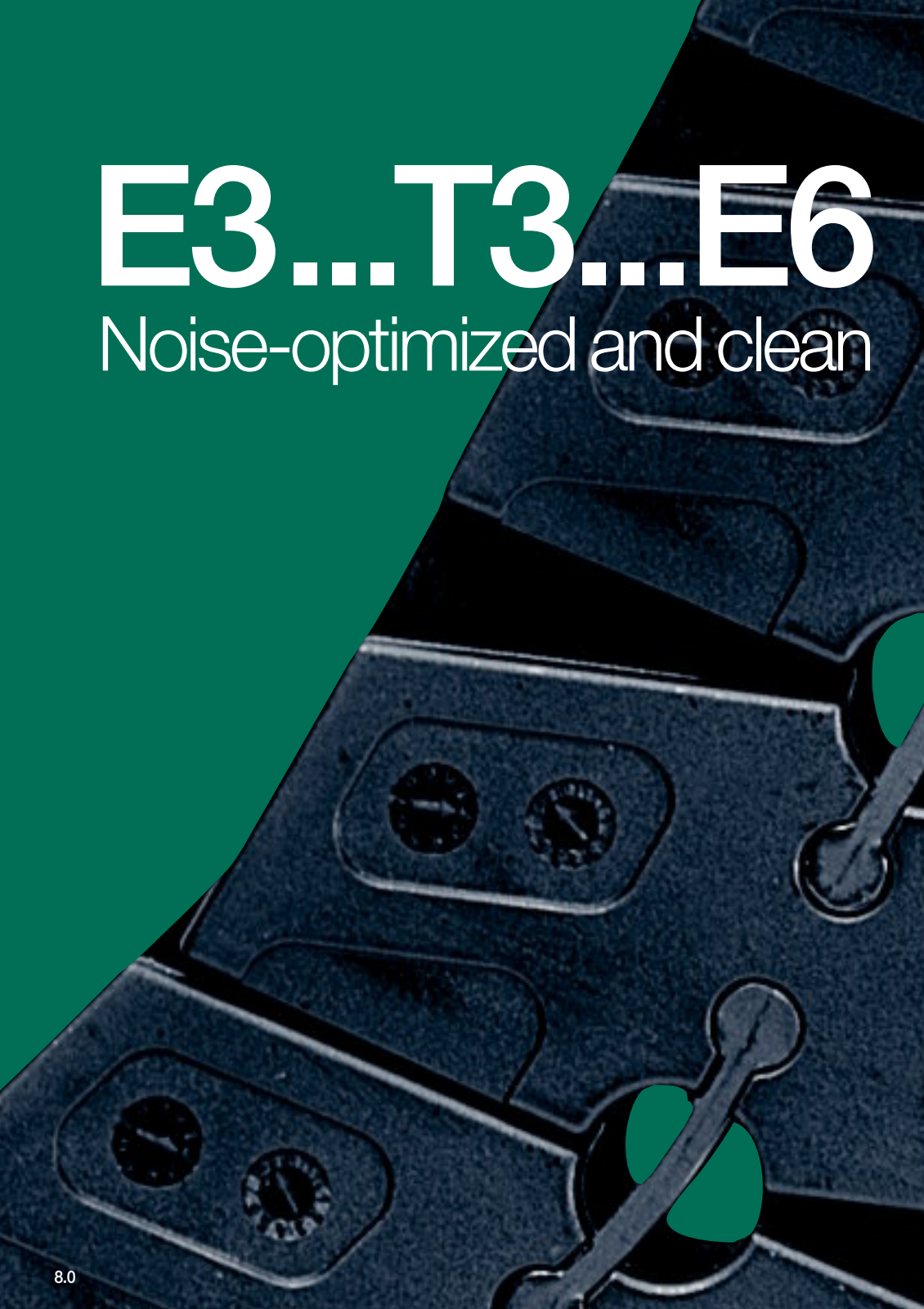
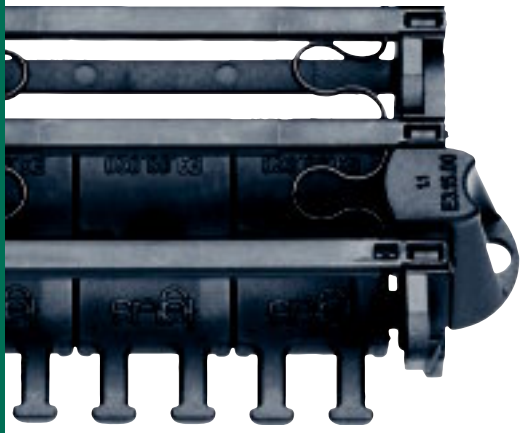
E3...T3...E6

