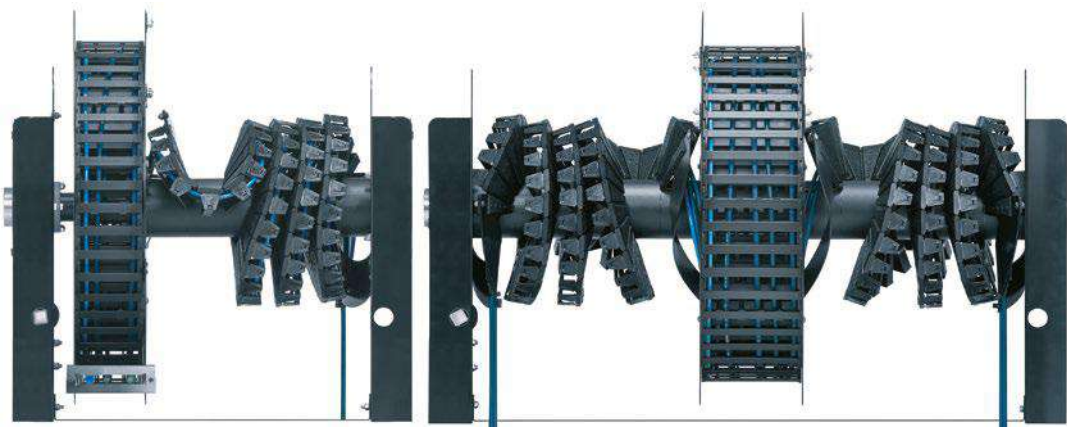
SP1.600.4000.03.**L**.0

e-spool® with 1 twisterband	Drum diameter	Extension length	Version	Extension R / L	Colour index
--------------------------------	---------------	------------------	---------	-----------------	--------------

Order example:
The index **R/L** corresponds to the extension direction:
SP2.600.4000.03.**L**.0 = e-spool® standard
with 2 twisterbands, 600mm drum diameter,
4,000mm maximum extension length, extension left.
Order index for colour options ► www.igus.eu/info-colours

HD product range | With e-chain® and 1 or 2 twisterbands

For vertical applications, downwards



e-spool® HD
Picture left:
with 1 twisterband
Picture right:
with 2 twisterbands

Part No. e-spool® with 1 twisterband, extension right or left	Bi [mm]	hi [mm]	Max. travel distance [m]	Inner radius R max.** [mm]	Outer radius R max.** [mm]	Max. cable ø [mm]	Weight [kg]
SPHD1.600.4000.03. R/L .0*	75	21	4	44	77	17	≈ 52.0
SPHD1.700.7000.03. R/L .0*	75	21	7	44	77	17	≈ 56.5
SPHD1.850.14000.03. R/L .0*	75	21	14	44	77	17	≈ 67.0

*Index R = extension right / *Index L = extension left
**The max. bend radii in the inner radius and the outer radius should be observed.

Part No. e-spool® with 2 twisterbands, extension right or left	Bi [mm]	hi [mm]	Max. travel distance [m]	Inner radius R max.** [mm]	Outer radius R max.** [mm]	Max. cable ø [mm]	Weight [kg]
SPHD2.600.4000.03. R/L .0*	125	21	4	44	77	17	≈ 59.0
SPHD2.700.7000.03. R/L .0*	125	21	7	44	77	17	≈ 64.0
SPHD2.850.14000.03. R/L .0*	125	21	14	44	77	17	≈ 74.0

*Index R = extension right / *Index L = extension left
**The max. bend radii in the inner radius and the outer radius should be observed.

Order key

SPHD1.850.7000.03.R.0

e-spool® with
1 twisterband

Drum diameter

Extension length

Version

Extension R/L

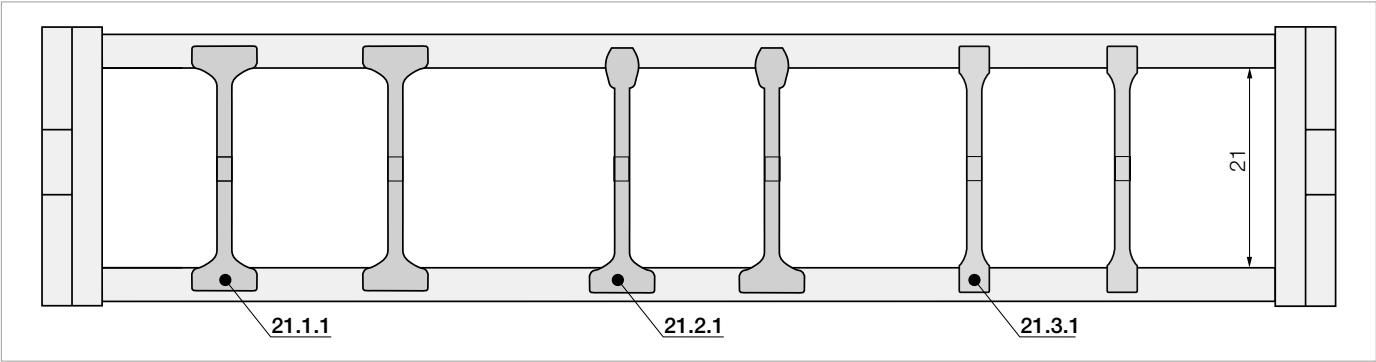
Colour index

Order example:
The index R/L corresponds to the extension direction:
SPHD1.850.7000.03.R.0 = e-spool® standard
with a single twisterband, 850mm drum diameter,
7,000mm maximum extension length, extension right.
Order index for colour options ► www.igus.eu/info-colours

Theatre, stage and lighting technology: the e-spool® systems mentioned here do not meet the DIN EN 17206 guidelines for stage and theatre operations. If you have questions about this, please contact igus®.

e-spool® standard and HD

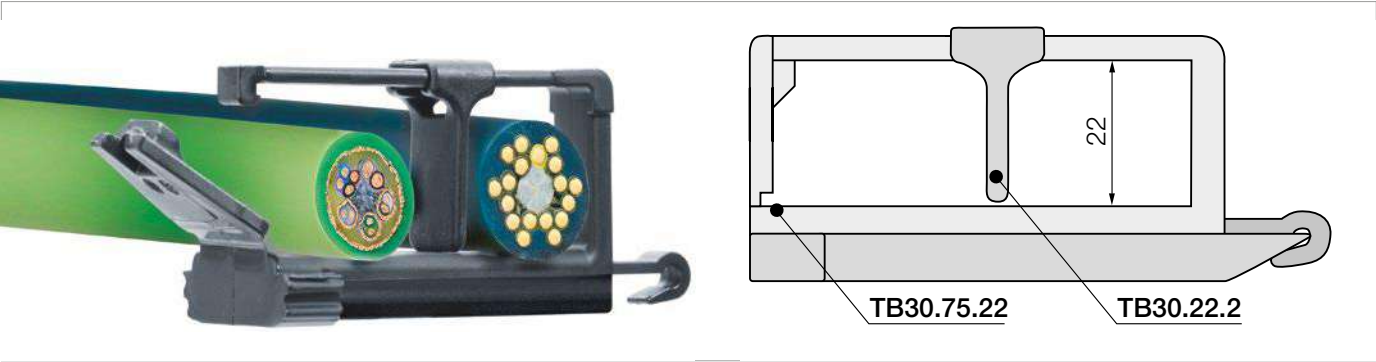
Interior separation | For E2/000 e-chains®



No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-chain® link!

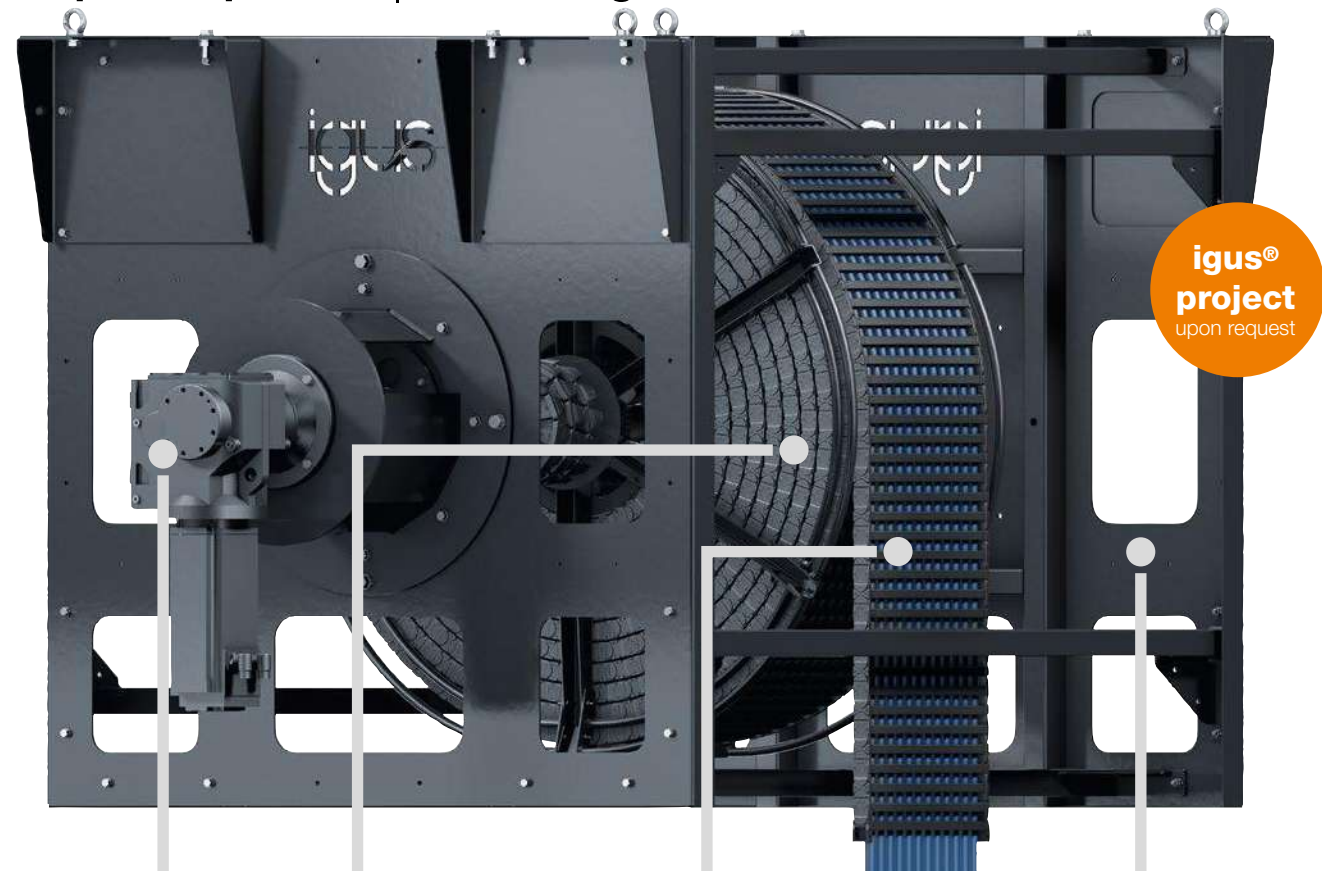
		Part No. Standard separator unassembled 21.1 assembled 21.1.1	For all applications Standard separator with a wide base for maximum holding force.
		Part No. Separator, narrow top unassembled 21.2 assembled 21.2.1	For even faster installation Wide on one side for high holding force, narrow on opposite side for easy cable fitting.
		Part No. Separator, narrow unassembled 21.3 assembled 21.3.1	For a large number of thin cables Separator with a narrow base for a large number of thin cables side by side. Saves space.

Interior separation | For twisterband



Note: Separators are delivered unassembled. Simply pushed onto the openable crossbar. Separators are assembled every 4th e-chain® link.

		Part No. Separator for TB30.75.22 unassembled TB30.22.2	Interior separation for twisterband To fit, simply open the e-chain®, insert a cable and press the separator onto the crossbar.
--	--	--	---



Motor-driven:
extension
lengths of up to
25m possible

Flexible:
guidance of
different media
in one system

Space-saving:
e-chain® retracts into
a compact unit

Optional control system:
plug & play controller,
developed by igus®

Motor-driven for long extension lengths - e-spool® power

The e-spool® power is a motor-driven e-spool® for travels of up to 25m. Like all e-spool® systems, it can be filled with various cables and hoses and ensures reliable transmission with no breaks or slip rings. An igus® controller, which adapts dynamically to the travel speed, was specially developed for vertically hanging applications in theatres and opera houses and can be ordered as an option.

Benefits

- Travel distances up to 25m (longer distances upon request)
- Solid tubular steel construction
- Flexible filling with electrical and fibre optic cables, and pneumatic hoses
- Future-proof, additions and upgrades possible
- No tensile strain on the cables

Typical application areas

- Theatre, stage and lighting technology
- Indoor and outdoors cranes



Note: This type of system should be designed in conjunction with our engineering team.
Please contact us at ► www.igus.eu/contact

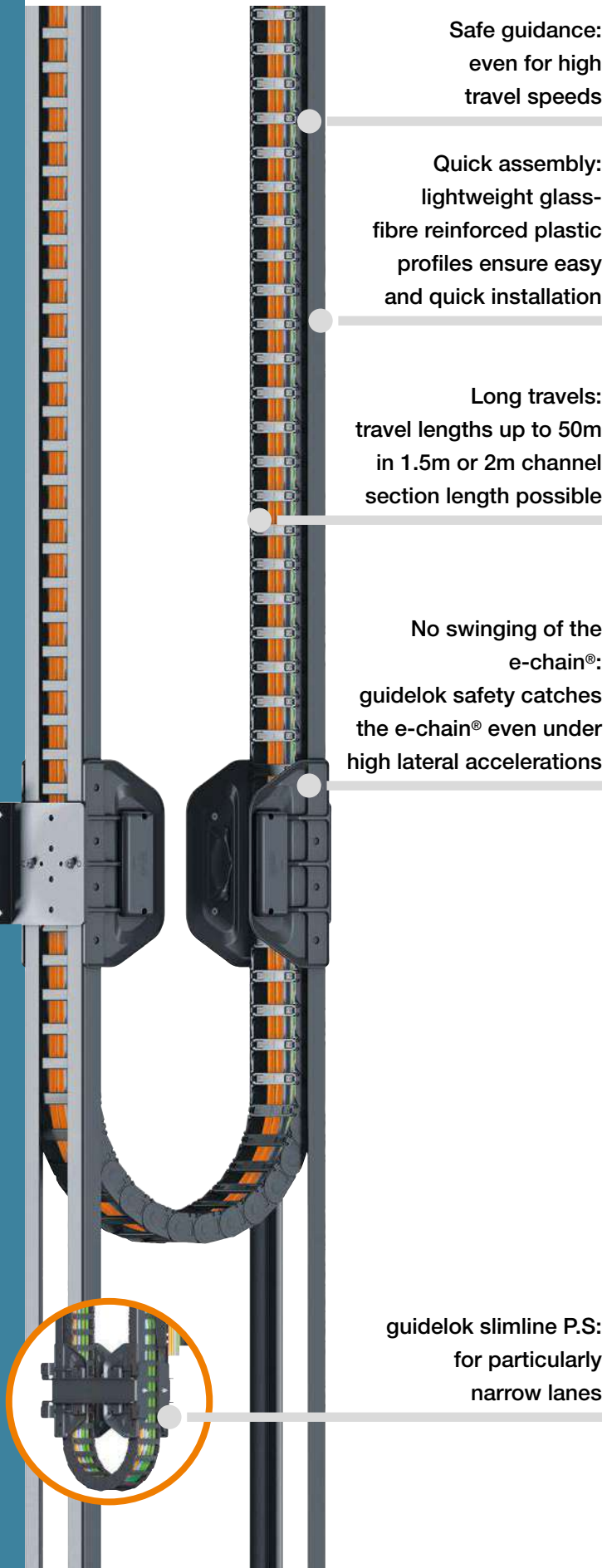
Guidelines for e-spool®

In view of the special mechanical stress inside an e-spool®, we recommend using igus® chainflex® cables. We also recommend that the following guidelines are observed:

1. Only put cables side by side in the linear chain - never stack them!
2. Where possible, chainflex® cables with a TPE outer jacket should be used for unshielded cables
3. Shielded cables should be chosen from the chainflex® CFROBOT range
4. The maximum bend radius of the twisterband must be accounted for
5. Where possible, use separators to protect cables against cross-over and abrasion against each other.
To make the best possible use of the interior space, install the separator in alternate links
6. Insert cables sorted by diameter and/or bend radius - insert small ones in the centre then increasingly larger ones towards the outside
7. Apply strain relief to both ends of the cable - when using a cable tie for strain relief, please ensure the head of the cable tie is underneath to avoid cable damage
8. The cables should be installed in the twisterband with clearance space both outwards and inwards from the rotary axis

Installation instructions

For applications that move horizontally, a smooth surface is required for the e-chain® to travel over.



Safe vertical guidelok slimline P and P.S

More cost-effective, lighter and even easier to install. guidelok slimline "P" and "P.S" plastic guide troughs for vertical applications, especially for all types of storage and retrieval units; now with even lighter components and simplified installation. Locking lever and guide rails prevent the energy chain from swaying or swinging outwards.

Benefits

- Significant savings in costs and weight when compared with a complete housing
- Now also for particularly narrow lanes
- For hanging systems up to 50m
- Fast, safe and easy assembly with plug-in guide rails
- Reduced noise
- Easy access for servicing
- Energy, data and all kinds of media can be safely guided

Typical application areas

- Storage and retrieval units
- Construction and crane lifts
- Automated car parks
- Ship lifts
- Automatic mini-load system

Selection table

Part No.	Inner width <i>Bi</i> [mm]	Inner height <i>hi</i> [mm]	Bend radius <i>R</i> [mm]	For e-chain® series	Page
P version - safe vertical guidance					
GLSL.P	75 - 150	35	150 - 250	2600 / 2700	462

P.S version - for narrow lanes

GLSL.P.S	100 - 150	35	150 - 250	2600 / 2700	463
Special versions with different widths, radii and channel section lengths possible. please consult igus® for delivery time.					

Technical data

General properties

Speed vertical	≤ 7.0 m/s
Acceleration	≤ 10m/s²

**Note:** This type of system should be designed in conjunction with our engineering team. All information on this page is for guidance only. Please contact us at ► www.igus.eu/contact

Vertical energy supply has proven itself in storage and retrieval units from SIVApplan



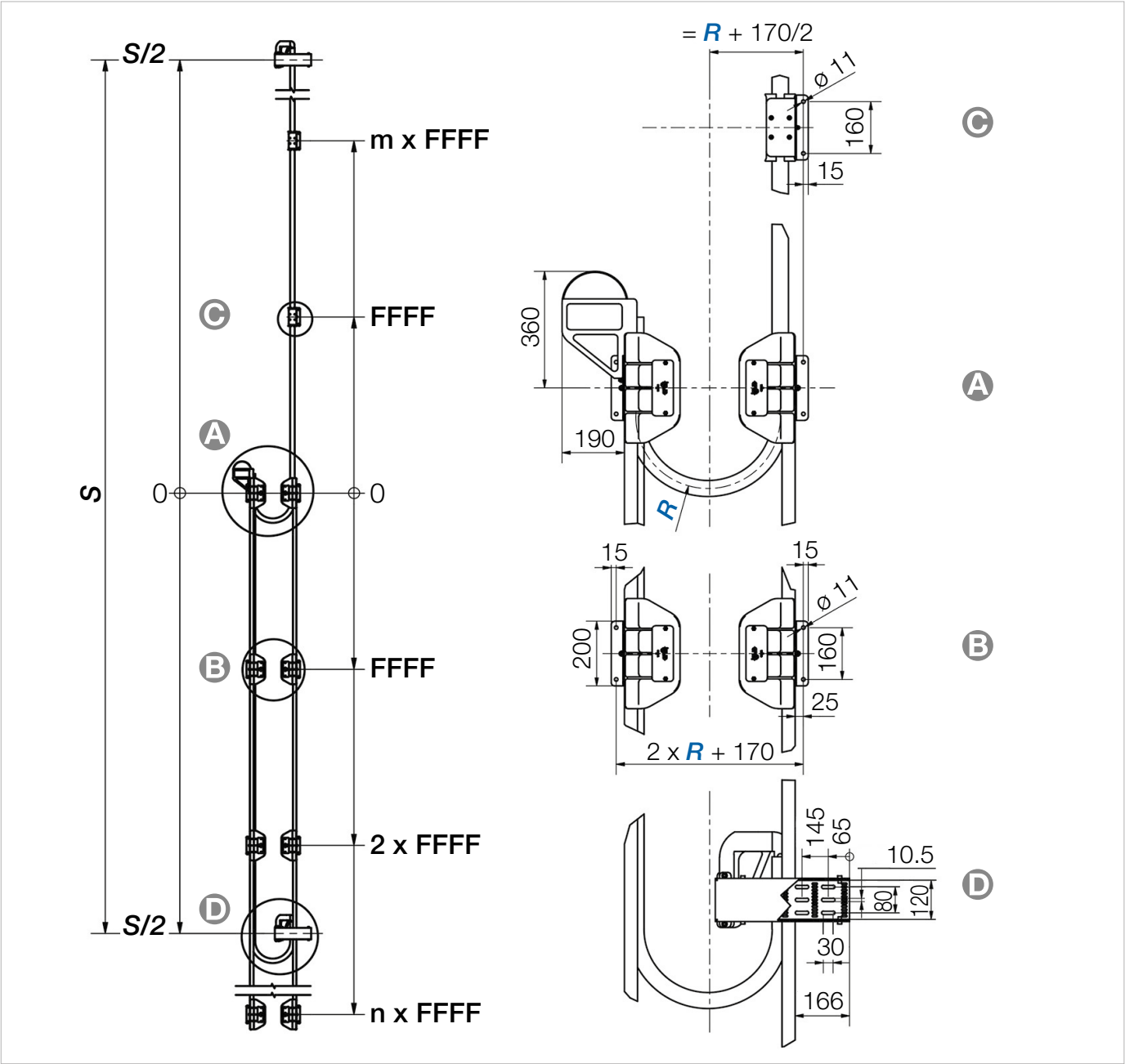
Logistics specialist relies on guidelok energy chain system for hanging cable guidances SIVApplan GmbH & Co. KG is a specialist for sophisticated storage systems, especially for food logistics. SIVApplan has tested an igus® energy supply system for its storage and retrieval units, which saves weight and, above all, can be installed much faster. Meanwhile, the "guidelok slimline P" system from the motion plastics® specialist igus® has proven itself in series production.

Product range

Part No.	Width index	Inner height <i>hi</i> [mm]	Bend radius <i>R</i> [mm]	Travel height [m]
Series GLSL.P				
GLSL.P.2700.*.R.LLLL/FFFF	07 / 10 / 12 / 15	35	150 / 175 / 200 / 250	50

[*] = width index, [R] = bend radius, [LLLL] = total length, [FFFF] = channel section length.

Installation dimensions



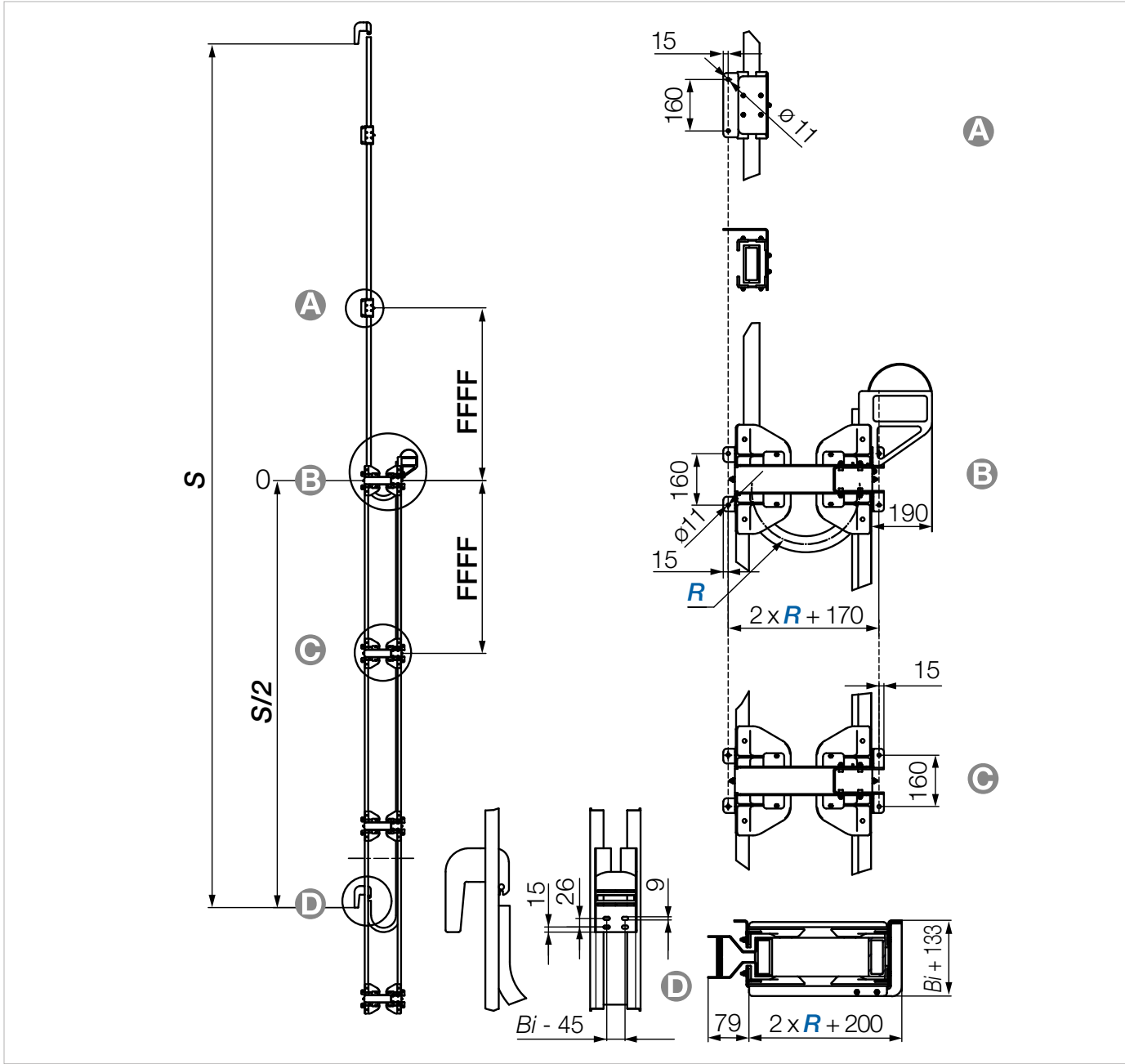
Note: This type of system should be designed in conjunction with our engineering team.
All information on this page is for guidance only.
Please contact us at ► www.igus.eu/contact

Product range

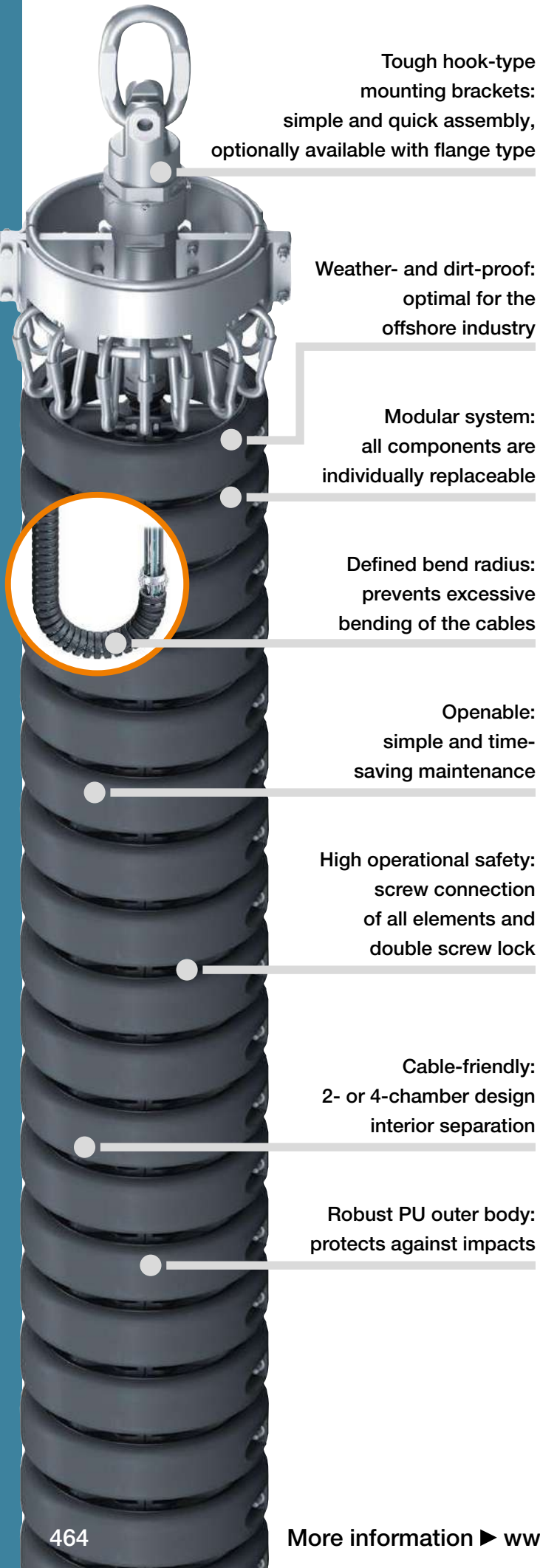
Part No.	Width index	Inner height <i>hi</i> [mm]	Bend radius <i>R</i> [mm]	Travel height [m]
Series GLSL.P.S				
GLSL.P.S.2700.*.R.LLLL/FFFF	10 / 12 / 15	35	150 / 175 / 200 / 250	50

[*] = width index, [R] = bend radius, [LLLL] = total length, [FFFF] = channel section length.

Installation dimensions



Note: This type of system should be designed in conjunction with our engineering team.
All information on this page is for guidance only.
Please contact us at ► www.igus.eu/contact



Safe cable guidance for hanging applications - e-loop®

To guide cables safely in hanging applications, igus® has developed the e-loop® as an alternative to the service loop - perfectly suited for multi-axis applications. The e-loop® combines the advantages of a plastic energy chain with those of a high-strength pull rope. Inside the e-chain®, the pull rope transfers the tensile force to the hook-type mounting brackets and the structure. The cable package inside the e-loop® thus only carries its own weight. The modular e-chain® made of high-performance plastic always provides a defined bend radius and easily copes with vibration and impacts.

Benefits

- Alternative to the service loop - available as a dynamic version with crossbars every link and as a static version with crossbars every 2nd link, e.g. on the cable routing from the drilling rig down to the drill floor
- Maximum cable or hose diameters: 108mm
- Secondary locking tension for all bolted connections offers great operational reliability
- Hook-type mounting brackets also available in stainless steel

Typical application areas

- Offshore
- Oil and gas industry
- Shore power connections
- Construction machinery
- Wind turbines

Selection table

Part No.	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Bend radius <i>R</i> [mm]	Max. cable ø [mm]	Fill weight [kg/m] ¹⁾	Page
D / TD versions - dynamic, crossbars every link - for all moving applications						
ELP.220	150	220	380	38	50	466
ELP.300	230	300	500	75	50	467
ELP.TD.300*	230	300	500	75	50	468
ELP.430	360	430	680	108	70	469

S version - static, with crossbars every 2nd link - for purely static cable guidance

ELP.220	150	220	175	38	50	466
ELP.300	230	300	210	75	50	467

*ELP.TD - available with four-piece design for even faster assembly. Optimised for top drives.

1) Max. fill weight per metre for chain lengths of up to 50m.

Technical data

General properties	
Speed	≤ 3.0 m/s
Acceleration <i>FL_B</i>	≤ 2.5 m/s²
Permitted temperature °C	-30°C / +50°C



Note: This type of system should be designed in conjunction with our engineering team. All information on this page is for guidance only. Please contact us at ► www.igus.eu/contact

Further solutions for shore power

e-dispenser - reduces costs and is environmentally friendly

- Modular and compact system
- Modular system: ready-to-install triflex® R e-chains® energy supply unit incl. cables & connectors; optional: drive; optional: additional steel structure
- Flexible in terms of extension length and installation options
- Fail-safe thanks to cable protection with TRC.125 triflex® R e-chain®
- Defined minimum bend radius



Product range



Part No. dynamic, crossbars every link	Part No. static, with crossbars every 2nd link	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Bend radius <i>R</i> [mm]	Max. cable ø [mm]	Max. fill weight [kg/m] ¹⁾	Version .D .S [kg/m]
ELP.220.01.D	ELP.220.01.S	150	220	380	38	50	≈ 18.0 ≈ 11.0

1) Max. fill weight per metre for chain lengths of up to 50m.

Installation dimensions | Overview

2-chamber design
interior separation

Standard fastening: hook-type
mounting bracket without flange

Special solution: hook-type mounting
bracket with flange, optional

The e-chain® length can be freely chosen.

i **Note:** This type of system should be designed in conjunction with our engineering team.
All information on this page is for guidance only.
Please contact us at ► www.igus.eu/contact

Product range



Part No. dynamic, crossbars every link	Part No. static, with crossbars every 2nd link	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Bend radius <i>R</i> [mm]	Max. cable ø [mm]	Max. fill weight [kg/m] ¹⁾	Version .D .S [kg/m]
ELP.300.01.D	ELP.300.01.S	230	300	500	75	50	≈ 22.0 ≈ 13.0

1) Max. fill weight per metre for chain lengths of up to 50m.

Installation dimensions | Overview

2-chamber design
interior separation

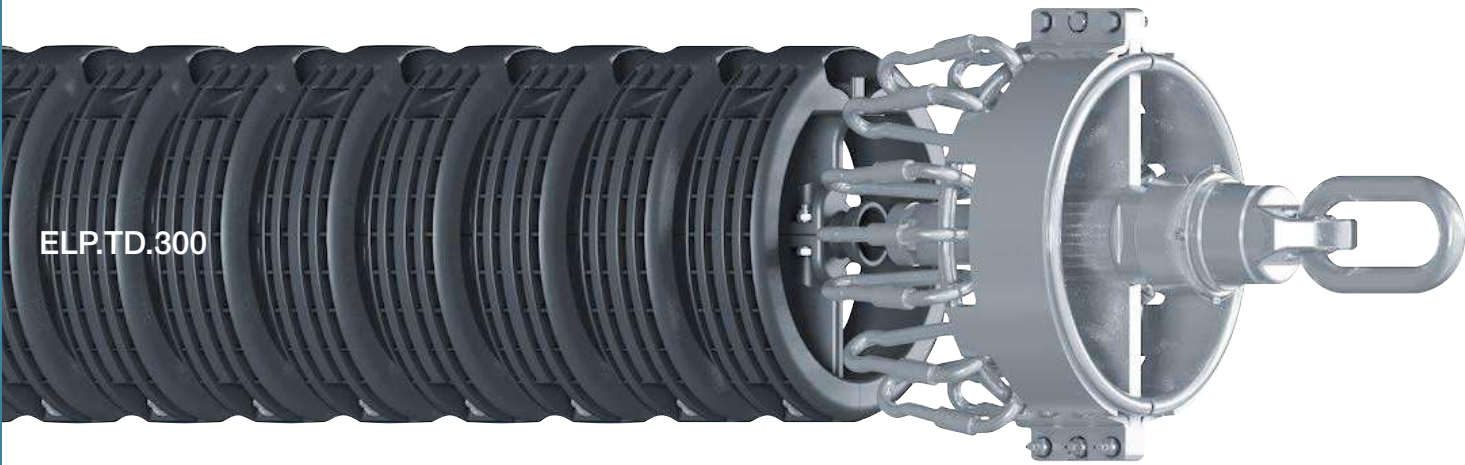
Standard fastening: hook-type
mounting bracket without flange

Special solution: hook-type mounting
bracket with flange, optional

The e-chain® length can be freely chosen.

i **Note:** This type of system should be designed in conjunction with our engineering team.
All information on this page is for guidance only.
Please contact us at ► www.igus.eu/contact

Product range | Optimised for top drives



Part No. dynamic, crossbars every link	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Bend radius <i>R</i> [mm]	Max. cable ø [mm]	Max. fill weight [kg/m] ¹⁾	Version .TD [kg/m]
ELP.TD.300	230	300	500	75	50	≈ 19.0

1) Max. fill weight per metre for chain lengths of up to 50m.

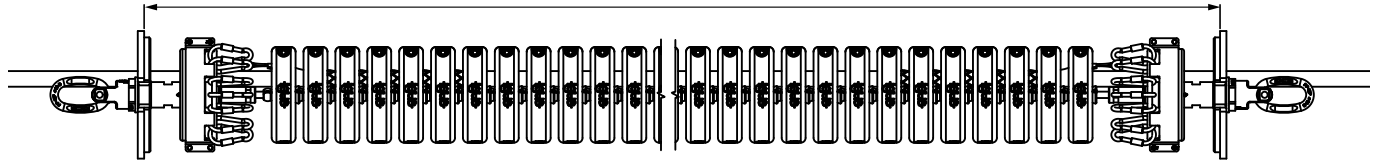
Installation dimensions | Overview

2-chamber design
interior separation

Standard fastening: hook-type
mounting bracket without flange

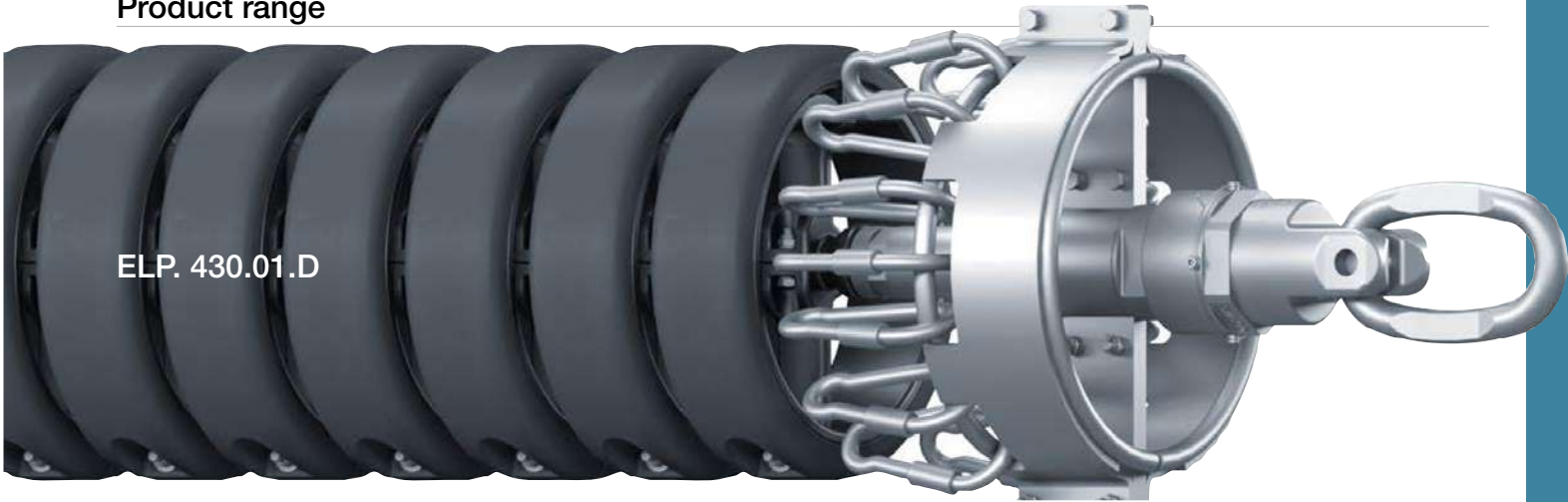
Special solution: hook-type mounting
bracket with flange, optional

The e-chain® length can be freely chosen.



i **Note:** This type of system should be designed in conjunction with our engineering team.
All information on this page is for guidance only.
Please contact us at ► www.igus.eu/contact

Product range



Part No. dynamic, crossbars every link	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Bend radius <i>R</i> [mm]	Max. cable ø [mm]	Max. fill weight [kg/m] ¹⁾	Version .D [kg/m]
ELP. 430.01.D	360	430	680	108	70	≈ 30.0

1) Max. fill weight per metre for chain lengths of up to 50m.

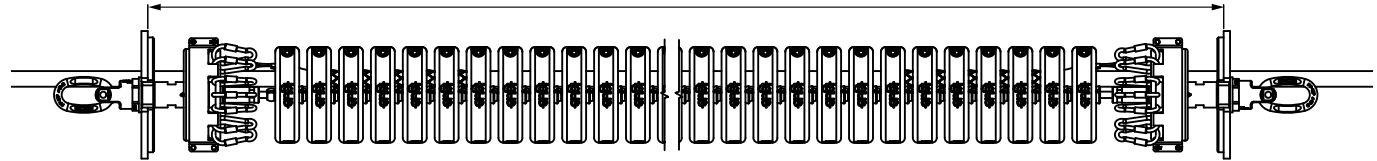
Installation dimensions | Overview

4-chamber design
interior separation

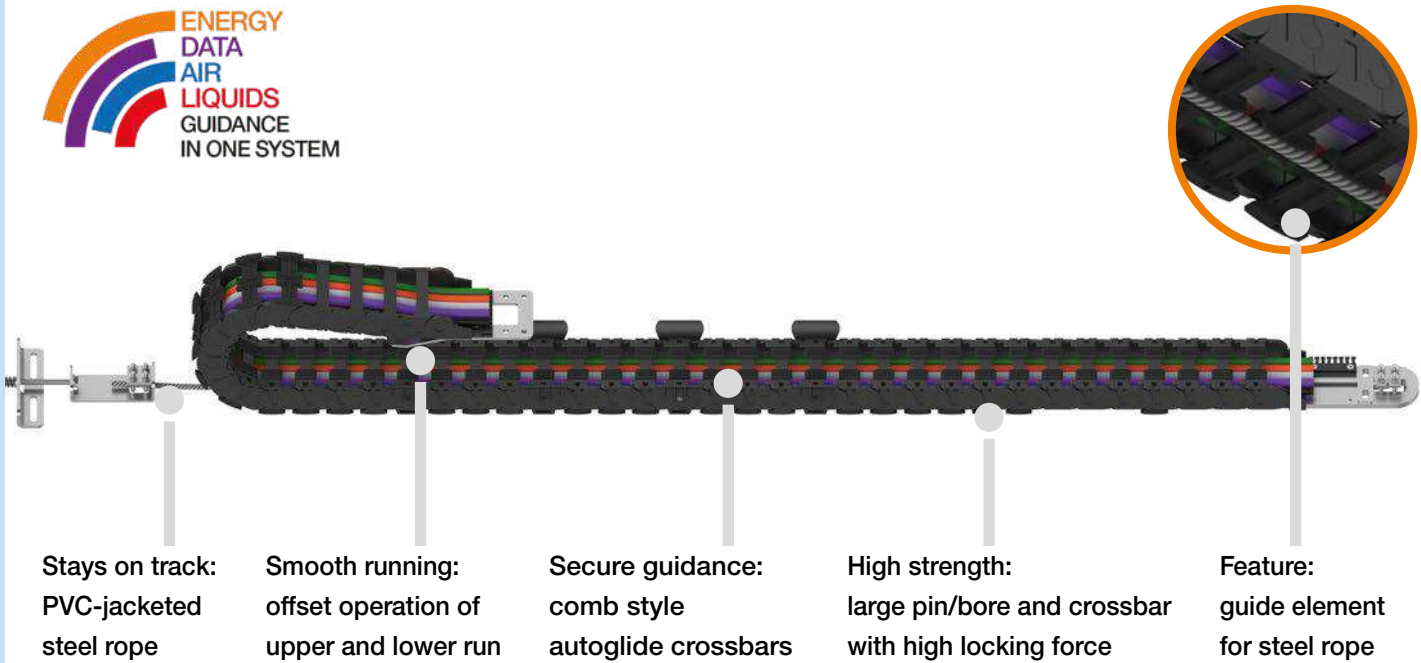
Standard fastening: hook-type
mounting bracket without flange

Special solution: hook-type mounting
bracket with flange, optional

The e-chain® length can be freely chosen.



i **Note:** This type of system should be designed in conjunction with our engineering team.
All information on this page is for guidance only.
Please contact us at ► www.igus.eu/contact



Energy and data transmission installed in 1 hour - autoglide 5

Save up to 88% assembly time with the new cost-effective energy chain for material handling and crane systems. The igus® system autoglide 5 transfers energy, data, fluids and air safely in a single system, is almost maintenance-free and is very cost-effective.

- Energy, data, air and liquids in ONE system
- Often saves two or more other systems needed for transmitting data
- 4m/s speed
- 80m travel
- Quiet operation: 63db(A) at 2m/s
- 50% floor remains free, no guide trough needed
- 88% less assembly time compared to a conventional standard solution with guide troughs
- Available as a harnessed system with cables, hoses and connectors
- Less maintenance and cleaning requirements
- Optional dampening elements - reduce rolling noise and make operation smoother
- Optional fixed end bridge - reduce cable length and save costs
- Optional smart plastics accessories for intelligent condition monitoring and service life display
- Optional fixed end bridge - reverse e-chains® for twice the number of cables

Typical application areas

- Material handling and crane systems
- Alternative to busbar system
- Storage and retrieval units
- Miniloads
- Material handling

Selection table

Part No.	Inner width <i>Bi</i> [mm]	Inner height <i>hi</i> [mm]	Bend radius <i>R</i> [mm]	Travel [m]	Page
E2/000...AG5 - for 2-piece, self-guiding E2/000 e-chains®					
2400...AG5	57 - 77	25	075 - 150	80	472
2600...AG5	75 - 100	35	075 - 150	80	473
E4.1...AG5 - for 4-piece, self-guiding E4.1 e-chains®					
E4.32...AG5	112 - 262	32	100 - 200	130	474
E4.42...AG5	112 - 262	42	125 - 200	130	475

Technical data

General properties	
Speed gliding*	≤ 4.0 [m/s]
Acceleration gliding*	≤ 5.0 [m/s²]
Noise during operation	63dB(A) at 2m/s
igumid® G LW material - permitted temperature °C	-40°C/+120°C
Flammability class, igumid® G LW	VDE 0304 IIC UL94-HB

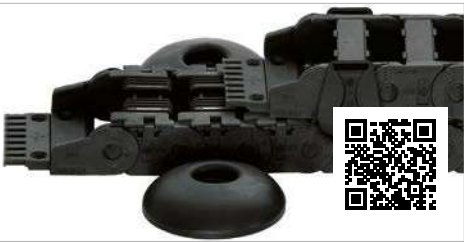
*The values given are maximum values and depend on the travel and fill weight

**Note:** This type of system should be designed in conjunction with our engineering team.
All information on this page is for guidance only.
Please contact us at ► www.igus.eu/contact

Further solutions for long travels and self-guiding autoglide e-chain®

autoglide E2/000AG - autoglide self-guiding e-chain®

- Travels up to 60m and travel speeds higher than 2.0m/s
- Very compact, avoids troughs forming an obstacle in the working area
- Quick installation for long travels
- Can be opened along the inner radius



autoglide E4.1AG - autoglide self-guiding e-chains®

- For the larger e-chains® of the E4.1 system
- Simple guide elements for quick installation
- The autoglide crossbars safely guide the e-chain® replacing the need for a guide trough

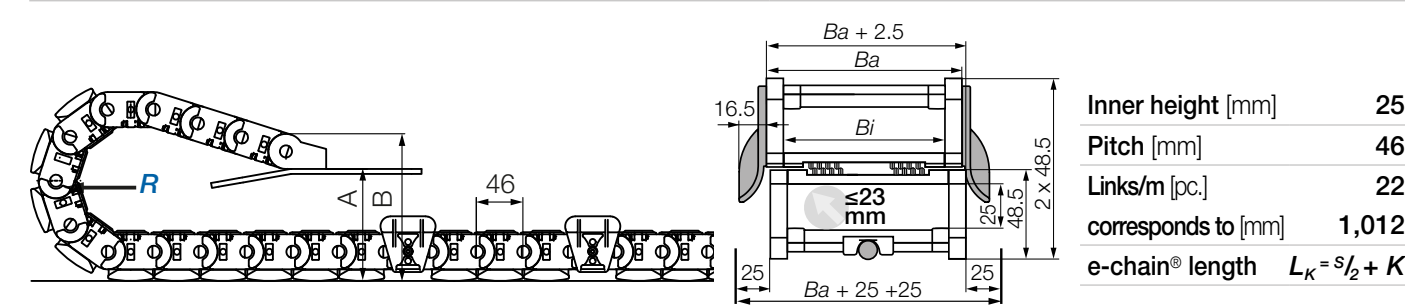


Product range



Part No.	Bi	Ba	Available bend radii	Dimensions	Dimensions	Weight	Weight
Available	[mm]	[mm]	R [mm]	A	B	e-chain®	steel rope
widths				[mm]	[mm]	[kg/m]	[kg/m]
Series 2400, inner height 25mm							
2400.05AG5	57	73	075 100	112	147	≈ 1.02	≈ 0.25
2400.07AG5	77	93	075 100 125 150	112	147	≈ 1.12	≈ 0.25

Installation dimensions | Overview



Accessories | 2400.AG5

Mounting brackets	Interior separation	Steel cable	Fixed end module	Fixed end bridge	Rope tensioning unit
Plastic mounting brackets with strain relief options.	Special autoglide 5 separator AG.25.2.	PVC-jacketed steel rope ø 10mm.	Fixed-end module for secure assembly.	For centre fixed and double-opposing.	Rope tensioning unit with indicator for exact tensioning.

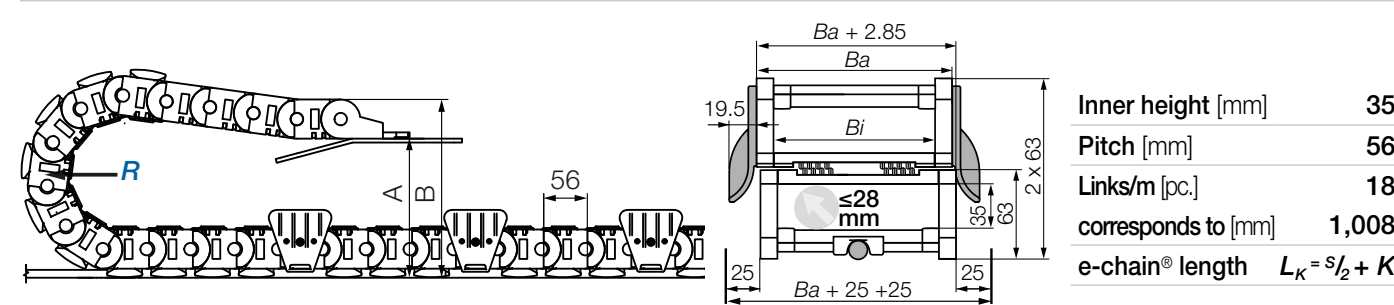
Note: This type of system should be designed in conjunction with our engineering team.
All information on this page is for guidance only.
Please contact us at ► www.igus.eu/contact

Product range



Part No.	Bi	Ba	Available bend radii	Dimensions	Dimensions	Weight	Weight
Available	[mm]	[mm]	R [mm]	A	B	e-chain®	steel rope
widths				[mm]	[mm]	[kg/m]	[kg/m]
Series 2600, inner height 35mm							
2600.07AG5	75	91	075 100	178	228	≈ 1.42	≈ 0.25
2600.10AG5	100	116	075 100 125 150	178	228	≈ 1.49	≈ 0.25

Installation dimensions | Overview

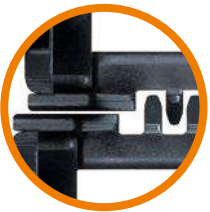


Accessories | 2600.AG5

Mounting brackets	Interior separation	Steel cable	Fixed end module	Fixed end bridge	Rope tensioning unit
Plastic mounting brackets with strain relief options.	Standard interior separation for 2600 series.	PVC-jacketed steel rope ø 10mm.	Fixed-end module for secure assembly.	For centre fixed and double-opposing.	Rope tensioning unit with indicator for exact tensioning.

Note: This type of system should be designed in conjunction with our engineering team.
All information on this page is for guidance only.
Please contact us at ► www.igus.eu/contact

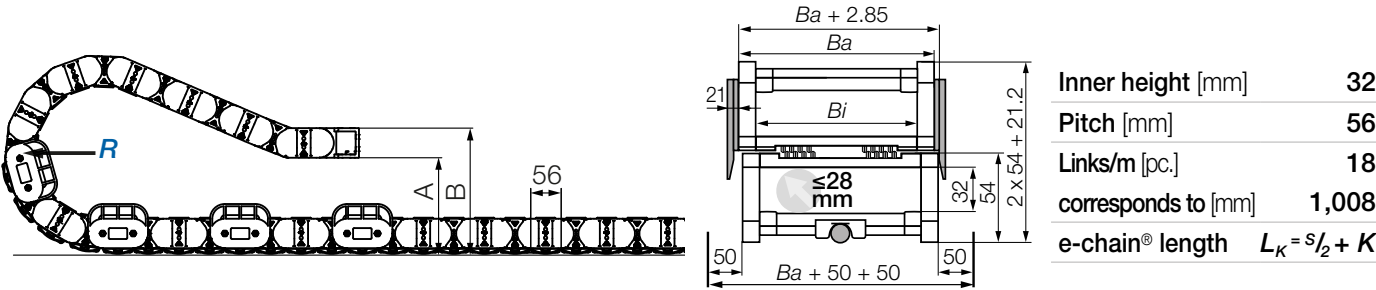
Product range



E4.32.AG5

Part No. Available widths	Bi [mm]	Ba [mm]	Available bend radii R [mm]	Dimensions A [mm]	Dimensions B [mm]	Weight e-chain® [kg/m]	Weight steel rope [kg/m]
Series E4.32, inner height 32mm							
E4.32.112.R.0.AG5.NC	112	136	100 125	233	179	≈ 2.63	≈ 0.25
E4.32.125.R.0.AG5.NC	125	148	100 125 150	233	179	≈ 2.70	≈ 0.25
E4.32.150.R.0.AG5.NC	150	173	100 125 150 175	233	179	≈ 2.83	≈ 0.25
E4.32.167.R.0.AG5.NC	167	191	100 125 150 175	233	179	≈ 2.96	≈ 0.25
E4.32.200.R.0.AG5.NC	200	223	100 125 150 175 200	233	179	≈ 3.18	≈ 0.25
E4.32.262.R.0.AG5.NC	262	286	100 125 150 175 200	233	179	≈ 3.59	≈ 0.25

Installation dimensions | Overview

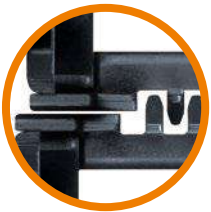


Accessories | E4.32.AG5

Mounting brackets	Interior separation	Steel cable	Fixed end module	Fixed end bridge	Rope tensioning unit
KMA mounting brackets with attachment from any side and C-profile option.	Standard interior separation for E4.32 series.	PVC-jacketed steel rope ø 10mm.	Fixed-end module for secure assembly.	For centre fixed and double-opposing.	Rope tensioning unit with indicator for exact tensioning.

Note: This type of system should be designed in conjunction with our engineering team.
All information on this page is for guidance only.
Please contact us at ► www.igus.eu/contact

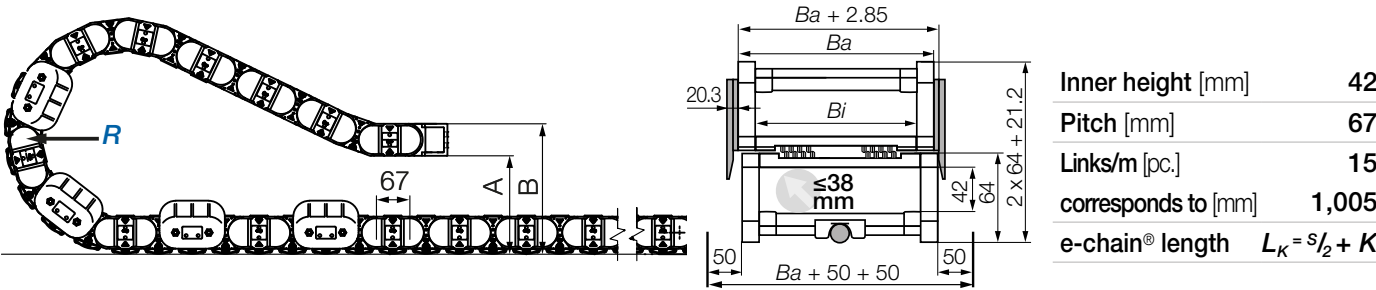
Product range



E4.42.AG5

Part No. Available widths	Bi [mm]	Ba [mm]	Available bend radii R [mm]	Dimensions A [mm]	Dimensions B [mm]	Weight e-chain® [kg/m]	Weight steel rope [kg/m]
Series E4.42, inner height 42mm							
E4.42.112.R.0.AG5.NC	112	139	125	261	197	≈ 3.45	≈ 0.25
E4.42.125.R.0.AG5.NC	125	151	125 150	261	197	≈ 3.53	≈ 0.25
E4.42.150.R.0.AG5.NC	150	176	125 150 160	261	197	≈ 3.66	≈ 0.25
E4.42.167.R.0.AG5.NC	167	194	125 150 160	261	197	≈ 3.79	≈ 0.25
E4.42.200.R.0.AG5.NC	200	226	125 150 160 175 200	261	197	≈ 4.01	≈ 0.25
E4.42.262.R.0.AG5.NC	262	289	125 150 160 175 200	261	197	≈ 4.42	≈ 0.25

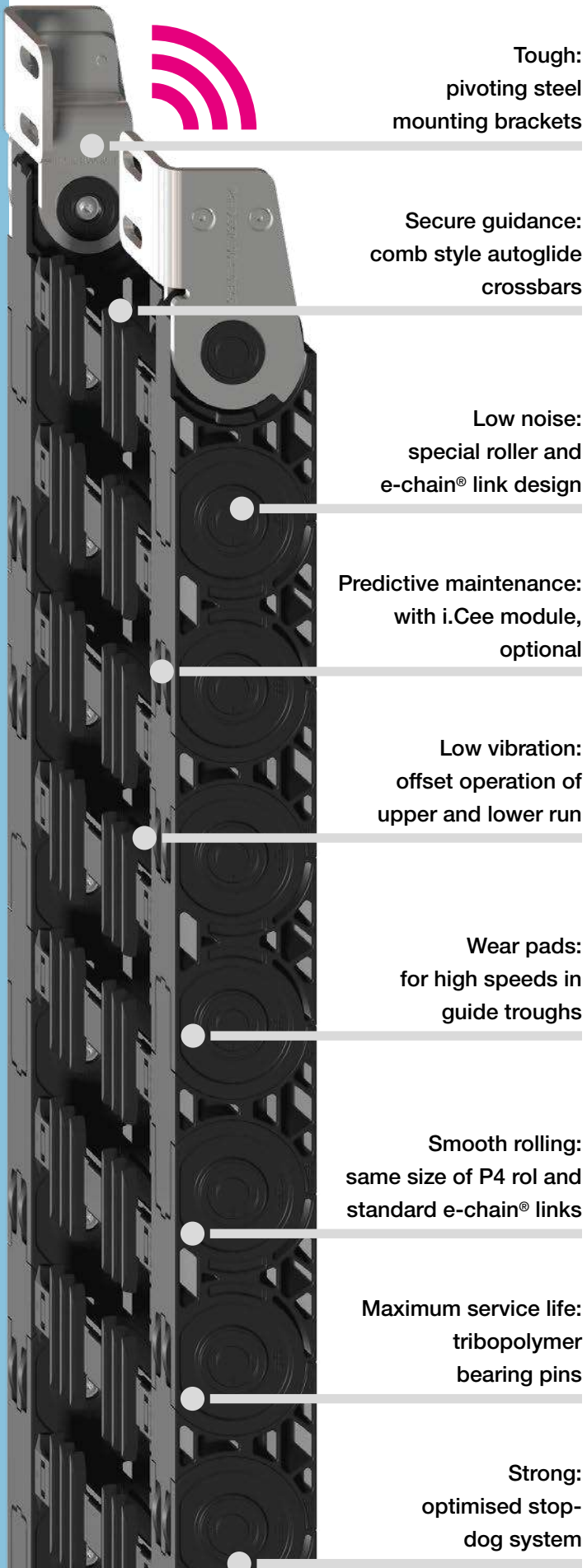
Installation dimensions | Overview



Accessories | E4.42.AG5

Mounting brackets	Interior separation	Steel cable	Fixed end module	Fixed end bridge	Rope tensioning unit
KMA mounting brackets with attachment from any side and C-profile option.	Standard interior separation for E4.42 series.	PVC-jacketed steel rope ø 10mm.	Fixed-end module for secure assembly.	For centre fixed and double-opposing.	Rope tensioning unit with indicator for exact tensioning.

Note: This type of system should be designed in conjunction with our engineering team.
All information on this page is for guidance only.
Please contact us at ► www.igus.eu/contact



For maximum service life with optimised design - P4HD

The heavy-duty rol e-chain® P4HD meets all the requirements for the newest generation of container cranes. Longer travels, greater dynamics, zero failures: this is what the manufacturers and operators of ship-to-shore container cranes demand for energy chains on cranes. P4HD.56R fulfils these requirements - and offers maximum economic efficiency.

Benefits

- Developed for the next generations of STS cranes
- Service life extended again by 50% (compared to P41.56R)
- Everything redesigned: rolling elements, side bands, joining links
- Integration of predictive maintenance sensors possible (i.Sense)
- Low maintenance
- Retrofitting easy - guide troughs remain identical
- 57% drive power, saving energy

Typical application areas

- Crane technology
- Automated storage and retrieval systems
- Plant construction
- Linear robots
- Material handling

Selection table

Part No.	Inner height <i>hi</i> [mm]	Outer height <i>ha</i> [mm]	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Bend radius <i>R</i> [mm]	Page
P4HD - heavy-duty rol e-chain®						
P4HD.56R	56	84	187 - 300	269.5 - 382.5	250	478

Technical data

General properties

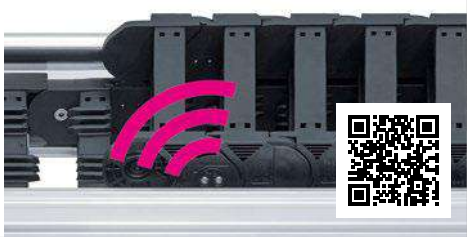
Speed rolling	≤ 10m/s
Acceleration rolling	≤ 50m/s²
igumid® G LW material - permitted temperature °C	-40°C/+120°C
Flammability class, igumid® G	VDE 0304 IIC UL94-HB

**Note:** This type of system should be designed in conjunction with our engineering team. All information on this page is for guidance only. Please contact us at ► www.igus.eu/contact

rol e-chain® solutions for long travels at high speeds

P4.1 - for longer service life

- 375,000km running performance - due to maintenance-free tribo-polymer plain bearings in conjunction with the chain links
- Long travel lengths: more than 1,000m
- Speeds higher than 5m/s
- Low vibration and noise due to a split profile roller



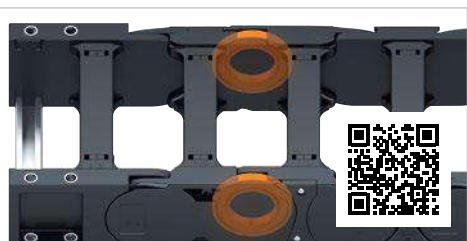
P4 - small profile rol e-chain® for high fill weights

- Identical pitch of the e-chain® link with or without roller
- The upper run rollers pass through the lower run rollers enables quiet operation
- Captive roller integrated into the side link
- Long travels (up to 800m), high fill weights (up to 30kg/m)



E4.1R - reduced noise, vibration and drive energy

- Easy changeover from gliding to rolling e-chain®
- rol e-chain® links suitable for all radii of the standard series
- Ideal for long travels
- Quiet operation due to equal pitch of the e-chain® links



Product range



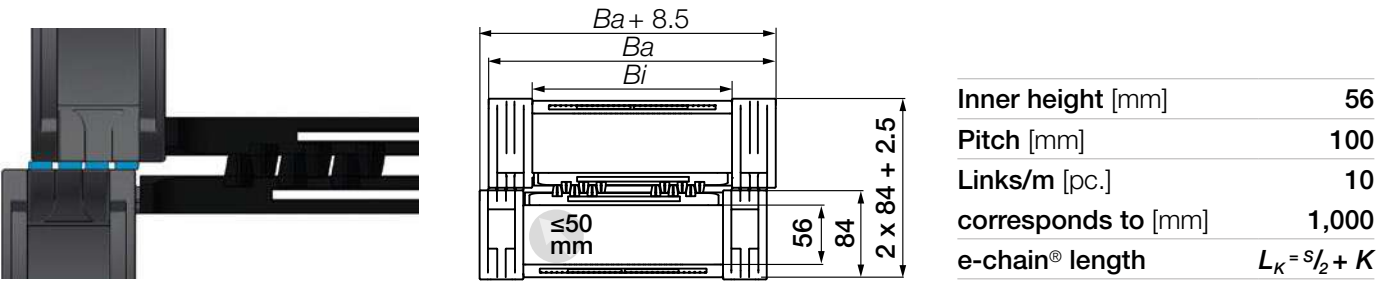
P4HD.56R

Part No. with crossbars every link, crossbars removable	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Weight [kg/m]
P4HD.56R.18.0	187	269.5	≈ 8.61
P4HD.56R.20.0	200	282.5	≈ 8.69
P4HD.56R.23.0	237	319.5	≈ 8.61
P4HD.56R.25.0	250	332.5	≈ 9.13
P4HD.56R.28.0*	287	369.5	≈ 9.16
P4HD.56R.30.0	300	382.5	≈ 9.50
P4HD.56R.33.0*	337	419.5	≈ 9.53
P4HD.56R.35.0*	350	432.5	≈ 9.88
P4HD.56R.38.0*	387	469.5	≈ 9.83
P4HD.56R.40.0*	400	482.5	≈ 10.21
Available bend radii <i>R</i> [mm] 250 300 ¹⁾ 350 ¹⁾			

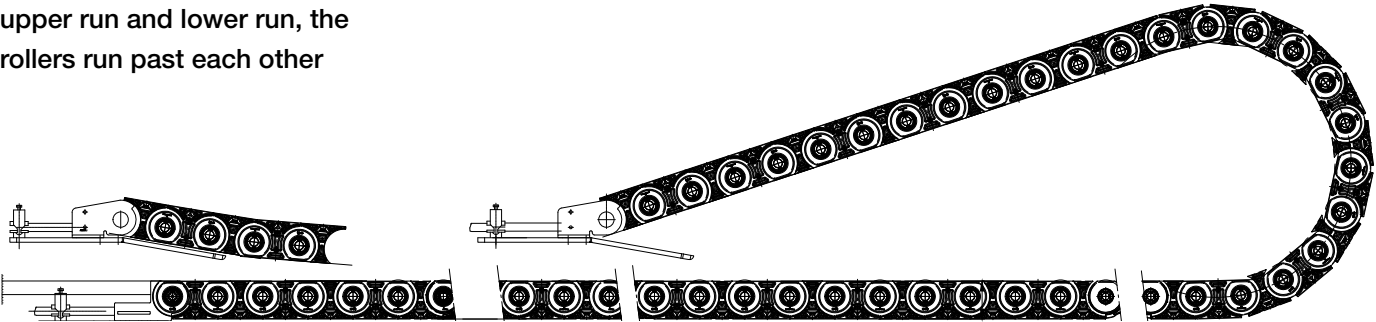
*Width available upon request, please consult igus® for delivery time.
1) Radius available upon request, please consult igus® for delivery time.

P4HD | Series P4HD.56R

Installation dimensions | Overview



Due to the offset between upper run and lower run, the rollers run past each other



Note: This type of system should be designed in conjunction with our engineering team. All information on this page is for guidance only. Please contact us at ► www.igus.eu/contact



Huge range:
aluminium profile (standard: 2m section) available for almost
all igus® e-chains®, seawater and corrosion-resistant

Wear-reducing: glide strips protect
from wear on the sides

Fast connection:
interface connector, basic, made of
plastic, easy to mount without tools

Energy supply is even more durable:
easy to assemble, low-abrasion
glide bar for higher speeds, the new
standard for series 973/974/975

Wear reduction:
proven extruded polymer glide bar

Easy installation:
bottom clamp basic, attached
either inwards or outwards

Simple fastening:
C-profile, for bottom clamps

For heavy-duty applications:
heavy-duty bottom clamp,
configurable online ► www.igus.eu/alu-guide

Simple connection:
optimised polymer fixed end module option, for fast
and easy mounting, without any drilling

For general applications - aluminium SuperTrough, basic version, standard

- Simple and cost-effective basic design as well as version for complex engineering applications
- Very lightweight, modular assembly
- Corrosion-resistant, seawater-resistant aluminium profile
- Misalignment-free installation - no screwing or welding of the profiles required
- Conductivity according to DIN EN 61537 - standard

Selection table

Part No. without glide bars	Part No. with glide bars	Outer height <i>H_{Ra}</i> [mm]	Part No. installation set ²⁾	Side part material	Page Link
Basic version - with standard installation sets for general mechanical engineering					
970.30.SL	970.31.SL	77	960.30	Aluminium	486
970.30.SL	970.32.SL	77	960.30	Aluminium	488
971.30.SL	971.31.SL	87	960.30	Aluminium	490
972.02.30.SL	972.02.31.SL	117	960.30	Aluminium	492
972.30.SL	972.31.SL	117	960.30	Aluminium	494
972.30.SL	972.32.SL	117	960.30	Aluminium	496
973.30.SL	973.31.SLH ¹⁾	144	960.40	Aluminium	498
974.30.SL	974.31.SLH ¹⁾	184	960.50	Aluminium	500
975.30.SL	975.31.SLH ¹⁾	236	960.50	Aluminium	502

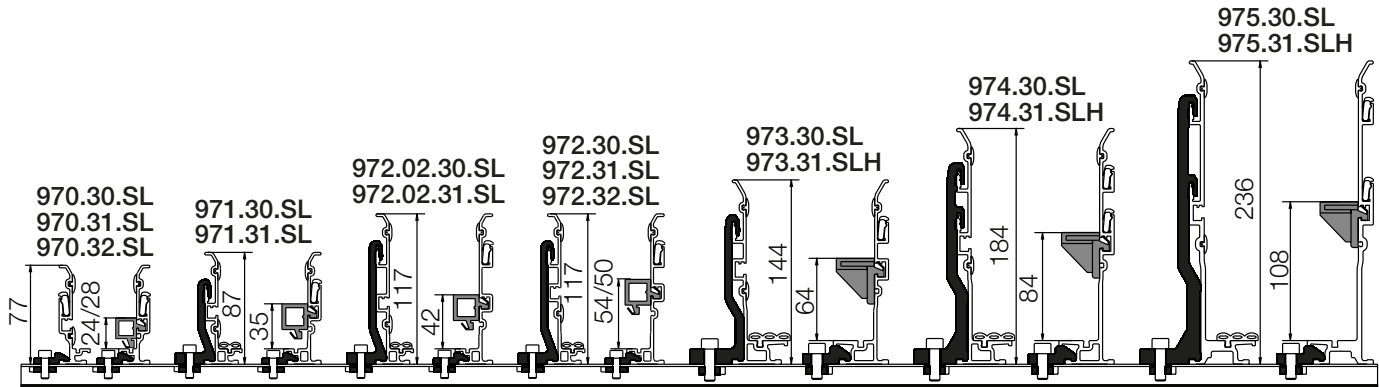
Heavy-duty version - with HD installation sets, for tough plant construction

971.30.SL	971.31.SL	87	971.50	Aluminium	► www.igus.eu/alu-guide
972.02.30.SL	972.02.31.SL	117	972.50	Aluminium	► www.igus.eu/alu-guide
972.30.SL	972.31.SL	117	972.50	Aluminium	► www.igus.eu/alu-guide
972.30.SL	972.32.SL	117	972.50	Aluminium	► www.igus.eu/alu-guide
973.30.SL	973.31.SLH ¹⁾	144	973.50	Aluminium	► www.igus.eu/alu-guide
974.30.SL	974.31.SLH ¹⁾	184	974.50	Aluminium	► www.igus.eu/alu-guide
975.30.SL	975.31.SLH ¹⁾	236	975.50	Aluminium	► www.igus.eu/alu-guide

1) With abrasion-optimised high-speed glide bar

2) The basic Installation sets are the standard for the aluminium SuperTroughs. They can be fastened inside or outside and are recommended for most application areas. The basic clamping shoes are made of aluminium. The heavy-duty version is differentiated only by the type of the installation set. The part numbers of the channel side plates, glide strips, etc., are the same as the basic model. The heavy-duty installation set consists of a larger aluminium bracket, fastened outside on the guide trough.

Aluminium SuperTrough | Size overview

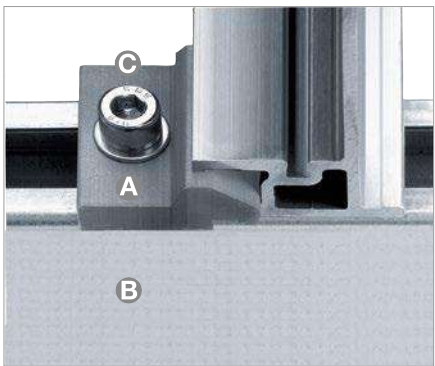
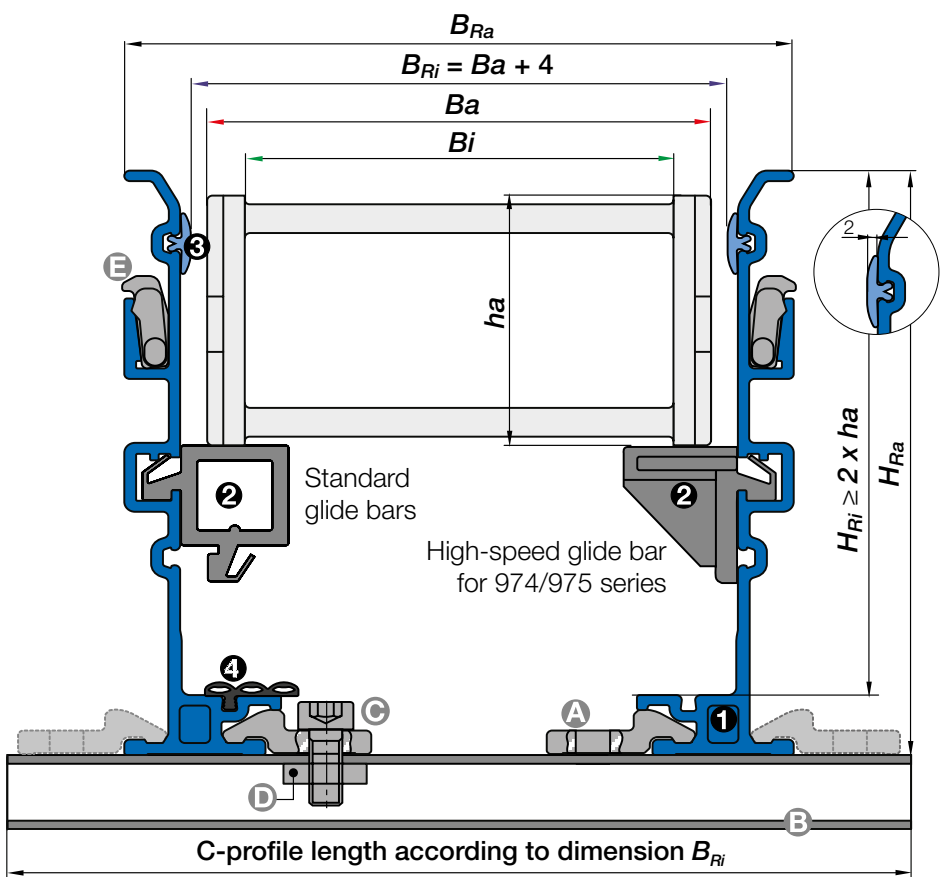


Components, guide troughs and components, mounting kits

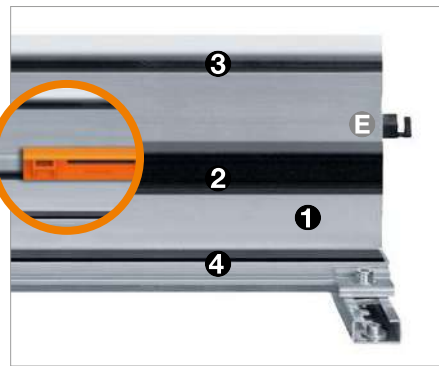
- Components**
- 1 Trough side parts, aluminium, 2m
 - 2 Standard glide bars, 2m
High-speed glide bar, 0.5m
 - 3 Glide strips, plastic, 2m
(without glide strips upon request)
 - 4 Optional: noise dampening strip

- Components, installation set**
- A Bottom clamp, aluminium
 - B C-profile, steel or stainless steel
 - C Allen wrench
 - D Sliding nut
 - E Scalable crossbar, plastic

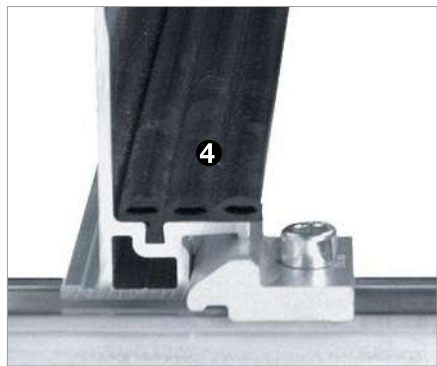
Ba = Outer e-chain® width
 Bi = Inner e-chain® width
 ha = e-chain® outer height
 H_{Ri} = Trough inner height
 H_{Ra} = Trough outer height
 B_{Ri} = Trough inner width
 B_{Ra} = Trough outer width



Simple fastening with basic bottom clamp and C-profile.



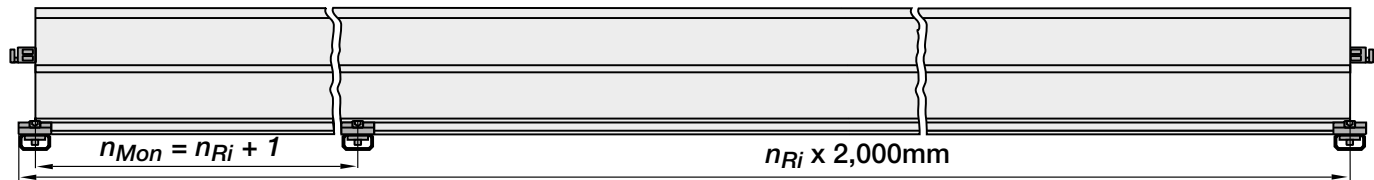
Wear-reducing due to glide bars and glide strips.



Optional noise dampening strip for additional noise reduction.

Configured according to your requirements

- Quickly and easily assemble the right aluminium SuperTrough for your application**
- Selection of the suitable guide trough according to the e-chain® series and e-chain® width Bi
 - Determine the feed-in point of the cables
 - Determine travel distance and thus the length of the required guide trough and the number of trough sections. (standard length of a trough side part: 2,000mm). For centre infeed, the length of the guide trough is calculated from half the travel length with and half the travel length without the glide bar
 - Option: "Sound dampening" with noise dampening strip
 - Number and type of the installation set - there are two installation set options: basic, standard and heavy-duty
 - The installation set matches the igus® C-profile option
 - If you have opted for an e-chain® with KMA mounting brackets, we offer a fixed end module for the quick and simple fastening of the e-chain® in the trough without drilling



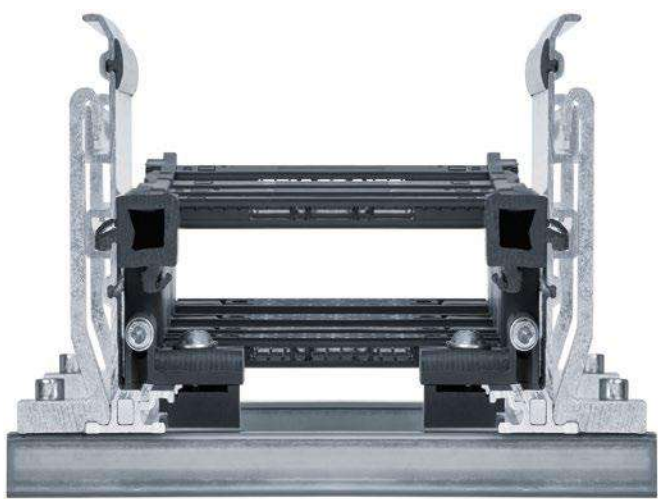
The quantity of the installation set is calculated from the number of the trough sections + 1 set.
Installation guide PDF with detailed assembly information ► www.igus.eu/installation-guide-pdf.

Order example | Examples based on Part No. 973.30.SL | 973.31.SL

Order example: length of travel 30m -centre fixed for series 3500.100.200.0 with $B_{Ri} = 124$	
1 set of 2 trough side parts, incl. glide strips, without glide bars	973.30.SL
Order text: 16m guide trough without glide bars (8 sets of 2 off 2m sections)	
1 set of 2 trough side parts, incl. glide strips, with glide bars	973.31.SLH
Order text: 16m guide trough with glide bars (8 sets of 2 off 2m sections)	
Installation set basic complete (quantity: guide trough sets + 1)	960.40.175
Order text: 17 installation sets, basic	
Option: For additional noise dampening strip	973.30.SLA
Please add index A	
Option: Fixed end module for a quick and easy mounting	973.80.5
Order text: 1 set	
Option: Trough clip for fixed cable installation on the outside of the trough	SLC.40.17
Order text: 30 pieces	

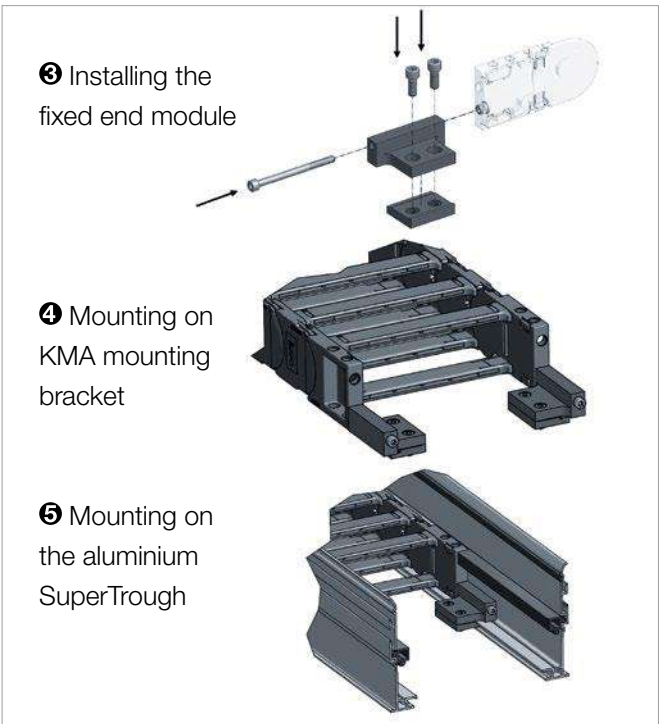
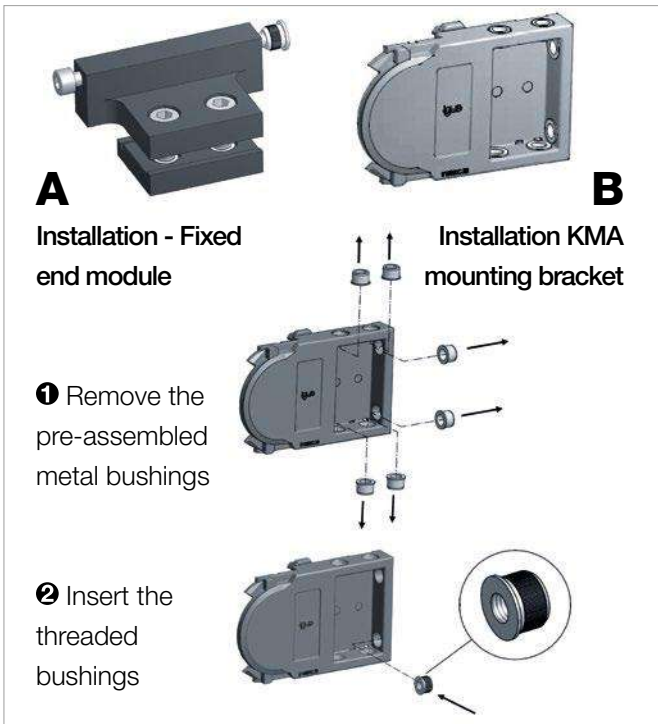
Calculation - travel centre fixed: half travel length, rounded to full 2m sections = X m.
Guide trough length without glide bars + X m guide trough length with glide bars + installation set, basic (number of trough sets + 1)

Fixed end module

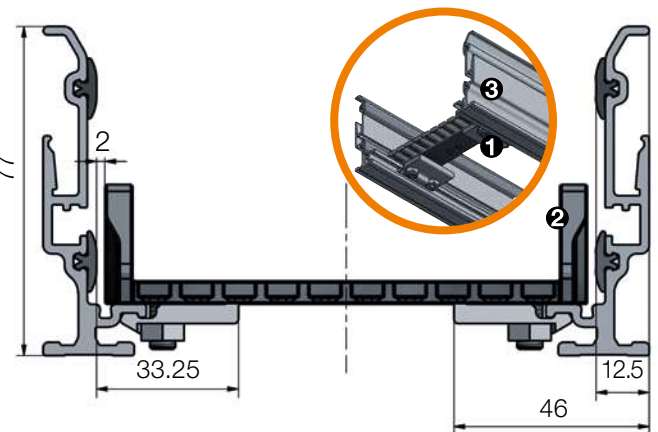


Optimised fixed end module - lightweight, low-cost, for connection of the e-chain® in aluminium SuperTrough

- Quick and simple fastening onto the aluminium SuperTrough
- Mounting bracket attachment on the aluminium SuperTrough without drilling
- Fixed end module is clamped to the trough
- Save installation time
- Minimise errors from drilling your own holes
- Stainless and cost-effective



Fixed end clamp



Fixed end clamp to attach the e-chain® into the smallest aluminium SuperTrough 970.30.SL

- For mounting brackets from series: 10, 015/ R15, B15, E2.17/E2C.17, E2.21/E2C.21, 1500
- Quick and simple attachment by clamping onto the aluminium SuperTrough without drilling
- The mounting point of the e-chain® can be changed quickly
- 1 Fixed end clamp 970.80
- 2 Mounting bracket
- 3 Aluminium SuperTrough 970.30.SL

Fixed end module | Fixed end clamp | Product range

Part No.	For aluminium SuperTroughs	For e-chains® series	From ≥ Bi [mm]	Mounting bracket
970.80 ¹⁾	970.30.SL / 970.31.SL	15/R15 ³⁾ , E2.17/E2C.17, 10, B15	050	one-piece
970.80 ¹⁾	970.30.SL / 970.32.SL	E2.21/E2C.21 ³⁾ , 1500 ³⁾	050	one-piece
971.80.4	971.30.SL / 971.31.SL	E2.26/E2C.26, 2500, 255, E6.29	07	KMA
971.80.4	972.02.30.SL / 972.02.31.SL	E4.31L/R4.31	06	KMA
972.80.4	972.02.30.SL / 972.02.31.SL	E4.28/R4.28, E6.35	06	KMA
972.80.4	972.30.SL / 972.31.SL	E4Q.34/H4Q.34, E4.32/H4.32/R4.32, E4.38L/R4.38L, E6.40/R6.40	06	KMA
972.80.4	972.30.SL / 972.32.SL	E2.38/E2C.38, 2700, R58	06	KMA
973.81.5	973.30.SL / 973.31.SLH	E4Q.44/H4Q.44, E4.42/H4.42/R4.42, E4.48L/R4.48L, E6.52/R6.52	10	KMA
973.80.5	973.30.SL / 973.31.SLH	E2.48, 3500, R68	100	KMA
974.81.5	974.30.SL / 974.31.SLH	E4.64L, 14040/14140/R18840, 14240/14340	10	KMA
974.80.5	974.30.SL / 974.31.SLH	E4Q.58/H4Q.58, E4.56/H4.56/R4.56, E6.62	10	KMA
975.80 ²⁾	975.30.SL / 975.31.SLH	E4Q.82/H4Q.82, E4.80/H4.80/R4.80, E6.80	10	KMA
975.81 ²⁾	975.30.SL / 975.31.SLH	15050/15150/R19850, 15250/15350	10	KMA

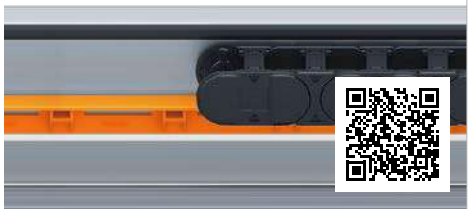
1) Material: polymer 2) Material: Aluminium AlMg3, seawater resistant 3) Fixed end clamp
Material screw kits: Standard steel, galvanised.
Optional: 316 stainless steel, material 1.4571 (AISI 316Ti). Standard: galvanised steel



Fixed end module - simple fastening of the e-chain® without drilling.

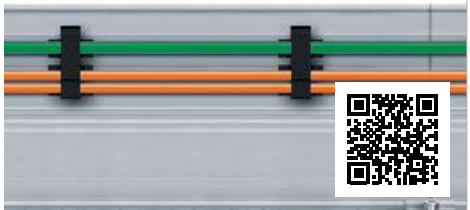
High-speed glide bar - Part No. GB.31.500

- Easy to assemble and low-abrasion for higher speeds
- 5x the abrasion resistance thanks to tribologically optimised material - compared to standard glide bars
- For particularly fast, gliding applications
- For aluminium SuperTrough Part No. 973.31.SLH, 974.31.SLH, 975.31.SLH

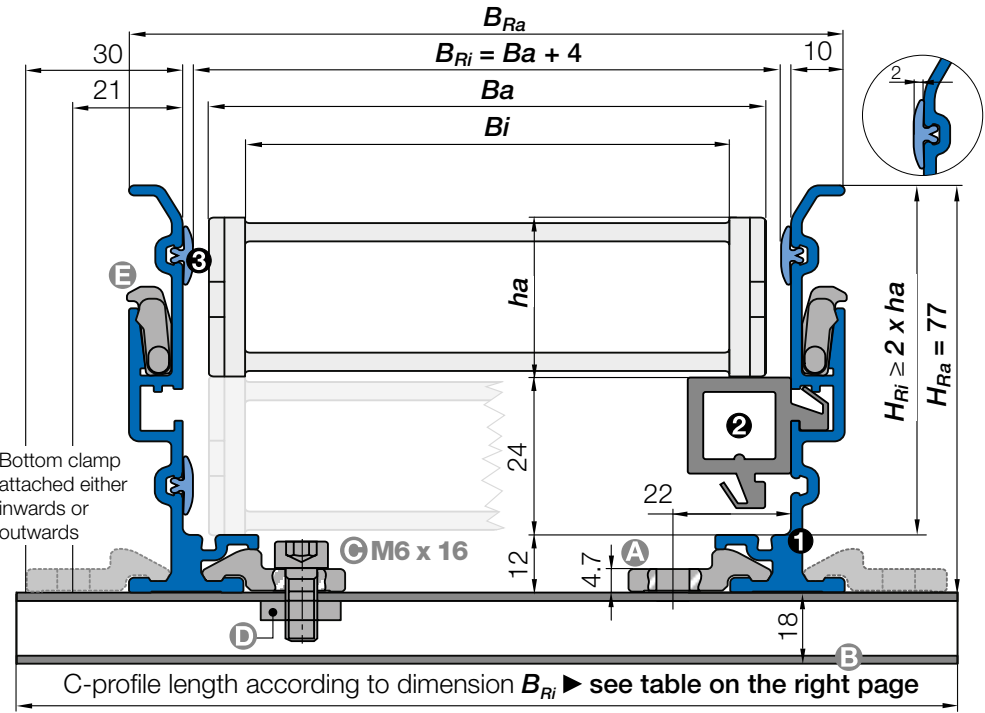


Trough clip - Part No. SLC.40.17

- The trough clip is a cable guide for the static cable run on the outside of an aluminium SuperTrough.
- For centre fixed e-chains®, the cables can simply be guided to the fixed end outside the trough
- Suitable for all aluminium SuperTroughs except 970.30 / .31 / .32



Product range | Trough height: 77mm



For the following series

E2.1 micro

- E2.17/E2C.17

E2 mini

- 10
- B15

zipper

- 15
- R15

Note: The inner width of the guide through and the C-profile length of the installation set can differ according to the bracket you choose. Please call us.

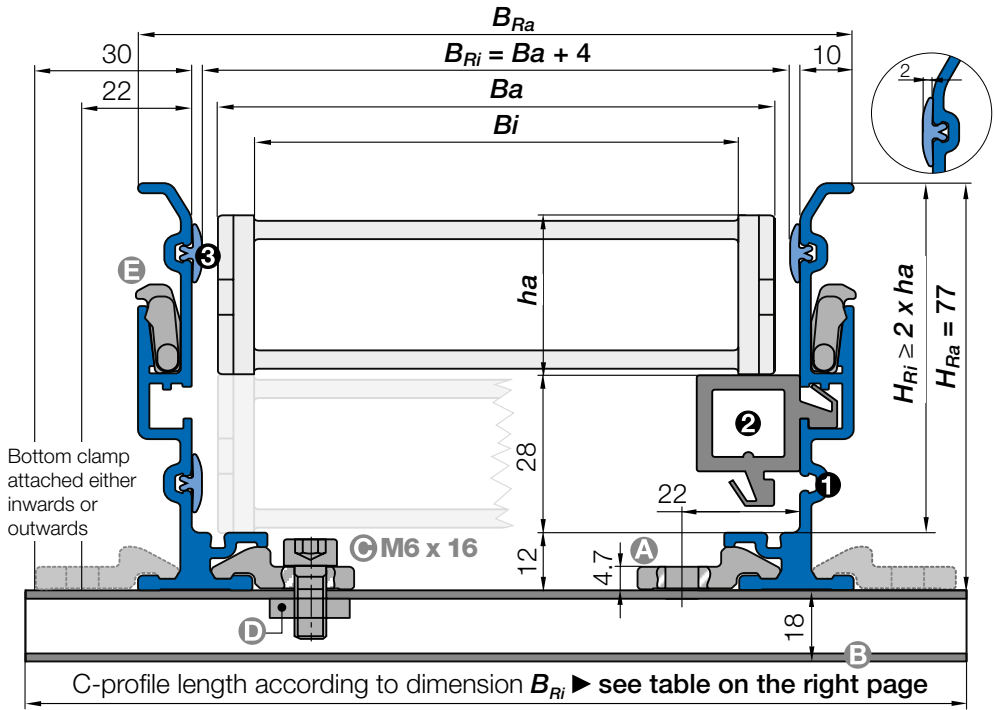
Full sets	Full trough side part sets ❶ ❷ ❸ ❹ (2m pieces each)		Part No.	Weight
	1 set with 2 trough side parts, incl. glide strips, without glide bars		970.30.SL	≈ 4.20kg
	1 set with 2 trough side parts including Glide strips, with glide bars		970.31.SL ²⁾	≈ 4.90kg
	2) 1 set of 2 trough side parts, incl. glide strips, with high-speed glide bars, upon request.			
	Full installation set ❶ ❷ ❸ ❹ ❺		Part No.	Weight
1 installation set without C-profile		960.30	≈ 0.06kg	
1 installation set with C-profile (C-profile length according to dimension B_{Ri})		960.30. XXX ³⁾	upon request	
3) Please add the C-profile length XXX as shown on the tables. Example: Part No. 960.30.125				

Individual parts	Components as individual parts, trough		Part No.	Weight
	❶	1 trough side part, 2m section	70.11	≈ 2.04kg
	❷	1 glide bar, 2m section	81.79 ⁴⁾	≈ 0.42kg
	❸	1 glide strip, plastic, 2m section	75.01	≈ 0.06kg
	4) High-speed glide bars, upon request.			
Individual parts	Components as individual parts, installation set		Part No.	Weight
	❶	1 bottom clamp, aluminium individual	75.40	≈ 0.03kg
	❷	1 C-profile, individual (C-profile length according to dimension B_R)	92.52. XXX .E ⁵⁾	≈ 0.90kg/m
	❸	1 screw M6 x 16, individual	MAT 0040209 / M6 x 16	
	❹	1 glide nut, individual	MAT 0040057 / M6	
	❺	1 interface connector, individual	75.60	
5) Please add the C-profile length XXX as shown on the tables. Example: Part No. 92.52.125.E . For stainless steel, please add index.E.				

Option	Additional options for simple fastening without drilling		Part No.
	1 fixed end module set - to attach the e-chain® into the aluminium SuperTrough		970.80

E2.17/E2C.17				10				B15				15				R15			
Width index	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards	Width index	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards	Width index	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards	Width index	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards	Width index	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards
.015	30	upon request	960.30.125	.015	30	upon request	960.30.125	.015	30	upon request	960.30.125	.015	30	upon request	960.30.125	.025	40	upon request	960.30.150
.025	40	upon request	960.30.150	.025	40	upon request	960.30.150	.025	40	upon request	960.30.150	.025	40	upon request	960.30.150	.038	53	upon request	960.30.150
.038	53	upon request	960.30.150	.038	53	upon request	960.30.150	.038	53	upon request	960.30.150	.038	53	upon request	960.30.150	.063	80	960.30.125	960.30.175
.050	65	960.30.125	960.30.175	.050	65	960.30.125	960.30.175	.050	65	960.30.125	960.30.175	.050	65	960.30.125	960.30.175	.080	98	960.30.150	960.30.200
.063	78	960.30.125	960.30.175	.5	80	960.30.125	960.30.175	.5	80	960.30.125	960.30.175	.5	80	960.30.125	960.30.175				
.080	95	960.30.150	960.30.200	.6	98	960.30.150	960.30.200	.6	98	960.30.150	960.30.200	.6	98	960.30.150	960.30.200				
.100	115	960.30.175	960.30.225	.7	117	960.30.175	960.30.225	.7	117	960.30.175	960.30.225	.7	117	960.30.175	960.30.225				

Product range | Trough height: 77mm



For the following series

E2.1

● E2.21/E2C.21

E2/000

● 1500

E4.1

● E4.21

Note: The inner width of the guide through and the C-profile length of the installation set can differ according to the bracket you choose. Please call us.

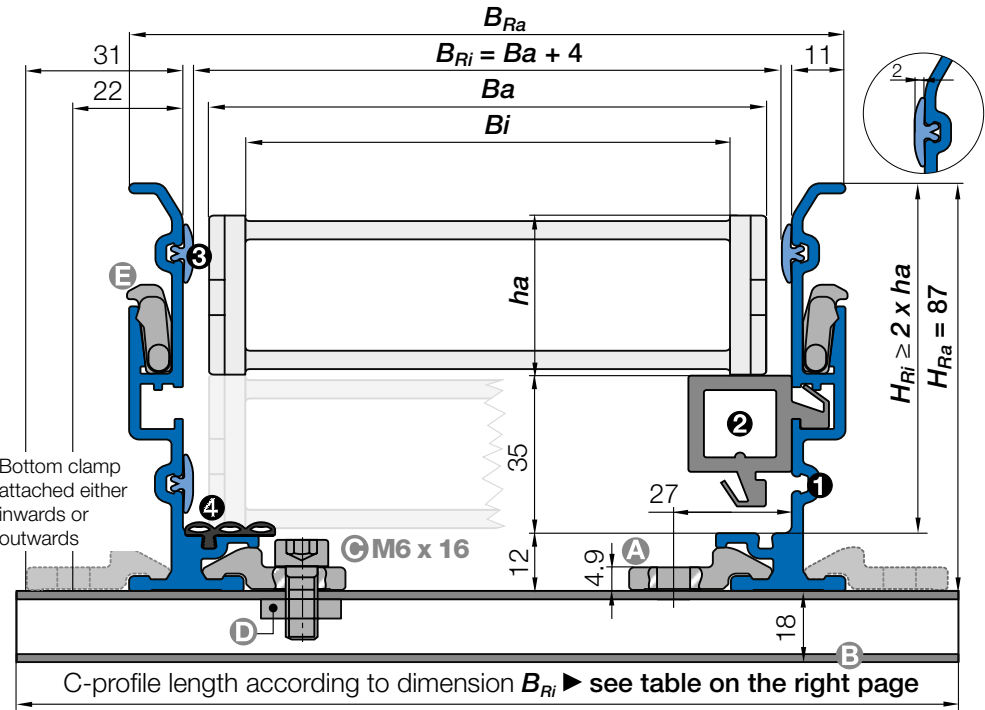
E2.21/E2C.21				1500				E4.21			
Width index	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards	Width index	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards	Width index	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards
.015	33	upon request	960.30.125	.015	33	upon request	960.30.125	.030	48	upon request	960.30.150
.020	38	upon request	960.30.125	.020	38	upon request	960.30.125	.040	58	960.30.125	960.30.150
.025	43	upon request	960.30.150	.025	43	upon request	960.30.150	.050	68	960.30.125	960.30.175
.038	56	upon request	960.30.150	.038	56	upon request	960.30.150	.060	78	960.30.125	960.30.175
.050	68	960.30.125	960.30.175	.050	68	960.30.125	960.30.175	.070	88	960.30.150	960.30.175
.068	86	960.30.150	960.30.175	.068	86	960.30.150	960.30.175	.080	98	960.30.150	960.30.200
.080	98	960.30.150	960.30.200	.080	98	960.30.150	960.30.200	.090	108	960.30.175	960.30.200
.100	118	960.30.175	960.30.225	.100	118	960.30.175	960.30.225	.100	118	960.30.175	960.30.225
.125	143	960.30.200	960.30.250	.125	143	960.30.200	960.30.250	.110	128	960.30.175	960.30.225
								.120	138	960.30.200	960.30.225
								.140	158	960.30.225	960.30.250

Full sets	Full trough side part sets ❶ ❷ ❸ ❹ (2m pieces each)		Part No.	Weight
	1 set with 2 trough side parts, incl. glide strips, without glide bars		970.30.SL	≈ 4.20kg
	1 set with 2 trough side parts including Glide strips, with glide bars		970.32.SL ²⁾	≈ 5.00kg
	2) 1 set of 2 trough side parts, incl. glide strips, with high-speed glide bars, upon request.			
	Full installation set ❶ ❷ ❸ ❹ ❺		Part No.	Weight
1 installation set without C-profile		960.30	≈ 0.06kg	
1 installation set with C-profile (C-profile length according to dimension B_{Ri})		960.30. XXX ³⁾	upon request	
3) Please add the C-profile length XXX as shown on the tables. Example: Part No. 960.30.125				

Individual parts	Components as individual parts, trough		Part No.	Weight
	❶	1 trough side part, 2m section	70.11	≈ 2.04kg
	❷	1 glide bar, 2m section	81.79 ⁴⁾	≈ 0.42kg
	❸	1 glide strip, plastic, 2m section	75.01	≈ 0.06kg
	4) High-speed glide bars, upon request.			
	Components as individual parts, installation set		Part No.	Weight
	❶	1 bottom clamp, aluminium individual	75.40	≈ 0.03kg
	❷	1 C-profile, individual (C-profile length according to dimension B_R)	92.52. XXX .E ⁵⁾	≈ 0.90kg/m
	❸	1 screw M6 x 16, individual	MAT 0040209 / M6 x 16	
	❹	1 glide nut, individual	MAT 0040057 / M6	
	❺	1 interface connector, individual	75.60	
5) Please add the C-profile length XXX as shown on the tables. Example: Part No. 92.52.125.E . For stainless steel, please add index.E.				

Option	Additional options for simple fastening without drilling		Part No.
	1 fixed end module set - to attach the e-chain® into the aluminium SuperTrough		970.80

Product range | Trough height: 87mm



For the following series

- E2.1
 - E2.26
- E2/000
 - 2500
 - 255
- E2 R
 - R48
- E6
 - E6.29/R6.29

Note: The inner width of the guide through and the C-profile length of the installation set can differ according to the bracket you choose. Please call us.

Full sets	Full trough side part sets ❶ ❷ ❸ ❹ (2m pieces each)		Part No.	Weight
	1 set with 2 trough side parts, incl. glide strips, without glide bars		971.30.SLA ¹⁾	≈ 5.00kg
	1 set with 2 trough side parts including Glide strips, with glide bars		971.31.SL ²⁾	≈ 6.40kg
	1) For additional noise dampening strip, please add index A to the Part No. Example: Part No. 971.30.SLA			
	2) 1 set of 2 trough side parts, incl. glide strips, with high-speed glide bars, upon request.			
	Full installation set ❶ ❷ ❸ ❹ ❺		Part No.	Weight
1 installation set without C-profile		960.30	≈ 0.06kg	
1 installation set with C-profile (C-profile length according to dimension <i>B_{Ri}</i>)		960.30. XXX ³⁾	upon request	
3) Please add the C-profile length XXX as shown on the tables. Example: Part No. 960.30.150				

Individual parts	Components as individual parts, trough		Part No.	Weight
	❶	1 trough side part, 2m section	71.11	≈ 2.44kg
	❷	1 glide bar, 2m section	82.79 ⁴⁾	≈ 0.60kg
	❸	1 glide strip, plastic, 2m section	75.01	≈ 0.06kg
	❹	1 noise dampening strip, 2m section	75.67.H.2000	≈ 0.16kg
	4) High-speed glide bars, upon request.			
Individual parts	Components as individual parts, installation set		Part No.	Weight
	❶	1 bottom clamp, aluminium individual	75.40	≈ 0.03kg
	❷	1 C-profile, individual (C-profile length according to dimension B_{Rn})	92.52. XXX .E ⁵⁾	≈ 0.90kg/m
	❸	1 screw M6 x 16, individual	MAT 0040209 / M6 x 16	
	❹	1 glide nut, individual	MAT 0040057 / M6	
	❺	1 interface connector, individual	75.60	
5) Please add the C-profile length XXX as shown on the tables. Example: Part No. 92.52.150.E . For stainless steel, please add index E .				

Options	Additional options for simple fastening without drilling		Part No.
	1 fixed end module set - to attach the e-chain® into the aluminium SuperTrough		971.80.4
Trough clip - for guiding cables on the outside of a aluminium SuperTrough			SLC.40.17

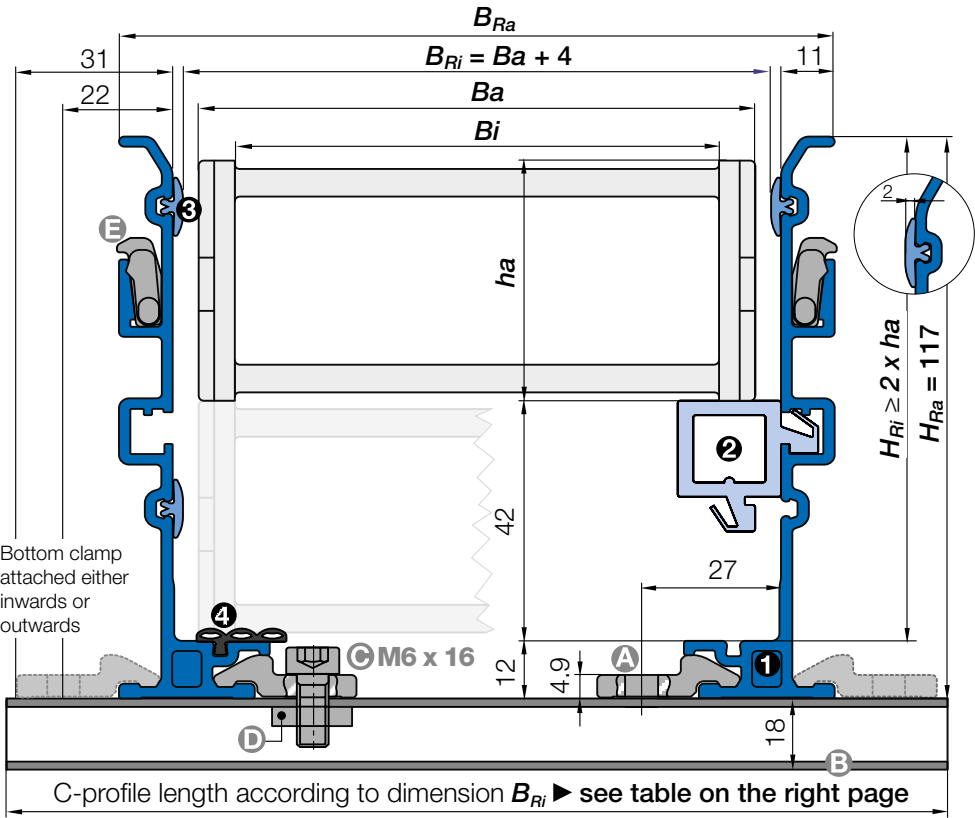
E2C.26				2500				255				R48				E6.29/R6.29			
Width index	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards	Width index	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards	Width index	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards	Width index	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards	Width index	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards
.025	46	upon request	960.30.150	.02	45	upon request	960.30.150	.03	58	upon request	960.30.150	.025	40	upon request	960.30.150	.030	50	upon request	960.30.150
.038	59	upon request	960.30.150	.03	58	upon request	960.30.150	.05	77	960.30.125	960.30.175	.050	65	upon request	960.30.175	.040	60	upon request	960.30.175
.057	78	960.30.125	960.30.175	.05	77	960.30.125	960.30.175	.07	97	960.30.150	960.30.200	.075	90	960.30.150	960.30.200	.050	70	upon request	960.30.175
.077	98	960.30.150	960.30.200	.07	97	960.30.150	960.30.200	.10	123	960.30.175	960.30.225	.100	115	960.30.175	960.30.225	.060	80	960.30.150	960.30.175
.089	110	960.30.175	960.30.225	.09	109	960.30.175	960.30.225					.130	145	960.30.200	960.30.250	.070	90	960.30.150	960.30.200
.103	124	960.30.175	960.30.225	.10	123	960.30.175	960.30.225									.080	100	960.30.150	960.30.200
.125	146	960.30.200	960.30.250	.12	145	960.30.200	960.30.250									.090	110	960.30.175	960.30.225
																.100	120	960.30.175	960.30.225
																.110	130	960.30.200	960.30.225
																.120	140	960.30.200	960.30.250
																.140	160	960.30.225	960.30.250

Heavy-duty version for high load applications

- This aluminium SuperTrough is also available for plant manufacturing with special heavy-duty brackets for secure connection
- The installation sets are fastened outside on the guide trough
- Installation set Part No. 971.50.



Product range | Trough height: 117mm



For the following series

E4.1

● E4.28/R4.28

E4.1L

● E4.31L/R4.31L

E6

● E6.35

Note: The inner width of the guide through and the C-profile length of the installation set can differ according to the bracket you choose. Please call us.