Noise-optimized and clean




igus
igus



System E3 - Elastic, dampening connector strip replaces pins and bores

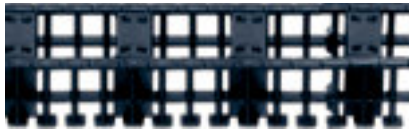
- Superquiet e-chain® for small spaces with modular 3-piece link design
- 3 Sizes available
- Interior heights: 10 mm, 15 mm, 22 mm

▶ **from page 8.4**

System T3 - Highly flexible, low-vibration band chain without pin and bore connection

- For short strokes with extreme demands in low noise and dynamics
- For high speed and high accelerations
- Very low weight
- Hardly any abrasion
- Cost-efficient, 3-piece e-chain®

▶ **from page 8.22**



System E6 - connector replaces pins and bores

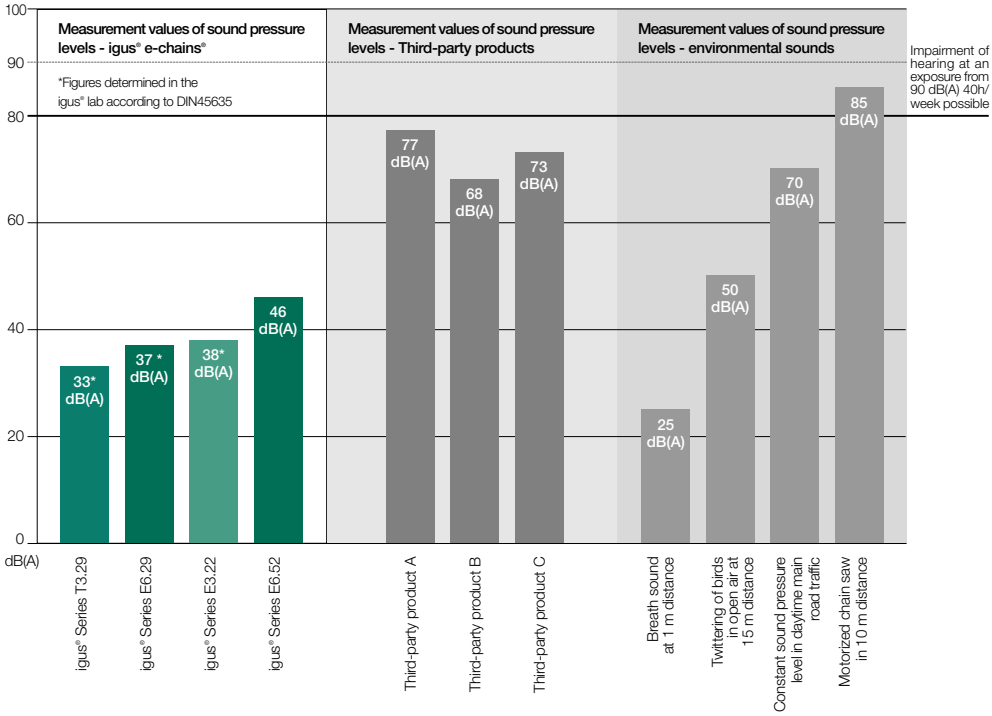
- Superquiet e-chain® with high stability and tensile strength and modular 6-piece link design
- 5 Sizes available
- 3 Types available (e-chain®, e-tube and Light-Version)
- Interior heights: 29 mm, 40 mm, 52 mm, 62 mm, 80 mm