Full sets	Full trough side part sets ① ② ③ ④ (2m pieces each)		Part No.	Weight
	1 set with 2 trough side parts, incl. glide strips, without glide bars		972.02.30.SLA ¹⁾	≈ 6.00kg
	1 set with 2 trough side parts including Glide strips, with glide bars		972.02.31.SL ²⁾	≈ 7.40kg
	1) For additional noise dampening strip, please add index A to the Part No. Example: Part No. 972.02.30.SLA			
	2) 1 set of 2 trough side parts, incl. glide strips, with high-speed glide bars, upon request.			
Full sets	Full installation set ⑤ ⑥ ⑦ ⑧ ⑨		Part No.	Weight
	1 installation set without C-profile		960.30	≈ 0.06kg
	1 installation set with C-profile (C-profile length according to dimension B_{Ri})		960.30.XXX ³⁾	upon request
	3) Please add the C-profile length XXX as shown on the tables. Example: Part No. 960.30.175			

Individual parts	Components as individual parts, trough		Part No.	Weight
	① 1 trough side part, 2m section		72.11.02	≈ 2.94kg
	② 1 glide bar, 2m section		82.79 ⁴⁾	≈ 1.30kg
	③ 1 glide strip, plastic, 2m section		75.01	≈ 0.06kg
	④ 1 noise dampening strip, 2m section		75.67.H.2000	≈ 0.16kg
Individual parts	Components as individual parts, installation set		Part No.	Weight
	⑤ 1 bottom clamp, aluminium individual		75.40	≈ 0.03kg
	⑥ 1 C-profile, individual (C-profile length according to dimension B_{Ri})		92.52.XXX.E ⁵⁾	≈ 0.90kg/m
	⑦ 1 screw M6 x 16, individual		MAT 0040209 / M6 x 16	
	⑧ 1 glide nut, individual		MAT 0040057 / M6	
Options	⑨ 1 interface connector, individual		75.60	
	5) Please add the C-profile length XXX as shown on the tables. Example: Part No. 92.52.175.E . For stainless steel, please add index E .			

Options	Additional options for simple fastening without drilling		Part No.
	1 fixed end module set - to attach the e-chain® into the aluminium SuperTrough		971.80.4 ^{A)} / 972.80.4 ^{B)}
	Trough clip - for guiding cables on the outside of a aluminium SuperTrough		SLC.40.17
	A) Fixed end module 971.80.4 for series E4.31L/R4.31L / B) Fixed end module 972.80.4 for series E4.28/R4.28 and E6.35		

E4.28/R4.28				E4.31L/R4.31L				E6.35			
Width index	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards	Width index	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards	Width index	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards
.040	64	upon request	960.30.175	.040	58	upon request	960.30.150	.030	54	upon request	960.30.150
.050	74	960.30.125	960.30.175	.050	68	upon request	960.30.175	.040	64	upon request	960.30.175
.052	76	960.30.125	960.30.175	.062	80	960.30.150	960.30.175	.050	74	960.30.125	960.30.175
.062	86	960.30.150	960.30.200	.075	93	960.30.150	960.30.200	.060	84	960.30.150	960.30.200
.070	94	960.30.150	960.30.200	.087	105	960.30.175	960.30.200	.070	94	960.30.150	960.30.200
.075	99	960.30.150	960.30.200	.100	118	960.30.175	960.30.225	.080	104	960.30.150	960.30.200
.087	111	960.30.175	960.30.225	.112	130	960.30.200	960.30.225	.090	114	960.30.175	960.30.225
.100	124	960.30.175	960.30.225	.125	143	960.30.200	960.30.250	.100	124	960.30.175	960.30.225
.125	149	960.30.200	960.30.250	.137*	155	960.30.225	960.30.250	.110	134	960.30.200	960.30.250
.150	174	960.30.225	960.30.275	.150	168	960.30.225	960.30.275	.120	144	960.30.200	960.30.250
.175	199	960.30.250	960.30.300	.162	180	960.30.250	960.30.275	.140	164	960.30.225	960.30.275
.200	224	960.30.275	960.30.325	.175	193	960.30.250	960.30.300				
.225	249	960.30.300	960.30.350	.187*	205	960.30.275	960.30.300				
.250	274	960.30.325	960.30.375	.200*	218	960.30.275	960.30.325				
.275	299	960.30.350	960.30.400								
.300	324	960.30.375	960.30.425								

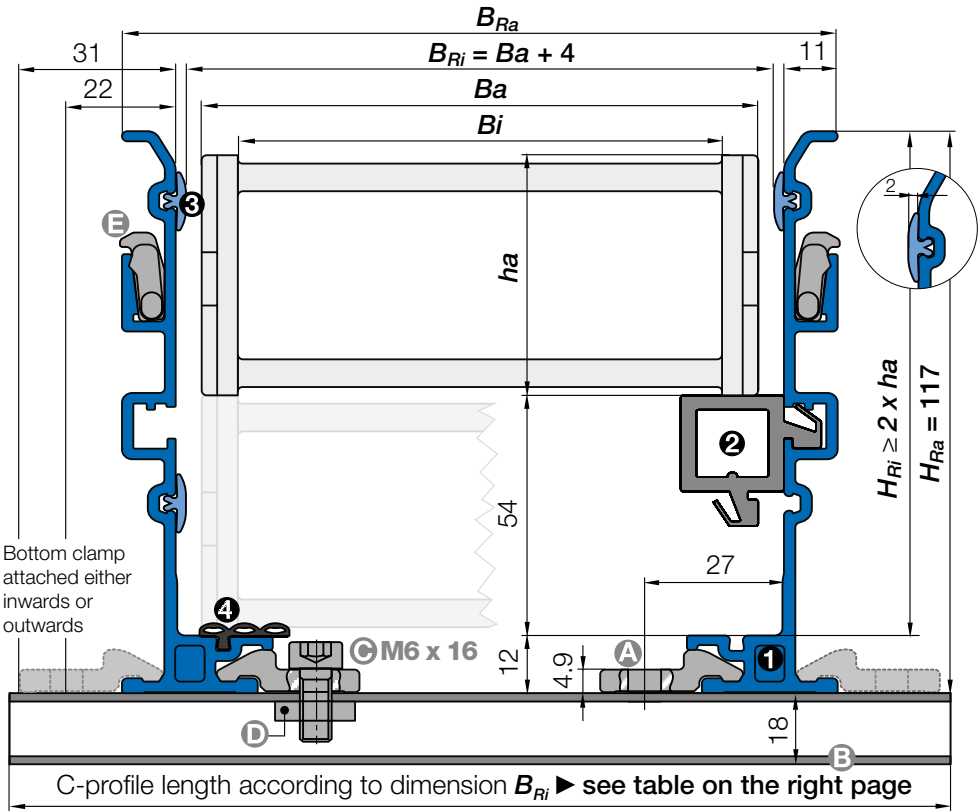
* Available upon request.

Heavy-duty version for high load applications

- This aluminium SuperTrough is also available for plant manufacturing with special heavy-duty brackets for secure connection
- The installation sets are fastened outside on the guide trough
- Installation set Part No. 972.50.



Product range | Trough height: 117mm



For the following series

E4Q

● E4Q.34/H4Q.34

E4.1

● E4.32/H4.32/R4.32

E4.1L

● E4.38L/R4.38L

E6

● E6.40/R6.40

Note: The inner width of the guide through and the C-profile length of the installation set can differ according to the bracket you choose. Please call us.

Full sets	Full trough side part sets ❶ ❷ ❸ ❹ (2m pieces each)		Part No.	Weight
	1 set with 2 trough side parts, incl. glide strips, without glide bars		972.30.SLA ¹⁾	≈ 6.00kg
	1 set with 2 trough side parts including Glide strips, with glide bars		972.31.SL ²⁾	≈ 7.40kg
	1) For additional noise dampening strip, please add index A to the Part No. Example: Part No. 972.30.SLA			
	2) 1 set of 2 trough side parts, incl. glide strips, with high-speed glide bars, upon request.			
Individual parts	Full installation set A B C D E		Part No.	Weight
	1 installation set without C-profile		960.30	≈ 0.06kg
	1 installation set with C-profile (C-profile length according to dimension <i>B_{Ri}</i>)		960.30. XXX ³⁾	upon request
	3) Please add the C-profile length XXX as shown on the tables. Example: Part No. 960.30.150			
	Individual parts	Components as individual parts, trough		Part No.
❶ 1 trough side part, 2m section		72.11	≈ 2.94kg	
❷ 1 glide bar, 2m section		82.79 ⁴⁾	≈ 0.60kg	
❸ 1 glide strip, plastic, 2m section		75.01	≈ 0.06kg	
❹ 1 noise dampening strip, 2m section		75.67.H.2000	≈ 0.16kg	
4) High-speed glide bars, upon request.				
Components as individual parts, installation set		Part No.	Weight	
❶ 1 bottom clamp, aluminium individual		75.40	≈ 0.03kg	
❷ 1 C-profile, individual (C-profile length according to dimension <i>B_{Ri}</i>)		92.52. XXX . E ⁵⁾	≈ 0.90kg/m	
❸ 1 screw M6 x 16, individual		MAT 0040209 / M6 x 16		
❹ 1 glide nut, individual		MAT 0040057 / M6		
❺ 1 interface connector, individual		75.60		
5) Please add the C-profile length XXX as shown on the tables. Example: Part No. 92.52.175.E . For stainless steel, please add index E .				
Options	Additional options for simple fastening without drilling		Part No.	
	1 fixed end module set - to attach the e-chain® into the aluminium SuperTrough		972.80.4	
	Trough clip - for guiding cables on the outside of a aluminium SuperTrough		SLC.40.17	

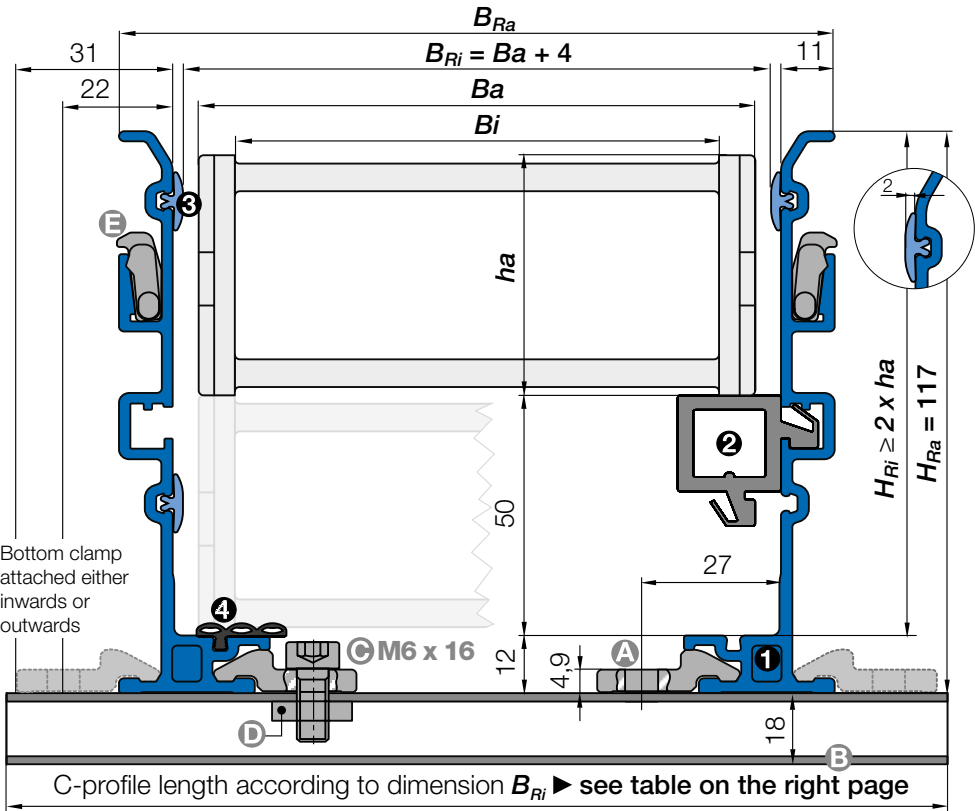
E4Q.34/H4Q.34				E4.32/H4.32/R4.32				E4.38L/R4.38L				E6.40/R6.40			
Width index	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards	Width index	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards	Width index	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards	Width index	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards
.075	102	960.30.150	960.30.200	.05	77	960.30.125	960.30.175	.050	70	upon request	960.30.200	.040	64	upon request	960.30.175
.087	114	960.30.175	960.30.225	.06	95	960.30.150	960.30.200	.062	82	upon request	960.30.200	.050	74	960.30.125	960.30.175
.100	127	960.30.175	960.30.225	.07	102	960.30.150	960.30.200	.075	95	upon request	960.30.225	.052	76	960.30.125	960.30.175
.108	135	960.30.200	960.30.250	.087	114	960.30.175	960.30.225	.087	107	upon request	960.30.225	.062	86	960.30.150	960.30.200
.112	140	960.30.200	960.30.250	.097	114	960.30.175	960.30.225	.100	120	960.30.175	960.30.250	.070	94	960.30.150	960.30.200
.125	152	960.30.200	960.30.250	.10	127	960.30.175	960.30.225	.105	125	960.30.175	960.30.250	.075	99	960.30.150	960.30.200
.137	165	960.30.225	960.30.275	.11	135	960.30.200	960.30.250	.112	132	960.30.200	960.30.250	.087	111	960.30.175	960.30.225
.150	177	960.30.225	960.30.275	.112	140	960.30.200	960.30.250	.125	145	960.30.200	960.30.275	.100	124	960.30.175	960.30.225
.162	190	960.30.250	960.30.300	.12	152	960.30.200	960.30.250	.137	157	960.30.225	960.30.275	.125	149	960.30.200	960.30.250
.168	195	960.30.250	960.30.300	.137	165	960.30.225	960.30.275	.150	170	960.30.225	960.30.300	.150	174	960.30.225	960.30.275
.175	202	960.30.250	960.30.300	.15	177	960.30.225	960.30.275	.162	182	960.30.250	960.30.300	.175	199	960.30.250	960.30.300
.187	215	960.30.275	960.30.325	.162	190	960.30.250	960.30.300	.175	195	960.30.250	960.30.325	.200	224	960.30.275	960.30.325
.200	227	960.30.275	960.30.325	.17	195	960.30.250	960.30.300	.187	207	960.30.275	960.30.325	.225	249	960.30.300	960.30.350
.212	240	960.30.300	960.30.350	.18	202	960.30.250	960.30.300	.200	220	960.30.275	960.30.350	.250	274	960.30.325	960.30.375
.225	252	960.30.300	960.30.350	.187	215	960.30.275	960.30.325	.212	232	960.30.300	960.30.350	.275	299	960.30.350	960.30.400
.237	265	960.30.325	960.30.375	.20	227	960.30.275	960.30.325	.225	245	960.30.300	960.30.375	.300	324	960.30.375	960.30.425
.250	277	960.30.325	960.30.375	.212	240	960.30.300	960.30.350	.237	257	960.30.325	960.30.375				
.262	290	960.30.350	960.30.400	.23	252	960.30.300	960.30.350	.250	270	960.30.325	960.30.375				
.275	302	960.30.350	960.30.400	.237	265	960.30.325	960.30.375	.262	282	960.30.325	960.30.375				
.287	315	960.30.375	960.30.425	.25	277	960.30.325	960.30.375	.275*	295	960.30.350	960.30.400				
.300	327	960.30.375	960.30.425	.262	290	960.30.350	960.30.400	.287*	307	960.30.350	960.30.400				
.312*	340	960.30.400	960.30.450	.28	302	960.30.350	960.30.400	.300	320	960.30.375	960.30.425				
.325*	352	960.30.400	960.30.450	.29	315	960.30.375	960.30.425	* Available upon request.							
.337*	365	960.30.425	960.30.475	.30	327	960.30.375	960.30.425								
.350	377	960.30.425	960.30.475	.312	340	960.30.400	960.30.450								
.362*	390	960.30.450	960.30.500	.325	352	960.30.400	960.30.450								
.375	402	960.30.450	960.30.500	.337	365	960.30.425	960.30.475								
.387	415	960.30.475	960.30.525	.350	377	960.30.425	960.30.475								
.400	427	960.30.475	960.30.525	.362	390	960.30.450	960.30.500								
* Available upon request.				.375	402	960.30.450	960.30.500								
				.387	415	960.30.475	960.30.525								
				.400	427	960.30.475	960.30.525								

Heavy-duty version for high load applications

- This aluminium SuperTrough is also available for plant manufacturing with special heavy-duty brackets for secure connection
- The installation sets are fastened outside on the guide trough
- Installation set Part No. 972.50.



Product range | Trough height: 117mm



For the following series

E2.1

● E2.38/E2C.38

E2/000

● 2700

E2 R

● R58

Note: The inner width of the guide through and the C-profile length of the installation set can differ according to the bracket you choose. Please call us.

Full sets	Full trough side part sets ① ② ③ ④ (2m pieces each)		Part No.	Weight
	1 set with 2 trough side parts, incl. glide strips, without glide bars		972.30.SLA ¹⁾	≈ 6.00kg
	1 set with 2 trough side parts including Glide strips, with glide bars		972.32.SL ²⁾	≈ 7.40kg
	1) For additional noise dampening strip, please add index A to the Part No. Example: Part No. 972.30.SLA 2) 1 set of 2 trough side parts, incl. glide strips, with high-speed glide bars, upon request.			
Full sets	Full installation set ⑤ ⑥ ⑦ ⑧ ⑨		Part No.	Weight
	1 installation set without C-profile		960.30	≈ 0.06kg
	1 installation set with C-profile (C-profile length according to dimension B_{Ri})		960.30. XXX ³⁾	upon request
	3) Please add the C-profile length XXX as shown on the tables. Example: Part No. 960.30.200			
Individual parts	Components as individual parts, trough		Part No.	Weight
	① 1 trough side part, 2m section		72.11	≈ 2.94kg
	② 1 glide bar, 2m section		82.79 ⁴⁾	≈ 0.60kg
	③ 1 glide strip, plastic, 2m section		75.01	≈ 0.06kg
	④ 1 noise dampening strip, 2m section		75.67.H.2000	≈ 0.16kg
	4) High-speed glide bars, upon request.			
	Components as individual parts, installation set		Part No.	Weight
	⑤ 1 bottom clamp, aluminium individual		75.40	≈ 0.03kg
	⑥ 1 C-profile, individual (C-profile length according to dimension B_{Ri})		92.52. XXX .E ⁵⁾	≈ 0.90kg/m
	⑦ 1 screw M6 x 16, individual		MAT 0040209 / M6 x 16	
Options	⑧ 1 glide nut, individual		MAT 0040057 / M6	
	⑨ 1 interface connector, individual		75.60	
	5) Please add the C-profile length XXX as shown on the tables. Example: Part No. 92.52.200.E . For stainless steel, please add index E .			
	Additional options for simple fastening without drilling		Part No.	
Options	1 fixed end module set - to attach the e-chain® into the aluminium SuperTrough		972.80.4	
	Trough clip - for guiding cables on the outside of a aluminium SuperTrough		SLC.40.17	

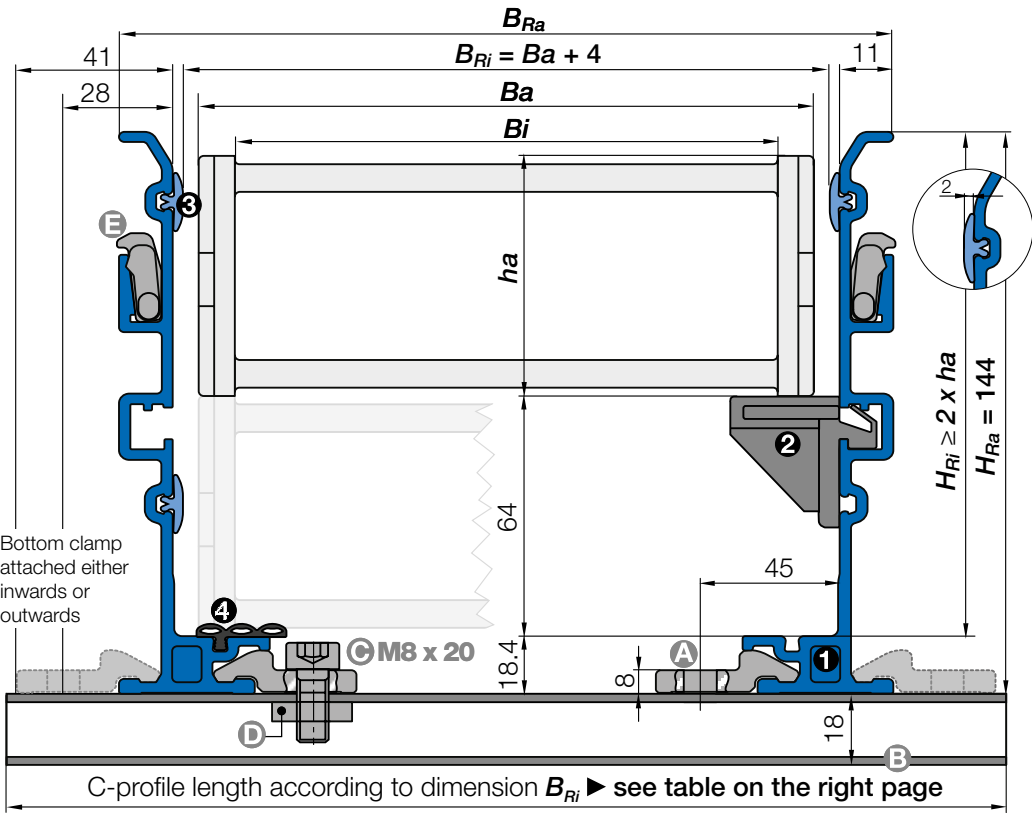
E2C.38/E2C.38				2700				R58			
Width index	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards	Width index	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards	Width index	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards
.050	71	upon request	960.30.175	.05	70	upon request	960.30.175	.050	70	upon request	960.30.175
.065	86	960.30.150	960.30.200	.06	85	960.30.150	960.30.200	.075	95	960.30.150	960.30.200
.075	96	960.30.150	960.30.200	.07	95	960.30.150	960.30.200	.100	120	960.30.175	960.30.225
.090	111	960.30.175	960.30.225	.09	110	960.30.175	960.30.225	.125	145	960.30.200	960.30.250
.100	121	960.30.175	960.30.225	.10	120	960.30.175	960.30.225	.150	170	960.30.225	960.30.275
.125	146	960.30.200	960.30.250	.12	145	960.30.200	960.30.250	.175	195	960.30.250	960.30.300
.150	171	960.30.225	960.30.275	.15	170	960.30.225	960.30.275	.200	220	960.30.275	960.30.325
.175	199	960.30.250	960.30.300	.17	198	960.30.250	960.30.300				

Heavy-duty version for high load applications

- This aluminium SuperTrough is also available for plant manufacturing with special heavy-duty brackets for secure connection
- The installation sets are fastened outside on the guide trough
- Installation set Part No. 972.50.



Product range | Trough height: 144mm



For the following series

- E2.1**
- E2.48
- E2/000**
- 3500
- E2 R**
- R68
- E4Q**
- E4Q.44/H4Q.44
- E4.1**
- E4.42/H4.42/R4.42
- E4.1L**
- E4.48L/R4.48L
- E6**
- E6.52/R6.52

Note: The inner width of the guide through and the C-profile length of the installation set can differ according to the bracket you choose. Please call us.

Full sets	Full trough side part sets ① ② ③ ④ (2m pieces each)	Part No.	Weight
	1 set with 2 trough side parts, incl. glide strips, without glide bars	973.30.SLA ¹⁾	≈ 8.00kg
	1 set with 2 trough side parts, incl. glide strips, with high-speed glide bars	973.31.SLH ²⁾	≈ 9.60kg
	1) For additional noise dampening strip, please add index A to the Part No. Example: Part No. 973.30.SLA		
	2) 1 set of 2 trough side parts, incl. glide strips and with standard glide bars is still available Part No. 973.31.SL		
Full installation set	Full installation set ① ② ③ ④ ⑤	Part No.	Weight
	1 installation set without C-profile	960.40	≈ 0.08kg
	1 installation set with C-profile (C-profile length according to dimension B_{Ri})	960.40. XXX ³⁾	upon request
	3) Please add the C-profile length XXX as shown on the tables. Example: Part No. 960.40.200		

Individual parts	Components as individual parts, trough		Part No.	Weight
	① 1 trough side part, 2m section		73.11	≈ 3.94kg
	② 1 high-speed glide bar, 0.5m.		GB.31.500 ⁴⁾	≈ 0.18kg
	③ 1 glide strip, plastic, 2m section		75.01	≈ 0.06kg
	④ 1 noise dampening strip, 2m section		75.68.H.2000	≈ 0.38kg
	4) Conventional glide bar as individual part, 2m piece still available, Part No. 83.79			
	Components as individual parts, installation set		Part No.	Weight
	① 1 bottom clamp, aluminium individual		75.50	≈ 0.04kg
	② 1 C-profile, individual (C-profile length according to dimension B_{Ri})		92.52. XXX . E ⁵⁾	≈ 0.90kg/m
	③ 1 screw M6 x 16, individual		MAT 0040445 / M8 x 20	
Options	④ 1 glide nut, individual		MAT 0040413 / M8	
	⑤ 1 interface connector, individual		75.60	
	5) Please add the C-profile length XXX as shown on the tables. Example: Part No. 92.52.200.E . For stainless steel, please add index .E .			
	Additional options for simple fastening without drilling		Part No.	
Options	1 fixed end module set - to attach the e-chain® into the aluminium SuperTrough		973.80.5 ^{A)} / 973.81.5 ^{B)}	
	Trough clip - for guiding cables on the outside of a aluminium SuperTrough		SLC.40.17	
A) For series: E2.48, 3500, R68 B) For series: E4Q.44/H4Q.44, E4.48L/R4.48L, E4.42/H4.42/R4.42, E6.52/R6.52				

E2.48				3500				R68				E4Q.44/H4Q.44				E4.42/H4.42/R4.42			
Width index	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards	Width index	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards	Width index	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards	Width index	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards	Width index	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards
.050	76	upon request	960.40.200	.050	74	upon request	960.40.200	.050	72	upon request	960.40.200	.075	105	upon request	960.40.225	.05	80	upon request	960.40.200
.075	101	upon request	960.40.225	.075	99	upon request	960.40.225	.075	97	upon request	960.40.225	.087	118	960.40.175	960.40.250	.06	98	upon request	960.40.225
.100	126	960.40.175	960.40.250	.100	124	960.40.175	960.40.250	.100	122	960.40.175	960.40.250	.100	130	960.40.200	960.40.250	.07	105	upon request	960.40.225
.115	141	960.40.200	960.40.275	.115	139	960.40.200	960.40.275	.115	137	960.40.200	960.40.275	.108	138	960.40.200	960.40.275	.087	118	960.40.175	960.40.250
.125	151	960.40.200	960.40.275	.125	149	960.40.200	960.40.275	.125	147	960.40.200	960.40.275	.112	143	960.40.200	960.40.275	.097	127	960.40.175	960.40.250
.150	176	960.40.225	960.40.300	.150	174	960.40.225	960.40.300	.150	172	960.40.225	960.40.300	.125	155	960.40.225	960.40.275	.10	130	960.40.200	960.40.250
.175	201	960.40.250	960.40.325	.175	199	960.40.250	960.40.325	.175	197	960.40.250	960.40.325	.137	168	960.40.225	960.40.300	.11	138	960.40.200	960.40.275
.200	226	960.40.275	960.40.350	.200	224	960.40.275	960.40.350	.200	222	960.40.275	960.40.350	.150	180	960.40.250	960.40.300	.112	143	960.40.200	960.40.275
.225	251	960.40.300	960.40.375	.225	249	960.40.300	960.40.375	.225	247	960.40.300	960.40.375	.162	193	960.40.250	960.40.325	.12	155	960.40.225	960.40.275
.250	276	960.40.325	960.40.400	.250	274	960.40.325	960.40.400	.250	272	960.40.325	960.40.400	.168	198	960.40.250	960.40.325	.137	168	960.40.225	960.40.300
												.175	205	960.40.275	960.40.325	.15	180	960.40.250	960.40.300
												.187	218	960.40.275	960.40.350	.162	193	960.40.250	960.40.325
												.200	230	960.40.300	960.40.350	.17	198	960.40.250	960.40.325
												.212	243	960.40.300	960.40.375	.18	205	960.40.275	960.40.325
												.225	255	960.40.325	960.40.375	.187	218	960.40.275	960.40.350
												.237	268	960.40.325	960.40.400	.20	230	960.40.300	960.40.350
												.250	280	960.40.350	960.40.400	.212	243	960.40.300	960.40.375
												.262	293	960.40.350	960.40.425	.23	255	960.40.325	960.40.375
												.275	305	960.40.375	960.40.425	.237	268	960.40.325	960.40.400
												.287	318	960.40.375	960.40.450	.25	280	960.40.350	960.40.400
												.300	330	960.40.400	960.40.450	.262	293	960.40.350	960.40.425
												.312*	343	960.40.400	960.40.475	.28	305	960.40.375	960.40.425
												.325*	355	960.40.425	960.40.475	.29	318	960.40.375	960.40.450
												.337*	368	960.40.425	960.40.500	.30	330	960.40.400	960.40.450
												.350	380	960.40.450	960.40.500	.312	343	960.40.400	960.40.475
												.362*	393	960.40.450	960.40.525	.325	355	960.40.425	960.40.475
												.375	406	960.40.475	960.40.525	.337	368	960.40.425	960.40.500
												.387	418	960.40.475	960.40.550	.350	380	960.40.450	960.40.500
												.400	430	960.40.500	960.40.550	.362	393	960.40.450	960.40.525
												* Available upon request.				.375	406	960.40.475	960.40.525
												.387	418	960.40.475	960.40.550	.387	418	960.40.475	960.40.550
												.400	430	960.40.500	960.40.550	.400	430	960.40.500	960.40.550

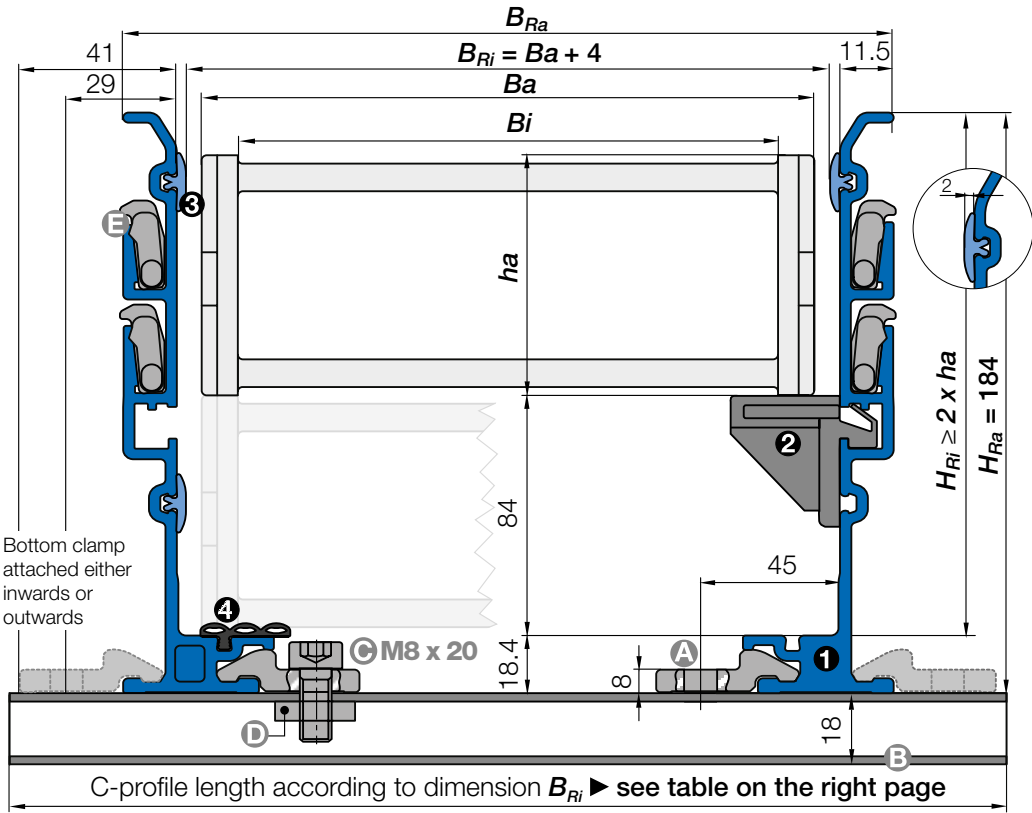
* Available upon request.

Heavy-duty version for high load applications

- This aluminium SuperTrough is also available for plant manufacturing with special heavy-duty brackets for secure connection
- The installation sets are fastened outside on the guide trough
- Installation set Part No. 973.50.



Product range | Trough height: 184mm



For the following series

- E4Q**
- E4Q.58/H4Q.58
- E4.1**
- E4.56/H4.56/R4.56
- E4.1L**
- E4.64L
- E4/light**
- 14240/14340
 - 14040/14140/R18840
- E6**
- E6.62
- E4/4HD****
- 4040HD/8840HD

Note: The inner width of the guide through and the C-profile length of the installation set can differ according to the bracket you choose. Please call us.

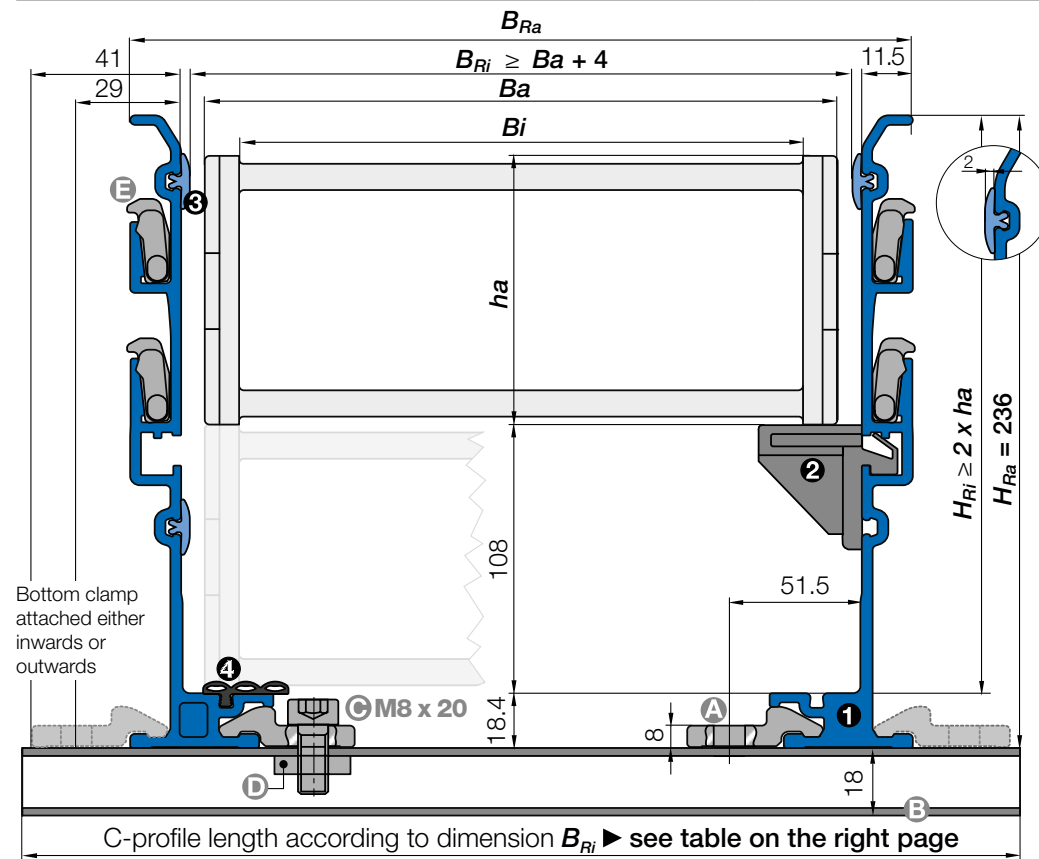
Full sets	Full trough side part sets ❶ ❷ ❸ ❹ (2m pieces each)	Part No.	Weight
	1 set with 2 trough side parts, incl. glide strips, without glide bars	974.30.SLA ¹⁾	≈ 10.0kg
	1 set with 2 trough side parts, incl. glide strips, with high-speed glide bars	974.31.SLH ²⁾	≈ 11.6kg
	1) For additional noise dampening strip, please add index A to the Part No. Example: Part No. 974.30.SLA		
	2) 1 set of 2 trough side parts, incl. glide strips and with standard glide bars is still available Part No. 974.31.SL		
Full installation set	Full installation set ❶ ❷ ❸ ❹ ❺	Part No.	Weight
	1 installation set without C-profile	960.50	≈ 0.08kg
	1 installation set with C-profile (C-profile length according to dimension B_{Ri})	960.50. XXX ³⁾	upon request
	3) Please add the C-profile length XXX as shown on the tables. Example: Part No. 960.50.200		

Individual parts	Components as individual parts, trough	Part No.	Weight
	❶ 1 trough side part, 2m section	74.11	≈ 4.94kg
	❷ 1 high-speed glide bar, 0.5m.	GB.31.500 ⁴⁾	≈ 0.18kg
	❸ 1 glide strip, plastic, 2m section	75.01	≈ 0.06kg
	❹ 1 noise dampening strip, 2m section	75.68.H.2000	≈ 0.38kg
Individual parts	4) Conventional glide bar as individual part, 2m piece still available, Part No. 83.79		
	Components as individual parts, installation set	Part No.	Weight
	❶ 1 bottom clamp, aluminium individual	75.50	≈ 0.04kg
	❷ 1 C-profile, individual (C-profile length according to dimension B_{Ri})	92.52. XXX .E ⁵⁾	≈ 0.90kg/m
	❸ 1 screw M6 x 16, individual	MAT 0040445 / M8 x 20	
	❹ 1 glide nut, individual	MAT 0040413 / M8	
Options	❺ 1 interface connector, individual	75.60	
	5) Please add the C-profile length XXX as shown on the tables. Example: Part No. 92.52.125.E . For stainless steel, please add index .E .		

Options	Additional options for simple fastening without drilling	Part No.
	1 fixed end module set - to attach the e-chain® into the aluminium SuperTrough	974.80.5 ^{A)} / 974.81.5 ^{B)}
	Trough clip - for guiding cables on the outside of a aluminium SuperTrough	SLC.40.17
A) For series: E4Q.58/H4Q.58, E4.56/H4.56/R4.56, E6.62 B) For series: 14040/14140/R18840, 14240/14340		

E4Q.58/H4Q.58				E4.56/H4.56/R4.56				E4.64L				14040/14140/R18840				14240/14340				E6.62			
Width index	B _{Ri} [mm]	Part No. attached inwards	Part No. attached outwards	Width index	B _{Ri} [mm]	Part No. attached inwards	Part No. attached outwards	Width index	B _{Ri} [mm]	Part No. attached inwards	Part No. attached outwards	Width index	B _{Ri} [mm]	Part No. attached inwards	Part No. attached outwards	Width index	B _{Ri} [mm]	Part No. attached inwards	Part No. attached outwards	Width index	B _{Ri} [mm]	Part No. attached inwards	Part No. attached outwards
.100	138	960.50.200	960.50.275	.05	88	upon request	960.50.225	.75	105	upon request	960.50.225	.05	80	upon request	960.50.200	.05	80	upon request	960.50.200	.05	90	upon request	960.50.225
.112	151	960.50.200	960.50.275	.055	93	upon request	960.50.225	.87	117	960.50.175	960.50.250	.055	85	upon request	960.50.200	.06	98	upon request	960.50.225	.06	108	upon request	960.50.225
.125	163	960.50.225	960.50.300	.06	103	upon request	960.50.225	.100	127	960.50.175	960.50.250	.06	95	upon request	960.50.225	.07	105	upon request	960.50.225	.07	115	upon request	960.50.250
.137	176	960.50.225	960.50.300	.07	113	upon request	960.50.250	.112	142	960.50.200	960.50.275	.07	105	upon request	960.50.225	.087	118	960.50.175	960.50.250	.087	127	960.50.175	960.50.250
.150	188	960.50.250	960.50.325	.08	125	960.50.175	960.50.250	.125	155	960.50.225	960.50.275	.08	117	960.50.175	960.50.225	.097	127	960.50.175	960.50.250	.097	137	960.50.200	960.50.275
.162	201	960.50.250	960.50.325	.10	138	960.50.200	960.50.275	.137	167	960.50.225	960.50.300	.10	130	960.50.200	960.50.250	.10	130	960.50.200	960.50.250	.10	140	960.50.200	960.50.275
.175	213	960.50.275	960.50.350	.11	151	960.50.200	960.50.275	.150	180	960.50.250	960.50.300	.11	143	960.50.200	960.50.275	.11	138	960.50.200	960.50.275	.11	148	960.50.200	960.50.275
.187	226	960.50.275	960.50.350	.12	163	960.50.225	960.50.300	.175	205	960.50.275	960.50.325	.12	155	960.50.225	960.50.275	.112	143	960.50.200	960.50.275	.112	152	960.50.200	960.50.275
.200	238	960.50.300	960.50.375	.13	176	960.50.225	960.50.300	.187	217	960.50.275	960.50.350	.13	168	960.50.225	960.50.300	.12	155	960.50.225	960.50.275	.12	165	960.50.225	960.50.300
.212	251	960.50.300	960.50.375	.15	188	960.50.250	960.50.325	.200	230	960.50.300	960.50.350	.15	180	960.50.250	960.50.300	.137	168	960.50.225	960.50.300	.137	177	960.50.225	960.50.300
.225	263	960.50.325	960.50.400	.16	201	960.50.250	960.50.325	.212	242	960.50.300	960.50.375	.16	193	960.50.250	960.50.325	.15	180	960.50.250	960.50.300	.15	190	960.50.250	960.50.325
.237	276	960.50.325	960.50.400	.169	208	960.50.275	960.50.325	.225	255	960.50.325	960.50.375	.169	200	960.50.250	960.50.325	.162	193	960.50.250	960.50.325	.162	202	960.50.250	960.50.325
.250	288	960.50.350	960.50.425	.17	213	960.50.275	960.50.350	.250	280	960.50.350	960.50.400	.17	205	960.50.275	960.50.325	.17	198	960.50.250	960.50.325	.17	208	960.50.275	960.50.325
.262	301	960.50.350	960.50.425	.182	221	960.50.275	960.50.350	.300	330	960.50.400	960.50.450	.182	213	960.50.275	960.50.350	.18	205	960.50.275	960.50.325	.18	215	960.50.275	960.50.350
.275	313	960.50.375	960.50.450	.18	226	960.50.275	960.50.350	.325	355	960.50.425	960.50.475	.18	218	960.50.275	960.50.350	.187	218	960.50.275	960.50.350	.187	227	960.50.275	960.50.350
.287	326	960.50.375	960.50.450	.20	238	960.50.300	960.50.375	.350	380	960.50.450	960.50.500	.20	230	960.50.300	960.50.350	.20	230	960.50.300	960.50.350	.20	240	960.50.300	960.50.375
.300	338	960.50.400	960.50.475	.207	207	960.50.300	960.50.375	.207	238	960.50.300	960.50.375	.212	243	960.50.300	960.50.375	.212	243	960.50.300	960.50.375	.212	252	960.50.300	960.50.375
.312	351	960.50.400	960.50.475	.21	251	960.50.300	960.50.375	.21	243	960.50.300	960.50.375	.23	255	960.50.325	960.50.375	.23	255	960.50.325	960.50.375	.23	265	960.50.325	960.50.400
.325	363	960.50.425	960.50.500	.22	263	960.50.325	960.50.400	.22	255	960.50.325	960.50.375	.237	268	960.50.325	960.50.400	.237	268	960.50.325	960.50.400	.237	277	960.50.325	960.50.400
.337	376	960.50.425	960.50.500	.23	276	960.50.325	960.50.400	.23	268	960.50.325	960.50.400	.25	280	960.50.350	960.50.400	.25	280	960.50.350	960.50.400	.25	290	960.50.350	960.50.425
.350	388	960.50.450	960.50.525	.25	288	960.50.350	960.50.425	.25	280	960.50.350	960.50.400	.262	293	960.50.350	960.50.425	.262	293	960.50.350	960.50.425	.262	302	960.50.350	960.50.425
.362	401	960.50.450	960.50.525	.26	301	960.50.350	960.50.425	.26	293	960.50.350	960.50.425	.28	305	960.50.375	960.50.425	.28	305	960.50.375	960.50.425	.28	315	960.50.375	960.50.450
.375	413	960.50.475	960.50.550	.27	313	960.50.375	960.50.450	.27	305	960.50.375	960.50.425	.29	318	960.50.375	960.50.450	.29	318	960.50.375	960.50.450	.29	327	960.50.375	960.50.450
.387	426	960.50.475	960.50.550	.28	326	960.50.375	960.50.450	.28	318	960.50.375	960.50.450	.30	330	960.50.400	960.50.450	.30	330	960.50.400	960.50.450	.30	340	960.50.400	960.50.475
.400	438	960.50.500	960.50.575	.30	338	960.50.400	960.50.475	.30	330	960.50.400	960.50.450	.312	343	960.50.400	960.50.475	.312	343	960.50.400	960.50.475	.312	352	960.50.400	960.50.475
.412	451	960.50.500	960.50.575	.31	351	960.50.400	960.50.475	.31	343	960.50.400	960.50.475	.325	355	960.50.425	960.50.475	.325	355	960.50.425	960.50.475	.325	365	960.50.425	960.50.500
.425	463	960.50.525	960.50.600	.32	363	960.50.425	960.50.500	.32	355	960.50.425	960.50.475	.337	368	960.50.425	960.50.500	.337	368	960.50.425	960.50.500	.337	377	960.50.425	960.50.500
.437*	476	960.50.525	960.50.600	.33	376	960.50.425	960.50.500	.33	368	960.50.425	960.50.500	.350	380	960.50.450	960.50.500	.350	380	960.50.450	960.50.500	.350	390	960.50.450	960.50.525
.450	488	960.50.550	960.50.625	.35	388	960.50.450	960.50.525	.35	380	960.50.450	960.50.500	.362	393	960.50.450	960.50.525	.362	393	960.50.450	960.50.525	.362	402	960.50.450	960.50.525
.462*	501	960.50.550	960.50.625	.36	401	960.50.450	960.50.525	.36	393	960.50.450	960.50.525	.375	405	960.50.475	960.50.525	.375	405	960.50.475	960.50.525	.375	415	960.50.475	960.50.550
.475*	513	960.50.575	960.50.650	.37	413	960.50.475	960.50.550	.37	405	960.50.475	960.50.525	.387	418	960.50.475	960.50.550	.387	418	960.50.475	960.50.550	.387	427	960.50.475	960.50.550
.487*	526	960.50.575	960.50.650	.38	426	960.50.475	960.50.550	.38	418	960.50.475	960.50.550	.400	430	960.50.500	960.50.550	.400	430	960.50.500	960.50.550	.400	440	960.50.500	960.50.575
.500	538	960.50.600	960.50.675	.40	438	960.50.500	960.50.575	.40	430	960.50.500	960.50.550	.41	443	960.50.500	960.50.575	.41	443	960.50.500	960.50.575	.41	453	960.50.500	960.50.575
.512*	551	960.50.600	960.50.675	.41	451	960.50.500	960.50.575	.41	443	960.50.500	960.50.575	.42	455	960.50.525	960.50.575	.42	455	960.50.525	960.50.575	.42	465	960.50.525	960.50.600
.525*	563	960.50.625	960.50.700	.42	463	960.50.525	960.50.600	.42	455	960.50.525	960.50.600	.43	468	960.50.525	960.50.600	.43	468	960.50.525	960.50.600	.43	478	960.50.525	960.50.600
.537*	576	960.50.625	960.50.700	.43	476	960.50.525	960.50.600	.43	468	960.50.525	960.50.600	.45	480	960.50.550	960.50.600	.45	480	960.50.550	960.50.600	.45	490	960.50.550	960.50.625
.550*	588	960.50.650	960.50.725	.45	488	960.50.550	960.50.625	.45	480	960.50.550	960.50.600	.46	493	960.50.550	960.50.625	.46	493	960.50.550	960.50.625	.46	503	960.50.550	960.50.625
.562*	600	960.50.650	960.50.725	.46	501	960.50.550	960.50.625	.46	493	960.50.550	960.50.625	.47	505	960.50.575	960.50.625	.47	505	960.50.575	960.50.625	.47	515	960.50.575	960.50.625
* Available upon request.				.47	513	960.50.575	960.50.650	.47	505	960.50.575	960.50.625	.48	518	960.50.575	960.50.650	.48	518	960.50.575	960.50.650	.48	528	960.50.575	960.50.650
				.48	526	960.50.575	960.50.650	.48	518	960.50.575	960.50.650	.50	530	960.50.600	960.50.650	.50	530	960.50.600	960.50.650	.50	540	960.50.600	960.50.675
				.50	538	960.50.600	960.50.675	.50	530	960.50.600	960.50.650	.51	543	960.50.600	960.50.675	.51	543	960.50.600	960.50.675	.51	553	960.50.600	960.50.675
				.51	551	960.50.600	960.50.675	.51	543	960.50.600	960.50.675	.52	555	960.50.625	960.50.675	.52	555	960.50.625	960.50.675	.52	565	960.50.625	960.50.700
				.52	563	960.50.625	960.50.700	.52	555	960.50.625	960.50.675	.53	568	960.50.625	960.50.700	.53	568	960.50.625	960.50.700	.53	578	960.50.625	960.50.700
				.53	576	960.50.625	960.50.700	.53	568	960.50.625	960.50.700	.55	580	960.50.650	960.50.700	.55	580	960.50.650	960.50.700	.55	590	960.50.650	960.50.725
				.55	588	960.50.650	960.50.725	.55	580	960.50.650	960.50.700	.60	630	960.50.700									

Product range | Trough height: 236mm



For the following series

E4Q

● E4Q.82/H4Q.82

E4.1

● E4.80/H4.80/R4.80

E4/light

- 15050/15150/R19850
- 15250/15350

E6

● E6.80

E4/4HD**

● 5050HD/9850HD

Note: The inner width of the guide through and the C-profile length of the installation set can differ according to the bracket you choose. Please call us.

Full sets	Full trough side part sets ❶ ❷ ❸ ❹ (2m pieces each)	Part No.	Weight
	1 set with 2 trough side parts, incl. glide strips, without glide bars	975.30.SLA ¹⁾	≈ 14.0kg
	1 set with 2 trough side parts, incl. glide strips, with high-speed glide bars	975.31.SLH ²⁾	≈ 15.4kg
	1) For additional noise dampening strip, please add index A to the Part No. Example: Part No. 975.30.SLA		
	2) 1 set of 2 trough side parts, incl. glide strips and with standard glide bars is still available Part No. 975.31.SL		
	Full installation set ❶ ❷ ❸ ❹ ❺	Part No.	Weight
	1 installation set without C-profile	960.50	≈ 0.08kg
	1 installation set with C-profile (C-profile length according to dimension B_R)	960.50.❷❷❷ ³⁾	upon request
3) Please add the C-profile length ❷❷❷ as shown on the tables. Example: Part No. 960.50.200			

parts	Components as individual parts, trough	Part No.	Weight
	❶ 1 trough side part, 2m section	75.11	≈ 6.94kg
	❷ 1 high-speed glide bar, 0.5m.	GB.31.500 ⁴⁾	≈ 0.18kg
	❸ 1 glide strip, plastic, 2m section	75.01	≈ 0.06kg
	❹ 1 noise dampening strip, 2m section	75.68.H.2000	≈ 0.38kg
	4) Conventional glide bar as individual part, 2m piece still available, Part No. 83.79		

Individual	Components as individual parts, installation set	Part No.	Weight
	A 1 bottom clamp, aluminium individual	75.50	≈ 0.04kg
	B 1 C-profile, individual (C-profile length according to dimension B_{R1})	92.52. xxx . E ⁵⁾	≈ 0.90kg/m
	C 1 screw M6 x 16, individual	MAT 0040445 / M8 x 20	
	D 1 glide nut, individual	MAT 0040413 / M8	
	E 1 interface connector, individual	75.60	

5) Please add the C-profile length **XXX** as shown on the tables. Example: **Part No. 92.52.250.E**. For stainless steel, please add index **.E**.

Options	Additional options for simple fastening without drilling	Part No.
	1 fixed end module set - to attach the e-chain® into the aluminium SuperTrough	975.80^{A)} / 975.81^{B)}
	Trough clip - for guiding cables on the outside of a aluminium SuperTrough	SLC.40.17

A) For series: E4Q.82/H4Q.82, E4.80/H4.80/R4.80, E6.80 B) For series: 15050/15150/R19850, 15250/15350

E4Q.82/H4Q.82				E4.80/H4.80/R4.80				15050/15150/R19850				15250/15350				E6.80			
Width index	B_{Fi} [mm]	Part No. attached inwards	Part No. attached outwards	Width index	B_{Fi} [mm]	Part No. attached inwards	Part No. attached outwards	Width index	B_{Fi} [mm]	Part No. attached inwards	Part No. attached outwards	Width index	B_{Fi} [mm]	Part No. attached inwards	Part No. attached outwards	Width index	B_{Fi} [mm]	Part No. attached inwards	Part No. attached outwards
.100	154	960.50.225	960.50.275	.05	104	upon request	960.50.225	.05	84	upon request	960.50.200	.05	84	upon request	960.50.200	.05	104	upon request	960.50.225
.112	167	960.50.225	960.50.300	.055	109	upon request	960.50.225	.055	89	upon request	960.50.225	.06	102	upon request	960.50.225	.06	119	upon request	960.50.250
.125	179	960.50.250	960.50.300	.06	119	upon request	960.50.250	.06	99	upon request	960.50.225	.07	109	upon request	960.50.225	.07	129	960.50.200	960.50.250
.137	192	960.50.250	960.50.325	.07	129	960.50.200	960.50.250	.07	109	upon request	960.50.225	.087	121	upon request	960.50.250	.08	141	960.50.200	960.50.275
.150	204	960.50.275	960.50.325	.08	141	960.50.200	960.50.275	.08	121	upon request	960.50.250	.097	131	upon request	960.50.250	.10	154	960.50.225	960.50.275
.162	217	960.50.275	960.50.350	.10	154	960.50.225	960.50.275	.10	134	960.50.200	960.50.250	.10	134	upon request	960.50.250	.11	167	960.50.225	960.50.300
.175	229	960.50.300	960.50.350	.11	167	960.50.225	960.50.300	.11	146	960.50.200	960.50.275	.11	142	960.50.200	960.50.250	.12	179	960.50.250	960.50.300
.187	242	960.50.300	960.50.375	.12	179	960.50.250	960.50.300	.12	159	960.50.225	960.50.275	.112	147	960.50.200	960.50.275	.13	192	960.50.250	960.50.325
.200	254	960.50.325	960.50.375	.13	192	960.50.250	960.50.325	.13	171	960.50.225	960.50.300	.12	159	960.50.225	960.50.275	.15	204	960.50.275	960.50.325
.212	267	960.50.325	960.50.400	.15	204	960.50.275	960.50.325	.15	184	960.50.250	960.50.300	.137	171	960.50.225	960.50.300	.16	217	960.50.275	960.50.350
.225	279	960.50.350	960.50.400	.16	217	960.50.275	960.50.350	.16	196	960.50.250	960.50.325	.15	184	960.50.250	960.50.300	.17	229	960.50.300	960.50.350
.237	292	960.50.350	960.50.425	.169	224	960.50.275	960.50.350	.169	204	960.50.275	960.50.325	.162	197	960.50.250	960.50.325	.18	242	960.50.300	960.50.375
.250	304	960.50.375	960.50.425	.17	229	960.50.300	960.50.350	.17	209	960.50.275	960.50.325	.17	202	960.50.250	960.50.325	.20	254	960.50.325	960.50.375
.262	317	960.50.375	960.50.450	.182	237	960.50.300	960.50.375	.182	217	960.50.275	960.50.350	.18	209	960.50.275	960.50.325	.21	267	960.50.325	960.50.400
.275	329	960.50.400	960.50.450	.18	242	960.50.300	960.50.375	.18	221	960.50.275	960.50.350	.187	222	960.50.275	960.50.350	.22	279	960.50.350	960.50.400
.287	342	960.50.400	960.50.475	.20	254	960.50.325	960.50.375	.20	234	960.50.300	960.50.350	.20	234	960.50.300	960.50.350	.23	292	960.50.350	960.50.425
.300	354	960.50.425	960.50.475	.207	262	960.50.325	960.50.400	.207	242	960.50.300	960.50.375	.212	247	960.50.300	960.50.375	.25	304	960.50.375	960.50.425
.312	367	960.50.425	960.50.500	.21	267	960.50.325	960.50.400	.21	246	960.50.300	960.50.375	.23	259	960.50.325	960.50.375	.26	317	960.50.375	960.50.450
.325	379	960.50.450	960.50.500	.22	279	960.50.350	960.50.400	.22	259	960.50.325	960.50.375	.237	272	960.50.325	960.50.400	.27	329	960.50.400	960.50.450
.337	392	960.50.450	960.50.525	.23	292	960.50.350	960.50.425	.23	271	960.50.325	960.50.400	.25	284	960.50.350	960.50.400	.28	342	960.50.400	960.50.475
.350	404	960.50.475	960.50.525	.25	304	960.50.375	960.50.425	.25	284	960.50.350	960.50.400	.262	297	960.50.350	960.50.425	.30	354	960.50.425	960.50.475
.362	417	960.50.475	960.50.550	.26	317	960.50.375	960.50.450	.26	296	960.50.350	960.50.425	.28	309	960.50.375	960.50.425	.31	367	960.50.425	960.50.500
.375	429	960.50.500	960.50.550	.27	329	960.50.400	960.50.450	.27	309	960.50.375	960.50.425	.29	322	960.50.375	960.50.450	.32	379	960.50.450	960.50.500
.387	442	960.50.500	960.50.575	.28	342	960.50.400	960.50.475	.28	321	960.50.375	960.50.450	.30	334	960.50.400	960.50.450	.33	392	960.50.450	960.50.525
.400	454	960.50.525	960.50.575	.30	354	960.50.425	960.50.475	.30	334	960.50.400	960.50.450	.312	347	960.50.400	960.50.475	.35	404	960.50.475	960.50.525
.412	467	960.50.525	960.50.600	.31	367	960.50.425	960.50.500	.31	346	960.50.400	960.50.475	.325	359	960.50.425	960.50.475	.36	417	960.50.475	960.50.550
.425	479	960.50.550	960.50.600	.32	379	960.50.450	960.50.500	.32	359	960.50.425	960.50.475	.337	372	960.50.425	960.50.500	.37	429	960.50.500	960.50.550
.437* 492	960.50.550	960.50.625		.33	392	960.50.450	960.50.525	.33	371	960.50.425	960.50.500	.350	384	960.50.450	960.50.500	.38	442	960.50.500	960.50.575
.450	504	960.50.575	960.50.625	.35	404	960.50.475	960.50.525	.35	384	960.50.450	960.50.500	.362	397	960.50.450	960.50.525	.40	454	960.50.525	960.50.575
.462* 517	960.50.575	960.50.650		.36	417	960.50.475	960.50.550	.36	396	960.50.450	960.50.525	.375	409	960.50.475	960.50.525	.41	467	960.50.525	960.50.600
.475* 529	960.50.600	960.50.650		.37	429	960.50.500	960.50.550	.37	409	960.50.475	960.50.525	.387	422	960.50.475	960.50.550	.42	479	960.50.550	960.50.600
.487* 542	960.50.600	960.50.675		.38	442	960.50.500	960.50.575	.38	421	960.50.475	960.50.550	.400	434	960.50.500	960.50.550	.43	492	960.50.550	960.50.625
.500	554	960.50.625	960.50.675	.40	454	960.50.525	960.50.575	.40	434	960.50.500	960.50.550					.45	504	960.50.575	960.50.625
.512* 567	960.50.625	960.50.700		.41	467	960.50.525	960.50.600	.41	446	960.50.500	960.50.575					.46	517	960.50.575	960.50.650
.525* 579	960.50.650	960.50.700		.42	479	960.50.550	960.50.600	.42	459	960.50.525	960.50.575					.47	529	960.50.600	960.50.650
.537* 592	960.50.650	960.50.725		.43	492	960.50.550	960.50.625	.43	471	960.50.525	960.50.600					.48	542	960.50.600	960.50.675
.550* 604	960.50.675	960.50.725		.45	504	960.50.575	960.50.625	.45	484	960.50.550	960.50.600					.50	554	960.50.625	960.50.675
.600* 654	960.50.725	960.50.775		.46	517	960.50.575	960.50.650	.46	496	960.50.550	960.50.625					.51	567	960.50.625	960.50.700
* Available upon request.				.47	529	960.50.600	960.50.650	.47	509	960.50.575	960.50.625					.52	579	960.50.650	960.50.700
				.48	542	960.50.600	960.50.675	.48	521	960.50.575	960.50.650					.53	592	960.50.650	960.50.725
				.50	554	960.50.625	960.50.675	.50	534	960.50.600	960.50.650					.55	604	960.50.675	960.50.725
				.51	567	960.50.625	960.50.700	.51	546	960.50.600	960.50.675					.60	654	960.50.725	960.50.775
				.52	579	960.50.650	960.50.700	.52	559	960.50.625	960.50.675								
				.53	592	960.50.650	960.50.725	.53	571	960.50.625	960.50.700								
				.55	604	960.50.675	960.50.725	.55	584	960.50.650	960.50.700								
				.60	654	960.50.725	960.50.775	.60	634	960.50.700	960.50.750								

* Available upon request.

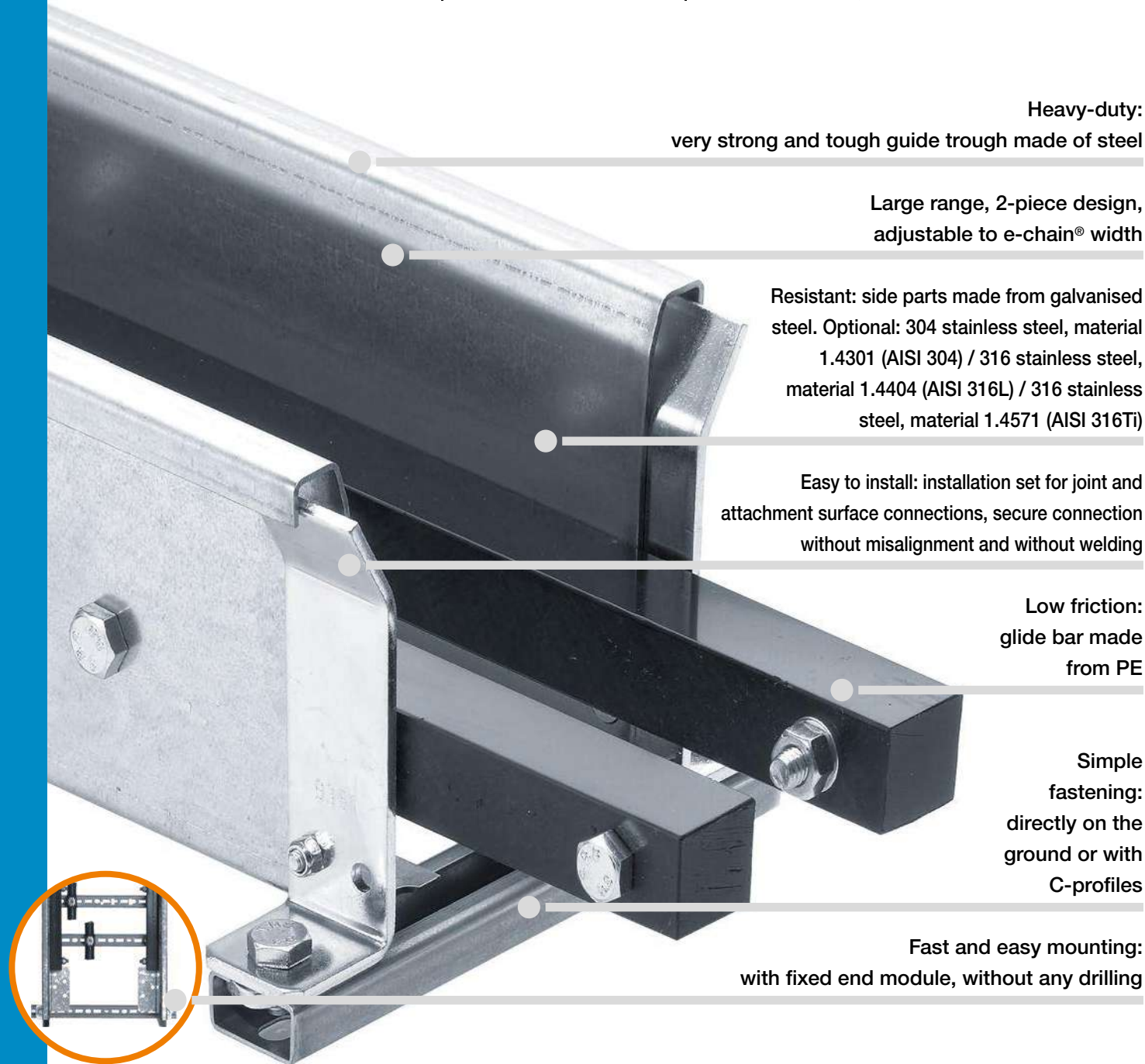


E4/4HD** - we recommend the heavy-duty version for the 5050HD/9850HD series for heavy-duty applications. You can configure it online at ► www.igus.eu/alu-guide

Heavy-duty version for high load applications

- This aluminium SuperTrough is also available for plant manufacturing with special heavy-duty brackets for secure connection
- The installation sets are fastened outside on the guide trough
- Installation set Part No. **975.50**.





Heavy-duty:
very strong and tough guide trough made of steel

Large range, 2-piece design,
adjustable to e-chain® width

Resistant: side parts made from galvanised
steel. Optional: 304 stainless steel, material
1.4301 (AISI 304) / 316 stainless steel,
material 1.4404 (AISI 316L) / 316 stainless
steel, material 1.4571 (AISI 316Ti)

Easy to install: installation set for joint and
attachment surface connections, secure connection
without misalignment and without welding

Low friction:
glide bar made
from PE

Simple
fastening:
directly on the
ground or with
C-profiles

Fast and easy mounting:
with fixed end module, without any drilling

Very stable and tough for heavy-duty applications - steel guide trough

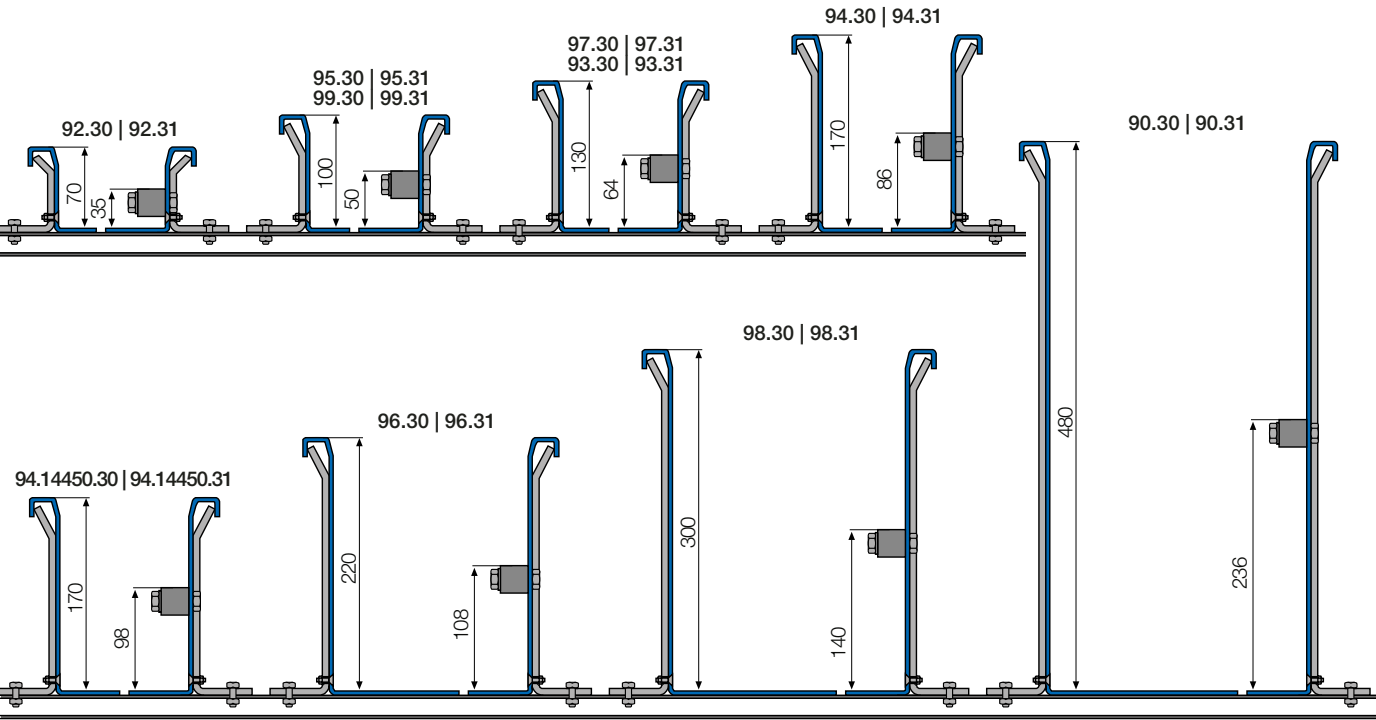
If the igus® installation sets are used, the guide troughs are very easy to assemble. All steel guide troughs are constructed according to the same basic principle. On the following pages, you will find information about dimensions, weights and accessories according to the trough size. All sizes use a common C-profile on which the guide parts are assembled. The assembly brackets used vary in height only. Conductivity according to DIN EN 61537 - standard.

Selection table

Part No. without glide bars	Part No. with glide bars	Outer height <i>H_{Ra}</i> [mm]	Part No. installation set ²⁾	Side part material	Page Link
Steel guide trough - very tough for heavy-duty applications					
92.30	92.31	70	92.50	galvanised steel ¹⁾	510
95.30	95.31	100	95.50	galvanised steel ¹⁾	512
99.30	99.31	100	95.50	galvanised steel ¹⁾	514
97.30	97.31	130	93.50	galvanised steel ¹⁾	516
93.30	93.31	130	93.50	galvanised steel ¹⁾	518
94.30	94.31	170	94.50	galvanised steel ¹⁾	520
96.30	96.31	220	96.50	galvanised steel ¹⁾	522
98.30	98.31	300	98.50	galvanised steel ¹⁾	524
90.30	90.31	480	90.50	galvanised steel ¹⁾	526
91.10 - 91.71 ²⁾		48	–	Galvanised steel	509

1) Stainless steel option: 304 stainless steel, material 1.4301 (AISI 304) / 316 stainless steel, material 1.4404 (AISI 316L) / 316 stainless steel, material 1.4571 (AISI 316Ti).
2) Steel guide trough, 1 piece. Only for series 10, 15, B15, E2.17.

Steel guide trough | Size comparison

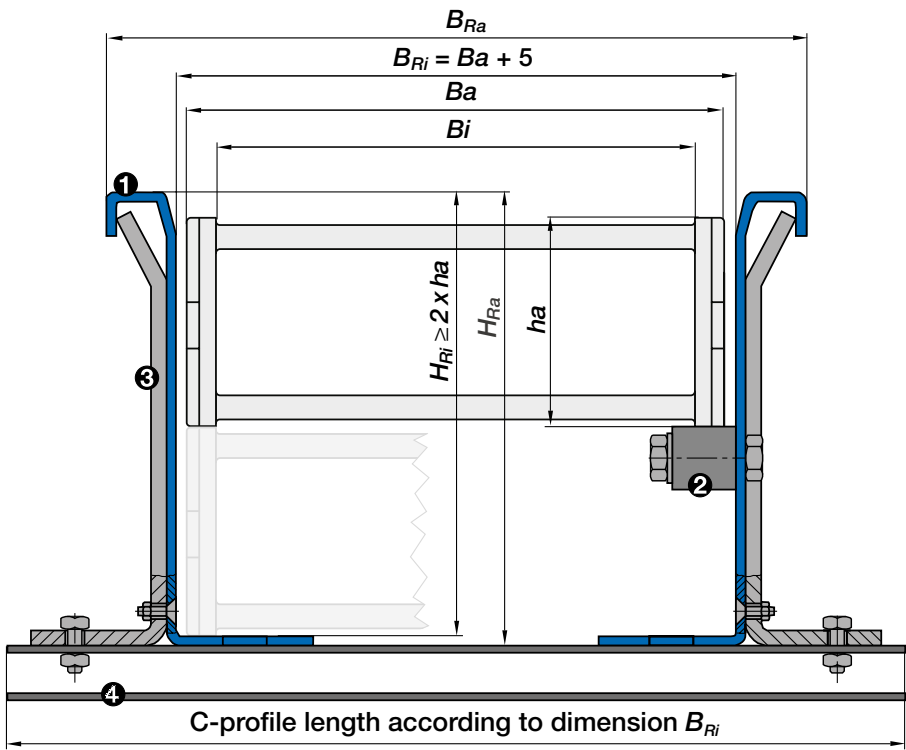


Guide trough components

Components

- 1 Guide trough side parts¹⁾
- 2 glide bar
- 3 Installation set
- 4 C-profile²⁾

Ba = Outer e-chain® width
 Bi = Inner e-chain® width
 ha = e-chain® outer height
 H_{Ri} = Trough inner height
 H_{Ra} = Trough outer height
 B_{Ri} = Trough inner width
 B_{Ra} = Trough outer width



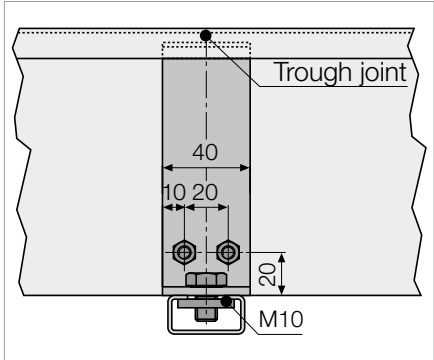
1) Guide trough side parts made from galvanised steel. Optional: 304 stainless steel, material 1.4301 (AISI 304) / 316 stainless steel, material 1.4404 (AISI 316L) / 316 stainless steel, material 1.4571 (AISI 316Ti)
2) C-profile also available in 304 stainless steel. Material 1.4301 (AISI 304)



Steel guide trough with glide bars.



Steel guide trough without glide bars.

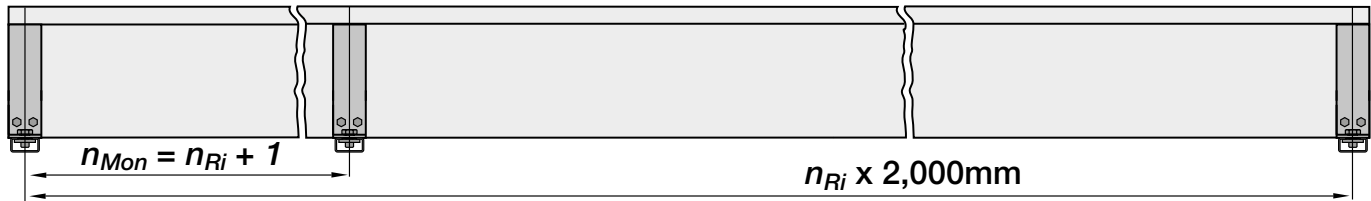


Side view of trough joint - all dimensions except for height apply to all sizes.

Configured according to your requirements

Quickly and easily assemble the right steel guide trough for your application

- Selection of the suitable guide trough according to the e-chain® series and e-chain® width Bi
- Determine the feed-in point of the cables
- Determine travel distance and thus the length of the required guide trough and the number of trough sections. (standard length of a trough side part: 2,000mm). For centre infeed, the length of the guide trough is calculated from half the travel length with and half the travel length without the glide bar
- Number and type of the installation set
- The installation set matches the igus® C-profile option
- If you have opted for an e-chain® with KMA mounting brackets, we offer a fixed end module for the quick and simple fastening of the e-chain® in the trough without drilling



The quantity of the installation set is calculated from the number of the trough sections + 1 set.
Installation guide PDF with detailed assembly information ► www.igus.eu/installation-guide-pdf.

Order example | Examples based on Part No. 94.30 | 94.31

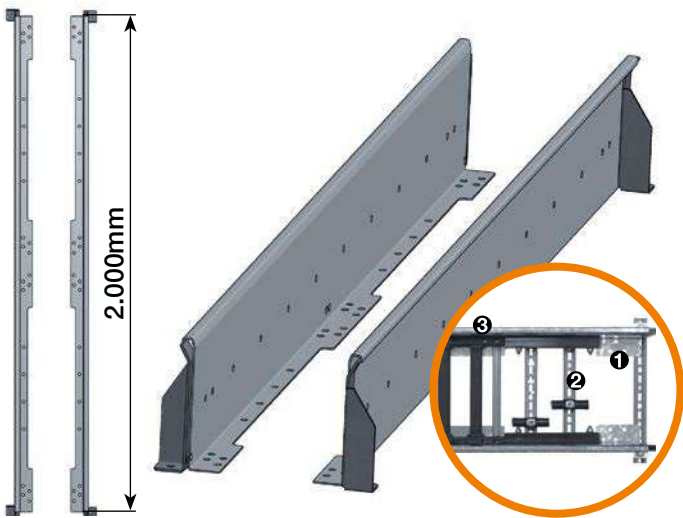
Order example: length of travel 30m - centre mounted for series E4.56.20.300.0 with $B_{Ri} = 239$

1 set of 2 trough side parts, incl. glide strips, without glide bars	94.30
Order text: 16m guide trough without glide bars (8 sets of 2 off 2m sections)	
1 set of 2 trough side parts, incl. glide strips, with glide bars	94.31
Order text: 16m guide trough with glide bars (8 sets of 2 off 2m sections)	
Installation set complete (quantity: guide trough sets + 1)	94.50.350
Order text: 17 installation sets, basic	
Option: Fixed end module for a quick and easy mounting	94.80.01
Order text: 1 set	

Calculation - travel centre fixed: half travel length, rounded to full 2m sections = X m.
Guide trough length without glide bars + X m guide trough length with glide bars + installation sets (number of trough sections + 1).

Steel guide trough | Options

Fixed end module



Quick and simple fastening onto the steel guide trough

- The 2,000mm long component can be used for centre-fed, end-fed and even for reverse-fed applications.
- Fast fixation of igus® mounting brackets thanks to prefabricated boreholes ❶
- Fast installation of C-profile for strain relief ❷
- Fast bolting of glide bars ❸
- Industries: power plants, coal conveyors, mining, composting plants, raw material storage, gypsum plants etc.

Fixed end module | Product range

Part No.	For steel guide troughs	For e-chains® series
90.80.01*	90.30 / 90.31	800, 840
92.80.01	92.30 / 92.31	E2.26, 2500, 255, E6.29/R6.29
93.80.01	93.30 / 93.31	E2.48, 3500, R68, E4Q.44/H4Q.44, E4.42/H4.42/R4.42, E4.48L/R4.48L, E6.52/R6.52
94.80.01	94.30 / 94.31	E4Q.58/H4Q.58, E4.56/H4.56/R4.56, E4.64L, 14040/14140 /R18840, 14240/14340, 4040HD/8840HD, E6.62
95.80.01	95.30 / 95.31	E2.38, 2700
96.80.01	96.30 / 96.31	E4Q.82/H4Q.82, E4.80/H4.80/R4.80, 15050/15150/R19850, 5050HD/9850HD, E6.80
97.80.01	97.30 / 97.31	E4Q.34/H4Q.34, E4.32/H4.32/R4.32, E4.38L/R4.38L, E6.40/R6.40
98.80.01	98.30 / 98.31	E4.112/R4.112, 1640/R1608
99.80.01	99.30 / 99.31	E4.28/R4.28, E4.31L/R4.31L, E6.35

*Fixed end module available upon request, please consult igus® for delivery time.



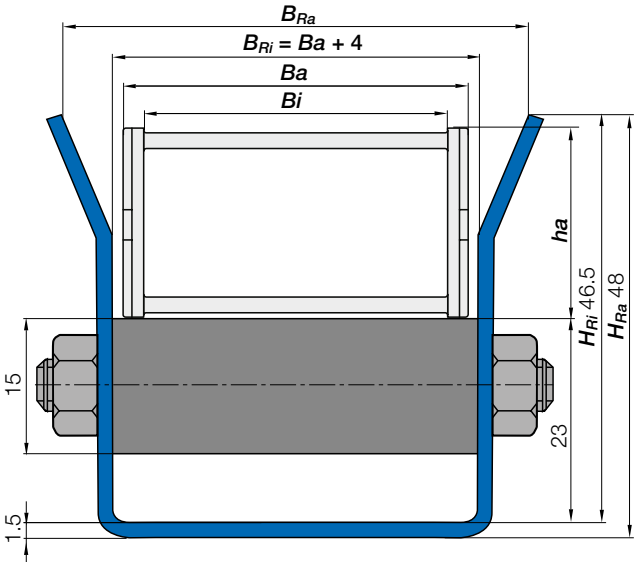
Fixed end module - length 2,000mm.

Steel guide trough | One piece

Special solution | For series 10, B15, E2.17 and 15

- ❶ Guide trough
- ❷ Glide bar
- ❸ Fastening screws

Ba = Outer e-chain® width
 Bi = Inner e-chain® width
 ha = e-chain® outer height
 H_{Ri} = Trough inner height
 H_{Ra} = Trough outer height
 B_{Ri} = Trough inner width
 B_{Ra} = Trough outer width



For the following series

E2 mini

- 10
- B15

E2.1 micro

- E2.17

zipper

- 15



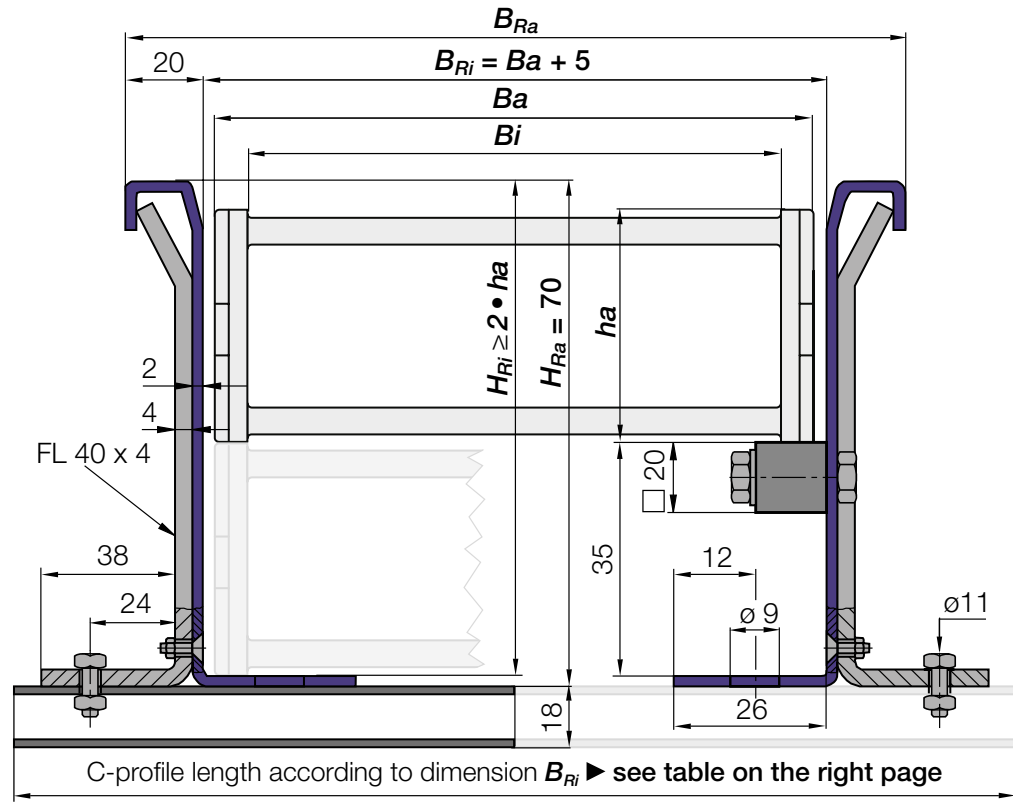
- One-piece steel guide troughs for series 10, 15, B15, E2.17 (galvanised steel)
- Continuous glide bar for the gliding section of the trough
- The e-chains® with an outer width up to 100mm are available from stock
- For wider e-chains® special solutions are possible
- Without installation sets, as the guide troughs are made of a single U-profile
- The solution for the trough joint is specific for any application

Product range

Part No. with-out glide bars	Part No. with glide bars	For e-chains® series	B_{Ra} [mm]	B_{Ri} [mm]	Weight [kg/m] ¹⁾	Weight [kg/m] ²⁾
91.10	91.11	10.015/15.015/B15.015/E2.17.015	40.5	30	≈ 1.50	≈ 2.10
91.20	91.21	10.025/15.025/B15.025/E2.17.025	50.5	40	≈ 1.65	≈ 2.35
91.30	91.31	10.038/15.038/B15.038/E2.17.038	62.5	52	≈ 1.80	≈ 2.70
91.40	91.41	10.050/15.050/B15.050/E2.17.050	72.5	62	≈ 1.90	≈ 3.15
91.50	91.51	10.5/15.5/B15.5/E2.17.063	89.5	79	≈ 2.15	≈ 4.30
91.60	91.61	10.6/15.6/B15.6/E2.17.080	106,5	96	≈ 2.40	≈ 4.60
91.70	91.71	10.7/15.7/B15.7/E2.17.100	126.5	116	≈ 2.80	≈ 5.20

1) without glide bar 2) with glide bar

Product range | Trough height: 70mm



For the following series

E2.1

● E2.26/E2C.26

E2/000

● 2500

● 255

E6

● E6.29/R6.29

Note: The inner width of the guide through and the C-profile length of the installation set can differ according to the bracket you choose. Please call us.

E2.26/E2C.26			2500			255			E6.29/R6.29		
Width index	B_{Ri} [mm]	Part No. Installation set	Width index	B_{Ri} [mm]	Part No. Installation set	Width index	B_{Ri} [mm]	Part No. Installation set	Width index	B_{Ri} [mm]	Part No. Installation set
.025	47	upon request	.02	46	upon request	.03	59	upon request	.030	51	upon request
.038	60	upon request	.03	59	upon request	.05	78	92.50.200	.040	61	upon request
.057	79	92.50.200	.05	78	92.50.200	.07	98	92.50.225	.050	71	92.50.200
.077	99	92.50.225	.07	98	92.50.225	.10	124	92.50.250	.060	81	92.50.200
.089	111	92.50.225	.09	110	92.50.225				.070	91	92.50.200
.103	125	92.50.250	.10	124	92.50.250				.080	101	92.50.225
.125	147	92.50.275	.12	146	92.50.275				.090	111	92.50.225
									.100	121	92.50.250
									.110	131	92.50.250
									.120	141	92.50.250
									.140	161	92.50.275

Full sets	Full trough side part sets (2m pieces each)		Part No.	Weight
	1 set of 2 trough side parts, without glide bars, 2m section		92.30.E ¹⁾ / E44 ²⁾ / E45 ³⁾	≈ 7.60kg
	1 set of 2 trough side parts, with glide bars, 2m section, galvanised steel		92.31.E ¹⁾ / E44 ²⁾ / E45 ³⁾	≈ 9.60kg
	Full installation set		Part No.	Weight
	1 installation set without C-profile		92.50	≈ 0.34kg
	1 installation set with C-profile (C-profile length according to dimension B_{Ri})		92.50.XXX ^{A)}	upon request
A) Please add the C-profile length XXX as shown on the tables. Example: Part No. 92.50.200				

Individual parts	Components as individual parts, trough		Part No.	Weight
	1 trough side part, 2m section		92.11.E ¹⁾ / E44 ²⁾ / E45 ³⁾	≈ 3.80kg
	1 glide bar, 2m section		92.01	≈ 0.75 kg
	1 glide bar, 2m section + 11 screw sets		92.20	≈ 0.98kg
	1 package with 11 screw sets (for glide bar, 2m section)		92.21	≈ 0.23kg
	Components as individual parts, installation set		Part No.	Weight
	1 clamping bracket, individual		92.51	≈ 0.12kg
	1 countersunk-head screw, individual		92.53 / M6 x 14	≈ 0.002kg
	1 hexagon nut, individual		92.54 / M6	≈ 0.002kg
	1 hexagon-head screw, individual		92.55 / M10 x 16	≈ 0.019kg
	1 glide nut, individual		92.56 / M10	≈ 0.015kg
	1 C-profile, individual (C-profile length according to dimension <i>B_{Ri}</i>)		92.52.XXX].E ^{B)}	≈ 0.90kg/m
	B) Please add the C-profile length [XXX] as shown on the tables. Example: Part No. 92.52.200.E.			

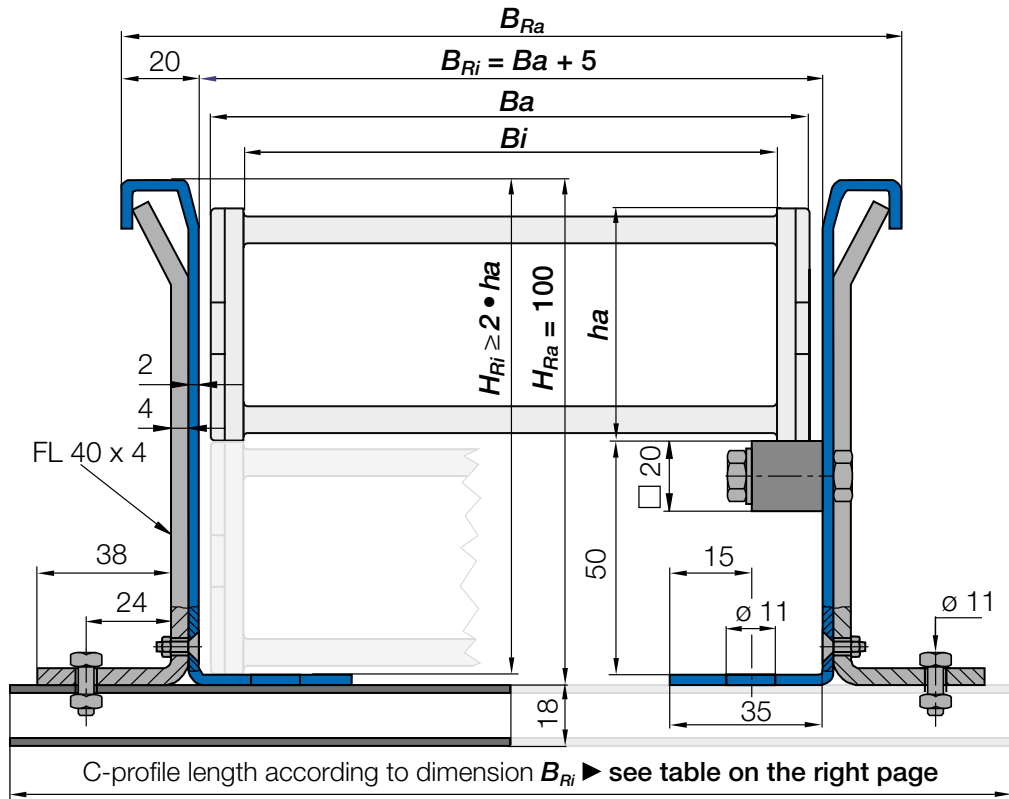
Option	Additional options for simple fastening without drilling	Part No.	
	1 set fixed end module, 2m section	92.80.01	≈ 7.60kg

1) Trough side parts + C-profile - also available in 304 stainless steel, material 1.4301 (AISI 304). Please add index .E to the Part No.

2) Trough side parts - also available in 316 stainless steel, material 1.4404 (AISI 316L). Please add index .E44 to the Part No.

3) Trough side parts - also available in 316 stainless steel, material 1.4571 (AISI 316Ti). Please add index .E45 to the Part No.

Product range | Trough height: 100mm



For the following series

E2.1

● E2.38/E2C.38

E2/000

● 2700

E2 R

● R58

Note: The inner width of the guide through and the C-profile length of the installation set can differ according to the bracket you choose. Please call us.

E2.38/E2C.38			2700			R58		
Width index	B_{Ri} [mm]	Part No. Installation set	Width index	B_{Ri} [mm]	Part No. Installation set	Width index	B_{Ri} [mm]	Part No. Installation set
.050	72	95.50.200	.05	71	95.50.200	.050	71	95.50.200
.065	87	95.50.200	.06	86	95.50.200	.075	96	95.50.225
.075	97	95.50.225	.07	96	95.50.225	.100	121	95.50.250
.090	112	95.50.225	.09	111	95.50.225	.125	146	95.50.275
.100	122	95.50.250	.10	121	95.50.250	.150	171	95.50.300
.125	147	95.50.275	.12	146	95.50.275	.175	196	95.50.325
.150	172	95.50.300	.15	171	95.50.300	.200	221	95.50.350
.175	200	95.50.325	.17	199	95.50.325			

Full sets	Full trough side part sets (2m pieces each)		Part No.	Weight
	1 set of 2 trough side parts, without glide bars, 2m section		95.30.E ¹⁾ / E44 ²⁾ / E45 ³⁾	≈ 10.00kg
	1 set of 2 trough side parts, with glide bars, 2m section, galvanised steel		95.31.E ¹⁾ / E44 ²⁾ / E45 ³⁾	≈ 12.00kg
	Full installation set		Part No.	Weight
	1 installation set without C-profile		95.50	≈ 0.41kg
	1 installation set with C-profile (C-profile length according to dimension B_{Ri})		95.50.XXX ^{A)}	upon request
	A) Please add the C-profile length XXX as shown on the tables. Example: Part No. 95.50.200			

Individual parts	Components as individual parts, trough		Part No.	Weight
	1 trough side part, 2m section		95.11.E ¹⁾ / E44 ²⁾ / E45 ³⁾	≈ 5.00kg
	1 glide bar, 2m section		92.01	≈ 0.75 kg
	1 glide bar, 2m section + 11 screw sets		92.20	≈ 0.98kg
	1 package with 11 screw sets (for glide bar, 2m section)		92.21	≈ 0.23kg
	Components as individual parts, installation set		Part No.	Weight
	1 clamping bracket, individual		95.51	≈ 0.16kg
	1 countersunk-head screw, individual		92.53 / M6 x 14	≈ 0.002kg
	1 hexagon nut, individual		92.54 / M6	≈ 0.002kg
	1 hexagon-head screw, individual		92.55 / M10 x 16	≈ 0.019kg
1 glide nut, individual		92.56 / M10	≈ 0.015kg	
1 C-profile, individual (C-profile length according to dimension <i>B_{Ri}</i>)		92.52.XXX.E ^{B)}	≈ 0.90kg/m	
B) Please add the C-profile length [XXX] as shown on the tables. Example: Part No. 92.52.200.E.				

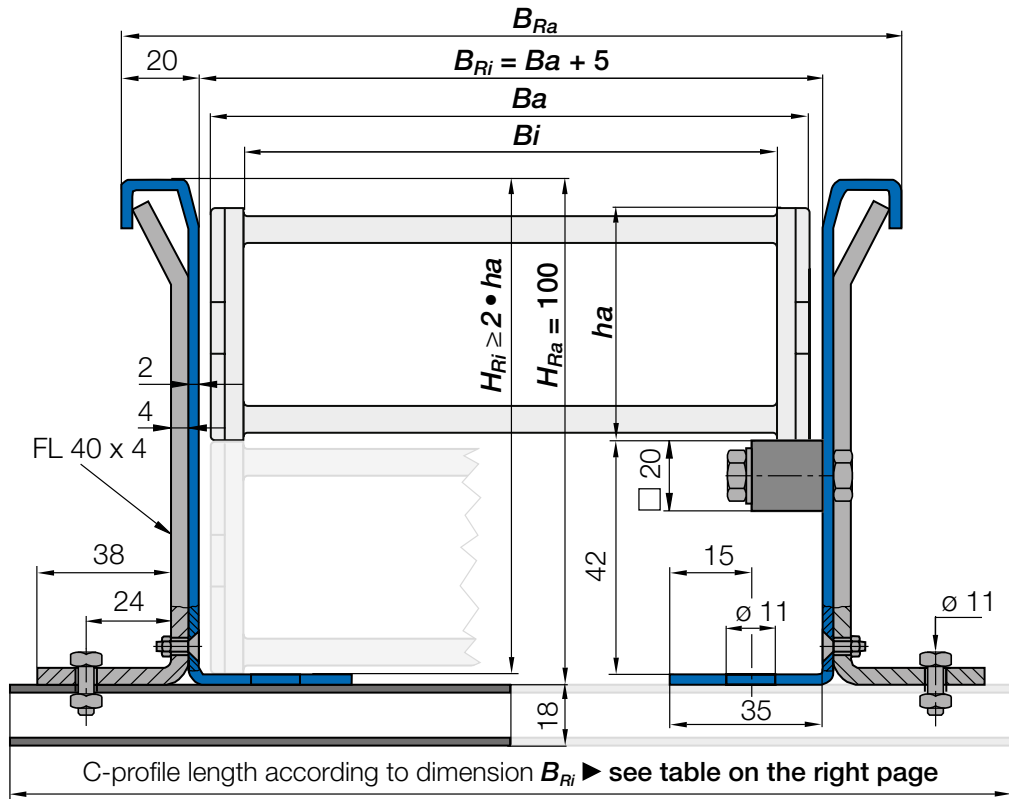
Option	Additional options for simple fastening without drilling		Part No.	
	1 set fixed end module, 2m section		95.80.01	≈ 10.00kg

1) Trough side parts + C-profile - also available in 304 stainless steel, material 1.4301 (AISI 304). Please add index .E to the Part No.

2) Trough side parts - also available in 316 stainless steel, material 1.4404 (AISI 316L). Please add index .E44 to the Part No.

3) Trough side parts - also available in 316 stainless steel, material 1.4571 (AISI 316Ti). Please add index .E45 to the Part No.

Product range | Trough height: 100mm



For the following series

E4.1

● E4.28/R4.28

E4.1L

● E4.31L/R4.31L

E6

● E6.35

Note: The inner width of the guide through and the C-profile length of the installation set can differ according to the bracket you choose. Please call us.

E4.28/R4.28			E4.31L/R4.31L			E6.35		
Width index	B_{Ra} [mm]	Part No. Installation set	Width index	B_{Ra} [mm]	Part No. Installation set	Width index	B_{Ra} [mm]	Part No. Installation set
.040	65	upon request	.040	59	upon request	.030	55	upon request
.050	75	95.50.200	.050	69	upon request	.040	65	upon request
.052	77	95.50.200	.062	81	95.50.200	.050	75	95.50.200
.062	87	95.50.200	.075	94	95.50.200	.060	85	95.50.200
.070	95	95.50.200	.087	106	95.50.225	.070	95	95.50.200
.075	100	95.50.225	.100	119	95.50.225	.080	105	95.50.225
.087	112	95.50.225	.112	131	95.50.250	.090	115	95.50.225
.100	125	95.50.250	.125	144	95.50.250	.100	125	95.50.250
.125	150	95.50.275	.137*	156	95.50.275	.110	135	95.50.250
.150	175	95.50.300	.150	169	95.50.275	.120	145	95.50.250
.175	200	95.50.325	.162	181	95.50.300	.140	165	95.50.275
.200	225	95.50.350	.175	194	95.50.300			
.225	250	95.50.375	.187*	206	95.50.325			
.250	275	95.50.400	.200*	219	95.50.325			
.275	300	95.50.425						
.300	325	95.50.450						

* Available upon request.

Full sets	Full trough side part sets (2m pieces each)		Part No.	Weight
	1 set of 2 trough side parts, without glide bars, 2m section		99.30.E ¹⁾ / E44 ²⁾ / E45 ³⁾	≈ 10.00kg
	1 set of 2 trough side parts, with glide bars, 2m section, galvanised steel		99.31.E ¹⁾ / E44 ²⁾ / E45 ³⁾	≈ 12.00kg
	Full installation set		Part No.	Weight
	1 installation set without C-profile		95.50	≈ 0.41kg
	1 installation set with C-profile (C-profile length according to dimension B_{Rl})		95.50.XXX ^{A)}	upon request
	A) Please add the C-profile length XXX as shown on the tables. Example: Part No. 95.50.200			

Individual parts	Components as individual parts, trough		Part No.	Weight
	1 trough side part, 2m section		99.11.E ¹⁾ / E44 ²⁾ / E45 ³⁾	≈ 5.00kg
	1 glide bar, 2m section		92.01	≈ 0.75 kg
	1 glide bar, 2m section + 11 screw sets		92.20	≈ 0.98kg
	1 package with 11 screw sets (for glide bar, 2m section)		92.21	≈ 0.23kg
	Components as individual parts, installation set		Part No.	Weight
	1 clamping bracket, individual		95.51	≈ 0.16kg
	1 countersunk-head screw, individual		92.53 / M6 x 14	≈ 0.002kg
	1 hexagon nut, individual		92.54 / M6	≈ 0.002kg
	1 hexagon-head screw, individual		92.55 / M10 x 16	≈ 0.019kg
1 glide nut, individual		92.56 / M10	≈ 0.015kg	
1 C-profile, individual (C-profile length according to dimension <i>B_{R1}</i>)		92.52.XXX.E ^{B)}	≈ 0.90kg/m	
B) Please add the C-profile length XXX as shown on the tables. Example: Part No. 92.52.200.E.				

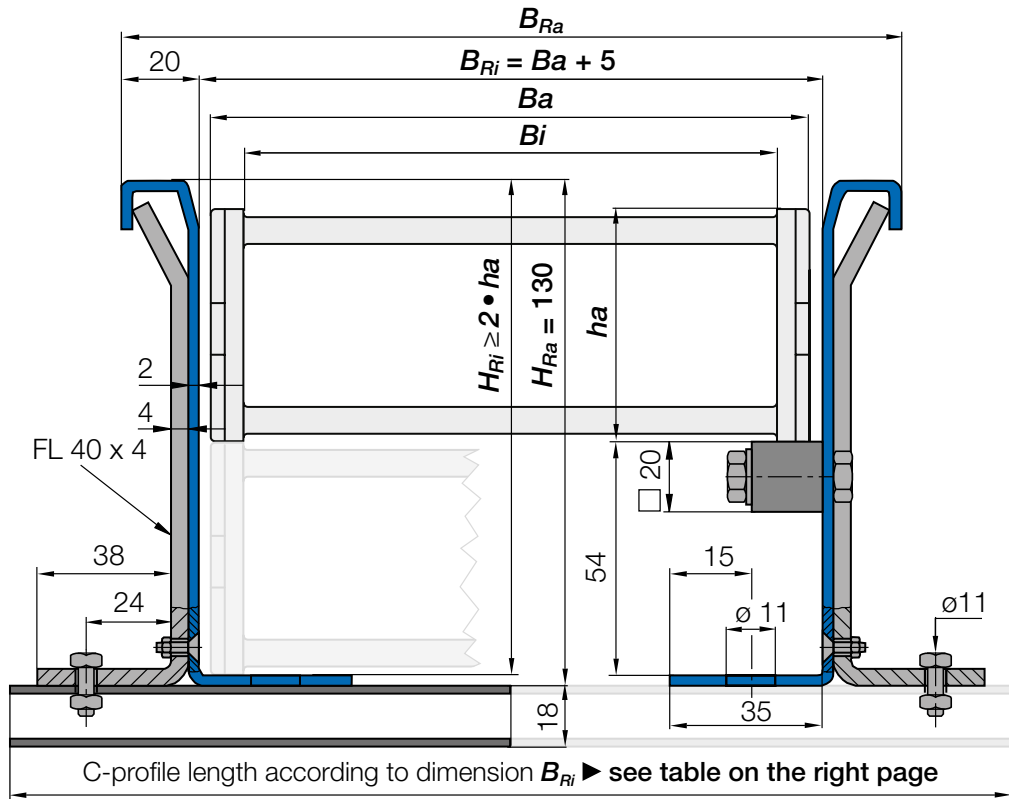
Option	Additional options for simple fastening without drilling		Part No.	
	1 set fixed end module, 2m section		99.80.01	≈ 10.00kg

1) Trough side parts + C-profile - also available in 304 stainless steel, material 1.4301 (AISI 304). Please add index .E to the Part No.

2) Trough side parts - also available in 316 stainless steel, material 1.4404 (AISI 316L). Please add index .E44 to the Part No.

3) Trough side parts - also available in 316 stainless steel, material 1.4571 (AISI 316Ti). Please add index .E45 to the Part No.

Product range | Trough height: 130mm



For the following series

E4Q

- E4Q.34/H4Q.34

E4.1

- E4.32/H4.32/R4.32

E4.1L

- E4.38L/R4.38L

E6

- E6.40/R6.40

Note: The inner width of the guide trough and the C-profile length of the installation set can differ according to the bracket you choose. Please call us.

Full sets	Full trough side part sets (2m pieces each)		Part No.	Weight
	1 set of 2 trough side parts, without glide bars, 2m section		97.30.E ¹⁾ / E44 ²⁾ / E45 ³⁾	≈ 11.80kg
	1 set of 2 trough side parts, with glide bars, 2m section, galvanised steel		97.31.E ¹⁾ / E44 ²⁾ / E45 ³⁾	≈ 13.60kg
	Full installation set		Part No.	Weight
	1 installation set without C-profile		93.50	≈ 0.49kg
	1 installation set with C-profile (C-profile length according to dimension B_{Ri})		93.50.XXX ^{A)}	upon request
	A) Please add the C-profile length XXX as shown on the tables. Example: Part No. 93.50.350			

Individual parts	Components as individual parts, trough		Part No.	Weight
	1 trough side part, 2m section		97.11.E ¹⁾ / E44 ²⁾ / E45 ³⁾	≈ 5.90kg
	1 glide bar, 2m section		92.01	≈ 0.75 kg
	1 glide bar, 2m section + 11 screw sets		92.20	≈ 0.98kg
	1 package with 11 screw sets (for glide bar, 2m section)		92.21	≈ 0.23kg
	Components as individual parts, installation set		Part No.	Weight
	1 clamping bracket, individual		93.51	≈ 0.20kg
	1 countersunk-head screw, individual		92.53 / M6 x 14	≈ 0.002kg
	1 hexagon nut, individual		92.54 / M6	≈ 0.002kg
	1 hexagon-head screw, individual		92.55 / M10 x 16	≈ 0.019kg
	1 glide nut, individual		92.56 / M10	≈ 0.015kg
	1 C-profile, individual (C-profile length according to dimension B_{Ri})		92.52.XXX.E ^{B)}	≈ 0.90kg/m
	B) Please add the C-profile length XXX as shown on the tables. Example: Part No. 92.52.350.E.			

Option	Additional options for simple fastening without drilling		Part No.	
	1 set fixed end module, 2m section		97.80.01	≈ 11.80kg

1) Trough side parts + C-profile - also available in 304 stainless steel, material 1.4301 (AISI 304). Please add index .E to the Part No.

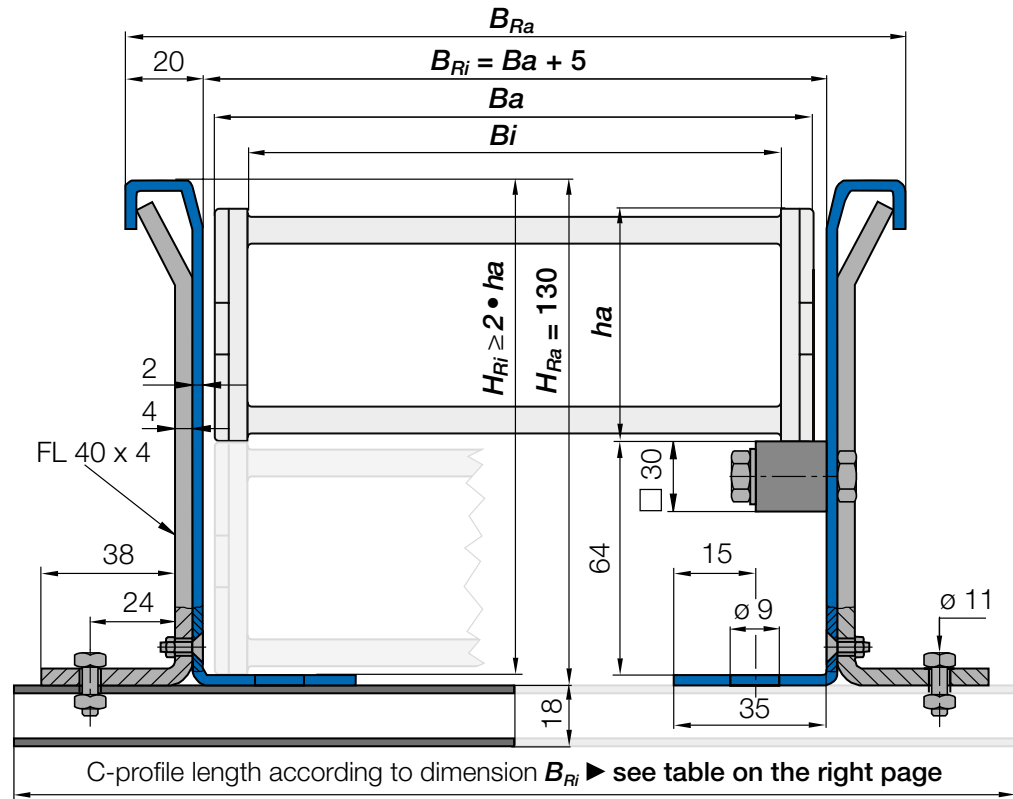
2) Trough side parts - also available in 316 stainless steel, material 1.4404 (AISI 316L). Please add index .E44 to the Part No.

3) Trough side parts - also available in 316 stainless steel, material 1.4571 (AISI 316Ti). Please add index .E45 to the Part No.