▶ **from page 8.34**

The extremely low-noise igus® e-chain® - E3, T3 and E6 Systems

The e-chain® of the E3, T3 and E6 Series have extremely good low noise and vibration performance. The special, abrasion-resistant spring elements replace the conventional pin and bore connection of the chain links enabling the low noise and vibration operation of the e-chain®. Due to the special fastening system, the e-chainsystems® have low wear or abrasion and are therefore suitable for cleanroom applications. Another advantage of the connector is that in the application of an electrically conductive material (igumid ESD on request) it can guarantee a constant conductance value. The e-chain® Series E3, T3 and E6 offer an extensive accessories package and are available in many dimensions off the shelf.

Measurement values of sound pressure levels dB(A) in comparison



igus® goes clean room - qualification of E3 and E6 e-chains®

IPA Fraunhofer Institute has tested igus® Series E3, E4, E6 and easy chain® as follows:

- ISO class 1, as per stringent norm DIN EN ISO 14644-1 for System E3, Series E3.15.040.075.0 at v = 0,5 m/s, 1 m/s, 2 m/s
- ISO class 1, as per stringent norm DIN EN ISO 14644-1 for System E6 - special material*, Series E6.29.060.150.0.CR at v = 0,5 m/s, 2 m/s
- ISO class 3, as per stringent norm DIN EN ISO 14644-1 for System E6 - standard material, Series E6.29.060.150.0 at v = 0,5 m/s, 1 m/s, 2 m/s
- ISO class 3, as per stringent norm DIN EN ISO 14644-1 for System E6, Series E6.29.050 at v =1 und 2 m/s

Class per DIN EN ISO 14644-1	Equivalent to VDI 2083	Equivalent to US Fed.Std. 209E	Classification Series	Speed [m/s]
ISO class 1	no comparable classification	no comparable classification	**E3.15.040.075.0**	**0,5 / 1,0 / 2,0**
ISO class 1	no comparable classification	no comparable classification	**E6.29.060.150.0.CR***	**0,5 / 2,0**
ISO class 3	class 1	class 1	**E6.29.060.150.0**	**0,5 / 1,0 / 2,0**
ISO class 4	class 2	class 10		
ISO class 5	class 3	class 100		
ISO class 6	class 4	class 1.000		
ISO class 7	class 5	class 10.000		
ISO class 8	class 6	class 100.000		

Fraunhofer Institut Production technology and automation

special material "clean room"

Comprehensive information for E3, T3 and E6 ► can be found at the relevant web link