C-profile length (according to dimension B_{Ri})

E4Q.34/H4Q.34			E4.32/H4.32/R4.32			E4.38L/R4.38L			E6.40/R6.40		
Width index	B_{Ri} [mm]	Part No. Installation set	Width index	B_{Ri} [mm]	Part No. Installation set	Width index	B_{Ri} [mm]	Part No. Installation set	Width index	B_{Ri} [mm]	Part No. Installation set
.075	103	93.50.225	.05	78	93.50.200	.050	71	93.50.200	.040	65	upon request
.087	115	93.50.225	.06	96	93.50.225	.062	83	93.50.200	.050	75	93.50.200
.100	128	93.50.250	.07	103	93.50.225	.075	96	93.50.225	.052	77	93.50.200
.108	136	93.50.250	.087	115	93.50.225	.087	108	93.50.225	.062	87	93.50.200
.112	141	93.50.250	.09	125	93.50.250	.100	121	93.50.250	.070	95	93.50.225
.125	153	93.50.275	.10	128	93.50.250	.105	126	93.50.250	.075	100	93.50.225
.137	166	93.50.275	.11	136	93.50.250	.112	133	93.50.250	.087	112	93.50.225
.150	178	93.50.300	.112	141	93.50.250	.125	146	93.50.275	.100	125	93.50.250
.162	191	93.50.300	.12	153	93.50.275	.137	158	93.50.275	.125	150	93.50.275
.168	196	93.50.325	.137	166	93.50.275	.150	171	93.50.300	.150	175	93.50.300
.175	203	93.50.325	.15	178	93.50.300	.162	183	93.50.300	.175	200	93.50.325
.187	216	93.50.325	.162	191	93.50.300	.175	196	93.50.325	.200	225	93.50.350
.200	228	93.50.350	.17	196	93.50.325	.187	208	93.50.325	.225	250	93.50.375
.212	241	93.50.350	.18	203	93.50.325	.200	221	93.50.350	.250	275	93.50.400
.225	253	93.50.375	.187	216	93.50.325	.212	233	93.50.350	.275	300	93.50.425
.237	266	93.50.375	.20	228	93.50.350	.225	246	93.50.375	.300	325	93.50.450
.250	278	93.50.400	.212	241	93.50.350	.237	258	93.50.375			
.262	291	93.50.400	.23	253	93.50.375	.250	271	93.50.400			
.275	303	93.50.425	.237	266	93.50.375	.262	283	93.50.400			
.287	316	93.50.425	.25	278	93.50.400	.275*	296	93.50.425			
.300	328	93.50.450	.262	291	93.50.400	.287*	308	93.50.425			
.312*	341	93.50.450	.28	303	93.50.425	.300	321	93.50.450			
.325*	353	93.50.475	.29	316	93.50.425	* Available upon request.					
.337*	366	93.50.475	.30	328	93.50.450						
.350	378	93.50.500	.312	341	93.50.450						
.362*	391	93.50.500	.325	353	93.50.475						
.375	403	93.50.525	.337	366	93.50.475						
.387	416	93.50.525	.350	378	93.50.500						
.400	428	93.50.550	.362	391	93.50.500						
* Available upon request.			.375	403	93.50.525						
			.387	416	93.50.525						
			.400	428	93.50.550						

Product range | Trough height: 130mm



For the following series

E2.1

● E2.48

E2/000

● 3500

E2 R

● R68

E4Q

● E4Q.44/H4Q.44

E4.1

● E4.42/H4.42/R4.42

E4.1L

● E4.48L/R4.48L

E6

● E6.52/R6.52

Note: The inner width of the guide through and the C-profile length of the installation set can differ according to the bracket you choose. Please call us.

Full sets	Full trough side part sets (2m pieces each)		Part No.	Weight
	1 set of 2 trough side parts, without glide bars, 2m section		93.30.E ¹⁾ / E44 ²⁾ / E45 ³⁾	≈ 11.80kg
	1 set of 2 trough side parts, with glide bars, 2m section, galvanised steel		93.31.E ¹⁾ / E44 ²⁾ / E45 ³⁾	≈ 16.20kg
	Full installation set		Part No.	Weight
	1 installation set without C-profile		93.50	≈ 0.49kg
	1 installation set with C-profile (C-profile length according to dimension <i>B_{Ri}</i>)		93.50.XXX ^{A)}	upon request
A) Please add the C-profile length XXX as shown on the tables. Example: Part No. 93.50.350				

Individual parts	Components as individual parts, trough		Part No.	Weight
	1 trough side part, 2m section		93.11.E ¹⁾ / E44 ²⁾ / E45 ³⁾	≈ 5.90kg
	1 glide bar, 2m section		93.01	≈ 1.68kg
	1 glide bar, 2m section + 11 screw sets		93.20	≈ 2.22kg
	1 package with 11 screw sets (for glide bar, 2m section)		93.21	≈ 0.54kg
	Components as individual parts, installation set		Part No.	Weight
	1 clamping bracket, individual		93.51	≈ 0.20kg
	1 countersunk-head screw, individual		92.53 / M6 x 14	≈ 0.002kg
	1 hexagon nut, individual		92.54 / M6	≈ 0.002kg
	1 hexagon-head screw, individual		92.55 / M10 x 16	≈ 0.019kg
1 glide nut, individual		92.56 / M10	≈ 0.015kg	
1 C-profile, individual (C-profile length according to dimension <i>B_{Ri}</i>)		92.52.XXX.E ^{B)}	≈ 0.90kg/m	
B) Please add the C-profile length XXX as shown on the tables. Example: Part No. 92.52.350.E.				

Option	Additional options for simple fastening without drilling		Part No.	
	1 set fixed end module, 2m section		93.80.01	≈ 11.80kg

1) Trough side parts + C-profile - also available in 304 stainless steel, material 1.4301 (AISI 304). Please add index .E to the Part No.

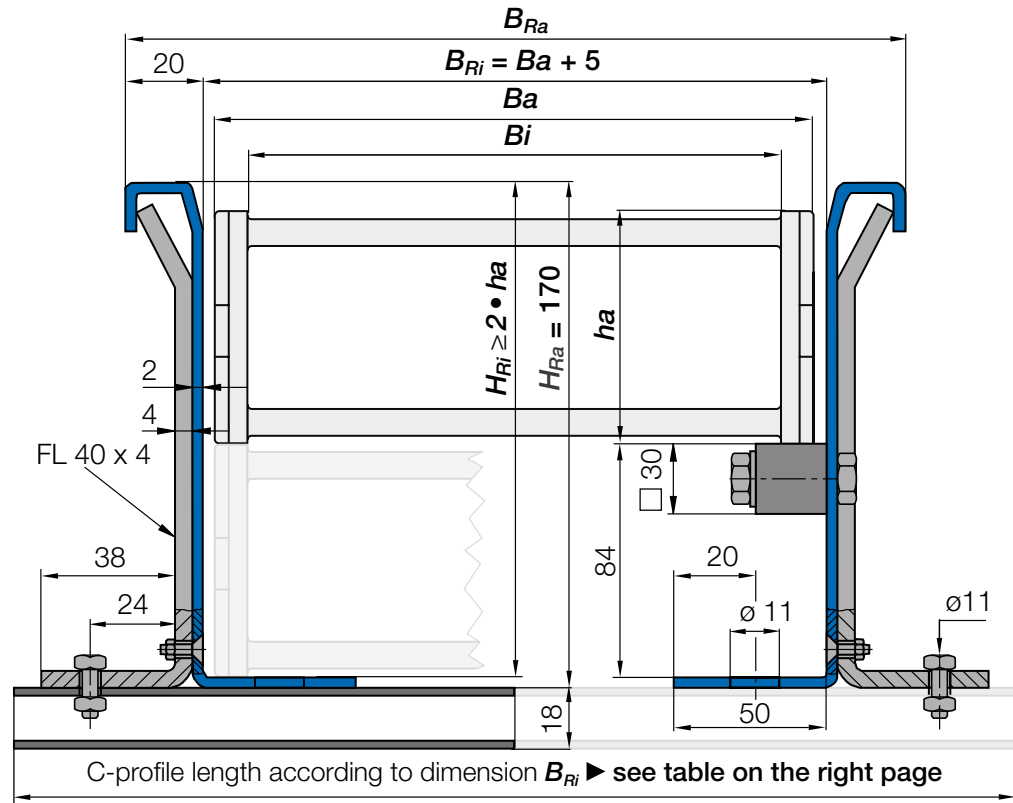
2) Trough side parts - also available in 316 stainless steel, material 1.4404 (AISI 316L). Please add index .E44 to the Part No.

3) Trough side parts - also available in 316 stainless steel, material 1.4571 (AISI 316Ti). Please add index .E45 to the Part No.

E2.48			3500			R68			E4Q.44/H4Q.44			E4.42/H4.42/R4.42			
Width index	B _R [mm]	Part No. Installation set	Width index	B _R [mm]	Part No. Installation set	Width index	B _R [mm]	Part No. Installation set	Width index	B _R [mm]	Part No. Installation set	Width index	B _R [mm]	Part No. Installation set	
.050	77	93.50.200	.050	77	93.50.200	.050	73	93.50.200	.075	106	93.50.225	.05	81	93.50.200	
.075	102	93.50.225	.075	102	93.50.225	.075	98	93.50.225	.087	119	93.50.250	.06	99	93.50.225	
.100	127	93.50.250	.100	127	93.50.250	.100	123	93.50.250	.100	131	93.50.250	.07	106	93.50.225	
.115	142	93.50.250	.115	142	93.50.250	.115	138	93.50.250	.108	139	93.50.250	.087	119	93.50.250	
.125	152	93.50.275	.125	152	93.50.275	.125	148	93.50.275	.112	144	93.50.275	.097	128	93.50.250	
.150	177	93.50.300	.150	177	93.50.300	.150	173	93.50.300	.125	156	93.50.275	.10	131	93.50.250	
.175	202	93.50.325	.175	202	93.50.325	.175	198	93.50.325	.137	169	93.50.300	.11	139	93.50.250	
.200	227	93.50.350	.200	227	93.50.350	.200	223	93.50.350	.150	181	93.50.300	.112	144	93.50.275	
.225	252	93.50.375	.225	252	93.50.375	.225	248	93.50.375	.162	194	93.50.325	.12	156	93.50.275	
.250	277	93.50.400	.250	277	93.50.400	.250	273	93.50.400	.168	199	93.50.325	.137	169	93.50.300	
E4.48L/R4.48L			E6.52/R6.52			.175	206	93.50.325	.175	206	93.50.325	.15	181	93.50.300	
						.187	219	93.50.350	.187	219	93.50.350	.162	194	93.50.325	
						.200	231	93.50.350	.200	231	93.50.350	.17	199	93.50.325	
						.212	244	93.50.375	.212	244	93.50.375	.18	206	93.50.325	
						.225	256	93.50.375	.225	256	93.50.375	.187	219	93.50.350	
						.237	269	93.50.400	.237	269	93.50.400	.20	231	93.50.350	
						.250	281	93.50.400	.250	281	93.50.400	.212	244	93.50.375	
						.262	294	93.50.425	.262	294	93.50.425	.23	256	93.50.375	
						.275	306	93.50.425	.275	306	93.50.425	.237	269	93.50.400	
						.287	319	93.50.450	.287	319	93.50.450	.25	281	93.50.400	
						.300	331	93.50.450	.300	331	93.50.450	.262	294	93.50.425	
						.312*	344	93.50.475	.312*	344	93.50.475	.28	306	93.50.425	
						.325*	356	93.50.475	.325*	356	93.50.475	.29	319	93.50.450	
						.337*	369	93.50.500	.337*	369	93.50.500	.30	331	93.50.450	
						.350	381	93.50.500	.350	381	93.50.500	.312	344	93.50.475	
						.362*	394	93.50.525	.362*	394	93.50.525	.325	356	93.50.475	
						.375	407	93.50.525	.375	407	93.50.525	.337	369	93.50.500	
						.387	419	93.50.550	.387	419	93.50.550	.350	381	93.50.500	
						.400	431	93.50.550	.400	431	93.50.550	.362	394	93.50.525	
* Available upon request.										.375	407	93.50.525			
										.387	419	93.50.550			
										.400	431	93.50.550			

* Available upon request.

Product range | Trough height: 170mm



For the following series

- E4Q
 - E4Q.58/H4Q.58
- E4.1
 - E4.56/H4.56/R4.56
- E4.1L
 - E4.64L
- E4/light
 - 14040/14140/R18840
 - 14240/14340
- E6
 - E6.62
- E4/4HD
 - 4040HD/8840HD

Option: with reinforced mounting angles for extremely heavy-duty applications. For particularly demanding applications.

Note: The inner width of the guide through and the C-profile length of the installation set can differ according to the bracket you choose. Please call us.

Full sets	Full trough side part sets (2m pieces each)		Part No.	Weight
	1 set of 2 trough side parts, without glide bars, 2m section		94.30.E ¹⁾ / E44 ²⁾ / E45 ³⁾	≈ 14.70kg
	1 set of 2 trough side parts, with glide bars, 2m section, galvanised steel		94.31.E ¹⁾ / E44 ²⁾ / E45 ³⁾	≈ 19.00kg
	Full installation set		Part No.	Weight
	1 installation set without C-profile		94.50	≈ 0.58kg
	1 installation set with C-profile (C-profile length according to dimension B_{Ri})		94.50.XXX ^{A)}	upon request
	A) Please add the C-profile length XXX as shown on the tables. Example: Part No. 94.50.350			

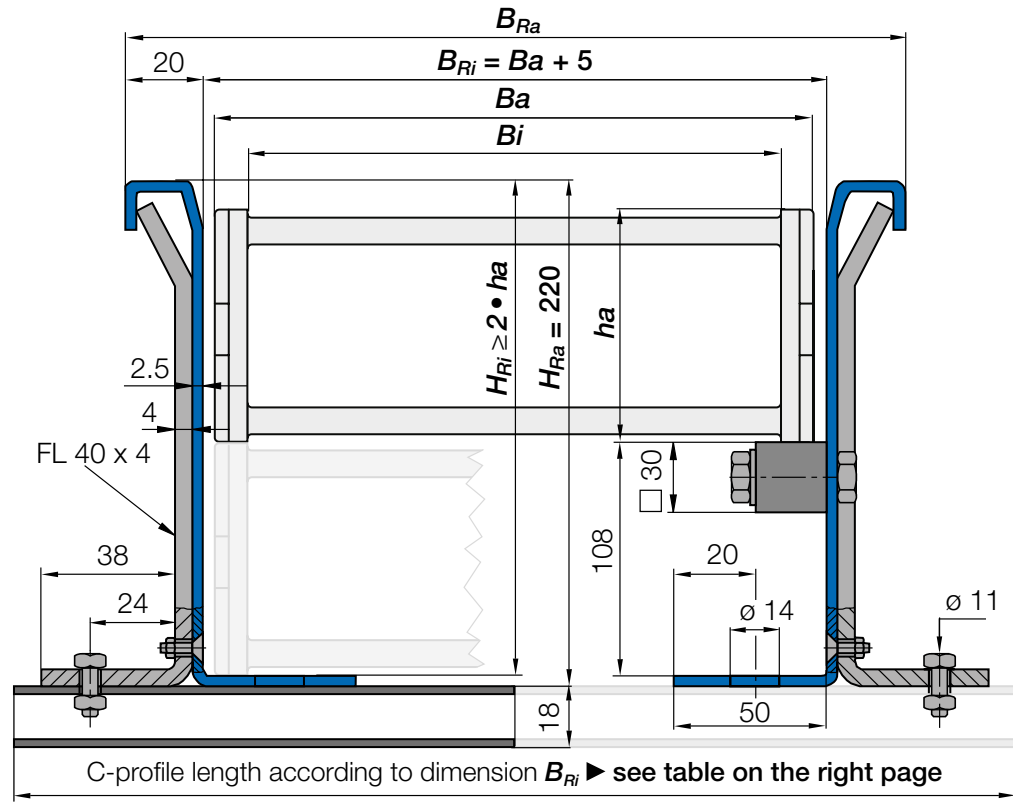
Individual parts	Components as individual parts, trough		Part No.	Weight
	1 trough side part, 2m section		94.11.E ¹⁾ / E44 ²⁾ / E45 ³⁾	≈ 7.35kg
	1 glide bar, 2m section		93.01	≈ 1.68kg
	1 glide bar, 2m section + 11 screw sets		93.20	≈ 2.22kg
	1 package with 11 screw sets (for glide bar, 2m section)		93.21	≈ 0.54kg
	Components as individual parts, installation set		Part No.	Weight
	1 clamping bracket, individual		94.51	≈ 0.25kg
	1 countersunk-head screw, individual		92.53 / M6 x 14	≈ 0.002kg
	1 hexagon nut, individual		92.54 / M6	≈ 0.002kg
	1 hexagon-head screw, individual		92.55 / M10 x 16	≈ 0.019kg
	1 glide nut, individual		92.56 / M10	≈ 0.015kg
	1 C-profile, individual (C-profile length according to dimension B_{Ri})		92.52.XXX.E ^{B)}	≈ 0.90kg/m
	B) Please add the C-profile length XXX as shown on the tables. Example: Part No. 92.52.350.E.			

Option	Additional options for simple fastening without drilling		Part No.	
	1 set fixed end module, 2m section		94.80.01	≈ 14.70kg

1) Trough side parts + C-profile - also available in 304 stainless steel, material 1.4301 (AISI 304). Please add index .E to the Part No.
2) Trough side parts - also available in 316 stainless steel, material 1.4404 (AISI 316L). Please add index .E44 to the Part No.
3) Trough side parts - also available in 316 stainless steel, material 1.4571 (AISI 316Ti). Please add index .E45 to the Part No.

E4Q.58/H4Q.58				E4.56/H4.56/R4.56				E4.64L			14040/14140/R18840				14240/14340				E6.62				4040HD/8840HD				
Width Index	B _{pi} [mm]	Part No.	Installation set	Width Index	B _{pi} [mm]	Part No.	Installation set	Width Index	B _{pi} [mm]	Part No.	Installation set	Width Index	B _{pi} [mm]	Part No.	Installation set	Width Index	B _{pi} [mm]	Part No.	Installation set	Width Index	B _{pi} [mm]	Part No.	Installation set	Width Index	B _{pi} [mm]	Part No.	Installation set
.100	139	94.50.250		.05	89	upon request		.075	106	94.50.225		.05	81	upon request		.05	81	upon request		.05	91	upon request		.05	109	94.50.225	
.112	152	94.50.275		.055	94	upon request		.087	118	94.50.250		.055	86	upon request		.06	99	upon request		.06	109	94.50.225		.06	124	94.50.250	
.125	164	94.50.275		.06	104	94.50.225		.100	128	94.50.250		.06	96	upon request		.07	106	94.50.225		.07	116	94.50.225		.07	134	94.50.250	
.137	177	94.50.300		.07	114	94.50.225		.112	143	94.50.275		.07	106	94.50.225		.087	119	94.50.250		.087	128	94.50.250		.08	146	94.50.275	
.150	189	94.50.300		.08	121	94.50.225		.125	156	94.50.275		.08	118	94.50.250		.097	128	94.50.250		.097	138	94.50.250		.10	159	94.50.275	
.162	202	94.50.325		.10	139	94.50.250		.137	168	94.50.300		.10	131	94.50.250		.10	131	94.50.250		.10	141	94.50.250		.11	171	94.50.300	
.175	214	94.50.325		.11	152	94.50.275		.150	181	94.50.300		.11	144	94.50.275		.11	139	94.50.250		.11	149	94.50.275		.12	184	94.50.300	
.187	227	94.50.350		.12	164	94.50.275		.175	206	94.50.325		.12	156	94.50.275		.112	144	94.50.275		.112	153	94.50.275		.13	196	94.50.325	
.200	239	94.50.350		.13	177	94.50.300		.187	218	94.50.350		.13	169	94.50.300		.12	156	94.50.275		.12	166	94.50.275		.15	209	94.50.325	
.212	252	94.50.375		.15	189	94.50.300		.200	231	94.50.350		.15	181	94.50.300		.137	169	94.50.300		.137	178	94.50.300		.16	221	94.50.350	
.225	264	94.50.375		.16	202	94.50.325		.212	243	94.50.375		.16	194	94.50.325		.15	181	94.50.300		.15	191	94.50.300		.17	234	94.50.350	
.237	277	94.50.400		.169	209	94.50.325		.225	256	94.50.375		.169	201	94.50.325		.162	194	94.50.325		.162	203	94.50.325		.18	246	94.50.375	
.250	289	94.50.400		.17	214	94.50.325		.250	281	94.50.400		.17	206	94.50.325		.17	199	94.50.325		.17	209	94.50.325		.20	259	94.50.375	
.262	302	94.50.425		.182	222	94.50.350		.300	331	94.50.450		.182	214	94.50.325		.18	206	94.50.325		.18	216	94.50.325		.21	271	94.50.400	
.275	314	94.50.425		.18	227	94.50.350		.325	356	94.50.475		.18	219	94.50.350		.187	219	94.50.350		.187	228	94.50.350		.22	284	94.50.400	
.287	327	94.50.450		.20	239	94.50.350		.350	381	94.50.500		.20	231	94.50.350		.20	231	94.50.350		.20	241	94.50.350		.23	296	94.50.425	
.300	339	94.50.450		.207	247	94.50.375						.207	239	94.50.350		.212	244	94.50.375		.212	253	94.50.375		.25	309	94.50.425	
.312	352	94.50.475		.21	252	94.50.375						.21	244	94.50.375		.23	256	94.50.375		.23	266	94.50.375		.26	321	94.50.450	
.325	364	94.50.475		.22	264	94.50.375						.22	256	94.50.375		.237	269	94.50.400		.237	278	94.50.400		.27	334	94.50.450	
.337	377	94.50.500		.23	277	94.50.400						.23	269	94.50.400		.25	281	94.50.400		.25	291	94.50.400		.28	346	94.50.475	
.350	389	94.50.500		.25	289	94.50.400						.25	281	94.50.400		.262	294	94.50.425		.262	303	94.50.425		.30	359	94.50.475	
.362	402	94.50.525		.26	302	94.50.425						.26	294	94.50.425		.28	306	94.50.425		.28	316	94.50.425		.31	371	94.50.500	
.375	414	94.50.525		.27	314	94.50.425						.27	306	94.50.425		.29	319	94.50.450		.29	328	94.50.450		.32	384	94.50.500	
.387	427	94.50.550		.28	327	94.50.450						.28	319	94.50.450		.30	331	94.50.450		.30	341	94.50.450		.33	396	94.50.525	
.400	439	94.50.550		.30	339	94.50.450						.30	331	94.50.450		.312	344	94.50.475		.312	353	94.50.475		.35	409	94.50.525	
.412	452	94.50.575		.31	352	94.50.475						.31	344	94.50.475		.325	356	94.50.475		.325	366	94.50.475		.36	421	94.50.550	
.425	464	94.50.575		.32	364	94.50.475						.32	356	94.50.475		.337	369	94.50.500		.337	378	94.50.500		.37	434	94.50.550	
.437*	477	94.50.600		.33	377	94.50.500						.33	369	94.50.500		.350	381	94.50.500		.350	391	94.50.500		.38	446	94.50.575	
.450	489	94.50.600		.35	389	94.50.500						.35	381	94.50.500		.362	394	94.50.525		.362	403	94.50.525		.40	459	94.50.575	
.462*	502	94.50.625		.36	402	94.50.525						.36	394	94.50.525		.375	406	94.50.525		.375	416	94.50.525		.41	471	94.50.600	
.475*	514	94.50.625		.37	414	94.50.525						.37	406	94.50.525		.384	419	94.50.550		.387	428	94.50.550		.42	484	94.50.600	
.487*	527	94.50.650		.38	427	94.50.550						.38	419	94.50.550		.400	431	94.50.550		.400	441	94.50.550		.43	496	94.50.625	
.500	539	94.50.650		.40	439	94.50.550						.40	431	94.50.550									.45	509	94.50.625		
.512*	552	94.50.675		.41	452	94.50.575						.41	444	94.50.575									.46	521	94.50.650		
.525*	564	94.50.675		.42	464	94.50.575						.42	456	94.50.575									.47	534	94.50.650		
.537*	577	94.50.700		.43	477	94.50.600						.43	469	94.50.600									.48	546	94.50.675		
.550*	589	94.50.700		.45	489	94.50.600						.45	481	94.50.600									.50	559	94.50.675		
.562*	601	94.50.725		.46	502	94.50.625						.46	494	94.50.625													
* Available upon request.				.47	514	94.50.625						.47	506	94.50.625													
				.48	527	94.50.650						.48	519	94.50.650													
				.50	539	94.50.650						.50	531	94.50.650													
				.51	552	94.50.675						.51	544	94.50.675													
				.52	564	94.50.675						.52	556	94.50.675													
				.53	577	94.50.700						.53	569	94.50.700													
				.55	589	94.50.700						.55	581	94.50.700													
				.60	639	94.50.750						.60	631	94.50.750													

Product range | Trough height: 220mm



For the following series

E4Q

- E4Q.82/H4Q.82

E4.1

- E4.80/H4.80/R4.80

E4/light

- 15050/15150/R19850
- 15250/15350

E6

- E6.80

E4/4HD

- 5050HD/9850HD

Option: with reinforced mounting angles for extremely heavy-duty applications. For particularly demanding applications.

Note: The inner width of the guide through and the C-profile length of the installation set can differ according to the bracket you choose. Please call us.

Full sets	Full trough side part sets (2m pieces each)		Part No.	Weight
	1 set of 2 trough side parts, without glide bars, 2m section		96.30.E ¹⁾ / E44 ²⁾ / E45 ³⁾	≈ 22.80kg
	1 set of 2 trough side parts, with glide bars, 2m section, galvanised steel		96.31.E ¹⁾ / E44 ²⁾ / E45 ³⁾	≈ 27.20kg
	Full installation set		Part No.	Weight
	1 installation set without C-profile		96.50	≈ 0.72kg
	1 installation set with C-profile (C-profile length according to dimension <i>B_{Ri}</i>)		96.50.XXX ^{A)}	upon request
A) Please add the C-profile length XXX as shown on the tables. Example: Part No. 96.50.375				

Individual parts	Components as individual parts, trough		Part No.	Weight
	1 trough side part, 2m section		96.11.E ¹⁾ / E44 ²⁾ / E45 ³⁾	≈ 11.40kg
	1 glide bar, 2m section		93.01	≈ 1.68kg
	1 glide bar, 2m section + 11 screw sets		93.20	≈ 2.22kg
	1 package with 11 screw sets (for glide bar, 2m section)		93.21	≈ 0.54kg
	Components as individual parts, installation set		Part No.	Weight
	1 clamping bracket, individual		96.51	≈ 0.31kg
	1 countersunk-head screw, individual		92.53 / M6 x 14	≈ 0.002kg
	1 hexagon nut, individual		92.54 / M6	≈ 0.002kg
	1 hexagon-head screw, individual		92.55 / M10 x 16	≈ 0.019kg
	1 glide nut, individual		92.56 / M10	≈ 0.015kg
	1 C-profile, individual (C-profile length according to dimension B_{Ri})		92.52.XXX ^{B)} .E ^{B)}	≈ 0.90kg/m
	B) Please add the C-profile length XXX as shown on the tables. Example: Part No. 92.52.375.E.			

Option	Additional options for simple fastening without drilling	Part No.	
	1 set fixed end module, 2m section	96.80.01	≈ 22.80kg

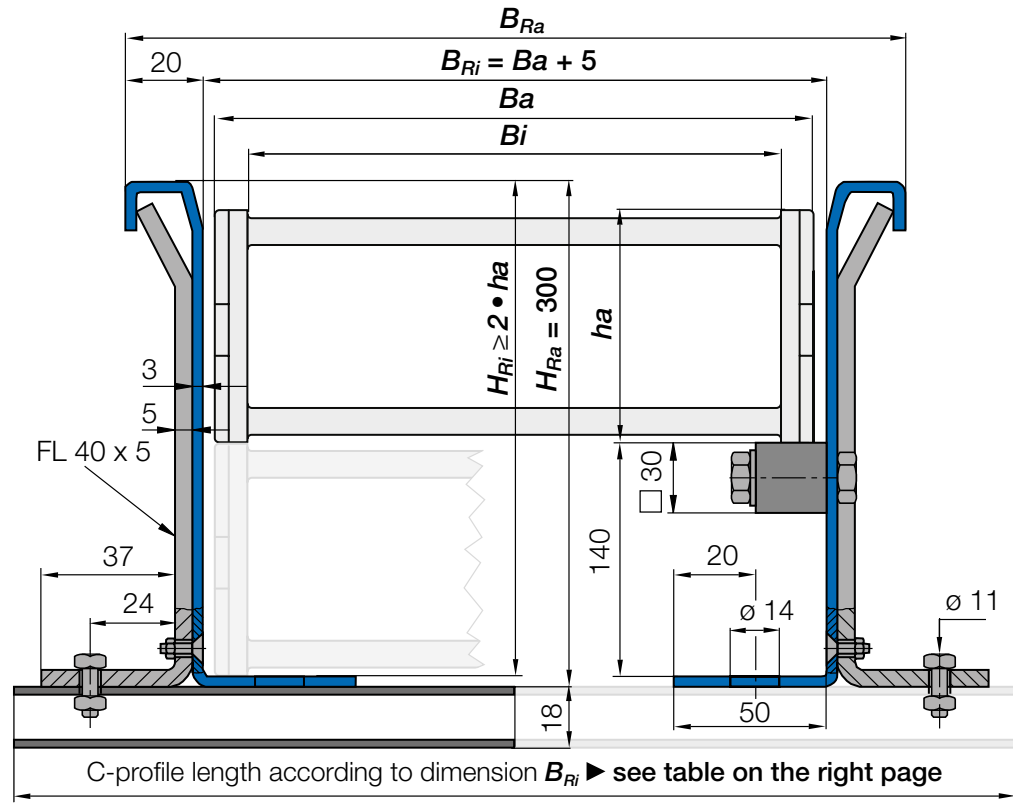
1) Trough side parts + C-profile - also available in 304 stainless steel, material 1.4301 (AISI 304). Please add index .E to the Part No.

2) Trough side parts - also available in 316 stainless steel, material 1.4404 (AISI 316L). Please add index .E44 to the Part No.

3) Trough side parts - also available in 316 stainless steel, material 1.4571 (AISI 316Ti). Please add index .E45 to the Part No.

E4Q.82/H4Q.82			E4.80/H4.80/R4.80			15050/15150/R19850			15250/15350			E6.80			5050HD/9850HD		
Width index	B_{Ri} [mm]	Part No. Installation set	Width index	B_{Ri} [mm]	Part No. Installation set	Width index	B_{Ri} [mm]	Part No. Installation set	Width index	B_{Ri} [mm]	Part No. Installation set	Width index	B_{Ri} [mm]	Part No. Installation set	Width index	B_{Ri} [mm]	Part No. Installation set
.100	155	96.50.275	.05	105	96.50.225	.05	85	upon request	.05	85	upon request	.05	105	96.50.225	.05	115	96.50.225
.112	168	96.50.300	.055	110	96.50.225	.055	90	upon request	.06	103	96.50.225	.06	120	96.50.250	.06	130	96.50.250
.125	180	96.50.300	.06	120	96.50.250	.06	100	upon request	.07	110	96.50.225	.07	130	96.50.250	.07	140	96.50.250
.137	193	96.50.325	.07	130	96.50.250	.07	110	96.50.225	.087	122	96.50.250	.08	142	96.50.275	.08	152	96.50.275
.150	205	96.50.325	.08	142	96.50.275	.08	122	96.50.250	.097	132	96.50.250	.10	155	96.50.275	.10	165	96.50.275
.162	218	96.50.350	.10	155	96.50.275	.10	135	96.50.250	.10	135	96.50.250	.11	167	96.50.300	.11	177	96.50.300
.175	230	96.50.350	.11	168	96.50.300	.11	148	96.50.275	.11	143	96.50.275	.12	180	96.50.300	.12	190	96.50.300
.187	243	96.50.375	.12	180	96.50.300	.12	160	96.50.275	.112	148	96.50.275	.13	192	96.50.325	.13	202	96.50.325
.200	255	96.50.375	.13	193	96.50.325	.13	173	96.50.300	.12	160	96.50.275	.15	205	96.50.325	.15	215	96.50.325
.212	268	96.50.400	.15	205	96.50.325	.15	185	96.50.300	.137	172	96.50.300	.16	217	96.50.350	.16	227	96.50.350
.225	280	96.50.400	.16	218	96.50.350	.16	198	96.50.325	.15	185	96.50.300	.17	230	96.50.350	.17	240	96.50.350
.237	293	96.50.425	.169	225	96.50.350	.169	205	96.50.325	.162	198	96.50.325	.18	242	96.50.375	.18	252	96.50.375
.250	305	96.50.425	.17	230	96.50.350	.17	210	96.50.325	.17	203	96.50.325	.20	255	96.50.375	.20	265	96.50.375
.262	318	96.50.450	.182	238	96.50.350	.182	218	96.50.350	.18	210	96.50.325	.21	267	96.50.400	.21	277	96.50.400
.275	330	96.50.450	.18	243	96.50.375	.18	223	96.50.350	.187	223	96.50.350	.22	280	96.50.400	.22	290	96.50.400
.287	343	96.50.475	.20	255	96.50.375	.20	235	96.50.350	.20	235	96.50.350	.23	292	96.50.425	.23	302	96.50.425
.300	355	96.50.475	.207	263	96.50.375	.207	243	96.50.375	.212	248	96.50.375	.25	305	96.50.425	.25	315	96.50.425
.312	368	96.50.500	.21	268	96.50.400	.21	248	96.50.375	.23	260	96.50.375	.26	317	96.50.450	.26	327	96.50.450
.325	380	96.50.500	.22	280	96.50.400	.22	260	96.50.375	.237	273	96.50.400	.27	330	96.50.450	.27	340	96.50.450
.337	393	96.50.525	.23	293	96.50.425	.23	273	96.50.400	.25	285	96.50.400	.28	342	96.50.475	.28	352	96.50.475
.350	405	96.50.525	.25	305	96.50.425	.25	285	96.50.400	.262	298	96.50.425	.30	355	96.50.475	.30	365	96.50.475
.362	418	96.50.550	.26	318	96.50.450	.26	298	96.50.425	.28	310	96.50.425	.31	367	96.50.500	.31	377	96.50.500
.375	430	96.50.550	.27	330	96.50.450	.27	310	96.50.425	.29	323	96.50.450	.32	380	96.50.500	.32	390	96.50.500
.387	443	96.50.575	.28	343	96.50.475	.28	323	96.50.450	.30	335	96.50.450	.33	392	96.50.525	.33	402	96.50.525
.400	455	96.50.575	.30	355	96.50.475	.30	335	96.50.450	.312	348	96.50.475	.35	405	96.50.525	.35	415	96.50.525
.412	468	96.50.600	.31	368	96.50.500	.31	348	96.50.475	.325	360	96.50.475	.36	417	96.50.550	.36	427	96.50.550
.425	480	96.50.600	.32	380	96.50.500	.32	360	96.50.475	.337	373	96.50.500	.37	430	96.50.550	.37	440	96.50.550
.437*	493	96.50.625	.33	393	96.50.525	.33	373	96.50.500	.350	385	96.50.500	.38	442	96.50.575	.38	452	96.50.575
.450	505	96.50.625	.35	405	96.50.525	.35	385	96.50.500	.362	398	96.50.525	.40	455	96.50.575	.40	465	96.50.575
.462*	518	96.50.650	.36	418	96.50.550	.36	398	96.50.525	.375	410	96.50.525	.41	470	96.50.600	.41	477	96.50.600
.475*	530	96.50.650	.37	430	96.50.550	.37	410	96.50.525	.387	423	96.50.550	.42	480	96.50.600	.42	490	96.50.600
.487*	543	96.50.675	.38	443	96.50.575	.38	423	96.50.550	.400	435	96.50.550	.43	492	96.50.625	.43	502	96.50.625
.500	555	96.50.675	.40	455	96.50.575	.40	435	96.50.550				.45	505	96.50.625	.45	515	96.50.625
.512*	568	96.50.700	.41	468	96.50.600	.41	448	96.50.575				.46	517	96.50.650	.46	527	96.50.650
.525*	580	96.50.700	.42	480	96.50.600	.42	460	96.50.575				.47	530	96.50.650	.47	540	96.50.650
.537*	593	96.50.725	.43	493	96.50.625	.43	473	96.50.600				.48	542	96.50.675	.48	552	96.50.675
.550*	605	96.50.725	.45	505	96.50.625	.45	485	96.50.600				.50	555	96.50.675	.50	565	96.50.675
.600*	655	96.50.775	.46	518	96.50.650	.46	498	96.50.625				.51	567	96.50.700	.51	577	96.50.700
* Available upon request.			.47	530	96.50.650	.47	510	96.50.625				.52	580	96.50.700	.52	590	96.50.700
			.48	543	96.50.675	.48	523	96.50.650				.53	593	96.50.725	.53	602	96.50.725
			.50	555	96.50.675	.50	535	96.50.650				.55	605	96.50.725	.55	615	96.50.725
			.51	568	96.50.700	.51	548	96.50.675				.60	655	96.50.775	.60	665	96.50.775
			.52	580	96.50.700	.52	560	96.50.675									
			.53	593	96.50.725	.53	573	96.50.700									
			.55	605	96.50.725	.55	585	96.50.700									
			.60	655	96.50.775	.60	635	96.50.750									

Product range | Trough height: 300mm



For the following series

E4.1

● E4.112/R4.112

E4/light

● 1640/R1608

Option: with reinforced mounting angles for extremely heavy-duty applications. For particularly demanding applications.

Note: The inner width of the guide through and the C-profile length of the installation set can differ according to the bracket you choose. Please call us.

Full sets	Full trough side part sets (2m pieces each)		Part No.	Weight
	1 set of 2 trough side parts, without glide bars, 2m section		98.30.E ¹⁾ / E44 ²⁾ / E45 ³⁾	≈ 34.60kg
	1 set of 2 trough side parts, with glide bars, 2m section, galvanised steel		98.31.E ¹⁾ / E44 ²⁾ / E45 ³⁾	≈ 39.00kg
	Full installation set		Part No.	Weight
	1 installation set without C-profile		98.50	≈ 1.16kg
	1 installation set with C-profile (C-profile length according to dimension B_{Ri})		98.50.XXX ^{A)}	upon request
A) Please add the C-profile length XXX as shown on the tables. Example: Part No. 98.50.350				

Individual parts	Components as individual parts, trough		Part No.	Weight
	1 trough side part, 2m section		98.11.E ¹⁾ / E44 ²⁾ / E45 ³⁾	≈ 17.30kg
	1 glide bar, 2m section		93.01	≈ 1.68kg
	1 glide bar, 2m section + 11 screw sets		93.20	≈ 2.22kg
	1 package with 11 screw sets (for glide bar, 2m section)		93.21	≈ 0.54kg
	Components as individual parts, installation set		Part No.	Weight
	1 clamping bracket, individual		98.51	≈ 0.52kg
	1 countersunk-head screw, individual		92.05 / M8 x 20	≈ 0.002kg
	1 hexagon nut, individual		92.04 / M8	≈ 0.002kg
	1 hexagon-head screw, individual		92.55 / M10 x 16	≈ 0.019kg
	1 glide nut, individual		92.56 / M10	≈ 0.015kg
	1 C-profile, individual (C-profile length according to dimension <i>B_{Ri}</i>)		92.52.XXX.E ^{B)}	≈ 0.90kg/m
B) Please add the C-profile length XXX as shown on the tables. Example: Part No. 92.52.350.E.				

Option	Additional options for simple fastening without drilling		Part No.	
	1 set fixed end module, 2m section		98.80.01	≈ 34.60kg

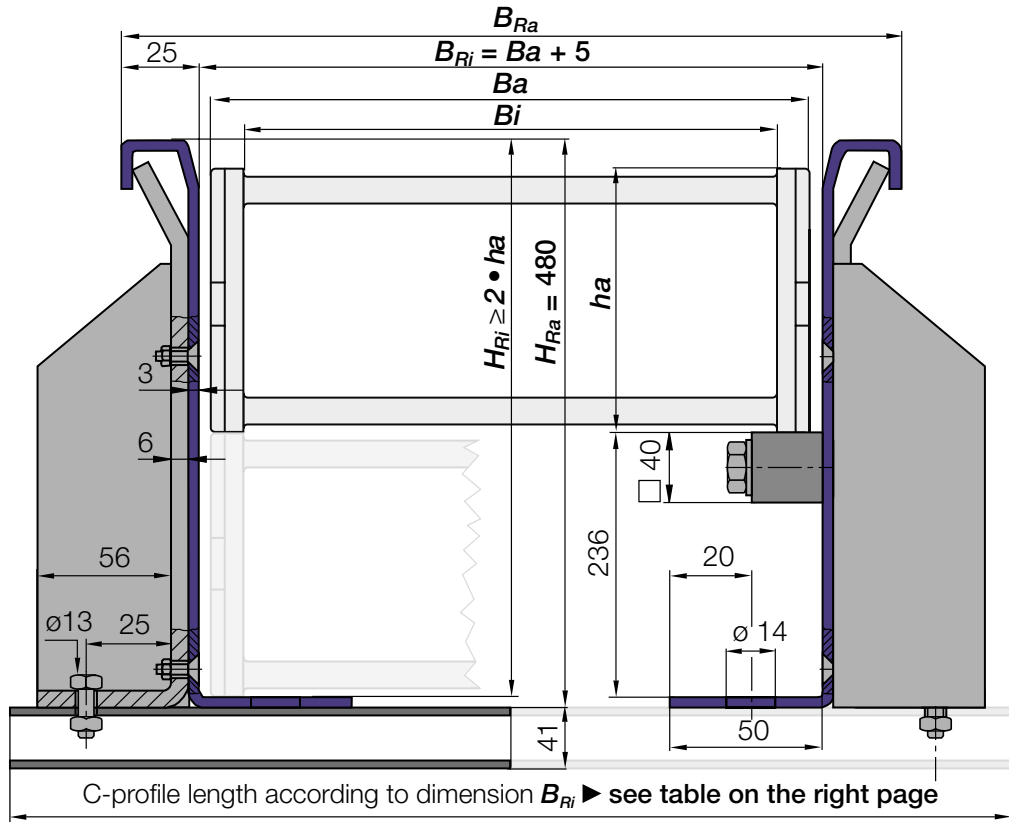
1) Trough side parts + C-profile - also available in 304 stainless steel, material 1.4301 (AISI 304). Please add index .E to the Part No.

2) Trough side parts - also available in 316 stainless steel, material 1.4404 (AISI 316L). Please add index .E44 to the Part No.

3) Trough side parts - also available in 316 stainless steel, material 1.4571 (AISI 316Ti). Please add index .E45 to the Part No.

E4.112/R4.112			1640/R1608		
Width index	B_{Ri} [mm]	Part No. Installation set	Width index	B_{Ri} [mm]	Part No. Installation set
.05	107	98.50.225	.05	89	upon request
.055	112	98.50.225	.055	94	upon request
.06	122	98.50.250	.06	104	98.50.225
.07	132	98.50.250	.07	114	98.50.250
.08	144	98.50.275	.08	124	98.50.250
.10	157	98.50.275	.10	139	98.50.275
.11	169	98.50.300	.11	151	98.50.275
.12	182	98.50.300	.12	164	98.50.300
.13	194	98.50.325	.13	176	98.50.300
.15	207	98.50.325	.15	189	98.50.325
.16	219	98.50.350	.16	201	98.50.325
.169	227	98.50.350	.169	209	98.50.325
.17	232	98.50.350	.17	214	98.50.350
.182	240	98.50.375	.182	222	98.50.350
.18	244	98.50.375	.18	226	98.50.350
.20	257	98.50.375	.20	239	98.50.375
.207	265	98.50.400	.207	247	98.50.375
.21	269	98.50.400	.21	251	98.50.375
.22	282	98.50.400	.22	264	98.50.400
.23	294	98.50.425	.23	276	98.50.400
.25	307	98.50.425	.25	289	98.50.425
.26	319	98.50.450	.26	301	98.50.425
.27	332	98.50.450	.27	314	98.50.450
.28	344	98.50.475	.28	326	98.50.450
.30	357	98.50.475	.30	339	98.50.475
.31	369	98.50.500	.31	351	98.50.475
.32	382	98.50.500	.32	364	98.50.500
.33	394	98.50.525	.33	376	98.50.500
.35	407	98.50.525	.35	389	98.50.525
.36	419	98.50.550	.36	401	98.50.525
.37	432	98.50.550	.37	414	98.50.550
.38	444	98.50.575	.38	426	98.50.550
.40	457	98.50.575	.40	439	98.50.575
.41	469	98.50.600	.41	451	98.50.575
.42	482	98.50.600	.42	464	98.50.600
.43	494	98.50.625	.43	476	98.50.600
.45	507	98.50.625	.45	489	98.50.625
.46	519	98.50.650	.46	501	98.50.625
.47	532	98.50.650	.47	514	98.50.650
.48	544	98.50.675	.48	526	98.50.650
.50	557	98.50.675	.50	539	98.50.675
.51	569	98.50.700	.51	551	98.50.675
.52	582	98.50.700	.52	564	98.50.700
.53	594	98.50.725	.53	576	98.50.700
.55	607	98.50.725	.55	589	98.50.725
.60	657	98.50.775	.60	639	98.50.775

Product range | Trough height: 480mm



For the following series

E4.1

● 800

● 840



Option: with reinforced mounting angles for extremely heavy-duty applications. For particularly demanding applications.

Note: The inner width of the guide through and the C-profile length of the installation set can differ according to the bracket you choose. Please call us.

Full sets	Full trough side part sets (2m pieces each)		Part No.	Weight
	1 set of 2 trough side parts, without glide bars, 2m section		90.30.E ¹⁾ / E44 ²⁾ / E45 ³⁾	≈ 53.40kg
	1 set of 2 trough side parts, with glide bars, 2m section, galvanised steel		90.31.E ¹⁾ / E44 ²⁾ / E45 ³⁾	≈ 59.40kg
	Full installation set		Part No.	Weight
	1 installation set without C-profile		90.50	≈ 0.41kg
	1 installation set with C-profile (C-profile length according to dimension B_{Ri})		90.50.XXX ^{A)}	upon request
	A) Please add the C-profile length XXX as shown on the tables. Example: Part No. 90.50.450			

Individual parts	Components as individual parts, trough		Part No.	Weight
	1 trough side part, 2m section		90.11.E ¹⁾ / E44 ²⁾ / E45 ³⁾	≈ 26.70kg
	1 glide bar, 2m section		90.01	≈ 1.68kg
	1 glide bar, 2m section + 11 screw sets		90.20	≈ 2.22kg
	1 package with 11 screw sets (for glide bar, 2m section)		90.21	≈ 0.54kg
	Components as individual parts, installation set		Part No.	Weight
	1 clamping bracket, individual		90.51	≈ 0.52kg
	1 countersunk-head screw, individual		MAT0040014 / M8 x 25	≈ 0.010kg
	1 hexagon nut, individual		MAT0040012 / M8	≈ 0.005kg
	1 hexagon-head screw, individual		MAT0040384 / M12 x 30	≈ 0.053kg
	1 glide nut, individual		MAT0040385 / M12	≈ 0.020kg
	1 C-profile, individual (C-profile length according to dimension B_{Ri})		IE70.41-41.XXX.E ^{B)}	≈ 0.90kg/m
	B) Please add the C-profile length XXX as shown on the tables. Example: Part No. IE70.41-41.450.E.			

Option	Additional options for simple fastening without drilling		Part No.	
	1 set fixed end module*, 2m section		90.80.01	≈ 53.40kg

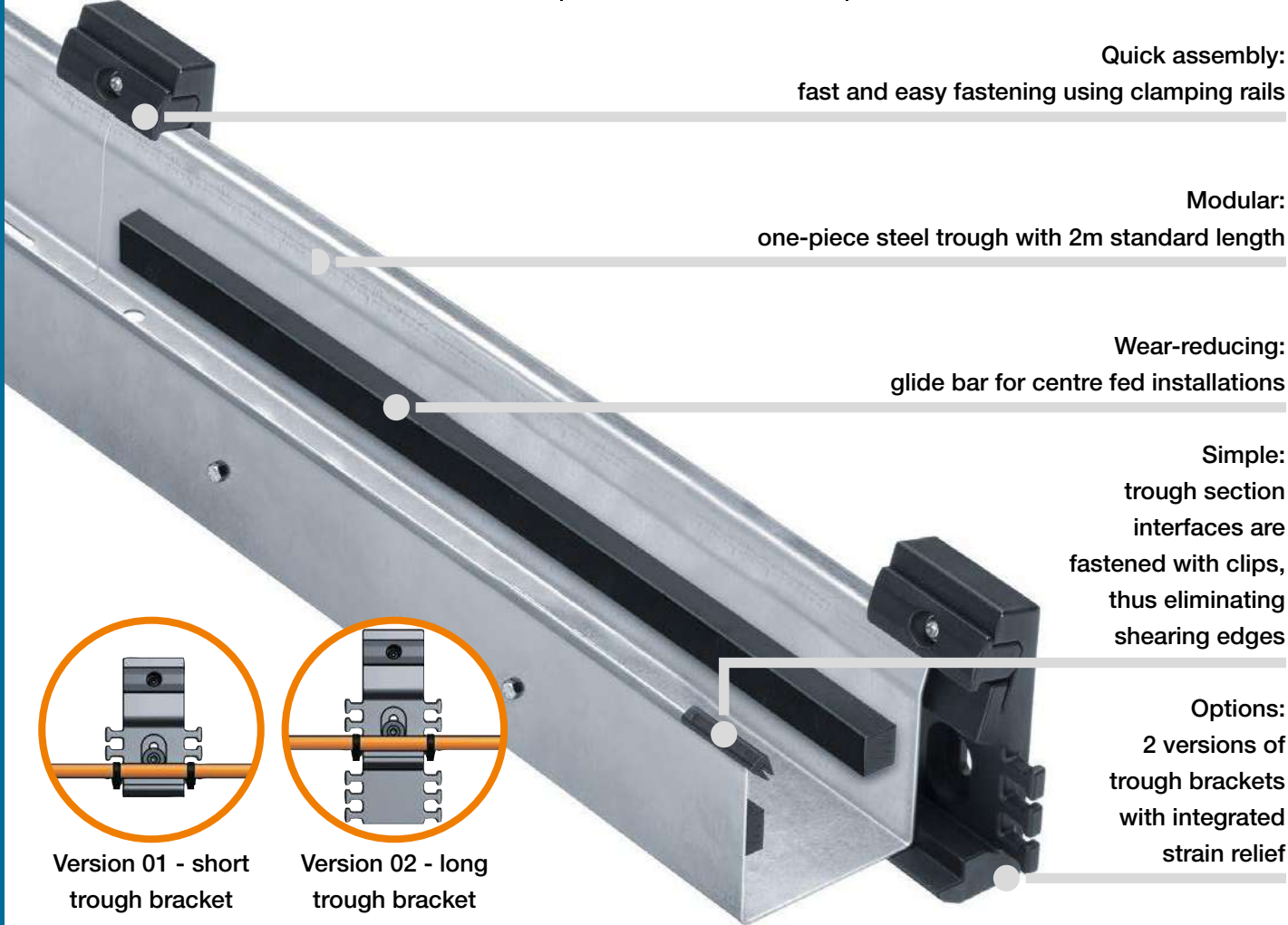
*Fixed end module available upon request. please consult igus® for delivery time.

1) Trough side parts + C-profile - also available in 304 stainless steel, material 1.4301 (AISI 304). Please add index .E to the Part No.

2) Trough side parts - also available in 316 stainless steel, material 1.4404 (AISI 316L). Please add index .E44 to the Part No.

3) Trough side parts - also available in 316 stainless steel, material 1.4571 (AISI 316Ti). Please add index .E45 to the Part No.

800			840		
Width index	B_{Ri} [mm]	Part No. Installation set	Width index	B_{Ri} [mm]	Part No. Installation set
.20	265	90.50.450	.13	165	90.50.350
.25	315	90.50.500	.15	178	90.50.350
.30	365	90.50.550	.16	190	90.50.375
.32	390	90.50.575	.17	203	90.50.375
.35	415	90.50.600	.18	215	90.50.400
.40	465	90.50.650	.20	228	90.50.400
.45	515	90.50.700	.21	240	90.50.425
.50	565	90.50.750	.22	253	90.50.425
.55	615	90.50.800	.23	265	90.50.450
.60	665	90.50.850	.25	278	90.50.450
			.26	290	90.50.475
			.27	303	90.50.475
			.28	315	90.50.500
			.30	328	90.50.500
			.31	340	90.50.525
			.32	353	90.50.525
			.33	365	90.50.550
			.35	378	90.50.550
			.36	390	90.50.575
			.37	403	90.50.575
			.38	415	90.50.600
			.40	428	90.50.600
			.41	440	90.50.625
			.42	453	90.50.625
			.43	465	90.50.650
			.45	478	90.50.650
			.46	490	90.50.675
			.47	503	90.50.675
			.48	515	90.50.700
			.50	528	90.50.700
			.51	540	90.50.725
			.52	553	90.50.725
			.53	565	90.50.750
			.55	578	90.50.750
			.60	628	90.50.800



Economical energy supply for crane girders and indoor cranes - guidefast

The guidefast guide trough is mounted on the side of the crane girder. This means welded brackets are not necessary, e.g. when installing on crane girders. Assembly times are kept to a minimum as the guide trough only has to be hooked into the holder and then secured with the trough brackets. The small number of components and the fixed trough width also contribute easy assembly.

Benefits

- Save up to 80% installation time compared to standard trough systems
- Cost-effective modular solution
- Fits virtually any standard crane girder
- 2 versions of brackets with integrated strain relief for assembly of static cables on the crane girder
- Suitable for any side-mounted application - not only on cranes
- Easy to install due to preassembled hole patterns of e-chain® brackets
- Material: galvanised steel, 304 stainless steel or black powder coated
- Conductivity according to DIN EN 61537: as standard with special connector
- Long-term tested to withstand vibration and tough environments

Typical application areas

- Crane manufacturers (mainly indoor cranes)
- Applications where the side installation of the guide trough is beneficial

Selection table

Part No. without glide bars	Part No. with glide bars	For e-chains® series		B_{Ri} [mm]	Overall width [mm]	Material Trough profile*	Page
guidefast - without and with glide bars							
GF91.30.025.2000	GF91.31.025.2000	E2.21.025.	1500.025.	42.5	81	Galvanised steel	530
GF91.30.050.2000	GF91.31.050.2000	E2.21.050.	1500.050.	67.5	106	Galvanised steel	530
GF92.30.03.2000	GF92.31.03.2000	E2.26.038.	2500.03.	58	96.5	Galvanised steel	530
GF92.30.05.2000	GF92.31.05.2000	E2.26.057.	2500.05.	77	115.5	Galvanised steel	530
GF92.30.07.2000	GF92.31.07.2000	E2.26.077.	2500.07.	97	135.5	Galvanised steel	530
GF92.30.09.2000	GF92.31.09.2000	E2.26.089.	2500.09.	109	145.5	Galvanised steel	530
GF92.30.10.2000	GF92.31.10.2000	E2.26.103.	2500.10.	123	161.5	Galvanised steel	530
GF95.30.05.2000	GF95.31.05.2000	E2.38.050.	2700.05.	70	108.5	Galvanised steel	530
GF95.30.07.2000	GF95.31.07.2000	E2.38.075.	2700.07.	95	133.5	Galvanised steel	530
GF95.30.10.2000	GF95.31.10.2000	E2.38.100.	2700.10.	120	158.5	Galvanised steel	530

*Optional: 304 stainless steel, material 1.4301 (AISI 304) or black powder coated.

guidefast guide trough | Application example



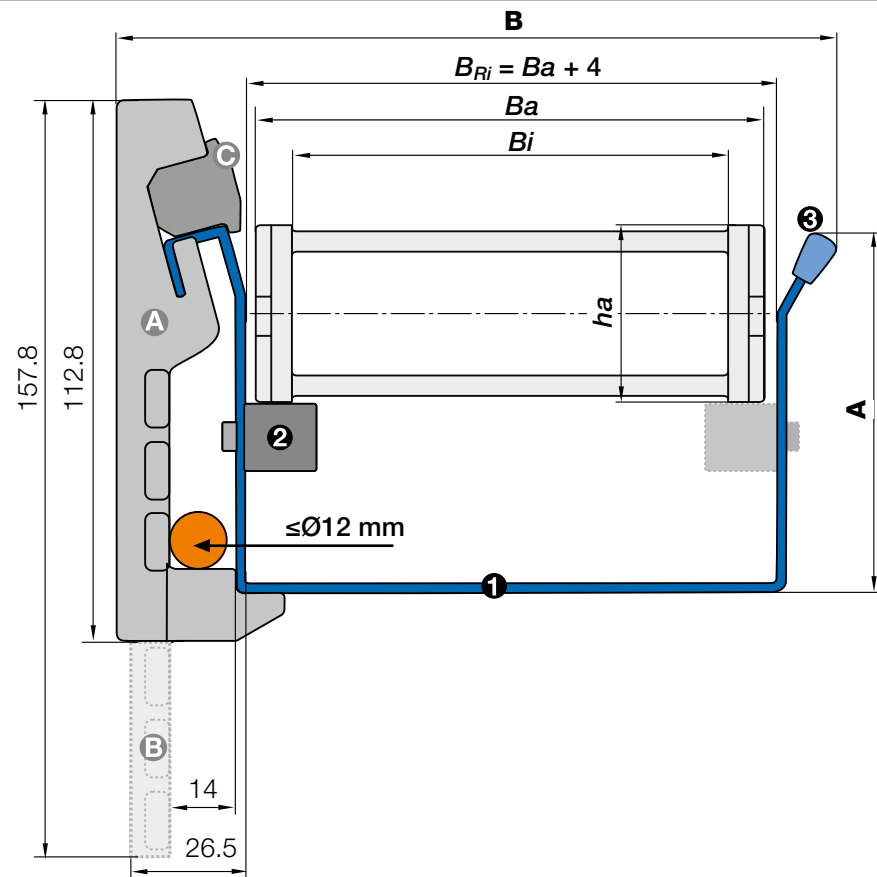
guidefast - attachment to the crane girder using welded bolts or nut/thread, here with version 2 long trough bracket.

Individual parts | Installation dimensions

- Components, guidefast set**
- ❶ Trough profile, 2m section
 - ❷ Glide bar, polymer, 2m section, optional
 - ❸ Clip connector, Part No. 908.467
(electrically conductive clip: 911.301.CD)

- Components - trough bracket**
- Ⓐ Version 01 - short trough bracket
 - Ⓑ Version 02, long trough bracket
 - Ⓒ Clamping blocks, Part No. G9.2.10

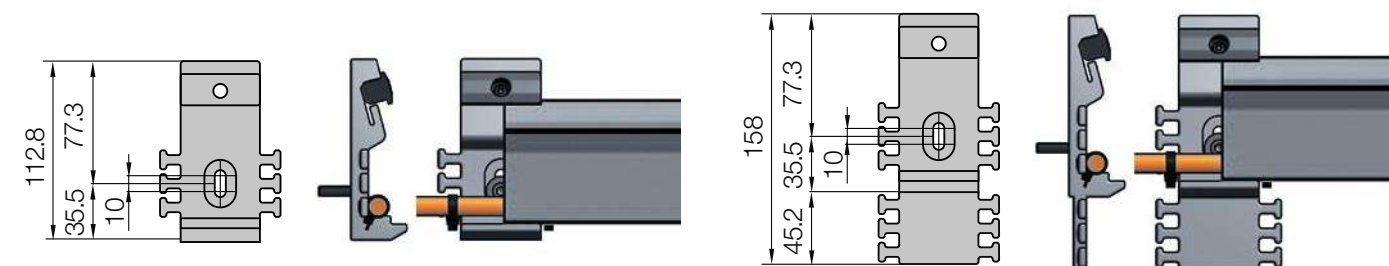
Ba = Outer e-chain® width
 Bi = Inner e-chain® width
 ha = e-chain® outer height
 H_{Ri} = Trough inner height
 H_{Ra} = Trough outer height
 B_{Ri} = Trough inner width
 B_{Ra} = Trough outer width



Product range

Part No. without glide bar (set with clips)	Part No. with glide bar (set with clips)	For the following e-chains® series	B_{Ri} [mm]	A [mm]	B [mm]	Trough bracket, short version 01* (Set with clamping blocks)	Trough bracket, long version 02*
GF91.30.025.2000	GF91.31.025.2000	E2.21.025. 1500.025.	42.5	61	81	GF9.2.12	GF9.2.11
GF91.30.050.2000	GF91.31.050.2000	E2.21.050. 1500.050.	67.5	61	106	GF9.2.12	GF9.2.11
GF92.30.03. 2000	GF92.31.03. 2000	E2.26.038. 2500.03.	58	75	97	GF9.2.12	GF9.2.11
GF92.30.05. 2000	GF92.31.05. 2000	E2.26.057. 2500.05.	77	75	115.5	GF9.2.12	GF9.2.11
GF92.30.07. 2000	GF92.31.07. 2000	E2.26.077. 2500.07.	97	75	135.5	GF9.2.12	GF9.2.11
GF92.30.09. 2000	GF92.31.09. 2000	E2.26.089. 2500.09.	109	75	148	GF9.2.12	GF9.2.11
GF92.30.10. 2000	GF92.31.10. 2000	E2.26.103. 2500.10.	123	75	161.5	GF9.2.12	GF9.2.11
GF95.30.05. 2000	GF95.31.05. 2000	E2.38.050. 2700.05.	70	105	108.5	GF9.2.12	GF9.2.11
GF95.30.07. 2000	GF95.31.07. 2000	E2.38.075. 2700.07.	95	105	133.5	GF9.2.12	GF9.2.11
GF95.30.10. 2000	GF95.31. 10. 2000	E2.38.100. 2700.10.	120	105	158.5	GF9.2.12	GF9.2.11

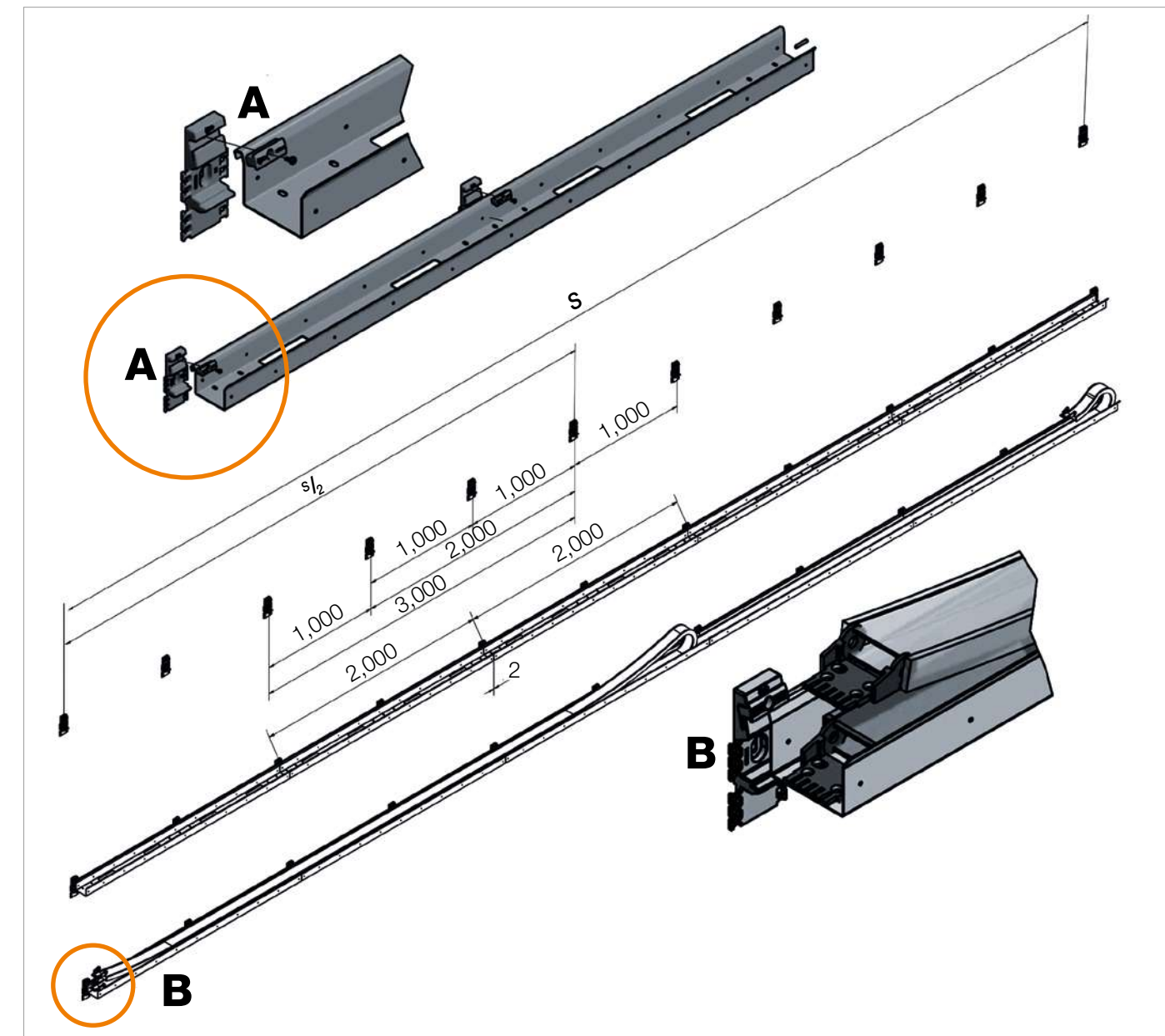
*Trough bracket with integrated strain relief, $\pm 5\text{mm}$ vertical adjustment.



Version 01 - short trough bracket Part No. GF9.2.12.

Version 02 - long trough bracket Part No. GF9.2.11.

Length calculation



Order example | Calculation

Order example for end fed, travel $\approx 9.5\text{m}$ / guide trough 10m

Trough profile set without glide bar (incl. 5 clip connectors)

Order text: 10m = 5 x 2m sections trough profile, without glide bar

GF92.30.07.2000

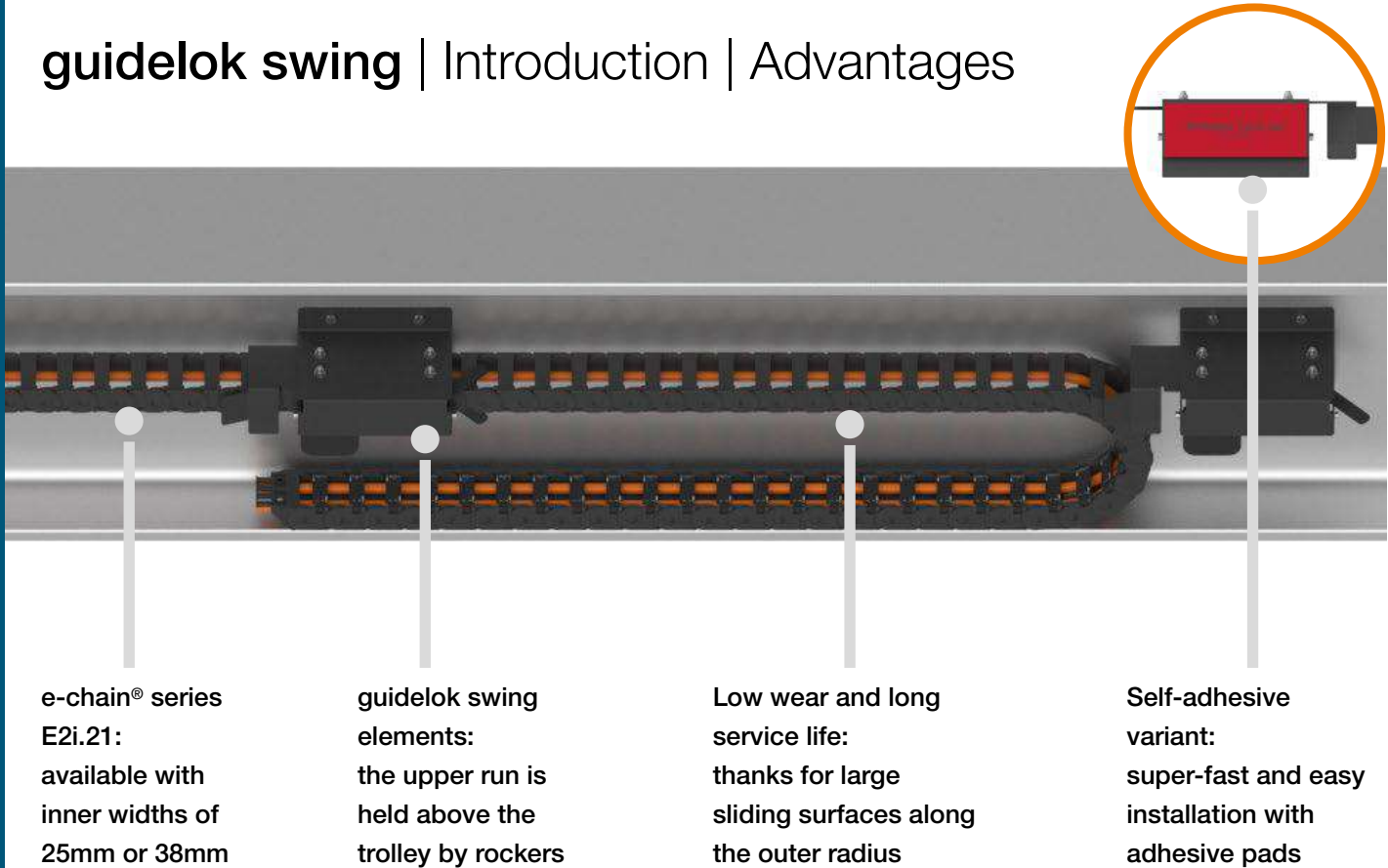
Trough brackets (incl. 11 clamping blocks, long Version 02)

Order text: 11 x trough brackets

GF9.2.11

10m = 5 x 2m sections trough profile, without glide bar + 11 x trough brackets

10m = 5 x GF92.30.07.2000 + 11 x GF9.2.11



e-chain® series E2i.21: available with inner widths of 25mm or 38mm

guidelok swing elements: the upper run is held above the trolley by rockers

Low wear and long service life: thanks for large sliding surfaces along the outer radius

Self-adhesive variant: super-fast and easy installation with adhesive pads

For jib cranes with travels up to 10m - guidelok swing GLO.S

The guidelok swing is a very compact locking device on the upper run for applications with a moving lower run. The lower run is attached to the trolley of the jib crane and slides on the crane girder. Thanks to the wider sliding surfaces in the outer radius of the E2i.21, the chain glides smoothly over the carrier, which results in a very long service life.

- Very slim, space-saving design
- Long service life due to safely guided cables
- No cable loops hanging down
- Cost-effective – without the need for any guide troughs
- New, more affordable FP module makes end-fixed system even more cost-effective
- Save installation time
- The new self-adhesive version makes installation even more cost-effective and easy without drilling

Typical application areas

- Jib cranes
- Slow or hand-operated indoor crane applications

Selection table

Part No.	Inner width <i>Bi</i> [mm]	Inner height <i>hi</i> [mm]	Bend radius <i>R</i> [mm]	For e-chain® series	Page
GLO.S. - bolted installation, for e-chains® with inner widths up to 38mm					
GLO.S.E2i.21.025.1.L/R	025	21	038 - 100	E2i.21	534
GLO.S.E2i.21.038.1.L/R	038	21	038 - 100	E2i.21	534
GLO.S...G - self-adhesive installation, for e-chains® with inner widths up to 25mm					
GLO.S.E2i.21.025.1.G.L/R	025	21	038 - 100	E2i.21	535

Technical data

General properties

Speed horizontal	≤ 1m/s
Acceleration	≤ 5m/s²

Note: This type of system should be designed in conjunction with our engineering team. All information on this page is for guidance only. Please contact us at ► www.igus.eu/contact

Cable guide guidelok swing GLO.S



Jib cranes are an indispensable part of industry. They transport workpieces of all kinds - to loading ramps, processing machines and assembly stations. However, failures can always occur. To increase system safety and productivity, igus® has developed energy supply system guidelok swing GLO.S. With the guidelok swing GLO.S, energy and data cables no longer hang in the air, but move directly in the jib crane's girder contour.

Product range for bolted variant



Part No.	Installation version	Suitable for series	Space required ²⁾ height [mm]	Min. support surface [mm]	Max. fillet radius [mm]
Upper run rocker					
E2i.21.025 ...					
GLO.S.E2i.21.025.1.R	Right-hand	E2i.21.025.038.0	142	56	15
GLO.S.E2i.21.025.1.L	Left-hand	E2i.21.025.048.0	162	56	15
Fixed end module					
E2i.21.025.075.0					
GLO.S.E2i.21.025.4	Incl. support tray ¹⁾	E2i.21.025.100.0	266	56	15

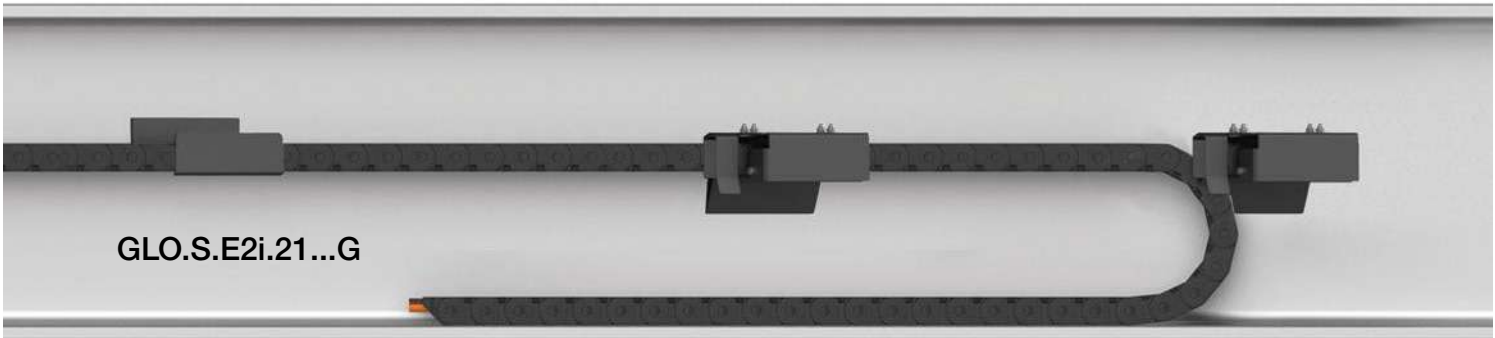
Upper run rocker					
E2i.21.038 ...					
GLO.S.E2i.21.038.1.R	Right-hand	E2i.21.038.038.0	142	80	30
GLO.S.E2i.21.038.1.L	Left-hand	E2i.21.038.048.0	162	80	30
Fixed end module					
E2i.21.038.075.0					
GLO.S.E2i.21.038.4	Incl. support tray ¹⁾	E2i.21.038.100.0	266	80	30

1) End-fixed. 2) The surface for screwing onto the guidelok swing components must be flat.
The components cannot be screwed into the radius of the crane girder.

Quantities for different travel lengths - bolted and adhesive versions

Quantity with: Travel distance [m]	Center feed [pc.]		End feed [pc.]	
	GLO.S.E2i.21.025.1.L/R	GLO.S.E2i.21.025.4	GLO.S.E2i.21.025.1.L/R	GLO.S.E2i.21.025.4
	GLO.S.E2i.21.038.1.L/R	GLO.S.E2i.21.038.4	GLO.S.E2i.21.038.1.L/R	GLO.S.E2i.21.038.4
	GLO.S.E2i.21.025.1.G.L/R	GLO.S.E2i.21.025.4.G	GLO.S.E2i.21.025.1.G.L/R	GLO.S.E2i.21.025.4.G
3.0	1	1	1	3
3.5	2	1	2	3
4.0	2	1	2	4
4.5	2	1	2	4
5.0	3	1	3	4
5.5	3	1	3	5
6.0	3	1	3	5
6.5	4	1	4	5
7.0	4	1	4	6
7.5	4	1	4	6
8.0	4	1	4	6
8.5	5	1	5	7
9.0	5	1	5	7
9.5	5	1	5	7
10	6	1	6	8

Product range for self-adhesive variant

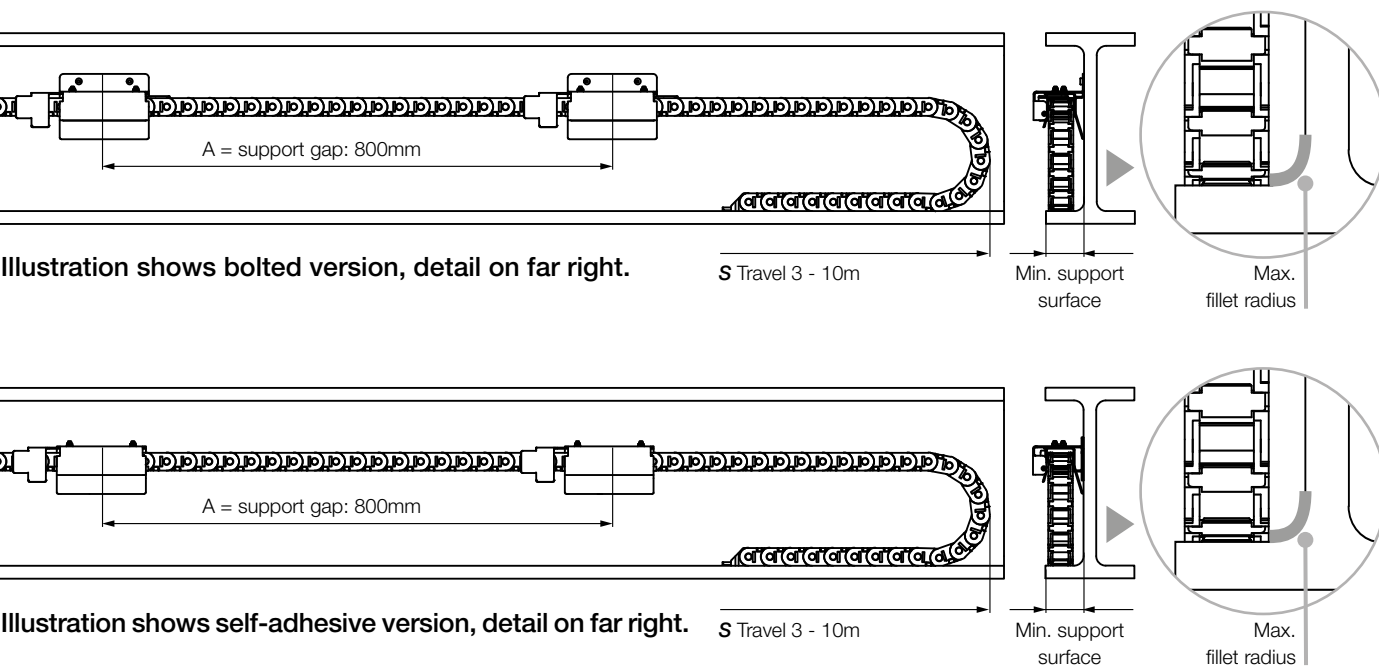


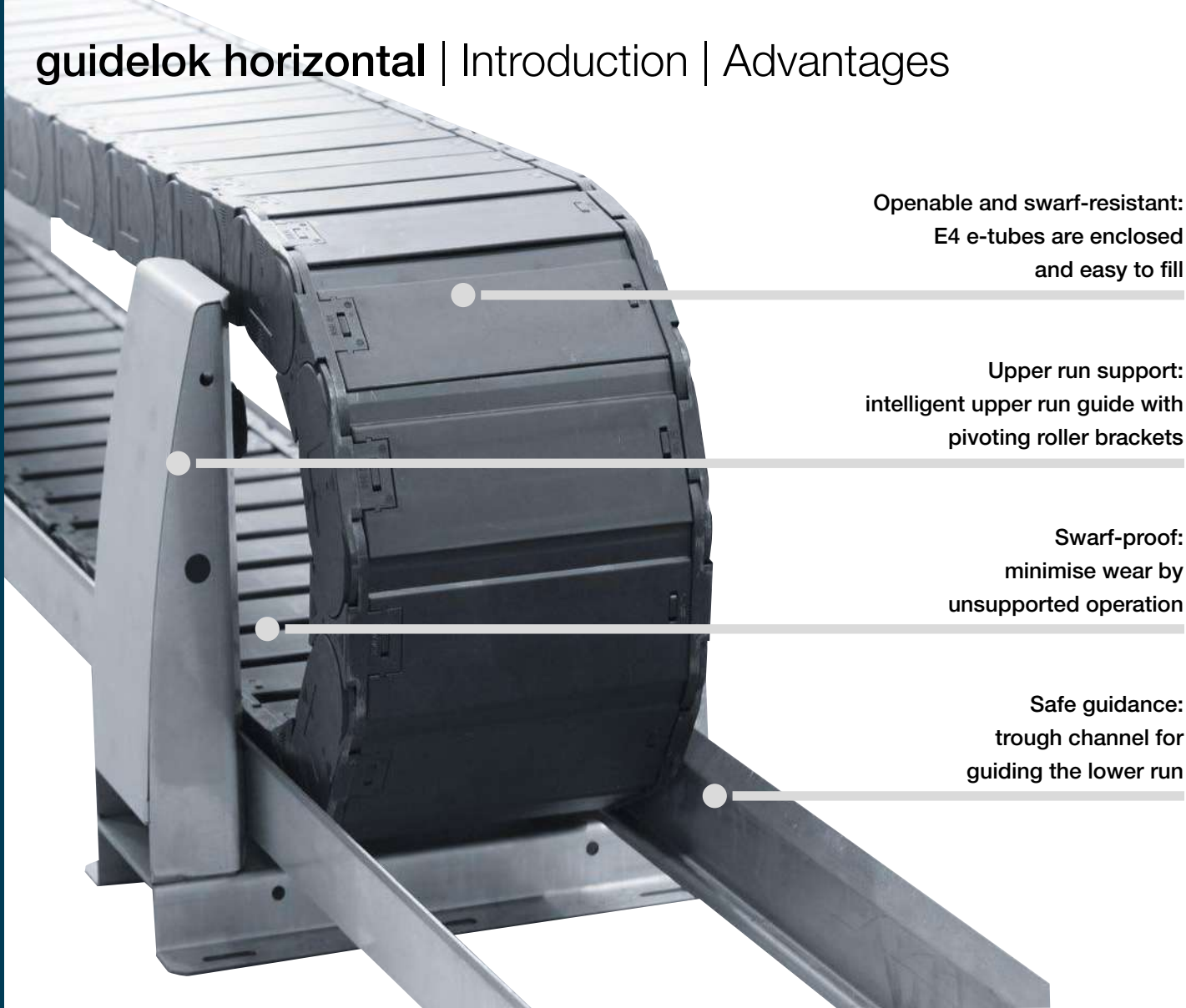
Part No.	Installation version	Suitable for series	Space required ²⁾ height [mm]	Min. support surface [mm]	Max. fillet radius [mm]
Upper run rocker					
E2i.21.025 ...					
GLO.S.E2i.21.025.1.G.R	Right-hand	E2i.21.025.038.0	114	56	15
GLO.S.E2i.21.025.1.G.L	Left-hand	E2i.21.025.048.0	134	56	15
Fixed end module					
E2i.21.025.075.0					
GLO.S.E2i.21.025.4.G	Incl. support tray ¹⁾	E2i.21.025.100.0	238	56	15

1) End-fixed. 2) The surface for screwing onto the guidelok swing components must be flat.
The components cannot be screwed into the radius of the crane girder.

Note: This type of system should be designed in conjunction with our engineering team.
All information on this page is for guidance only.
Please contact us at ► www.igus.eu/contact

Installation dimensions of bolted and self-adhesive variants





Openable and swarf-resistant:
E4 e-tubes are enclosed
and easy to fill

Upper run support:
intelligent upper run guide with
pivoting roller brackets

Swarf-proof:
minimise wear by
unsupported operation

Safe guidance:
trough channel for
guiding the lower run

Upper run guide for long travels, unsupported in swarf areas - guidelok horizontal

Especially for long travels on machine tools, when the e-chain® would normally need to glide but metallic swarf is a problem; guidelok is the cost-effective solution for unsupported travel lengths up to 50m. guidelok horizontal is more cost-effective than most steel chains or gliding systems.

- Swarf cannot get stuck between upper and lower run
- Modular system with few parts (also possible without lateral trough)
- Enormous increase of unsupported lengths for energy chains
- Intelligent upper run guide with pivoting roller brackets

Typical application areas

- Machine tools
- Heavy swarf environments
- Wherever a gliding application is not recommended

Selection table

Part No.	Inner width* <i>Bi</i> [mm]	Inner height* <i>hi</i> [mm]	Bend radius* <i>R</i> [mm]	For e-chain® series	Page
907.645 - for E4.1 e-chains® and e-tubes with bend radii up to 300mm					
907.645	50 - 600	56 - 112	150 - 300	E4/R4.56, E4/R4.80, E4/R4.120	538
907.837 - for E4.1 e-chains® and e-tubes with bend radii from 350mm to 500mm					
907.837	200 - 600	56 - 112	350 - 500	E4/R4.56, E4/R4.80, E4/R4.120	538

*Depending on the e-chain® series used.
More series and radii upon request, please consult igus® for delivery time.

Technical data

General properties

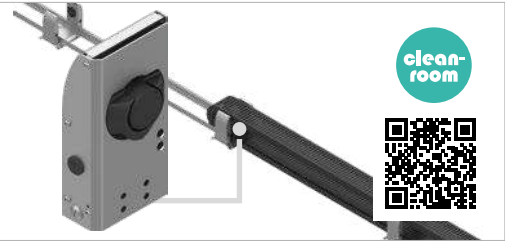
Speed horizontal	≤ 1.0m/s
Acceleration	≤ 5m/s²

**Note:** This type of system should be designed in conjunction with our engineering team.
All information on this page is for guidance only.
Please contact us at ► www.igus.eu/contact

Further solution for long travel applications

Cleanroom-compatible roller supports - GLO.CR

- Very low particle emission thanks to optimised roller surfaces and spring tensile force, can be motorised (optional)
- Advantages of cleanroom chains also for long travel lengths
- IPA certification of a complete system with four supports and E6.52 with Cleanroom Class ISO 5 for GLO.CR.56 series

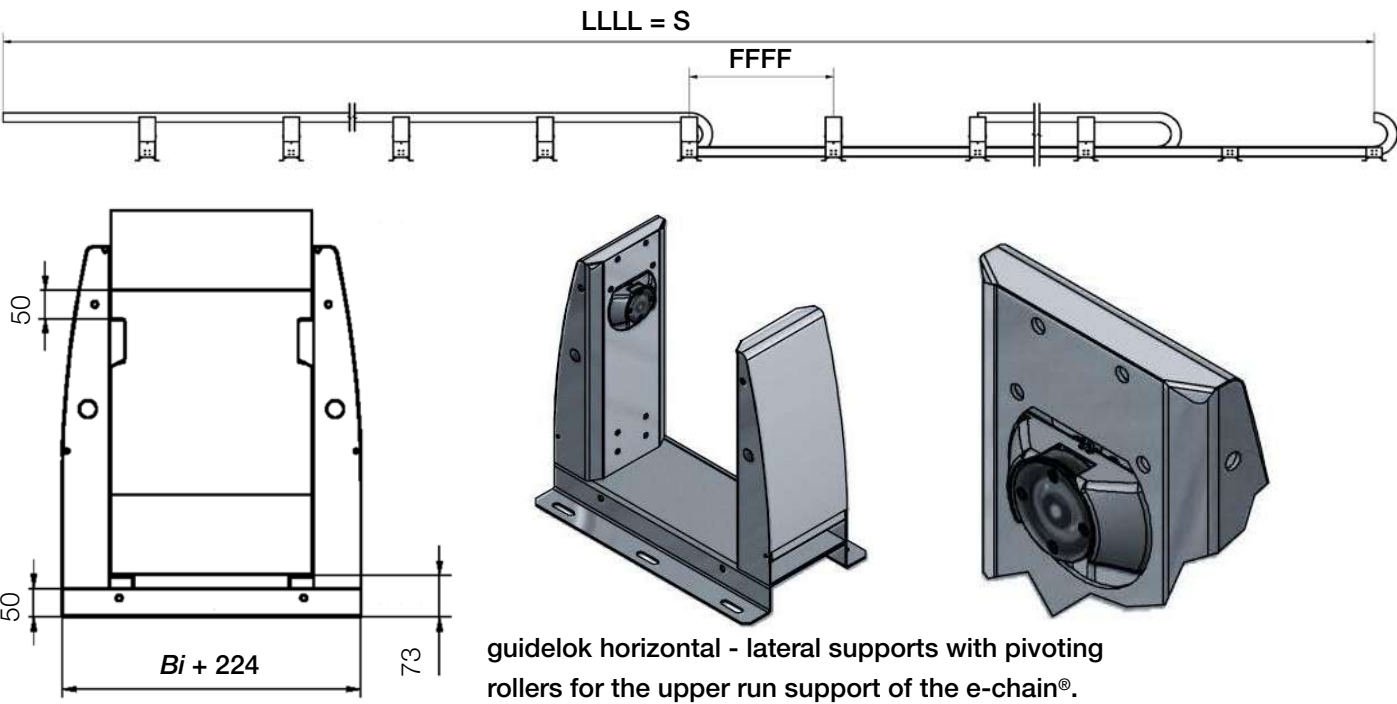


Product range

Part No.	For series	Inner width <i>Bi</i> [mm]	Bend radii <i>R</i> [mm]
Series 907.645 for E4.1 e-chains® with bend radii up to 300mm			
907.645. <i>Bi</i> . <i>R</i> . <i>LLLL</i> / <i>FFFF</i>	E4.56	50 - 600	150 175 200 250 300
907.645. <i>Bi</i> . <i>R</i> . <i>LLLL</i> / <i>FFFF</i>	E4.80	50 - 600	150 175 200 250 300
907.645. <i>Bi</i> . <i>R</i> . <i>LLLL</i> / <i>FFFF</i>	E4.112	50 - 600	- - 200 250 300
Series 907.645 for E4.1 e-tubes with bend radii up to 300mm			
907.645. <i>Bi</i> . <i>R</i> . <i>LLLL</i> / <i>FFFF</i>	R4.56	75 - 462	150 175 200 250 300
907.645. <i>Bi</i> . <i>R</i> . <i>LLLL</i> / <i>FFFF</i>	R4.80	150 - 462	- 175 200 250 300
907.645. <i>Bi</i> . <i>R</i> . <i>LLLL</i> / <i>FFFF</i>	R4.112	200 - 500	- - - 250 300
Series 907.837 for E4.1 e-chains® with bend radii from 350mm to 500mm			
907.837. <i>Bi</i> . <i>R</i> . <i>LLLL</i> / <i>FFFF</i>	E4.56	200 - 600	350 400 450 500
907.837. <i>Bi</i> . <i>R</i> . <i>LLLL</i> / <i>FFFF</i>	E4.80	200 - 600	350 400 450 500
907.837. <i>Bi</i> . <i>R</i> . <i>LLLL</i> / <i>FFFF</i>	E4.112	200 - 600	350 400 450 500
Series 907.837 for E4.1 e-tubes with bend radii from 350mm to 500mm			
907.837. <i>Bi</i> . <i>R</i> . <i>LLLL</i> / <i>FFFF</i>	R4.56	200 - 462	350 400 450 500
907.837. <i>Bi</i> . <i>R</i> . <i>LLLL</i> / <i>FFFF</i>	R4.80	200 - 462	350 400 450 500
907.837. <i>Bi</i> . <i>R</i> . <i>LLLL</i> / <i>FFFF</i>	R4.112	200 - 500	350 400 450 500

Bi = width index *R* = bend radius *LLLL* = total length *FFFF* = channel section length

Installation dimensions

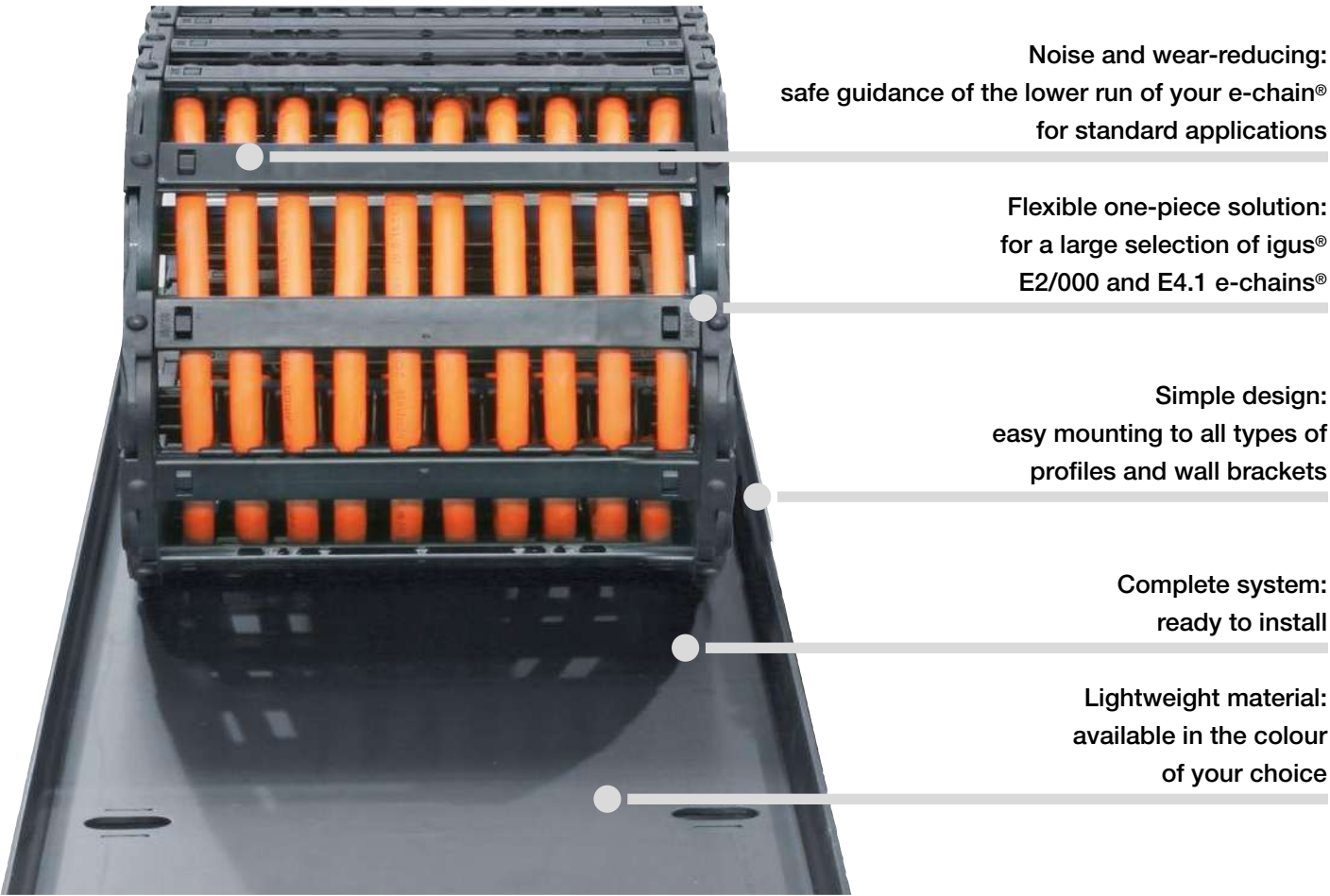


Note: This type of system should be designed in conjunction with our engineering team.
All information on this page is for guidance only.
Please contact us at ► www.igus.eu/contact

Unsupported energy chain in the horizontal lathe's chip area



Closed guidelok energy chain enables unsupported travel lengths of up to 50m. The Spanish mechanical engineering company Tornos Gurutzpe S.A., based in Guipúzcoa, has delivered more than 5,000 machines within half a century. Its horizontal lathe, the "A-2000 4G CNC", is equipped with a novel energy chain solution for long unsupported travels in swarf areas.



For easy support of the lower run - steel support tray

Simple one-piece steel support trays for the e-chain® lower run to your requirements and specification. Your width, height and colour - we supply the fitting e-chain®, together with the support tray system, ready to install onto your machine or application. Save time on procurement and design.

- Benefits**
- Complete system, ready to install
 - Avoids costly custom designs
 - Easy installation onto your machine, on profiles or wall brackets
 - Steel support tray - available from stock in 2 types and 4 options as modular system
 - Available with KMA mounting bracket for many e-chains®
 - Standard lengths from stock 1m and 2m
 - All connection rails 975mm
 - Wall brackets for easy attachment to your application available

Selection table

Part No.	e-chains® Bi* [mm]	B _{Ra} [mm]	B _{Ri} [mm]	Material Steel	Page
Type 01 - for guide trough widths from 89mm to 185mm					
S9.010.05. / S9.011.05.	.05 / .050	89	80	powdered black	542
S9.010.07. / S9.011.07.	.07 / .070	114	105	powdered black	542
S9.010.10. / S9.011.10.	.10 / .100	139	130	powdered black	542
S9.010.15. / S9.011.15.	.15 / .150	185	175	powdered black	542
Type 02 - for guide trough widths from 167mm to 317mm					
S9.020.10. / S9.021.10.	.10 / .100	167	156	powdered black	543
S9.020.15. / S9.021.15.	.15 / .150	217	206	powdered black	543
S9.020.20. / S9.021.20.	.20 / .200	267	256	powdered black	543
S9.020.25. / S9.021.25.	.25 / .250	317	306	powdered black	543

*Bi depends on width-index.

Versions



Option 01 -
with connection rail



Option 02 -
with wall bracket



Option 03 -
without rail (upon
request)



Option 04 -
customised (upon
request)

Product range

For the following systems	Suitable for the following series	Width index	B_{Ra} [mm]	B_{Ri} [mm]	Part No. Support tray, single	Part No. Support tray with wall bracket	Part No. Wall bracket, single
E2.1: E2/000: E4Q: E4.1:	E2.26 2400/2450/2480/ E4Q.34/H4Q.34 E4.32/H4.32/R4.32	.05.	89	80	S9.010.05. XXXX .0	S9.011.05. XXXX .0	907.724.05.0
		.07.	114	105	S9.010.07. XXXX .0	S9.011.07. XXXX .0	907.724.07.0
		.10.	139	130	S9.010.10. XXXX .0	S9.011.10. XXXX .0	907.724.10.0
E2.1: E2/000: E4.1L:	E2.38 2600/2650/2680/2700 E4.38L/R4.38L	.05.	89	80	S9.010.05. XXXX .0	S9.011.05. XXXX .0	907.724.05.0
		.07.	114	105	S9.010.07. XXXX .0	S9.011.07. XXXX .0	907.724.07.0
		.10.	139	130	S9.010.10. XXXX .0	S9.011.10. XXXX .0	907.724.10.0
		.15.	185	175	S9.010.15. XXXX .0	S9.011.15. XXXX .0	907.724.15.0
E2.1: E2/000: E4Q: E4.1:	E2.26 2400/2450/2480/ E4Q.34/H4Q.34 E4.32/H4.32/R4.32	.050.	89	80	S9.010.05. XXXX .0	S9.011.05. XXXX .0	907.724.05.0
		.070.	114	105	S9.010.07. XXXX .0	S9.011.07. XXXX .0	907.724.07.0
		.100.	139	130	S9.010.10. XXXX .0	S9.011.10. XXXX .0	907.724.10.0
E4.1: E6.1: E6:	E4.21 EF61.29/E61.29 E61.35, E61.40 E6.29/R6.29 E6.35, E6.40/R6.40	.050.	89	80	S9.010.05. XXXX .0	S9.011.05. XXXX .0	907.724.05.0
		.070.	114	105	S9.010.07. XXXX .0	S9.011.07. XXXX .0	907.724.07.0
		.100.	139	130	S9.010.10. XXXX .0	S9.011.10. XXXX .0	907.724.10.0
		.150.	185	175	S9.010.15. XXXX .0	S9.011.15. XXXX .0	907.724.15.0

Note: Please use these support trays only in combination with KMA mounting brackets!
For other lengths, widths and colours, please contact us.



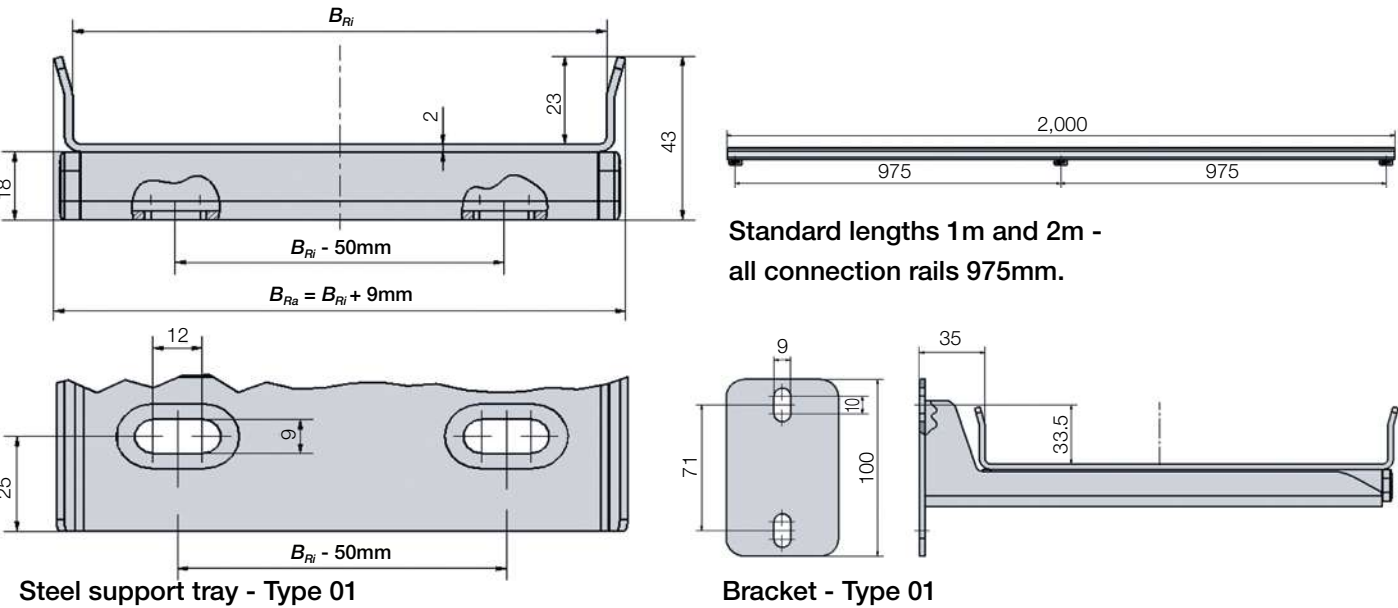
Order key

S9.010.07.1000.0

Support tray	Without wall bracket	Width index	Standard length	Colour
--------------	----------------------	-------------	-----------------	--------

Order example:
Complete Part No. XXXX with the required standard length 1000 or 2000. Example:
S9.010.15.1000.0 = with 1m standard length, without wall bracket
S9.011.15.2000.0 = with 2m standard length, with wall bracket

Installation dimensions



Steel support tray - Type 01

Bracket - Type 01

Product range

For the following systems	Suitable for the following series	Width index	B_{Ra} [mm]	B_{Ri} [mm]	Part No. Support tray, single	Part No. Support tray with wall bracket	Part No. Wall bracket, single
E4.1L:	E4.48L/R4.48L E4.64L E4Q.44/H4Q.44 E4Q.58/H4Q.58 E4Q.82/H4Q.82 E4.42/H4.42/R4.42 E4.56/H4.56/R4.56 E4.80/H4.80/R4.80 14040/14140/R18840 14240/14340 14550/14650/19050 15050/15150/R19850 15250/15350	.10.	167	156	S9.020.10. XXXX .0	S9.021.10. XXXX .0	907.759.010.0
		.15.	217	206	S9.020.15. XXXX .0	S9.021.15. XXXX .0	907.759.015.0
		.20.	267	256	S9.020.20. XXXX .0	S9.021.20. XXXX .0	907.759.020.0
E4Q:	E4.42/H4.42/R4.42 E4.56/H4.56/R4.56 E4.80/H4.80/R4.80 14040/14140/R18840 14240/14340 14550/14650/19050 15050/15150/R19850 15250/15350	.25.	317	306	S9.020.25. XXXX .0	S9.021.25. XXXX .0	907.759.025.0
E4.1:							
E4/light							
E6.1	E61.62 E61.80 E6.62 E6.80						
E6	E61.62 E61.80 E6.62 E6.80						
E2.1: E2/000 E6.1: E6:	E2.48 3400/3450/3480/3500 E61.52 E6.52/R6.52	.100.	167	156	S9.020.10. XXXX .0	S9.021.10. XXXX .0	907.759.010.0
		.150.	217	206	S9.020.15. XXXX .0	S9.021.15. XXXX .0	907.759.015.0
		.200.	267	256	S9.020.20. XXXX .0	S9.021.20. XXXX .0	907.759.020.0
		.250.	317	306	S9.020.25. XXXX .0	S9.021.25. XXXX .0	907.759.025.0

Note: Please use these support trays only in combination with KMA mounting brackets!
For other lengths, widths and colours, please contact us.



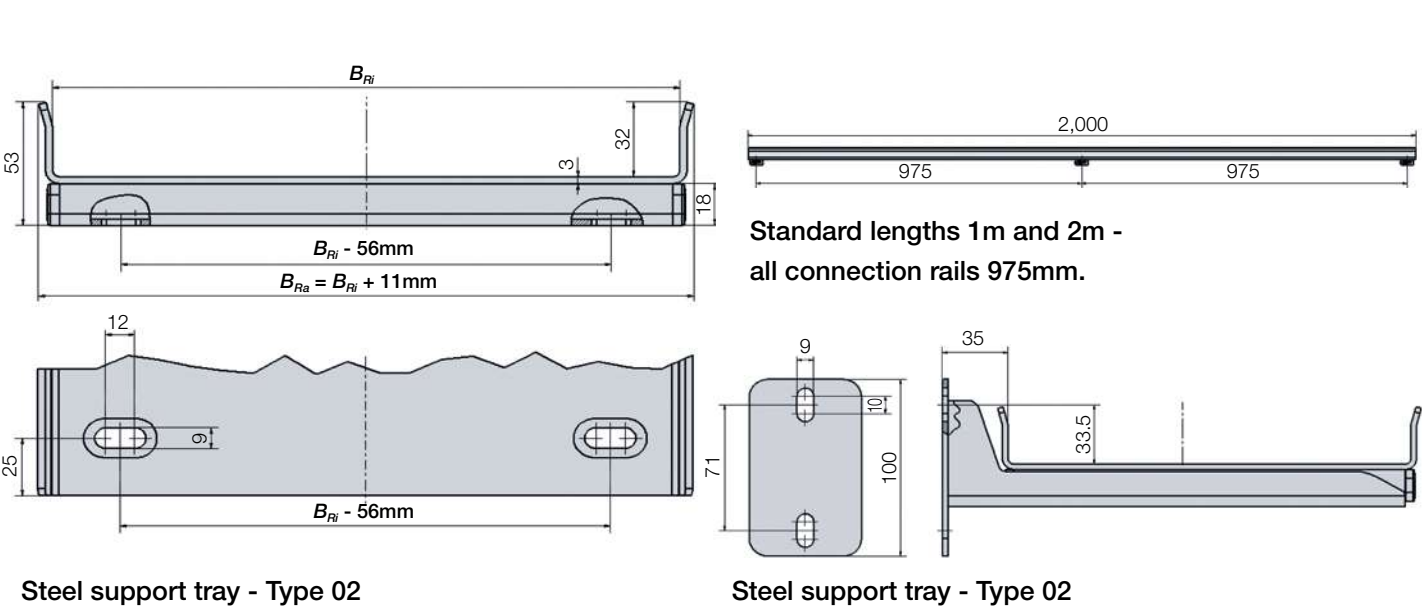
Order key

S9.020.20.1000.0

Support tray	Without wall bracket	Width index	Standard length	Colour
--------------	----------------------	-------------	-----------------	--------

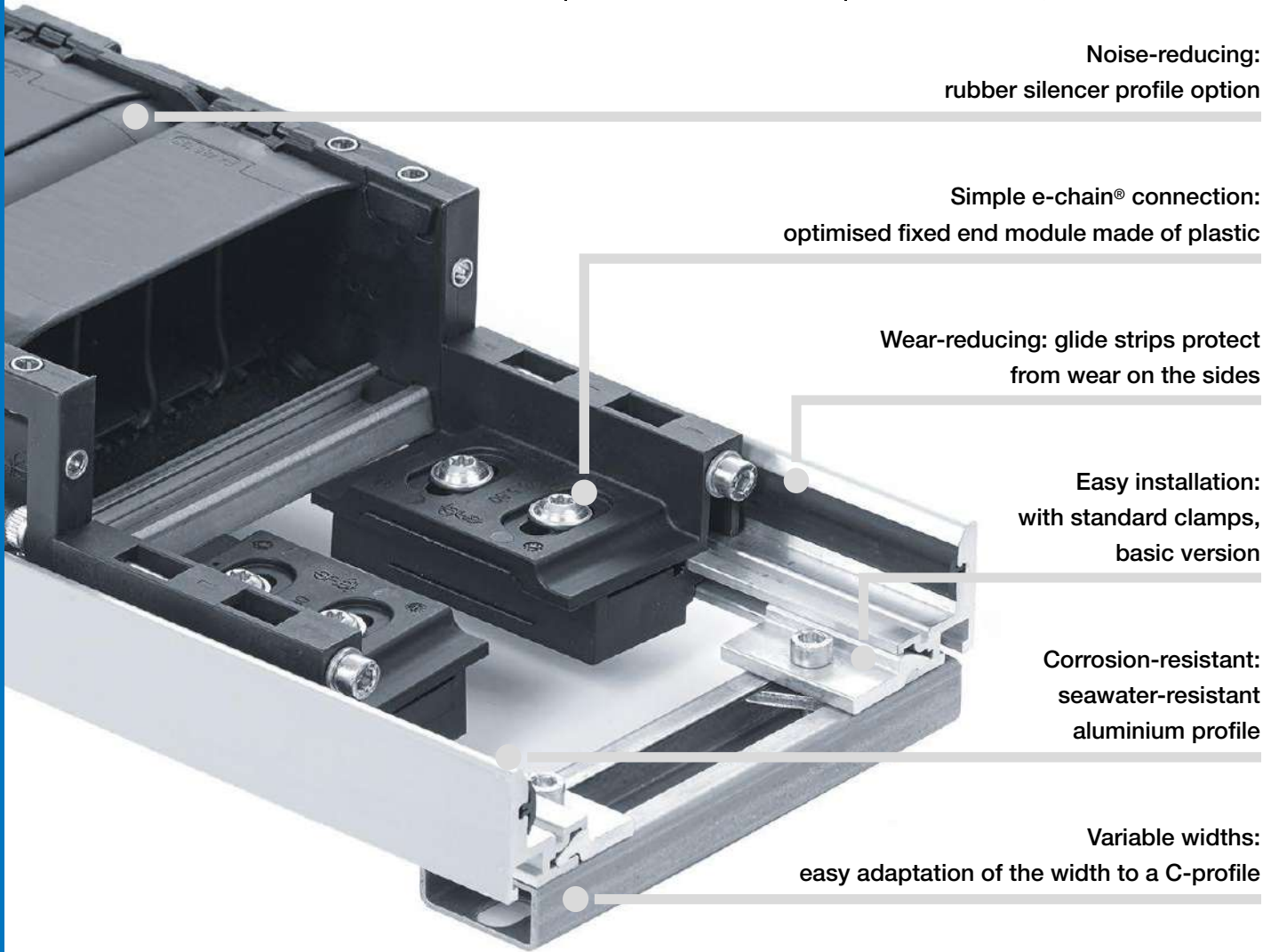
Order example:
Complete Part No. XXXX with the required standard length 1000 or 2000. Example:
S9.020.20.1000.0 = with 1m standard length, without wall bracket
S9.021.20.2000.0 = with 2m standard length, with wall bracket

Installation dimensions



Steel support tray - Type 02

Steel support tray - Type 02



Support of the lower run for unsupported applications - aluminium support tray

The design of this aluminium support tray emulates the igus® aluminium SuperTrough. This modular construction kit covers the standard sizes of our e-chains®. Because of its flexible width adjustment using installation sets with C-profiles, the aluminium support tray is used with various e-chains® series and widths. An aluminium support tray consists of two 2 trough side parts each with 2m length. Standard installation sets can be used, just as for the aluminium SuperTrough.