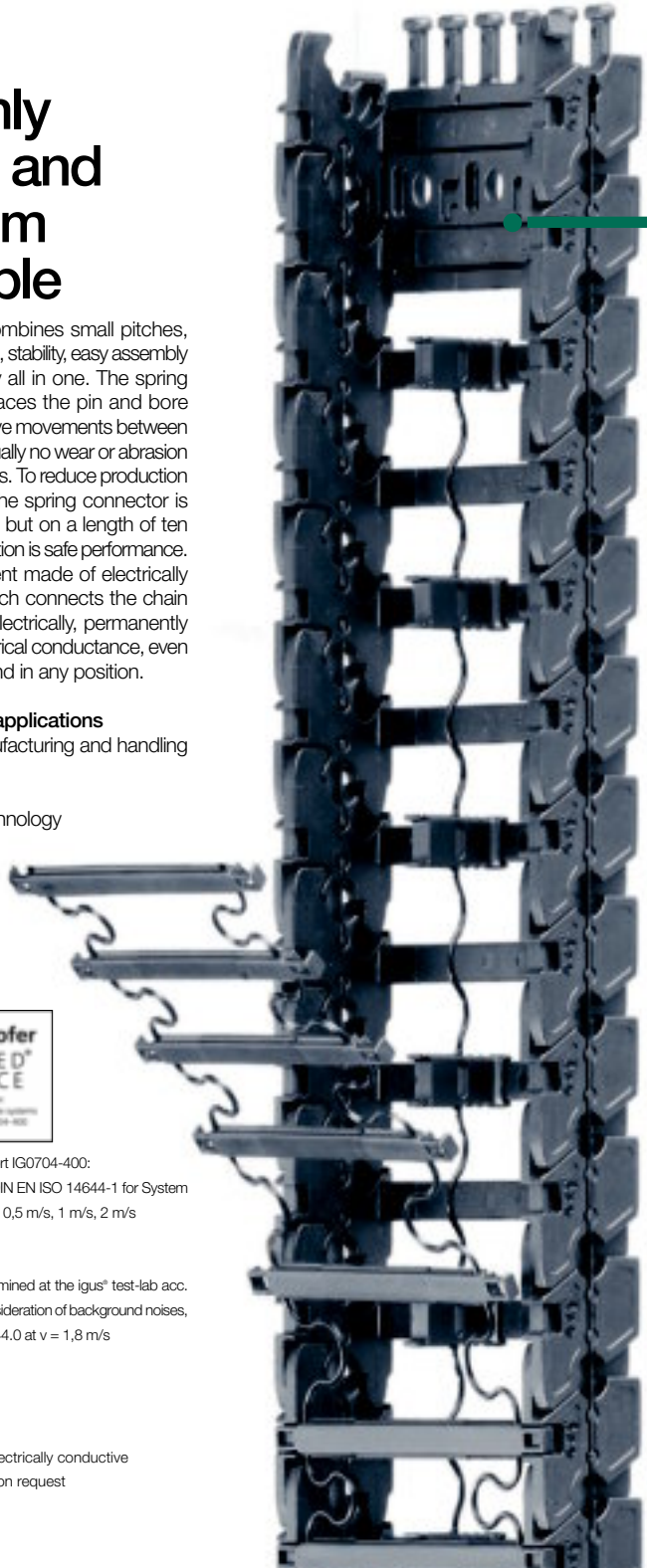

igus
igus
E3.00.020
E3.00.020

E3

Highly dynamic and cleanroom compatible

E3 - Highly dynamic and cleanroom compatible

The igus® System E3 combines small pitches, smooth running, low noise, stability, easy assembly and economic efficiency all in one. The spring connector element replaces the pin and bore principle and avoids relative movements between the joints. This means virtually no wear or abrasion for Cleanroom applications. To reduce production and assembling costs, the spring connector is not mounted individually, but on a length of ten chain links. Another E3 option is safe performance. A modified spring element made of electrically conductive material, which connects the chain links mechanically and electrically, permanently guaranties constant electrical conductance, even at high bending stress and in any position.



Typical industries and applications

- Semi-conductor manufacturing and handling
- Pick and place robots
- Optics
- Materials handling technology
- Measuring technology
- Printers and plotters
- Cleanroom environments
- General mechanical engineering

IPA Qualification Certificate - Report IG0704-400:
ISO Class 1, according to Norm DIN EN ISO 14644-1 for System E3, Series E3.15.040.075.0 at v = 0,5 m/s, 1 m/s, 2 m/s

38 dB(A) - Value dertermined at the igus® test-lab acc. to DIN 45635, with consideration of background noises, for Series E3.22.060.044.0 at v = 1,8 m/s

iF-Design Award 2005

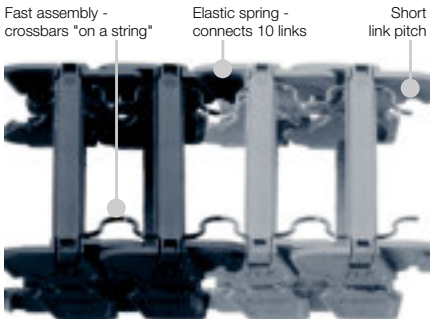
Special equipment: Electrically conductive ESD/ATEX version upon request

Long-term tests in our acoustics laboratory at a speed of 1.8 m/s and an acceleration of 3 m/s^2 showed reductions of 19-20 dB(A) compared to conventional e-chains®.