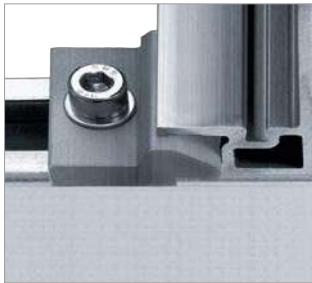
Benefits

- Corrosion-resistant, seawater-resistant aluminium profile
- Wear-reducing glide strips integrated as standard
- Quiet movement of the e-chain® due to optional silencer profile
- Simple assembly on flexible width C-profiles with basic clamps
- e-chain® easily connects to aluminium support tray using plastic fixed end modules
- Open guide trough design, debris can fall through
- Conductivity according to DIN EN 61537 - standard

Selection table

Part No.	For the following e-chain systems®	Outer height H_{Ra} [mm]	B_{Ri} [mm]	Side part material	Page
Aluminium support tray - available with and without silencer profile					
9AT.35.SL / 9AT.35.SLA	E2.1, E2/000, R2.1, E4.1, E4.1L, E6.1, E6	35	≥ 80	Aluminium	546

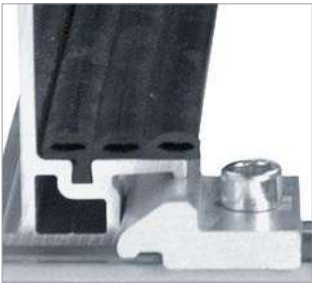
Features



Simple fastening with basic bottom clamp and C-profile.



Wear-reducing due to glide strips.



Noise-reducing with silencer profile option.



Simple connection to the e-chain® with the fixed end module.

Fixed end module | Product range

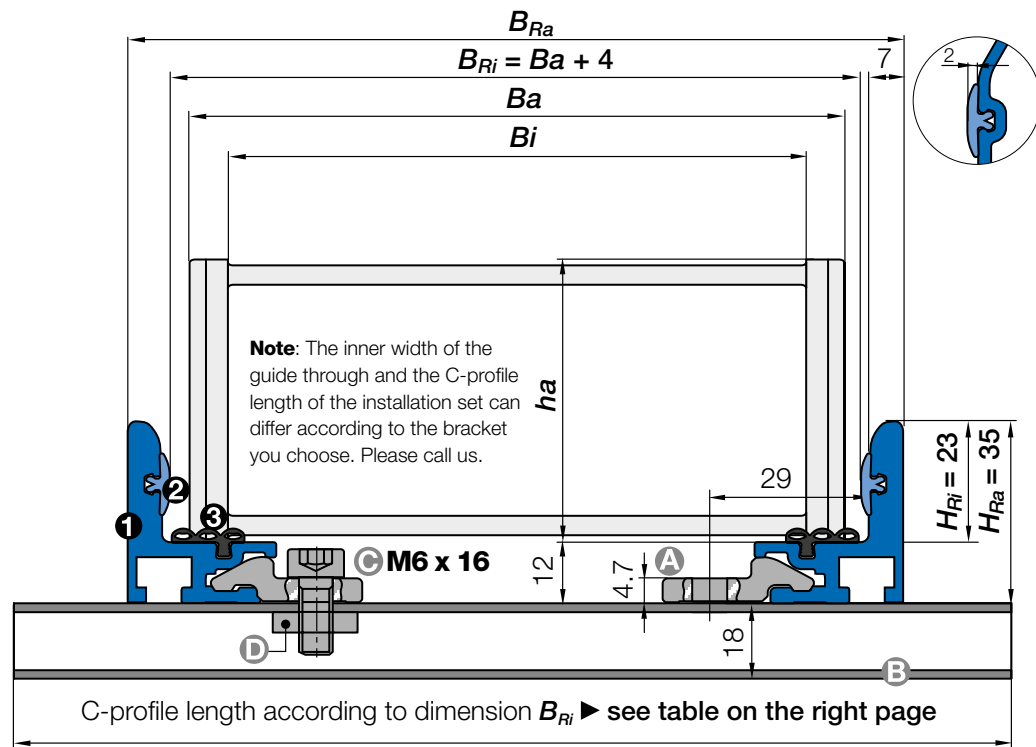


- Fixed end module - to attach the e-chain® into the aluminium support tray**
- Mounting bracket attachment on the aluminium support tray without drilling
 - Fixed end module is clamped to the trough
 - Save installation time
 - Minimise errors from drilling your own holes
 - Stainless and cost-effective

Part No.	For aluminium support tray	For e-chains® series	From ≥ B_i [mm]	Mounting bracket
971.80.4 ¹⁾	9AT.35.SL / 9AT.35.SLA	E2.26/E2i.26/E2C.26, 2400/2500/2450/2480, E6.29, EF61.29/E61.29	.07	KMA
972.80.4 ¹⁾	9AT.35.SL / 9AT.35.SLA	E4.31L/R4.31L, E4.28/R4.28, E6.35, E61.35	.06	KMA
972.80.4 ¹⁾	9AT.35.SL / 9AT.35.SLA	E4.38L/R4.38L, E4Q.34/H4Q.34, E4.32/H4.32/R4.32, E6.40/R6.40, E61.40	.06	KMA
972.80.4 ¹⁾	9AT.35.SL / 9AT.35.SLA	E2.38/E2i.38/E2C.38, 2600/2700/2650/2680	.06	KMA

1) Material: Plastic Material screw kits: Standard steel, galvanised.
Optional: 316 stainless steel, material 1.4571 (AISI 316Ti). Standard: galvanised steel

Product range | Trough height: 35mm



For the following series

E2.1

- E2.26/E2i.26/E2C.26
- E2.38/E2i.38/E2C.38

E2/000

- 2400/2500/2450/2480
- 2600/2700/2650/2680

E4Q

- E4Q.34/H4Q.34

E4.1

- E4.28/R4.28
- E4.32/H4.32/R4.32

E4.1L

- E4.31L/R4.31L
- E4.38L/R4.38L

E6.1

- EF61.29/E61.29
- E61.35
- E61.40

E6

- E6.29
- E6.35
- E6.40/R6.40

Full sets	Trough side parts ① ② ③	Part No.	Weight
	1 set of 2 trough side parts, incl. glide strips, without silencer profile, 2m section	9AT.35.SL	≈ 3.470kg
	1 set of 2 trough side parts, incl. glide strips, with silencer profile, 2m section	9AT.35.SLA	≈ 3.714kg
	Installation sets A B C D	Part No.	Weight
	1 installation set without C-profile	960.30	upon request
	1 installation set with C-profile (C-profile length according to dimension B_{Rl})	960AT.30. [XXX] 1)	upon request
	1) Please add the C-profile length [XXX] as shown on the tables. Example: Part No. 960AT.30.150		

Individual parts	Components as individual parts, trough		Part No.	Weight
	1 trough side part, individual, 2m section		9AT.35.11	≈ 1.673kg
	1 glide strip, plastic, individual, 2m section		75.01	≈ 0.062kg
	1 Silencer profile, rubber, individual, 2m section (optional for an additional noise dampening)		75.67.H.2000	≈ 0.122kg
	Components as individual parts, installation set		Part No.	Weight
	A 1 bottom clamp, aluminium individual		75.40	≈ 0.03kg
	B 1 C-profile, individual (C-profile length according to dimension B_{RI})		92.52. XXXX.E²⁾	≈ 0.90kg/m
	C 1 screw M6 x 16, individual		MAT 0040209 / M6	
	D 1 glide nut, individual		MAT 0040057 / M6	
	2) Please add the C-profile length XXXX as shown on the tables. Example: Part No. 92.52.125.E . For stainless steel, please add index .E .			

Option	Additional options for simple fastening without drilling	Part No.
	1 set fixed end module - to attach the e-chain® into the aluminium support tray.	► Page 545



Order key

9AT.35.SLA

960AT.35.125

Order example:

Complete Part No. with the required
C-profile length **XXX** .

Trough system	
Support tray	
Outer height	
With glide strip	
With silencer profile	
Installation set	
Size of bottom clamp	
Length of C-profile	

C-profile length (according to dimension B_{Ri})

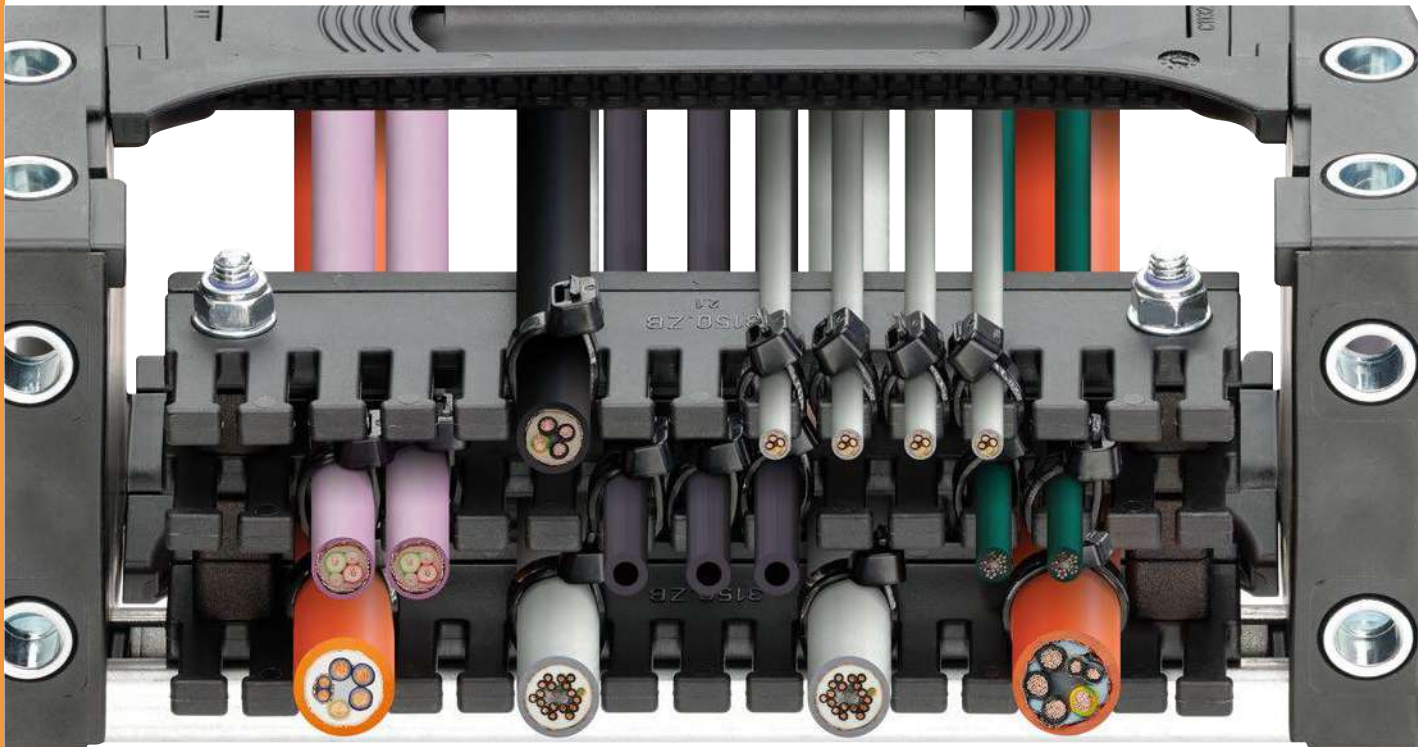
E2.26/E2i.26/E2C.26				E2.38/E2i.38/E2C.38				2400/2500/2450/2480				2600/2700/2650/2680				E4Q.34/H4Q.34				E4.28/R4.28				E4.32/H4.32/R4.32				E4.31L/R4.31L			
Width index	B_R [mm]	Part No. attached inwards		Width index	B_R [mm]	Part No. attached inwards		Width index	B_R [mm]	Part No. attached inwards		Width index	B_R [mm]	Part No. attached inwards		Width index	B_R [mm]	Part No. attached inwards		Width index	B_R [mm]	Part No. attached inwards		Width index	B_R [mm]	Part No. attached inwards		Width index	B_R [mm]	Part No. attached inwards	
.077	97	960AT.30.150		.065	86	960AT.30.150		.07	97	960AT.30.150		.06	85	960AT.30.150		.075	102	960AT.30.150		.062	86	960AT.30.150		.06	95	960AT.30.150		.062	80	960AT.30.150	
.089	109	960AT.30.175		.075	96	960AT.30.150		.09	109	960AT.30.175		.07	95	960AT.30.150		.087	114	960AT.30.175		.070	94	960AT.30.150		.07	102	960AT.30.150		.075	93	960AT.30.150	
.103	123	960AT.30.175		.090	111	960AT.30.175		.10	123	960AT.30.175		.09	110	960AT.30.175		.100	127	960AT.30.175		.075	99	960AT.30.150		.087	114	960AT.30.175		.087	105	960AT.30.175	
.125	145	960AT.30.200		.100	121	960AT.30.175		.12	145	960AT.30.200		.10	120	960AT.30.175		.112	140	960AT.30.200		.087	111	960AT.30.175		.097	124	960AT.30.175		.100	118	960AT.30.175	
				.125	146	960AT.30.200						.12	145	960AT.30.200		.125	152	960AT.30.200		.100	124	960AT.30.175		.10	127	960AT.30.175		.112	130	960AT.30.200	
				.150	171	960AT.30.225						.15	170	960AT.30.225		.125	152	960AT.30.200		.125	149	960AT.30.200		.11	135	960AT.30.200		.125	143	960AT.30.200	
				.175	198	960AT.30.250						.17	198	960AT.30.250		.137	165	960AT.30.225		.150	174	960AT.30.225		.112	140	960AT.30.200		.137*	155	960AT.30.225	
																.150	177	960AT.30.225		.175	199	960AT.30.250		.12	152	960AT.30.200		.150	168	960AT.30.225	
																.162	190	960AT.30.250		.200	224	960AT.30.275		.137	165	960AT.30.225		.162	180	960AT.30.250	
																.168	195	960AT.30.250		.225	249	960AT.30.300		.15	177	960AT.30.225		.175	193	960AT.30.250	
																.175	202	960AT.30.250		.250	274	960AT.30.325		.162	190	960AT.30.250		.187*	205	960AT.30.275	
																.187	215	960AT.30.275		.275	299	960AT.30.350		.17	195	960AT.30.250		.200*	218	960AT.30.275	
																.200	227	960AT.30.275		.300	324	960AT.30.375		.18	202	960AT.30.250		* Available upon request.			
																.225	252	960AT.30.300						.187	215	960AT.30.275					
																.237	265	960AT.30.325						.212	240	960AT.30.300					
																.250	277	960AT.30.325						.23	252	960AT.30.300					
																.262	290	960AT.30.350						.237	265	960AT.30.325					
																.275	302	960AT.30.350						.25	277	960AT.30.325					
																.287	315	960AT.30.375						.262	290	960AT.30.350					
																.300	327	960AT.30.375						.28	302	960AT.30.350					
																.312	340	960AT.30.400						.29	315	960AT.30.375					
																.325	352	960AT.30.400						.30	327	960AT.30.375					
																.337	365	960AT.30.425						.312	340	960AT.30.400					
																.350	377	960AT.30.425						.325	352	960AT.30.400					
																.362	390	960AT.30.450						.337	365	960AT.30.425					
																.375	402	960AT.30.450						.350	377	960AT.30.425					
																.387	415	960AT.30.475						.362	390	960AT.30.450					
																.400	427	960AT.30.475						.375	402	960AT.30.450					
																* Available upon request.															

E4.38L/R4.38L				EF61.29/E61.29				E61.35				E61.40			
Width index	B_R [mm]	Part No. attached inwards		Width index	B_R [mm]	Part No. attached inwards		Width index	B_R [mm]	Part No. attached inwards		Width index	B_R [mm]	Part No. attached inwards	
.062	82	960AT.30.150		.060	80	960AT.30.150		.060	84	960AT.30.150		.062	86	960AT.30.150	
.075	95	960AT.30.150		.070	90	960AT.30.150		.070	94	960AT.30.150		.070	94	960AT.30.150	
.087	107	960AT.30.175		.080	100	960AT.30.150		.080	104	960AT.30.150		.075	99	960AT.30.150	
.100	120	960AT.30.175		.090	110	960AT.30.175		.090	114	960AT.30.175		.087	111	960AT.30.175	
.105	125	960AT.30.175		.100	120	960AT.30.175		.100	124	960AT.30.175		.100	124	960AT.30.175	
.112	132	960AT.30.200		.110	130	960AT.30.200		.110	134	960AT.30.200		.125	149	960AT.30.200	
.125	145	960AT.30.200		.120	140	960AT.30.200		.120	144	960AT.30.200		.150	174	960AT.30.225	
.137	157	960AT.30.225		.140	160	960AT.30.225		.140	164	960AT.30.225		.175	199	960AT.30.250	
.150	170	960AT.30.225										.200	224	960AT.30.275	
.162	182	960AT.30.250										.225	249	960AT.30.300	
.175	195	960AT.30.250										.250	274	960AT.30.325	
.187	207	960AT.30.275										.275	299	960AT.30.350	
.200	220	960AT.30.275										.300	324	960AT.30.375	
.212	232	960AT.30.300													
.225	245	960AT.30.300													
.237	257	960AT.30.325													
.250	270	960AT.30.325													
.262	282	960AT.30.325													
.275*	295	960AT.30.350													
.287*	307	960AT.30.350													
.300	320	960AT.30.375													

E6.29/R6.29				E6.35				E6.40			
Width index	B_R [mm]	Part No. attached inwards		Width index	B_R [mm]	Part No. attached inwards		Width index	B_R [mm]	Part No. attached inwards	
.060	80	960AT.30.150		.060	84	960AT.30.150		.062	86	960AT.30.150	
.070	90	960AT.30.150		.070	94	960AT.30.150		.070	94	960AT.30.150	
.080	100	960AT.30.150		.080	104	960AT.30.150		.075	99	960AT.30.150	
.090	110	960AT.30.175		.090	114	960AT.30.175		.087	111	960AT.30.175	
.100	120	960AT.30.175		.100	124	960AT.30.175		.100	124	960AT.30.175	
.110	130	960AT.30.200		.110	134	960AT.30.200		.125	149	960AT.30.200	
.120	140	960AT.30.200		.120	144	960AT.30.200		.150	174	960AT.30.225	
.140	160	960AT.30.225		.140	164	960AT.30.225		.175	199	960AT.30.250	

E6.29/R6.29				E6.35				E6.40			
Width index	B_R [mm]	Part No. attached inwards		Width index	B_R [mm]	Part No. attached inwards		Width index	B_R [mm]	Part No. attached inwards	
.060	80	960AT.30.150		.060	84	960AT.30.150		.062	86	960AT.30.150	
.070	90	960AT.30.150		.070	94	960AT.30.150		.070	94	960AT.30.150	
.080	100	960AT.30.150		.080	104	960AT.30.150		.075	99	960AT.30.150	
.090	110	960AT.30.175		.090	114	960AT.30.175		.087	111	960AT.30.175	
.100	120	960AT.30.175		.100	124	960AT.30.175		.100	124	960AT.30.175	
.110	130	960AT.30.200		.110	134	960AT.30.200		.125	149	960AT.30.200	
.120	140	960AT.30.200		.120	144	960AT.30.200		.150	174	960AT.30.225	
.140	160	960AT.30.225		.140	164	960AT.30.225		.175	199	960AT.30.250	
								.200	224	960AT.30.275	
								.225	249	960AT.30.300	
								.250	274	960AT.30.325	
								.275	299	960AT.30.350	
								.300	324	960AT.30.375	

* Available upon request.



Picture shows the new, stackable, space-saving chainfix multi-tiewrap plates.

igus® chainfix strain relief. Flexible, secure and fast.

Strain relief from igus® is specifically developed for use in e-chains® and dynamic applications. The combination of chainflex® cable materials and the touching plastic components of the chainfix strain relief systems from igus®, have been designed for a long service life of cables and for maximum holding force. For a wide variety of applications, igus® offers the best solution with respect to cost and benefits. Examples are the CFXL clamps for long travels and harsh environments. The clamps for pneumatic hoses for a secure guidance of pneumatic hoses without crushing them. As universal strain relief, multi-tiewrap plates offer various assembly options. When many cables have to be safely strain relieved in a confined space, the stackable multi-tiewrap plates are ideal. igus® chainfix strain relief devices have been tested under real-world conditions and have been used for years by customers all over the world.

Selection table

Part No.	Description	Page
Clamps - steel and stainless steel for maximum tensile forces		
	CFX standard clamps with standard base	558
	CFXL clamps with wide base for increased holding force	559
	Multi-clamps, universal strain relief	562
	Multi-clamps, larger cable diameters	563
	Strain relief pneumatic hoses without crushing them	564
	Clamps for pneumatic hoses, larger cable diameters	565
C-profile - standard and for heavy-duty applications		
	Series 92.42 Standard C-profile, can be integrated into KMA	561
	Series 92.52 C-profile for increased holding force, mounting in front of e-chain®	561
Tiewrap plates - universal, bolted or clip-on		
	Multi-tiewrap plate, stackable, space-saving and flexible with tiewrap plate series 3000	566
	Series 2000 tiewrap plate as an individual part + cable tiewrap	570
	Series 3000 tiewrap plate as an individual part + cable tiewrap	571
Tiewrap plates variants - optional		
	Option 01: tiewrap plates with clip-on connection to C-profile	572
	Option 02: strain relief tooth for top-hat (DIN) rail 15 (TS92.31)	572
	Option 03: tiewrap plates for fixed crossbars	573
	Option 04: tiewrap plates for openable crossbars	573
Clip-on solutions - chainfix strain relief		
	Strain relief separators for easy strain relief with cable tiewraps	574
	CFV strain relief elements with tiewrap teeth	576

Select your strain relief system

e-chain® Series/system	CFX clamp, (incl. multi-clamp and clamp for pneumatic hoses)	CFXL clamp, (incl. multi-clamp and clamp for pneumatic hoses)	Tiewrap plate as an individual part series 2000	Tiewrap plate as an individual part series 3000	Multi-tiewrap plate for C-profile			Option 01 Tiewrap plate with clip-on connection to C-profile	Option 02 Strain relief tooth for top-hat (DIN) rail 15	Option 03 Tiewrap plate for fixed crossbars	Option 04 Tiewrap plate for openable crossbars	Strain relief separator	CFV Stepped strain relief	Tiewrap plate/teeth directly moulded on the mounting bracket
easy chain®														
E03	–	–	–	–	–			–	–	–	–	–	–	X
E04	–	–	–	–	–			–	–	–	–	–	–	X
E/Z045	–	–	–	–	–			–	–	–	–	–	–	X
E/Z06	–	–	–	–	–			–	–	–	–	–	–	X
E/Z065	–	–	–	–	–			–	–	–	–	–	–	X
E/Z08	–	–	–	–	–			–	–	–	–	–	–	X
E/Z14	–	–	–	–	–			–	–	–	–	–	–	X
E/Z200	X 1)	–	2XXX.ZB	–	–			–	–	2050.Z	–	–	–	–
E/Z16	–	–	–	–	–			–	–	–	–	–	–	X
E/Z26	X 1)	–	–	3XXX.ZB	–			–	–	–	–	–	–	–
E/Z300	X 1)	–	–	3XXX.ZB	–			–	–	–	–	–	–	–
E2.1 micro														
03	–	–	–	–	–			–	–	–	–	–	–	X
04	–	–	–	–	–			–	–	–	–	–	–	X
045	–	–	–	–	–			–	–	–	–	–	–	X
E2C.10L	–	–	–	–	–			–	–	–	–	–	–	X
E2.10	–	–	–	–	–			–	–	–	–	–	–	X
E2.15	–	–	–	–	–			–	–	–	–	–	–	X
E2.17	–	–	–	–	–			–	–	–	–	–	–	X
E2.1														
E2.21	X 1)	X 1)	2XXX.ZB	–	–			–	–	–	–	21.1.Z	–	X
E2.26	X 1)	X 1)	2XXX.ZB	–	–			–	–	2050.Z	–	26.Z 2)	–	–
E2.38	X 1)	X 1)	–	3XXX.ZB	X			–	–	C.2.522.XXX.ZS	–	–	CFV.42.C	–
E2i.48	X 1)	X 1)	–	3XXX.ZB	X			–	–	C.2.522.XXX.ZS	–	–	CFV.42.C	–
R2.1														
R2.26	X 1)	X 1)	–	–	–			–	–	–	–	R2.26.Z	CFV.R2.26.Z	–
R2.40	X 1)	X 1)	–	–	–			–	–	–	–	R2.40.Z	CFV.R2.40.Z	–
R2.48	X 1)	X 1)	–	3XXX.ZB	–			30XX.ZC	–	–	–	–	CFV.R2.48.Z	–
R2.75	X 1)	X 1)	–	3XXX.ZB	–			30XX.ZC	–	–	–	–	CFV.80.C	–
E4Q														
E4Q.34/H4Q.34	X	X 1)	–	3XXX.ZB	X			30XX.ZC	–	–	C825.075.ZS	–	CFV.42.C	–
E4Q.44/H4Q.44	X	X 1)	–	3XXX.ZB	X			30XX.ZC	–	–	C825.075.ZS	–	CFV.42.C	–
E4Q.58/H4Q.58	X	X 1)	–	3XXX.ZB	X			30XX.ZC	–	–	C1132.080.ZS	–	CFV.80.C	–
E4Q.82/H4Q.82	X	X 1)	–	3XXX.ZB	X			30XX.ZC	–	–	C1132.080.ZS	–	CFV.80.C	–
E4QL														
E4Q.64L/H4Q.64L	X	X 1)	–	3XXX.ZB	X			30XX.ZC	–	–	C1132.080.ZS	–	CFV.80.C	–
E4.1														
E4.21	X 1)	X 1)	2XXX.ZB	–	–			–	–	–	–	T2103.Z	–	–
E4.28/R4.28	X 1)	X 1)	2XXX.ZB	–	–			–	–	–	2050.Z	28.Z / 28.ZT	–	–
E4.32/H4.32/R4.32	X	X 1)	–	3XXX.ZB	X			30XX.ZC	–	–	38XX.ZS	–	CFV.42.C	–
E4.42/H4.42/R4.42	X	X 1)	–	3XXX.ZB	X			30XX.ZC	–	–	38XX.ZS	–	CFV.42.C	–
E4.56/H4.56/R4.56	X	X 1)	–	3XXX.ZB	X			30XX.ZC	–	–	45XX.ZS	–	CFV.80.C	–
E4.80/H4.80/R4.80	X	X 1)	–	3XXX.ZB	X			30XX.ZC	–	–	45XX.ZS	–	CFV.80.C	–
E4.112	X 1)	X 1)	–	3XXX.ZB	X			–	–	–	45XX.ZS	–	–	–
E4.162	X 1)	X 1)	–	3XXX.ZB	X			–	–	–	–	–	–	–
800	X 1)	X 1)	–	3XXX.ZB	X			–	–	–	–	–	–	–
840	X 1)	–	–	–	–			–	–	–	–	–	–	–

1) Assemble before the mounting bracket (CFXL clamps are always assembled before the mounting bracket in a separate C-profile 92.52.XXX)
2) For KMA mounting bracket only
= Recommended strain relief for selected e-chain®

 Available from stock
Upon request

Select your strain relief system

e-chain® Series/system	CFX clamp, (incl. multi-clamp and clamp for pneumatic hoses)	CFXL clamp, (incl. multi-clamp and clamp for pneumatic hoses)	Tiewrap plate as an individual part series 2000	Tiewrap plate as an individual part series 3000	Multi-tiewrap plate for C-profile			Option 01 Tiewrap plate with clip-on connection to C-profile	Option 02 Strain relief tooth for top-hat (DIN) rail 15	Option 03 Tiewrap plate for fixed crossbars	Option 04 Tiewrap plate for openable crossbars	Strain relief separator	CFV Stepped strain relief	Tiewrap plate/teeth directly moulded on the mounting bracket
E4.1L														
E4.31L/R4.31L	X 1)	X 1)	–	–	–			2010.ZH	2010.ZH	–	–	31.Z	CFV.31.N15	–
E4.38L/R4.38L	X	X 1)	–	3XXX.ZB	X			30XX.ZC	–	–	C622.100.ZS	38.Z	CFV.42.C	–
E4.48L/R4.48L	X	X 1)	–	3XXX.ZB	X			30XX.ZC	–	–	C622.100.ZS	48.Z / 48.ZS	CFV.42.C	–
E4.64L	X	X 1)	–	3XXX.ZB	X			30XX.ZC	–	–	–	–	CFV.80.C	–
E4/light														
14040/14140/18840	X	X 1)	–	3XXX.ZB	X			30XX.ZC	–	–	45XX.ZS	–	–	–
14240/14340	X	X 1)	–	3XXX.ZB	X			30XX.ZC	–	–	38XX.ZS	–	–	–
14550/14650/19050	X	X 1)	–	3XXX.ZB	X			30XX.ZC	–	–	45XX.ZS	–	–	–
15050/15150/19850	X	X 1)	–	3XXX.ZB	X			30XX.ZC	–	–	45XX.ZS	–	–	–
15250/15350	X	X 1)	–	3XXX.ZB	X			30XX.ZC	–	–	38XX.ZS	–	–	–
1640/R1608	X	X 1)	–	3XXX.ZB	X			–	–	–	45XX.ZS	–	–	–
YE														
YE.42/YR.42	X 1)	X 1)	–	–	–			–	–	–	38XX.ZS	–	–	–
YE.56/YR.46	X 1)	X 1)	–	–	–			–	–	–	45XX.ZS	–	–	–
YEHD														
YEHD.108/YRHD.108	X 1)	X 1)	–	–	–			–	–	–	45XX.ZS	–	–	–
YEHD.112	X 1)	X 1)	–	–	–			–	–	–	45XX.ZS	–	–	–
e-skin® corrugated tubes														
SKS20	X 1)	X 1)	–	–	–			–	–	–	–	–	–	X
SKS24	X 1)	X 1)	SK24.2000.ZB	–	–			–	–	–	–	–	–	–
SKS28/SK28	X 1)	X 1)	SK28.2000.ZB	–	–			–	–	–	–	–	–	–
SKS40/SK40	X 1)	X 1)	SK40.2000.ZB	–	–			–	–	–	–	–	–	–
C6														
C6.29	X 1)	X 1)	–	–	–			–	–	–	–	C6.29.5.Z	–	–
C6.38	X 1)	X 1)	–	–	–			–	–	–	–	C6.38.5.Z	–	–
C6.53	X	X	–	–	X			30XX.ZC	–	–	–	–	CFV.42.C	–
E6														
E6.29	X 1)	X 1)	2XXX.ZB	–	–			–	–	–	–	E6.29.02.Z	–	–
R6.29	X 1)	X 1)	2XXX.ZB	–	–			–	–	–	–	–	–	–
E6.35	X 1)	X 1)	2XXX.ZB	–	–			–	–	–	–	E6.35.02.Z	–	–
E6.40	X	X 1)	2XXX.ZB	–	X			–	–	–	–	E6.40.02.Z	CFV.42.C	–
E6.52	X	X 1)	–	3XXX.ZB	X			30XX.ZC	–	–	2050.Z	–	CFV.42.C	–
R6.52	X	X 1)	–	3XXX.ZB	X			30XX.ZC	–	–	–	–	CFV.42.C	–
E6.62	X	X 1)	–	3XXX.ZB	X			30XX.ZC	–	–	38XX.ZS	–	CFV.80.C	–
E6.80L/E6.80	X	X 1)	–	3XXX.ZB	X			30XX.ZC	–	–	45XX.ZS	–	CFV.80.C	–

1) Assemble before the mounting bracket (CFXL clamps are always assembled before the mounting bracket in a separate C-profile 92.52.XXX)
2) For KMA mounting bracket only
= Recommended strain relief for selected e-chain®

Product



igus® chainfix strain relief

CFX and CFXL clamps

Tiewrap plates - bolted, clip-on, stackable



Recommended standard for the following e-chains®:

E2.1, E4Q, E4.1, E4.1L, E4/light, C6, E6, for all KMA with C-profile

E2.1, E4Q, E4.1, E4.1L, E4/light, C6, E6,



When to use this strain relief?

Standard for high accelerations, loads and demanding applications. For many cables, large cable diameters and stacked cables. For long travels, cranes, offshore, machine tools, high speeds and hydraulic cables. Also available as universal multi-clamps and clamps for pneumatic hoses

Standard for many applications at medium and low accelerations. For unsupported, gliding, hanging and standing applications in general machinery and machine tools. When many cables have to be safely strain relieved in a confined space, the stackable multi-tiewrap plates with intuitive design are ideal. Also available as an individual part, for example in control cabinets.



When not to use it:

No limitation

For large cable diameters



Strain relief separators

CFV - strain relief element

E2.1/R2.1, E4.1/R4.1, E4.1L/R4.1L, C6, E6/R6

E2.1, E4Q, E4Q.L, E4.1, E4.1L, E4/light, C6, E6/R6

Combination of separator and strain relief, ideal for small spaces. For applications with medium accelerations. For small cable diameters. Ideal for e-tubes. For machine tools and automation.

For both in e-chains® and e-tubes. Stepped strain relief for use outside of the e-chain® cross section - even with different connectors. Easy to retrofit. Simple installation into top-hat (DIN) rail 15 (TS92.31) or C-profile on KMA mounting brackets.

Properties

Assembly time index

+

+

+

++

Definable tensile strength

++

–

–

–

Price index

● ● ●

● ● ●

● ● ●

● ● ●

Modularity

yes

yes

yes

yes

Dynamics

high to very high

high

high

medium

Price index

- ● ● low price category
- ● ● medium price category
- ● ● highest price category

- +++ = best suitability
- + = good suitability
- + – = suitable
- = limited suitability

Available from stock
Upon request

Available from stock
Upon request



Can be integrated
into igus® KMA
mounting bracket

For up to three
cables stacked
above one another

Reduced
installation height,
space-saving

High strength
for dynamic
applications

chainfix clamps - fitted quickly and securely

- Sizes for cable diameters 42-46mm and 46-50mm are also available
- Tested: up to 3.5 times higher force absorption compared to conventional clamps
- Space and time-saving assembly
- Delivery options for complete systems with cables and pre-assembled strain relief
- Improved base for easier fit into the C-profile
- Simple assembly with threaded pins screwed with an Allen wrench
- Durability for dynamic applications with improved stacker elements
- Integrated ribs on the stacker elements prevent the cables from coming loose from the strain relief
- Optional: CFXL clamps for increased holding force for heavy-duty applications
- CFX clamps with special stacker saddles for strain relief of pneumatic hoses without crushing them or reducing the cross-section



CFX/CFXL clamps.



Multi-clamps.



Clamps for pneumatic hoses.

General information

Product range and materials

- Steel clamp: clamp and screw black painted steel
- Stainless steel clamp: clamp and screw: blank (material 1.4301/AISI 304)
- Stacker elements: bottom saddle and stacker saddle (igumid® G LW material)
- Steel C-profile available (material galvanised steel)
- Stainless steel C-profile available (material 1.4301/AISI 304)

Installation height

If the e-chain® glides on itself for long travels, the screw heads of the strain relief at the fixed end of the e-chain® must have a distance of at least 10mm from the top of the e-chain®. As a result, many strain relief elements described here may not be suitable for use at the fixed end on long gliding e-chains®. For unsupported e-chains® strain relief elements can always be safely used.

Please note:

- The cables should ideally be fixed at both ends of the e-chain®. **As a minimum they need to be attached at the moving end of the e-chain®!**
- When using chainfix clamps on C-profiles in the mounting bracket for the series E4Q.34/H4Q.34, E4.32/H4.32/R4.32, E4.38L/R4.38L, a shortened bottom saddle must be used. For shortened bottom saddles, please add the part number with index **K**. Example: **Part No. CFX12.1K**

For the following series

E2.1

- E2.38
- E2.48

E4Q

- E4Q.34/H4Q.34
- E4Q.44/H4Q.44
- E4Q.58/H4Q.58
- E4Q.82/H4Q.82

E4.1

- E4.32/H4.32/R4.32
- E4.42/H4.42/R4.42
- E4.56/H4.56/R4.56
- E4.80/H4.80/R4.80
- E4.112/R4.112
- E4.162

E4.1L

- E4.38L/R4.38L
- E4.48L/R4.48L
- E4.64L

E4/light

- 14040/14140/18840
- 14240/14340
- 14550/14650/19050
- 15050/15150/19850
- 15250/15350

E6 / C6

- E6.40
- E6.52/R6.52
- C6.53
- E6.62
- E6.80L
- E6.80

YE

- YE.42
- YE.56
- YEHD.108
- YEHD.112/YRHD.108



Reduced installation height
due to threaded pin and
optimal housing height.



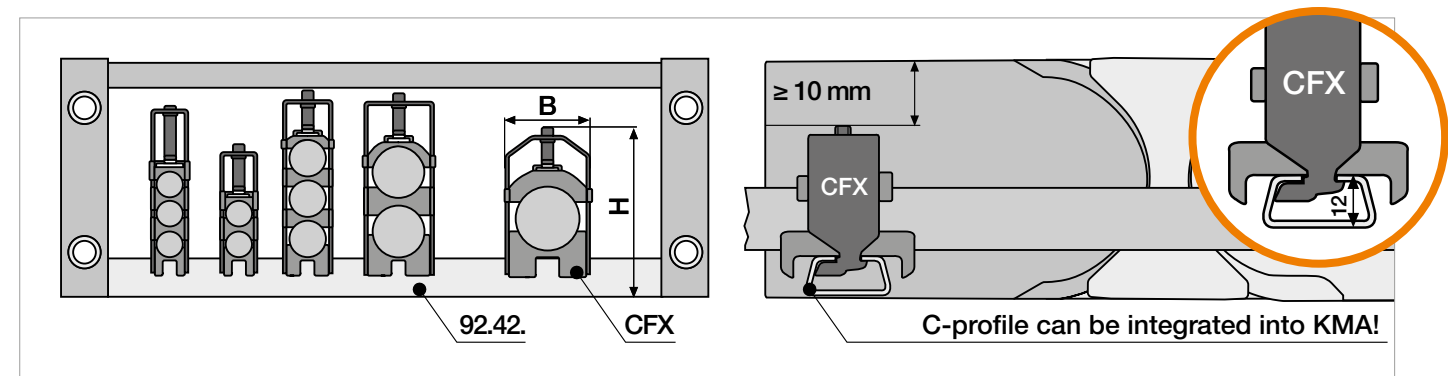
Save both time and space
during installation with
igus® chainfix clamps.



Available from stock
Upon request



Product range | Series CFX | Standard clamps with standard base



Suitable for C-profile 92.42.[xxx] - can be integrated into KMA with C-profile option.

Single clamp housing, incl. bottom saddle									
Part No.	Part No.	≤ Ø	B+2	H	Part No.	Part No.	≤ Ø	B+2	H
Steel	Stainless steel*	[mm]	[mm]	[mm]	Steel	Stainless steel*	[mm]	[mm]	[mm]
CFX12.1	CFX12.1.E	06 - 12	16	54	CFX30.1	CFX30.1.E	26 - 30	34	71
CFX14.1	CFX14.1.E	12 - 14	18	50	CFX34.1	CFX34.1.E	30 - 34	38	75
CFX16.1	CFX16.1.E	14 - 16	20	52	CFX38.1	CFX38.1.E	34 - 38	42	79
CFX18.1	CFX18.1.E	16 - 18	22	54	CFX42.1	CFX42.1.E	38 - 42	46	83
CFX20.1	CFX20.1.E	18 - 20	24	56	CFX46.1	CFX46.1.E	42 - 46	51	115
CFX22.1	CFX22.1.E	20 - 22	26	58	CFX50.1	CFX50.1.E	46 - 50	55	121
CFX26.1	CFX26.1.E	22 - 26	30	67					

1 Clamp
2 Bottom saddle
3 Stacker saddle

Double clamp housing, incl. bottom and stacker saddles									
Part No.	Part No.	≤ Ø	B+2	H	Part No.	Part No.	≤ Ø	B+2	H
Steel	Stainless steel*	[mm]	[mm]	[mm]	Steel	Stainless steel*	[mm]	[mm]	[mm]
CFX12.2	CFX12.2.E	06 - 12	16	72	CFX22.2	CFX22.2.E	20 - 22	26	90
CFX14.2	CFX14.2.E	12 - 14	18	74	CFX26.2	CFX26.2.E	22 - 26	30	109
CFX16.2	CFX16.2.E	14 - 16	20	78	CFX30.2	CFX30.2.E	26 - 30	34	117
CFX18.2	CFX18.2.E	16 - 18	22	82	CFX34.2	CFX34.2.E	30 - 34	38	125
CFX20.2	CFX20.2.E	18 - 20	24	86					

1 Clamp
2 Bottom saddle
3 Stacker saddle

Triple clamp housing, incl. bottom and stacker saddles									
Part No.	Part No.	≤ Ø	B+2	H	Part No.	Part No.	≤ Ø	B+2	H
Steel	Stainless steel*	[mm]	[mm]	[mm]	Steel	Stainless steel*	[mm]	[mm]	[mm]
CFX12.3	CFX12.3.E	06 - 12	16	100	CFX18.3	CFX18.3.E	16 - 18	22	108
CFX14.3	CFX14.3.E	12 - 14	18	96	CFX20.3	CFX20.3.E	18 - 20	24	114
CFX16.3	CFX16.3.E	14 - 16	20	102	CFX22.3	CFX22.3.E	20 - 22	26	120

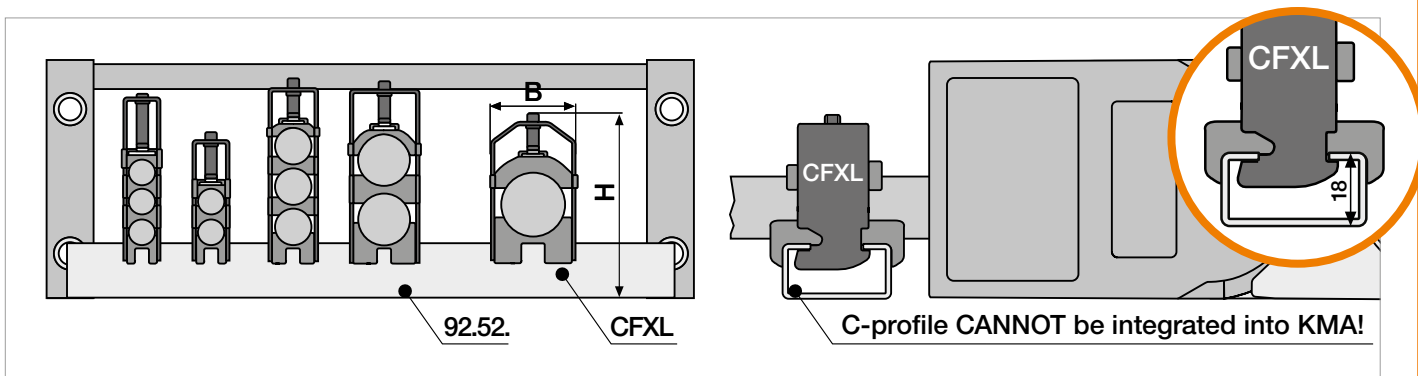
1 Clamp
2 Bottom saddle
3 Stacker saddle

Note: The **H** dimension in the tables is based on the maximum cable diameter. Cables with smaller diameters may result in lower overall clamp housing heights. Tightening torque for CFX clamps 1.5Nm.

*Stainless steel material: 1.4301/AISI 304

Available from stock
Upon request

Product range | Series CFXL | Clamps with wide base for increased holding force



Suitable for C-profile 92.52.[xxx] - always assembled before the energy chain. Cannot be integrated into KMA!

Single clamp housing, incl. bottom saddle									
Part No.	Part No.	≤ Ø	B+2	H	Part No.	Part No.	≤ Ø	B+2	H
Steel	Stainless steel*	[mm]	[mm]	[mm]	Steel	Stainless steel*	[mm]	[mm]	[mm]
CFXL12.1	CFXL12.1.E	06 - 12	16	60	CFXL30.1	CFXL30.1.E	26 - 30	34	77
CFXL14.1	CFXL14.1.E	12 - 14	18	56	CFXL34.1	CFXL34.1.E	30 - 34	38	81
CFXL16.1	CFXL16.1.E	14 - 16	20	58	CFXL38.1	CFXL38.1.E	34 - 38	42	85
CFXL18.1	CFXL18.1.E	16 - 18	22	60	CFXL42.1	CFXL42.1.E	38 - 42	46	89
CFXL20.1	CFXL20.1.E	18 - 20	24	62	CFXL46.1	CFXL46.1.E	42 - 46	51	122
CFXL22.1	CFXL22.1.E	20 - 22	26	64	CFXL50.1	CFXL50.1.E	46 - 50	55	125
CFXL26.1	CFXL26.1.E	22 - 26	30	73					

1 Clamp
2 Bottom saddle
3 Stacker saddle

Double clamp housing, incl. bottom and stacker saddles									
Part No.	Part No.	≤ Ø	B+2	H	Part No.	Part No.	≤ Ø	B+2	H
Steel	Stainless steel*	[mm]	[mm]	[mm]	Steel	Stainless steel*	[mm]	[mm]	[mm]
CFXL12.2	CFXL12.2.E	06 - 12	16	78	CFXL22.2	CFXL22.2.E	20 - 22	26	86
CFXL14.2	CFXL14.2.E	12 - 14	18	80	CFXL26.2	CFXL26.2.E	22 - 26	30	115
CFXL16.2	CFXL16.2.E	14 - 16	20	84	CFXL30.2	CFXL30.2.E	26 - 30	34	123
CFXL18.2	CFXL18.2.E	16 - 18	22	86	CFXL34.2	CFXL34.2.E	30 - 34	38	131
CFXL20.2	CFXL20.2.E	18 - 20	24	92					

1 Clamp
2 Bottom saddle
3 Stacker saddle

Triple clamp housing, incl. bottom and stacker saddles									
Part No.	Part No.	≤ Ø	B+2	H	Part No.	Part No.	≤ Ø	B+2	H
Steel	Stainless steel*	[mm]	[mm]	[mm]	Steel	Stainless steel*	[mm]	[mm]	[mm]
CFXL12.3	CFXL12.3.E	06 - 12	16	106	CFXL18.3	CFXL18.3.E	16 - 18	22	114
CFXL14.3	CFXL14.3.E	12 - 14	18	102	CFXL20.3	CFXL20.3.E	18 - 20	24	120
CFXL16.3	CFXL16.3.E	14 - 16	20	108	CFXL22.3	CFXL22.3.E	20 - 22	26	126

1 Clamp
2 Bottom saddle
3 Stacker saddle

Note: The **H** dimension in the tables is based on the maximum cable diameter. Cables with smaller diameters may result in lower overall clamp housing heights. Tightening torque for CFXL clamps 1.5Nm.

*Stainless steel material: 1.4301/AISI 304

Available from stock
Upon request

Product range | Stacker elements

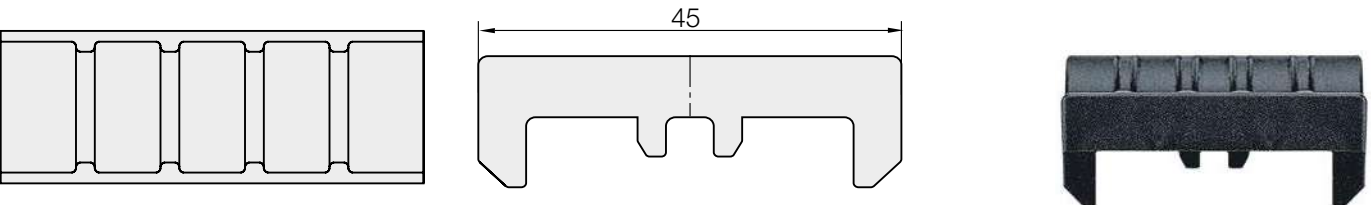
Stacker elements for CFX and CFXL clamps

- Built-in ribs for secure grip on cables
- Optimised stacker saddles, captive by ❶ locking spring and with ❷ spring groove for a simplified and precise installation
- Conventional stacker saddle
- Long contact surface improves the clamp's stability
- Significantly more secure due to high rigidity

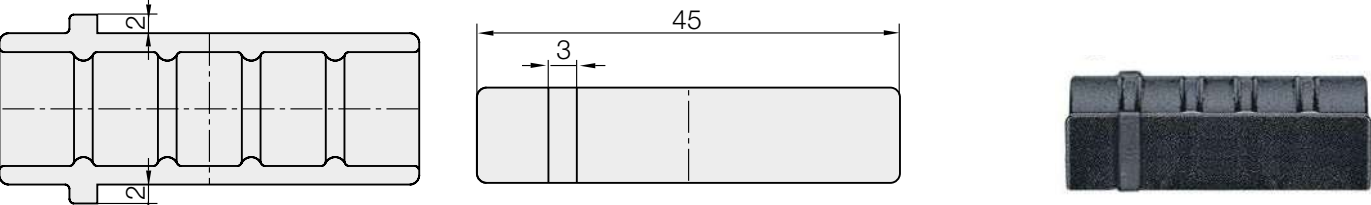


Part No. CGXX Bottom saddle	Part No. CDXX Stacker saddle	Part No. CDXX.C Stacker saddle	For clamp	≤ Ø [mm]
CG12	CD12	CD.12.C	CFX/CFXL12.X	06 - 12
CG14	CD14	CD.14.C	CFX/CFXL14.X	12 - 14
CG16	CD16	CD.16.C	CFX/CFXL16.X	14 - 16
CG18	CD18	CD.18.C	CFX/CFXL18.X	16 - 18
CG20	CD20	CD.20.C	CFX/CFXL20.X	18 - 20
CG22	CD22	CD.22.C	CFX/CFXL22.X	20 - 22
CG26	CD26	CD.26.C	CFX/CFXL26.X	22 - 26
CG30	CD30	CD.30.C	CFX/CFXL30.X	26 - 30
CG34	CD34	CD.34.C	CFX/CFXL34.X	30 - 34
CG38	–	–	CFX/CFXL38.X	34 - 38
CG42	–	–	CFX/CFXL42.X	38 - 42

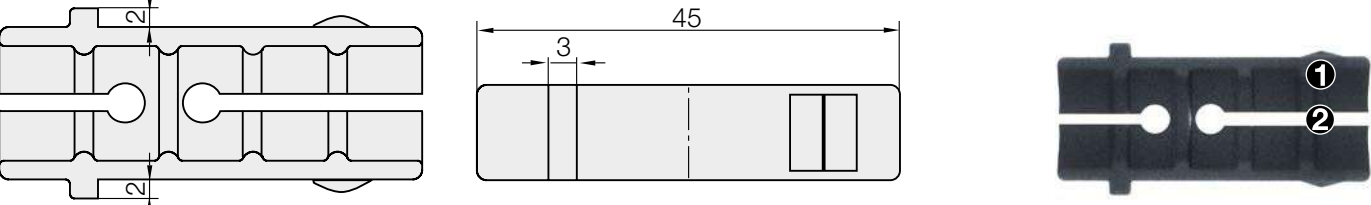
Note: When using chainfix clamps on C-profiles in the mounting bracket for the series E4.38L/R4.38L, E4Q.34/H4Q.34, E4.32/H4.32/R4.32, a shortened bottom saddle must be used.
For shortened bottom saddles, please add the part number with index **K**. Example: **Part No. CFX12.1K**



CGXX - bottom saddles to fit into the clamp housing as an individual part.



CDXX - conventional stacker saddles for all for all double and triple clamps as an individual part.



CD.XX.C - optimised stacker saddles for all double and triple clamps as an individual part.

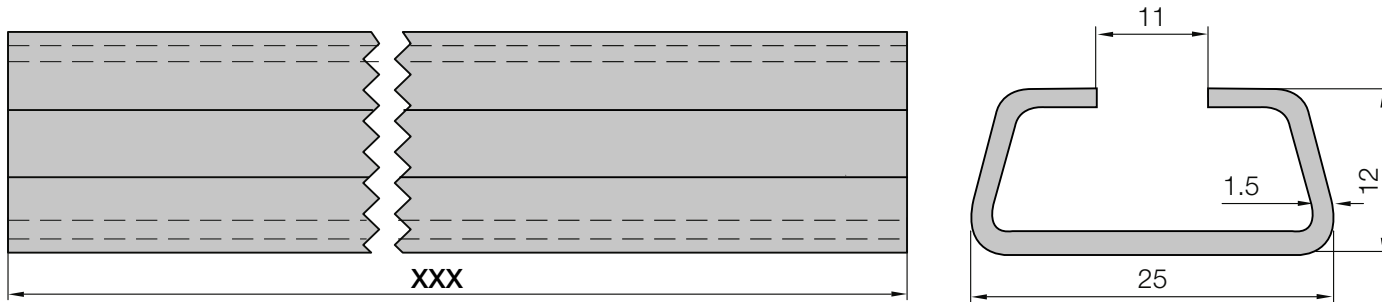
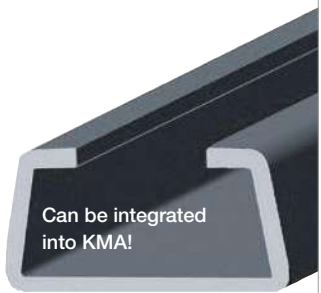
For standard applications | For heavy-duty applications

Standard C-profile Part No. 92.42.[XXX] - for standard applications

- For all igus® CFX clamps
- Can be integrated into KMA with C-profile option
- Standard material: galvanised steel. Also available as stainless steel version*
- Length tolerances for C-profiles of ±1mm possible!

Complete Part No. with the required length [XXX] in mm. Example: **92.42.075** for 75mm.

*For stainless steel material AISI 304, please add index **.E**. Example: **92.42.075.E**.

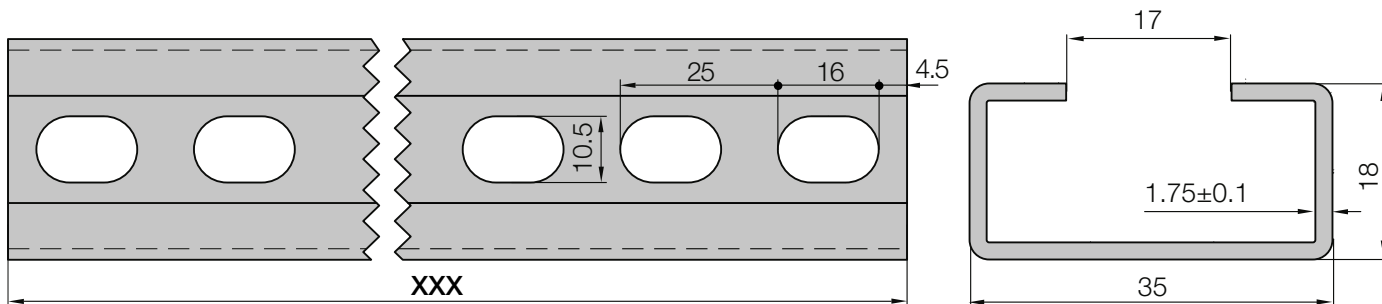


C-profile Part No. 92.52.[XXX] - for heavy-duty applications

- For all igus® CFXL clamps, for increased holding force
- Always assembled in front of the e-chain® - cannot be integrated into KMA!
- Standard material: galvanised steel. Also available as stainless steel version*
- Length tolerances for C-profiles of ±5mm possible!

Complete Part No. with the required length [XXX] in mm. Example: **92.52.075** for 75mm.

*For stainless steel material AISI 304, please add index **.E**. Example: **92.52.075.E**.



More modular options of the igus® chainfix strain relief system:

- Multi-clamps as universal strain relief for various assembly options, **page 562**
- Clamps for strain relief of pneumatic hoses without crushing them or reducing the cross-section, **page 564**



Product range | Stacker saddles for CFX and CFXL multi-clamps

Stacker saddles for CFX- / CFXL12.X

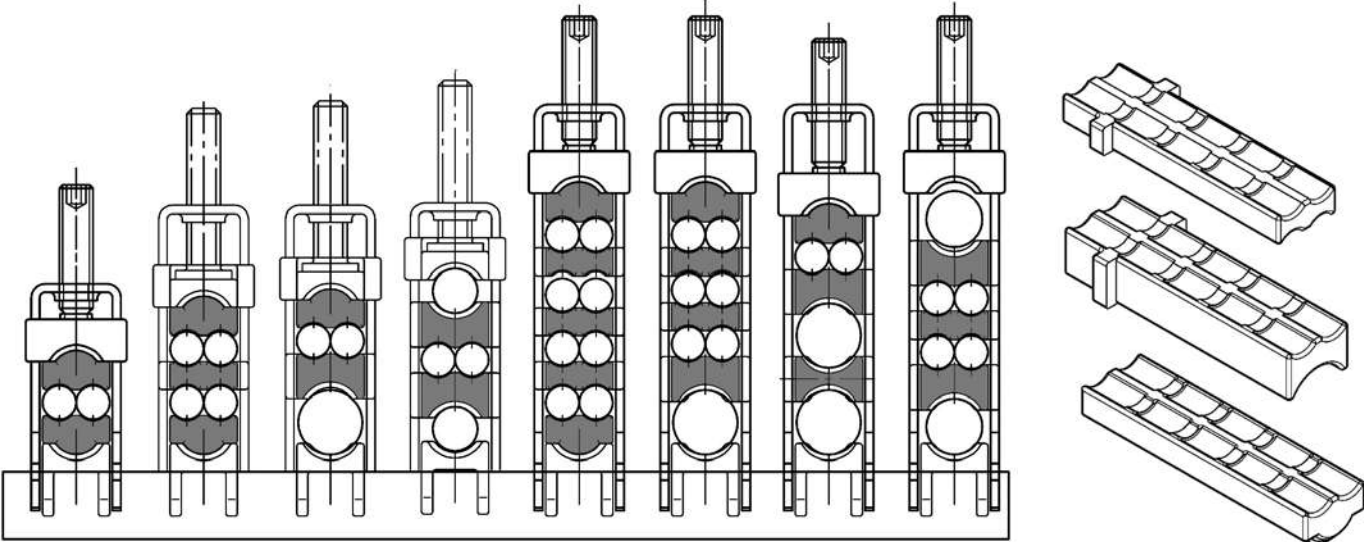
- For cable diameters from 6mm to 12mm
- More modular options of the proven igus® chainfix strain relief system
- Universal strain relief for various assembly options
- Save both time and space during installation
- Cost-effective, compact and modular



Part No.					≤ Ø [mm]
Individual parts	CDA.4/4-8	CD4/4	CD.4/4-8	CD12	
stacker saddles					
CFX12.1.Z1 / CFXL12.1.Z1	2 x	–	–	–	6
CFX12.2.Z1 / CFXL12.2.Z1	2 x	1 x	–	–	6
CFX12.2.Z2 / CFXL12.2.Z2	1 x	–	1 x	–	6 + 12
CFX12.2.Z3 / CFXL12.2.Z3	–	–	2 x	–	6 + 8
CFX12.3.Z1 / CFXL12.3.Z1	2 x	3 x	–	–	6
CFX12.3.Z2 / CFXL12.3.Z2	1 x	2 x	1 x	–	6 + 12
CFX12.3.Z3 / CFXL12.3.Z3	1 x	–	1 x	1 x	6 + 12
CFX12.3.Z4 / CFXL12.3.Z4	–	1 x	2 x	–	6 + 10

Standard material: galvanised steel. For the stainless steel version (material 1.4301/AISI 304), please add the part number with index **.E**. Example: **Part No. CFX.12.3.Z1.E**.

CFX12.1.Z1 CFX12.2.Z1 CFX12.2.Z2 CFX12.2.Z3 CFX12.3.Z1 CFX12.3.Z2 CFX12.3.Z3 CFX12.3.Z4
CFXL12.1.Z1 CFXL12.2.Z1 CFXL12.2.Z2 CFXL12.2.Z3 CFXL12.3.Z1 CFXL12.3.Z2 CFXL12.3.Z3 CFXL12.3.Z4



CFX12 / CFXL12 - multi-clamps, max. cable diameter 6mm to 12 mm.

 Available from stock
Upon request

Product range | Stacker saddles for CFX and CFXL multi-clamps

Stacker saddles for CFX- / CFXL16.Z

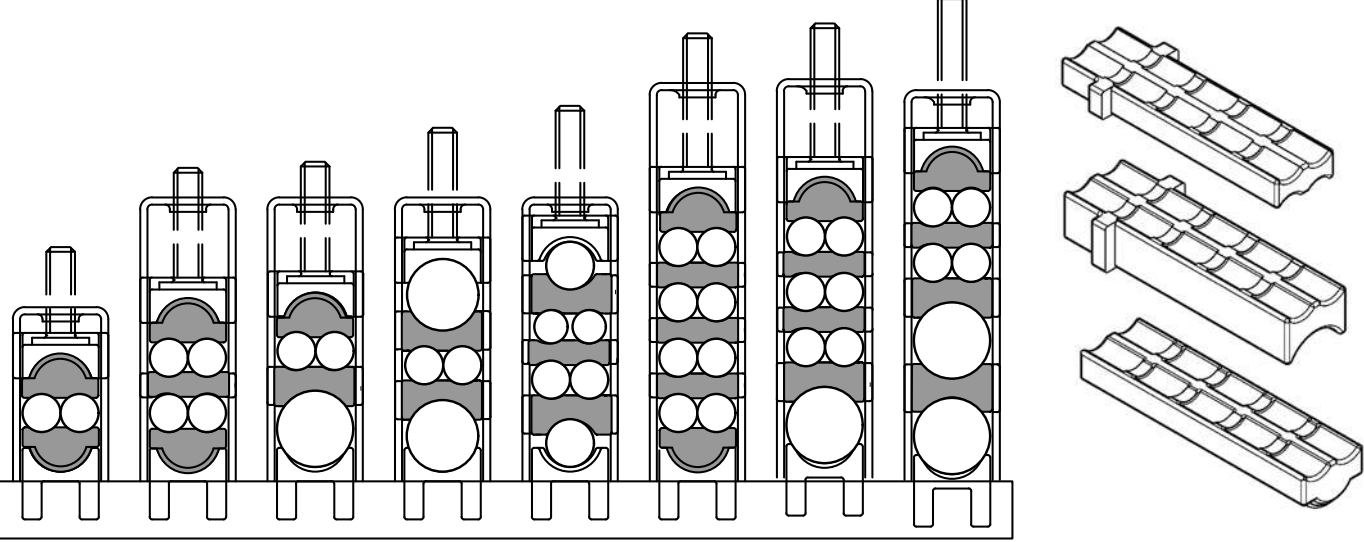
- For cable diameters from 8mm to 16mm
- Very versatile, infinite assembly options
- CFX standard clamps with standard base
- Optional CFXL clamps with wide base for increased holding force available
- Save both time and space during installation
- Cost-effective, compact and modular



Part No.					≤ Ø [mm]
Individual parts	CDA.8/8-16	CD.8/8	CD.8/8-16	CD.16	
stacker saddles					
CFX16.1.Z1 / CFXL16.1.Z1	2 x	–	–	–	8
CFX16.2.Z1 / CFXL16.2.Z1	2 x	1 x	–	–	8
CFX16.2.Z2 / CFXL16.2.Z2	1 x	–	1 x	–	8 + 16
CFX16.2.Z3 / CFXL16.2.Z3	–	–	2 x	–	8 + 15
CFX16.2.Z4 / CFXL16.2.Z4	–	1 x	2 x	–	8 + 10
CFX16.3.Z1 / CFXL16.3.Z1	2 x	3 x	–	–	8
CFX16.3.Z2 / CFXL16.3.Z2	1 x	3 x	1 x	–	8 + 16
CFX16.3.Z3 / CFXL16.3.Z3	1 x	1 x	2 x	1 x	8 + 16

Standard material: galvanised steel. For the stainless steel version (material 1.4301/AISI 304), please add the part number with index **.E**. Example: **Part No. CFX.16.3.Z1.E**.

CFX16.1.Z1 CFX16.2.Z1 CFX16.2.Z2 CFX16.2.Z3 CFX16.2.Z4 CFX16.3.Z1 CFX16.3.Z2 CFX16.3.Z3
CFXL16.1.Z1 CFXL16.2.Z1 CFXL16.2.Z2 CFXL16.2.Z3 CFXL16.2.Z4 CFXL16.3.Z1 CFXL16.3.Z2 CFXL16.3.Z3



CFX16 / CFXL16 - multi-clamps, max. cable diameter 8mm to 16mm.

 Available from stock
Upon request

Product range | Pneumatic stacker saddles for CFX and CFXL clamps

Pneumatic stacker saddles for CFX- / CFXL12 clamps

- For hose diameters 4 and 8mm
- With these options, the CFX and CFXL clamps can be specifically used for pneumatic hoses
- Pneumatic hoses are held securely without being crushed
- Infinite assembly options
- Cost-effective, compact and modular

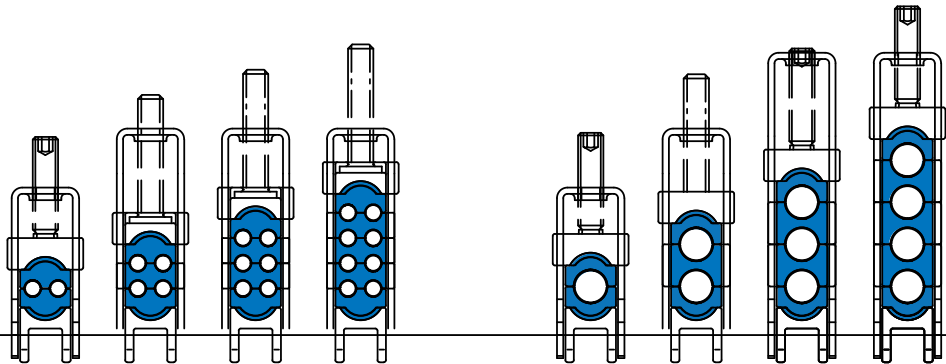


Part No.					≤ Ø
Individual parts					[mm]
stacker saddles	 CDA.4 / 4-12.P	 CD.4 / 4.P	 CDA.8 / 12.P	 CD.8 / 8.P	
CFX12.1.P4.1 / CFXL12.1.P4.1	2 x	–	–	–	4
CFX12.2.P4.1 / CFXL12.2.P4.1	2 x	1 x	–	–	4
CFX12.2.P4.2 / CFXL12.2.P4.2	2 x	2 x	–	–	4
CFX12.2.P4.3 / CFXL12.2.P4.3	2 x	3 x	–	–	4
CFX12.1.P8.1 / CFXL12.1.P8.1	–	–	2 x	–	8
CFX12.2.P8.1 / CFXL12.2.P8.1	–	–	2 x	1 x	8
CFX12.3.P8.1 / CFXL12.3.P8.1	–	–	2 x	2 x	8
CFX12.3.P8.2 / CFXL12.3.P8.2	–	–	2 x	3 x	8

Standard material: galvanised steel. For the stainless steel version (material 1.4301/AISI 304), please add the part number with index **.E**. Example: **Part No. CFX.12.3.P8.2.E**.

CFX12.1.P4.1 CFX12.2.P4.1 CFX12.2.P4.2 CFX12.2.P4.3
CFXL12.1.P4.1 CFXL12.2.P4.1 CFXL12.2.P4.2 CFXL12.2.P4.3

CFX12.1.P8.1 CFX12.2.P8.1 CFX12.3.P8.1 CFX12.3.P8.2
CFXL12.1.P8.1 CFXL12.2.P8.1 CFXL12.3.P8.1 CFXL12.3.P8.2



CFX12 - with pneumatic stacker saddles, cable diameter 6mm / 10mm / 12mm.

 Available from stock
Upon request

Product range | Pneumatic stacker saddles for CFX and CFXL clamps

Pneumatic stacker saddles for CFX- / CFXL16 clamps

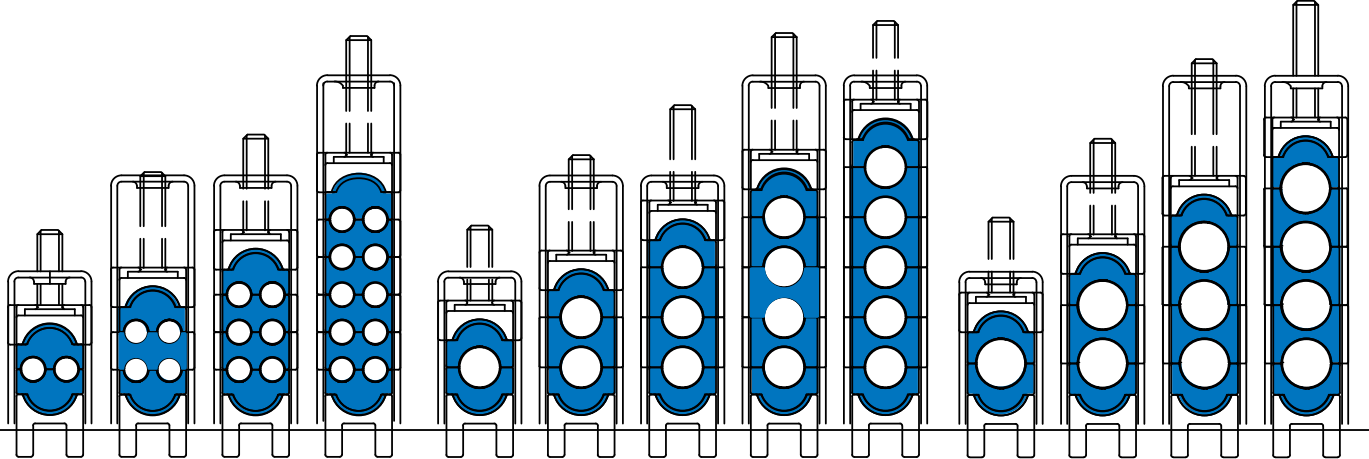
- For hose diameters 6, 10 and 12mm
- With these options, the CFX and CFXL clamps can be specifically used for pneumatic hoses
- Pneumatic hoses are held securely without being crushed
- Infinite assembly options
- Cost-effective, compact and modular



Part No.							≤ Ø
Individual parts							[mm]
stacker saddles	 CDA.6 / 6-16.P	 CD.6 / 6.P	 CDA.10-16.P	 CD.10 / 10.P	 CDA.12-16.P	 CD.12 / 12.P	
CFX16.1.P6.1 / CFXL16.1.P6.1	2 x	–	–	–	–	–	6
CFX16.2.P6.1 / CFXL16.2.P6.1	2 x	1 x	–	–	–	–	6
CFX16.2.P6.2 / CFXL16.2.P6.2	2 x	2 x	–	–	–	–	6
CFX16.3.P6.1 / CFXL16.3.P6.1	2 x	4 x	–	–	–	–	6
CFX16.1.P10.1 / CFXL16.1.P10.1	–	–	2 x	–	–	–	10
CFX16.2.P10.1 / CFXL16.2.P10.1	–	–	2 x	1 x	–	–	10
CFX16.2.P10.2 / CFXL16.2.P10.2	–	–	2 x	2 x	–	–	10
CFX16.3.P10.1 / CFXL16.3.P10.1	–	–	2 x	3 x	–	–	10
CFX16.3.P10.2 / CFXL16.3.P10.2	–	–	2 x	4 x	–	–	10
CFX16.1.P12.1 / CFXL16.1.P12.1	–	–	–	–	2 x	–	12
CFX16.2.P12.1 / CFXL16.2.P12.1	–	–	–	–	2 x	1 x	12
CFX16.3.P12.1 / CFXL16.3.P12.1	–	–	–	–	2 x	2 x	12
CFX16.3.P12.2 / CFXL16.3.P12.2	–	–	–	–	2 x	3 x	12

Standard material: galvanised steel. For the stainless steel version (material 1.4301/AISI 304), please add the part number with index **.E**. Example: **Part No. CFX.16.3.P12.2.E**.

CFX16.1.P6.1 CFX16.2.P6.1 CFX16.2.P6.2 CFX16.3.P6.1 CFX16.1.P10.1 CFX16.2.P10.1 CFX16.2.P10.2 CFX16.3.P10.1 CFX16.3.P10.2 CFX16.1.P12.1 CFX16.2.P12.1 CFX16.3.P12.1 CFX16.3.P12.2
CFXL16.1.P6.1 CFXL16.2.P6.1 CFXL16.2.P6.2 CFXL16.3.P6.1 CFXL16.1.P10.1 CFXL16.2.P10.1 CFXL16.2.P10.2 CFXL16.3.P10.1 CFXL16.3.P10.2 CFXL16.1.P12.1 CFXL16.2.P12.1 CFXL16.3.P12.1 CFXL16.3.P12.2



CFX16 - with pneumatic stacker saddles, cable diameter 6mm / 10mm / 12mm.

 Available from stock
Upon request



Levels stackable within the KMA mounting bracket

Easy strain relief with cable ties

Many cables types together in a compact system

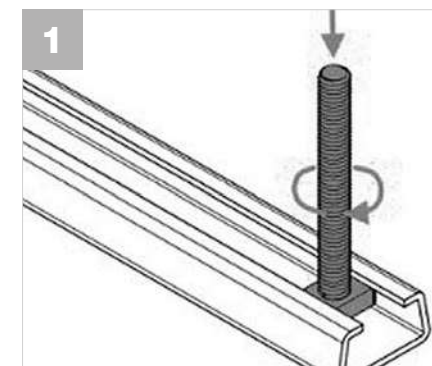
Stackable, space-saving, flexible - chainfix multi-tiewrap plate

When many cables have to be safely strain relieved in a confined space, the stackable multi-tiewrap plates with intuitive design are ideal.

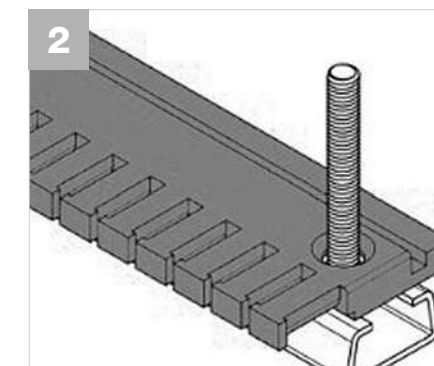
- Flexible modular system with stackable levels
- Based on the proven tiewrap plate principle
- Space-saving - strain relief for many cables in a confined space
- Cost-effective alternative to multiple clamps or PU strain relief blocks
- All cables strain relieved in one system
- No additional upstream tiewrap plate necessary
- Space and material saving design

Available from stock
Upon request

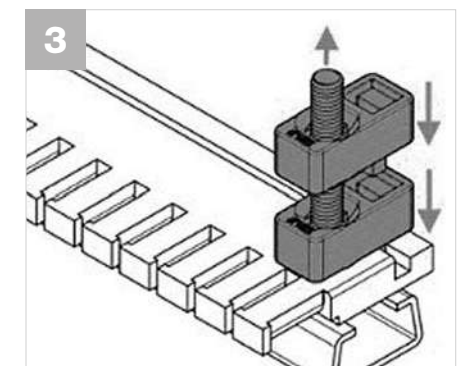
Assembly instructions | Multi-tiewrap plate



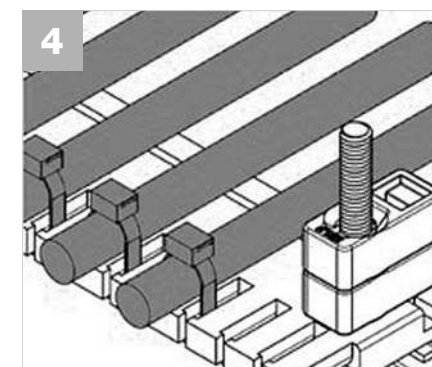
Insert threaded bolt and turn 90° ...



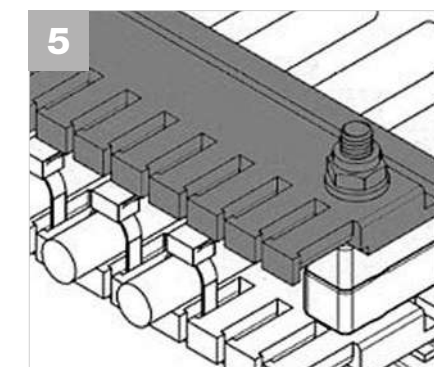
place the lower tiewrap plate ...



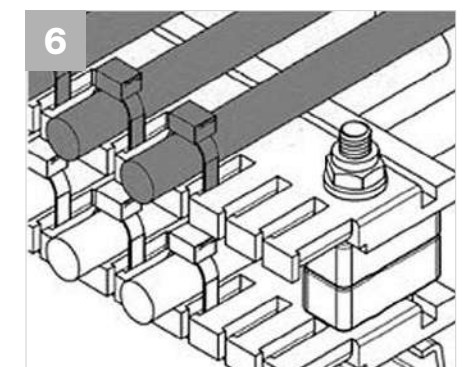
Push the spacer down, at the same time pull the threaded bolt upwards ...



Secure the cables with cable ties ...

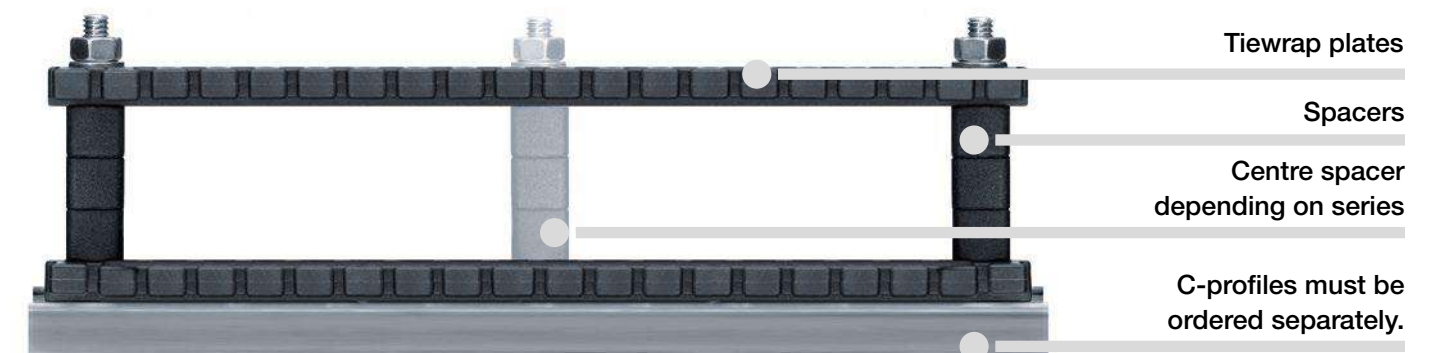


Mount the upper tiewrap plate, washers and nuts ...



Secure the cables with cable tiewrap - done!

Structure | Multi-tiewrap plate



Available from stock
Upon request

Product range | Installation dimensions

Multi-tiewrap plates series 3000

- Flexible modular system with stackable levels
- Stackable in all mounting brackets with C-profile
- Screwed on KMA with C-profile (KMA = plastic metal mounting bracket)
- Proven tiewrap plate principle of series 3000
- Reliable strain relief in the tightest of spaces
- All cables strain relieved in one system



Installation dimensions

Description

For the following series

E2.1

- E2.38
- E2.48

E4Q

- E4Q.34/H4Q.34
- E4Q.44/H4Q.44
- E4Q.58/H4Q.58
- E4Q.82/H4Q.82

E4.1

- E4.32/H4.32/R4.32
- E4.42/H4.42/R4.42
- E4.56/H4.56/R4.56
- E4.80/H4.80/R4.80
- E4.112/R4.112
- E4.162

- 800
- 840

E4.1L

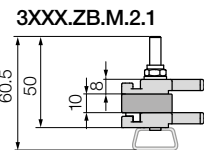
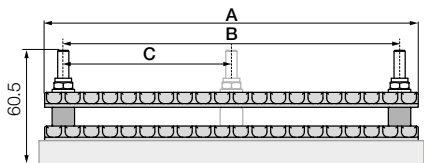
- E4.38L/R4.38L
- E4.48L/R4.48L
- E4.64L

E4/light

- 14040/14140/18840
- 14240/14340
- 14550/14650/19050
- 15050/15150/19850
- 15250/15350
- 1640/1608

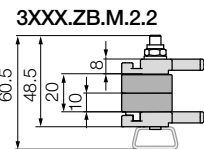
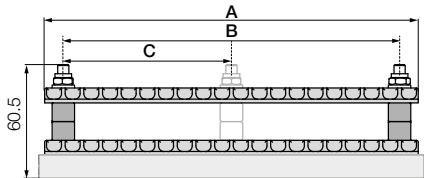
E6 / C6

- E6.52/R6.52
- C6.53
- E6.62
- E6.80L
- E6.80



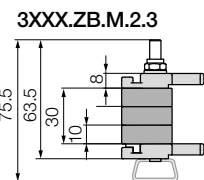
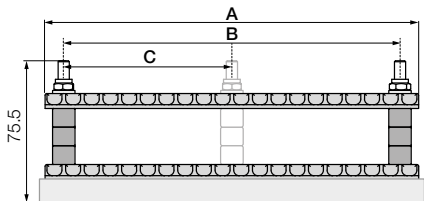
1

Series 3XXX.ZB.M.2.1
with 2 tiewrap plates and
1 layer of spacers



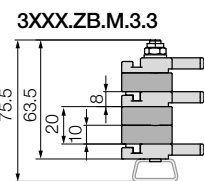
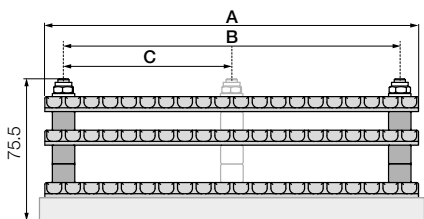
2

Series 3XXX.ZB.M.2.2
with 2 tiewrap plates and
2 layers of spacers



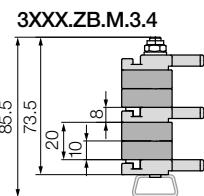
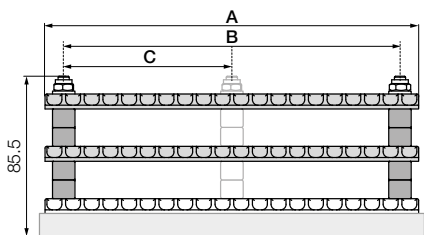
3

Series 3XXX.ZB.M.2.3i
with 2 tiewrap plates and
3 layers of spacers



4

Series 3XXX.ZB.M.3.3
with 3 tiewrap plates and
3 layers of spacers



5

Series 3XXX.ZB.M.3.4
with 3 tiewrap plates and
4 layers of spacers

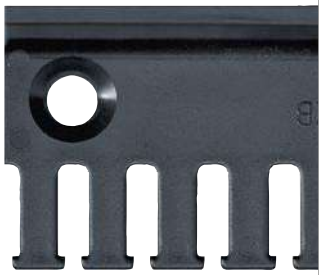
Product range | Installation dimensions

Part No.	Installation	Tiewrap plates	Spacers	Number of teeth	Dimensions	Dimensions	Dimensions	Centre
Tiewrap plates	height H [mm]	quantity [pcs.]	quantity [pcs.]	tiewrap plate [n]	A	B	C	bore
1 Series 3XXX.ZB.M.2.1 with 2 tiewrap plates and 1 layer of spacers								
3075.ZB.M.2.1	60.5	2	1	7	75	55	–	no
3100.ZB.M.2.1	60.5	2	1	10	100	80	–	no
3115.ZB.M.2.1	60.5	2	1	11	115	95	–	no
3125.ZB.M.2.1	60.5	2	1	12	125	105	–	no
3150.ZB.M.2.1	60.5	2	1	15	150	130	–	no
3175.ZB.M.2.1	60.5	2	1	17	175	155	–	no
3200.ZB.M.2.1	60.5	2	1	20	200	180	90	yes
3225.ZB.M.2.1	60.5	2	1	22	225	205	102.5	yes
3250.ZB.M.2.1	60.5	2	1	25	250	230	115	yes
2 Series 3XXX.ZB.M.2.2 with 2 tiewrap plates and 2 layers of spacers								
3075.ZB.M.2.2	60.5	2	2	7	75	55	–	no
3100.ZB.M.2.2	60.5	2	2	10	100	80	–	no
3115.ZB.M.2.2	60.5	2	2	11	115	95	–	no
3125.ZB.M.2.2	60.5	2	2	12	125	105	–	no
3150.ZB.M.2.2	60.5	2	2	15	150	130	–	no
3175.ZB.M.2.2	60.5	2	2	17	175	155	–	no
3200.ZB.M.2.2	60.5	2	2	20	200	180	90	yes
3225.ZB.M.2.2	60.5	2	2	22	225	205	102.5	yes
3250.ZB.M.2.2	60.5	2	2	25	250	230	115	yes
3 Series 3XXX.ZB.M.2.3 with 2 tiewrap plates and 3 layers of spacers								
3075.ZB.M.2.3	75.5	2	3	7	75	55	–	no
3100.ZB.M.2.3	75.5	2	3	10	100	80	–	no
3115.ZB.M.2.3	75.5	2	3	11	115	95	–	no
3125.ZB.M.2.3	75.5	2	3	12	125	105	–	no
3150.ZB.M.2.3	75.5	2	3	15	150	130	–	no
3175.ZB.M.2.3	75.5	2	3	17	175	155	–	no
3200.ZB.M.2.3	75.5	2	3	20	200	180	90	yes
3225.ZB.M.2.3	75.5	2	3	22	225	205	102.5	yes
3250.ZB.M.2.3	75.5	2	3	25	250	230	115	yes
4 Series 3XXX.ZB.M.3.3 with 3 tiewrap plates and 3 layers of spacers								
3075.ZB.M.3.3	75.5	3	3	7	75	55	–	no
3100.ZB.M.3.3	75.5	3	3	10	100	80	–	no
3115.ZB.M.3.3	75.5	3	3	11	115	95	–	no
3125.ZB.M.3.3	75.5	3	3	12	125	105	–	no
3150.ZB.M.3.3	75.5	3	3	15	150	130	–	no
3175.ZB.M.3.3	75.5	3	3	17	175	155	–	no
3200.ZB.M.3.3	75.5	3	3	20	200	180	90	yes
3225.ZB.M.3.3	75.5	3	3	22	225	205	102.5	yes
3250.ZB.M.3.3	75.5	3	3	25	250	230	115	yes
5 Series 3XXX.ZB.M.3.4 with 3 tiewrap plates and 4 layers of spacers								
3075.ZB.M.3.4	85.5	3	4	7	75	55	–	no
3100.ZB.M.3.4	85.5	3	4	10	100	80	–	no
3115.ZB.M.3.4	85.5	3	4	11	115	95	–	no
3125.ZB.M.3.4	85.5	3	4	12	125	105	–	no
3150.ZB.M.3.4	85.5	3	4	15	150	130	–	no
3175.ZB.M.3.4	85.5	3	4	17	175	155	–	no
3200.ZB.M.3.4	85.5	3	4	20	200	180	90	yes
3225.ZB.M.3.4	85.5	3	4	22	225	205	102.5	yes
3250.ZB.M.3.4	85.5	3	4	25	250	230	115	yes

Product range | Series 2000 tiewrap plate as an individual part

chainfix tiewrap plate series 2000

- Available as an individual component
- Available screwed on KMA with C-profile as **.S** variant, incl. two screws and nuts (KMA = plastic metal mounting bracket)
- Can be clipped onto some mounting brackets
- Can be used as an individual part in switchgear cabinets or in the assembly of machines



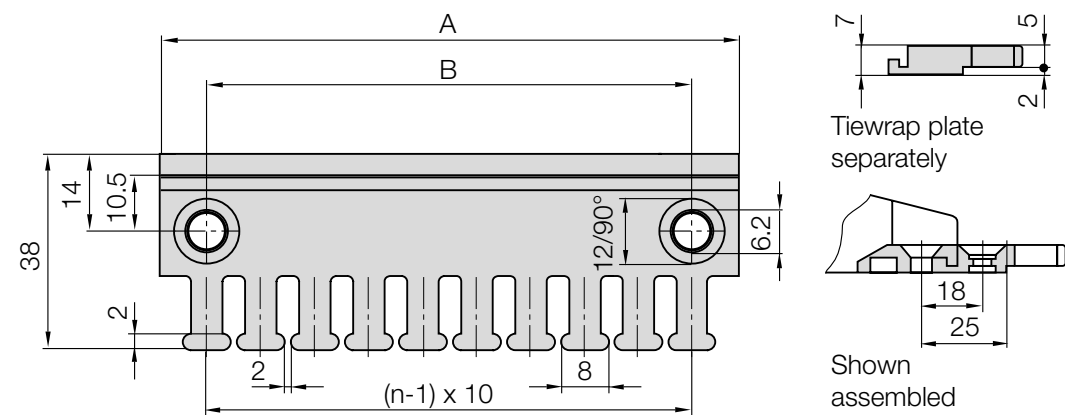
Part No. as individual part	Part No. for KMA with C-profile*	Number of teeth [n]	A [mm]	B [mm]	C [mm]	Centre bore
2020.ZB ¹⁾	2020.ZB.S ¹⁾	3	30	15	–	no
2030.ZB	2030.ZB.S	4	40	20	–	no
2040.ZB	2040.ZB.S	5	50	30	–	no
2050.ZB	2050.ZB.S	6	58	40	–	no
2070.ZB	2070.ZB.S	8	80	60	–	no
2090.ZB ²⁾	2090.ZB.S ²⁾	9	90	–	–	no
2100.ZB	2100.ZB.S	10	100	80	–	no
2125.ZB ³⁾	2125.ZB.S ³⁾	12	116	–	–	no

1) Not suitable for E4.21.030. series.

2) Consisting of 2 tiewrap plates: 2030.ZB + 2040.ZB.

3) Consisting of 2 tiewrap plates: 2050.ZB + 2050.ZB.

*Available screwed on KMA with C-profile as **.S** variant, incl. two screws and nuts.



Part No. cable tiewraps	Width x length [mm]	≤ Ø [mm]	Tensile strength [N]
100-piece bag			
CFB.001	4.8 x 150	36	222 N

For the following series easy chain®

● E/Z200

E2.1

● E2.21

● E2.26

E4.1

● E4.21

E6

● E6.29/R6.29

● E6.35

● E6.40

Product range | Series 3000 tiewrap plate as an individual part

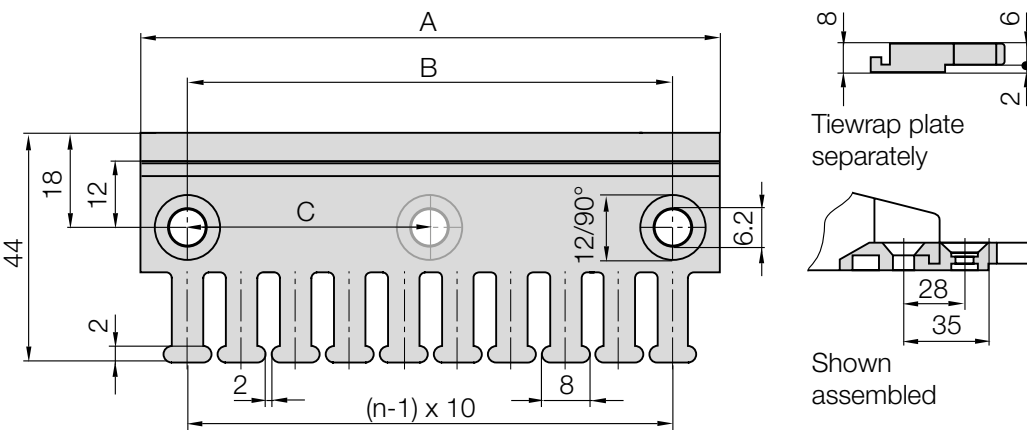
chainfix tiewrap plate series 3000

- Suitable for stackable, space-saving chainfix multi-tiewrap plates
- Available as an individual component
- Available screwed on KMA with C-profile as **.S** variant, incl. two screws and nuts (KMA = plastic metal mounting bracket)
- Can be clipped onto some mounting brackets
- Can be used as an individual part in switchgear cabinets or in the assembly of machines



Part No. as individual part	Part No. for KMA with C-profile*	Number of teeth [n]	A [mm]	B [mm]	C [mm]	Centre bore
3050.ZB	3050.ZB.S	5	50	30	–	no
3075.ZB	3075.ZB.S	7	75	55	–	no
3100.ZB	3100.ZB.S	10	100	80	–	no
3115.ZB	3115.ZB.S	11	115	95	–	no
3125.ZB	3125.ZB.S	12	125	105	–	no
3150.ZB	3150.ZB.S	15	150	130	–	no
3175.ZB	3175.ZB.S	17	175	155	–	no
3200.ZB	3200.ZB.S	20	200	180	90	yes
3225.ZB	3225.ZB.S	22	225	205	102.5	yes
3250.ZB	3250.ZB.S	25	250	230	115	yes

*Available screwed on KMA with C-profile as **.S** variant, incl. two screws and nuts.



Part No. cable tiewraps	Width x length [mm]	≤ Ø [mm]	Tensile strength [N]
100-piece bag			
CFB.001	4.8 x 150	36	222 N

For the following series easy chain®

● E/Z26

● E/Z300

E2.1

● E2.38

● E2.48

E4Q

● E4Q.34/H4Q.34

● E4Q.44/H4Q.44

● E4Q.58/H4Q.58

● E4Q.82/H4Q.82

E4.1

● E4.32/H4.32/R4.32

● E4.42/H4.42/R4.42

● E4.56/H4.56/R4.56

● E4.80/H4.80/R4.80

● E4.112/R4.112

● E4.162

● 800

● 840

E4.1L

● E4.38L/R4.38L

● E4.48L/R4.48L

● E4.64L

E4/light

● 14040/14140/18840

● 14240/14340

● 14550/14650/19050

● 15050/15150/19850

● 15250/15350

● 1640/1608

E6 / C6

● E6.52/R6.52/C6.53

● E6.62

● E6.80L

● E6.80

Available from stock
Upon request

Available from stock
Upon request

Product range | Option 01

chainfix tiewrap plates with clip-on connection to C-profile

- Can be "clipped" into the KMA C-profile
- Easy to assemble without any screws
- Easy to remove with screwdriver but secure when in use
- Can be used as an individual part in switchgear cabinets or in the assembly of machines



Part No.	Width	Number of	For
Tiewrap plate	[mm]	teeth [n]	series
3050.ZC	50	5	For all mounting brackets with C-profile
3075.ZC	75	7	For all mounting brackets with C-profile

For the following series

- For all mounting brackets with C-profile

Product range | Option 02

chainfix strain relief tooth for top-hat (DIN) rail 15 (TS92.31)

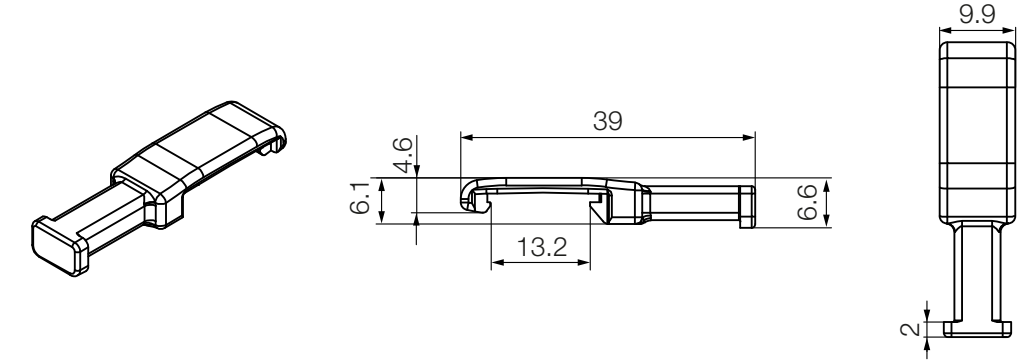
- Can be clipped into top-hat (DIN) rails
- Width per strain relief tooth: 10mm
- Four ZE teeth on each side are required for a 40mm inner width
- Easy to retrofit
- Simple installation into top-hat (DIN) rail 15 (TS92.31)



Part No.	Width	Number of	For
Tiewrap plate	[mm]	teeth [n]	series
2010.ZH	10	1	E4.31L / R4.31L

For the following series

- For all top-hat (DIN) rails 15 TS92.31



 Available from stock
Upon request

Product range | Option 03

chainfix tiewrap plates for fixed crossbars

- Can be clipped on fixed crossbars
- For use with many harnessed cables
- If the KMA is too small for C-profile
- Easy to assemble without any screws



Part No.	Width	Number of	For
Tiewrap plate	[mm]	teeth [n]	series
2050.Z	60	6	E/Z200, E2.26
C.2.522.050.ZS	48	4	E2.38, E2.48
C.2.522.065.ZS	63	6	E2.38, E2.48
C.2.522.075.ZS	73	7	E2.38, E2.48

For the following series

easy chain®

- E/Z200

E2.1

- E2.26
- E2.38
- E2.48

Product range | Option 04

chainfix tiewrap plates for openable crossbars

- Can be clipped on openable crossbars
- For use with many harnessed cables
- If the KMA is too small for C-profile
- Easy to assemble without any screws



Part No.	Width	Number of	For
Tiewrap plate	[mm]	teeth [n]	series
2050.Z	60	6	E4.28, E6.52
3850.ZS	48	5	E4.32, E4.42, 14240, 15250, E6.62, YE.42
3875.ZS	74	7	E4.32, E4.42, 14240, 15250, E6.62
4550.ZS	74	5	E4.56, E4.80, E4.112, 14040, 14550, 15050, 1640, E6.80L, E6.80, YE.56, YEHD.108, YEHD.112
4575.ZS	80	7	E4.56, E4.80, E4.112, 14040, 14550, 15050, 1640, E6.80L, E6.80, YE.56, YEHD.108, YEHD.112
C622.100.ZS	80	8	E4.38L, E4.48L
C825.075.ZS	70	11	E4Q.34, E4Q.44, E4Q.58, E4Q.82
C1132.080.ZS	80	13	E4Q.34, E4Q.44, E4Q.58, E4Q.82

For the following series

E4Q

E4Q.L

E4.1

E4.1L

E4/light

 Available from stock
Upon request

Product range | Strain relief separators

- Separators with integrated strain relief teeth
- To be fitted at the first and last e-chain® link
 - For restricted space conditions
 - Easy to assemble without any screws
 - The number "n" depends on the selection of the cables (diameter, type) and the available space



Part No.	For series	Number of teeth [n]	A [mm]	B [mm]	C [mm]	D [mm]
21.1.Z	E2.21	4	10	4	–	6
26.Z*	E2.26	6	12	3	–	7
R2.26.Z	R2.26	4	10	3	–	6
R2.40.Z	R2.40	8	12	3	–	7
T2103.Z	E4.21	2	8	4	1	4
28.Z	E4.28	4	10	4	–	6
28.ZT	R4.28	4	10	4	15	6
31.Z	E4.31L/R4.31L	4	9	4	6	6
38.Z	E4.38L/R4.38L	4	14	4.5	8	15
48.Z	E4.48L/R4.48L	4	14	4.5	8	20
48.ZS	E4.48L/R4.48L	4	14	4.5	8	20
C6.29.5.Z	C6.29	2	10	2.5	–	4
C6.38.5.Z	C6.38	3	10	2.5	–	8
E6.29.02.Z	E6.29	2	8	4	1	4
R6.29.02.Z	R6.29	2	10	4	10	4
E6.35.02.Z	E6.35	3	8	4	1	4
E6.40.02.Z	E6.40	3	13	4	–	8

*For KMA mounting bracket only.

For the following series

E2.1

- E2.21
- E2.26

R2.1

- R2.26
- R2i.40

E4.1

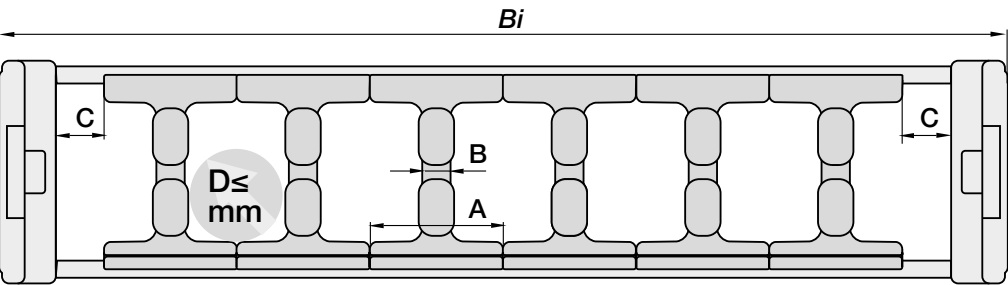
- E4.32/H4.32/R4.32
- E4.42/H4.42/R4.42

E4.1L

- E4.31L/R4.31L
- E4.38L/R4.38L
- E4.48L/R4.48L

E6 / C6

- E6.29 / R6.29
- C6.29
- E6.35
- C6.38
- E6.40



Available from stock
Upon request

Strain relief separator | Overview

For series E2.1 e-chains®

		E2.21 e-chains® unassembled 21.1.Z assembled 21.1.Z1.1
		E2.26 e-chains® unassembled 26.Z assembled 26.Z.1

For series R2.1 e-tubes

		R2.26 e-tubes unassembled R2.26.Z assembled R2.26.Z.1
		R2.40 e-tubes unassembled R2.40.Z assembled R2.40.Z.1

For series E4.1

		E4.28 e-chains® unassembled 28.Z assembled 28.Z.1
		R4.28 e-tubes unassembled 28.ZT assembled 28.ZT.1
		E4.21 e-chains® unassembled T2103.Z assembled T2113.Z

For series C6

		C6.29 e-chains® unassembled C6.29.5.Z assembled C6.29.5.Z.1
		C6.38 e-chains® unassembled C6.38.5.Z assembled C6.38.5.Z.1

For series E4.1L

		E4.31L/R4.31L e-chains®/e-tubes unassembled 31.Z assembled 31.Z.1
		E4.38L/R4.38L e-chains®/e-tubes unassembled 38.Z assembled 38.Z.1
		E4.48L/R4.48L e-chains®/e-tubes unassembled 48.Z assembled 48.Z.1
		E4.48L/R4.48L e-chains®/e-tubes unassembled 48.ZS assembled 48.ZS.1

For series E6/R6

		E6.29 e-chains® unassembled E6.29.02.Z assembled E6.29.12.Z
		R6.29 e-tubes unassembled R6.29.02.Z assembled R6.29.12.Z
		E6.35 e-chains® unassembled E6.35.02.Z assembled E6.35.12.Z
		E6.40 e-chains® unassembled E6.40.02.Z assembled E6.40.12.Z

Product range | Series CFV | Strain relief elements with tiwrap teeth

Stepped strain relief for use outside of the e-chain® section

- Easy strain relief for cables, even in fully enclosed tubes and with different connectors
- For e-chains® and e-tubes
- Subsequent installation into KMA mounting bracket or top-hat (DIN) rail 15 (TS92.31) possible

Part No.	For series	Inner height <i>hi</i> [mm]	For use in
CFV.31.N15	E4.31L/R4.31L	31	Top-hat (DIN) rail 15
CFV.R2.26.Z	R2.26	26	KMA
CFV.R2.40.Z	R2.40	40	KMA
CFV.R2.48.Z	R2.48	48	KMA
CFV.42.C	E4Q.34/H4Q.34	34	KMA
	E4.32/H4.32/R4.32	32	KMA
	E4Q.44/H4Q.44	44	KMA
	E4.42/H4.42/R4.42	42	KMA
	E4.38L/R4.38L	38	KMA
	E4.48L/R4.48L	48	KMA
	14040/14140/18840	56	KMA
	14240/14340	62	KMA
	E6.40	40	KMA
	E6.52/R6.52	52	KMA
CFV.80.C	C6.53	53	KMA
	E4Q.64L	64	KMA
	R2.75	75	KMA
	E4.64L	64	KMA
	E4Q.58/H4Q.58	58	KMA
	E4.56/H4.56/R4.56	56	KMA
	E4Q.82/H4Q.82	82	KMA
	E4.80/H4.80/R4.80	80	KMA
	14550/14650/19050	70	KMA
	15050/15150/19850	80	KMA
CFV.80.C	15250/15350	86	KMA
	1640/1608	112	KMA
	E6.62	62	KMA
	E6.80 / E6.80L	80	KMA

- For the following series
- R2.1

 - R2.26
 - R2.40
 - R2.48
 - R2.75
- E4Q

 - E4Q.34/H4Q.34
 - E4Q.44/H4Q.44
 - E4Q.58/H4Q.58
 - E4Q.82/H4Q.82
- E4Q.L

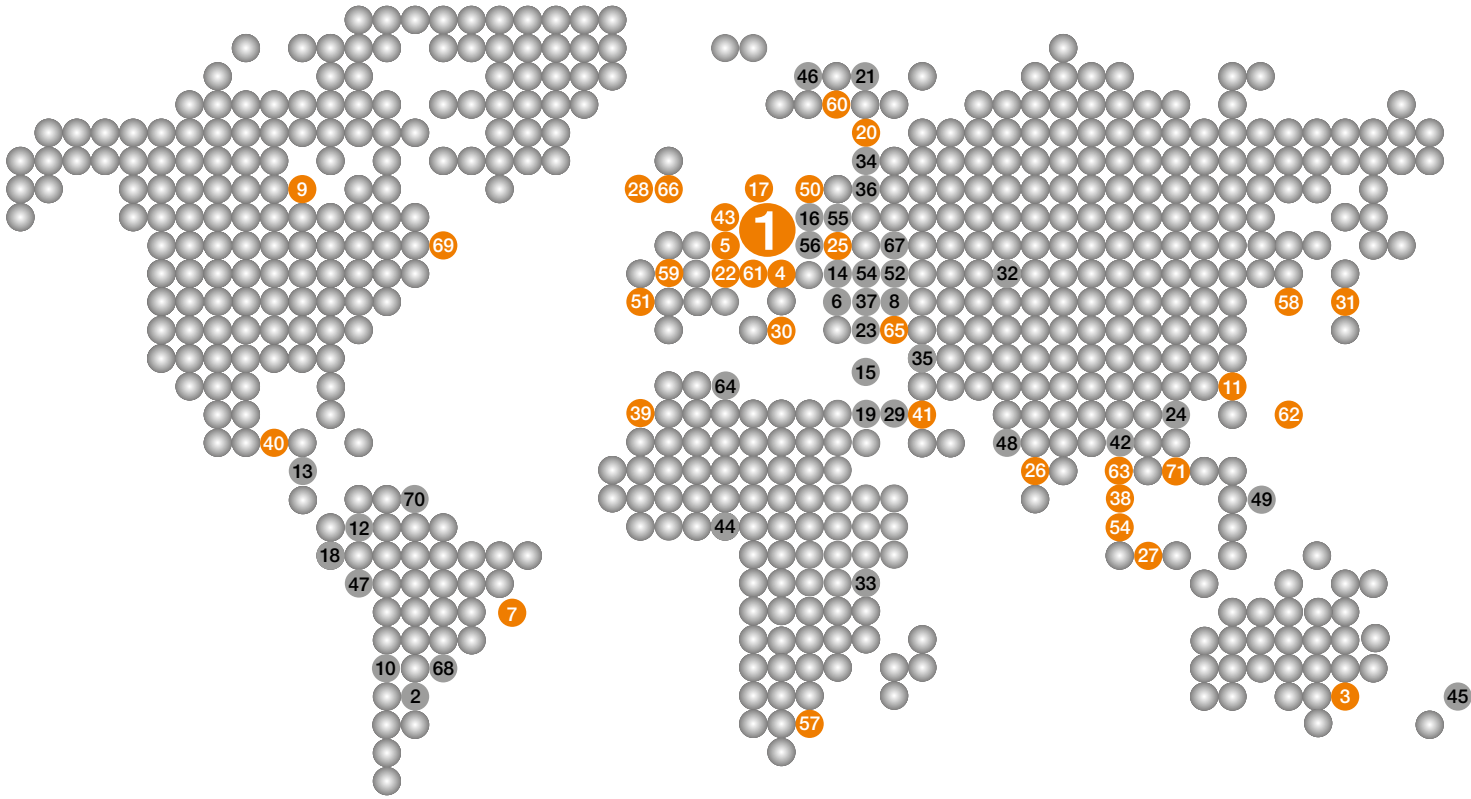
 - E4Q.64L
- E4.1

 - E4.32/H4.32/R4.32
 - E4.42/H4.42/R4.42
- E4.1L

 - E4.31L/R4.31L
 - E4.38L/R4.38L
 - E4.48L/R4.48L
 - E4.64L
- E4/light

 - 14040/14140/18840
 - 14240/14340
 - 14550/14650/19050
 - 15050/15150/19850
 - 15250/15350
 - 1640/1608
- E6 / C6

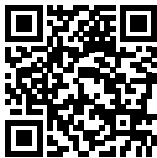
 - E6.40
 - E6.52/R6.52/C6.53
 - E6.62
 - E6.80L
 - E6.80



igus® GmbH location
igus® is now represented all over the world. In addition to our headquarters in Germany, we also have subsidiaries in the following countries (in alphabetical order):
Australia, Austria, Belgium, Brazil, Canada, China, Denmark, Estonia, France, Hungary, India, Indonesia, Ireland, Italy, Japan, Korea, Malaysia, Mexico, Middle East, Morocco, the Netherlands, Poland, Portugal, Singapore, South Africa, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, the UK, the USA and Vietnam.

We also have distributors who represent us in many other countries, which means that we are active in over 80 countries worldwide.

Your contact persons
In every country in which we are represented, you will have a personal igus® consultant at your side. You can view the contact persons for sales, purchasing and general enquiries according to country or continent:



www.igus.eu/contact

igus®.eu/8pm

Place your orders until late. Ordering and deliveries weekdays
from 7.00am to 8.00pm, Saturday from 8.00am to 12.00pm.
No minimum order quantity, no surcharges. Quick delivery.
www.igus.eu Phone +49-2203 9649-800 Fax -222

igus®.eu/24

Buy online - 24hrs! www.igus.eu

/9001:2015 /16949:2016 /14001:2015

igus® is certified in accordance with ISO 9001:2015 and IATF 16949:2016
in the field of energy supply systems, cables and harnessing, as well as
plastic bearings. igus® is certified according to ISO 14001:2015.

/readychain®

Ask for fully harnessed and pre-assembled energy supply systems -
immediately increase your cash-flow and profit with readychain®.

www.igus.eu/readychain

/newsletter

Free of charge! Learn more about trends and innovations from the
igus® motion plastics® world. Register here: www.igus.eu/newsletter

igus®.eu

igus® GmbH Spicher Straße 1a 51147 Cologne, Germany

Phone: +49-2203 9649-800 Fax +49-2203 9649-222

info@igus.de www.igus.eu

© igus® GmbH, Germany

Subject to technical alterations. MAT0072320.20 Issue 04/2025