Light-weight and super-silent in small spaces - System E3

During long-term tests the System E3 with the spring band connector easily passes 15 million cycles at a bending radius of 44 mm and an acceleration of 4 g

Next Page ► Find selection table and assembly instructions



E3 = e-chains® with 3 different elements in one link:

- U-shaped link body
- Spring element
- Crossbars "on a string"

E3: System for highly dynamic applications

Cycle times in automation get shorter, while demands for low noise and vibration levels are increasing. For the broad range of small size e-chain® applications, igus® now introduces the System E3, that fully meets those requirements:

- Extremely low-noise operation - max. 38 dB(A)
- Elastic, dampening connector strip replaces pins and bores
- Modular 3-piece link design
- Cost effective cross bar-, separator and connector modules
- Fast and easy cable access due to zipper opening mechanism
- Good unsupported strength due to solid, interlocking side links
- Easy lengthening and shortening
- Also suits flat cables
- Accessories: Separators, integrated strain relief, mounting brackets
- You can find more technical data about the material, chemical resistance, temperatures ▶ **chapter Design, from page 1.38**

Selection table

Series	Inner height *hi* [mm]	Inner width *Bi* [mm]	Outer width *Ba* [mm]	Outer height *ha* [mm]	Bending radius *R* [mm]	Unsupported length max. [m]	Page
E3.10.	10	20 - 60	32 - 72	15	15 - 48	≈ 0,75	**8.10**
E3.15.	15	20 - 60	32 - 72	20	32 - 75	≈ 0,90	**8.14**
E3.22.	22	20 - 60	32 - 72	27	44 - 75	≈ 1,20	**8.18**

NEW in this catalog

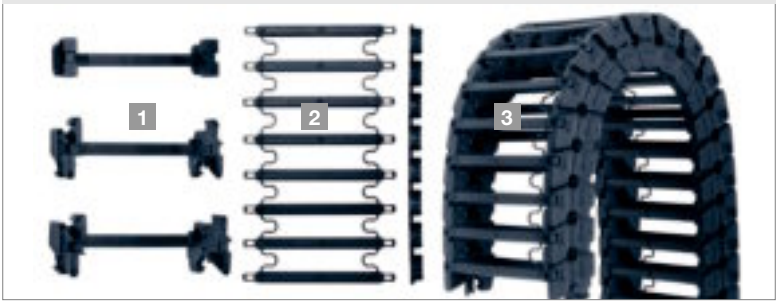
Open e-chains® in a flash with the new e-chain® opener

The opening of the e-chain® links at high speeds saves significant installation time. Open a long piece of e-chain® in one go. It's the ideal tool for your own mounting or assembly lines to minimize processing time significantly.

Product range: e-chain® opener

Series	Width *Bi* [mm]	Part No.
E3.10	20, 40, 60	**908.765**
E3.15	20, 40, 60	**908.765**
E3.20	20, 40, 60	**908.765**

System E3 | **3-piece e-chain®**

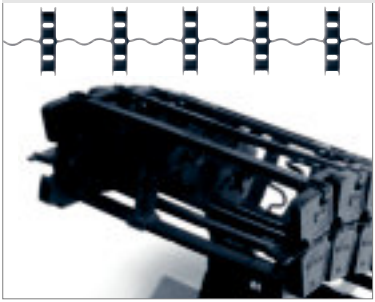


The abbreviation "E3" stands for an e-chain® consisting of three basic elements:
❶ e-chain® link body ❷ Zipper style opening lids ❸ Separator module

System E3 | **Opening** | **Closing**

Zipper style opening lids on a band for quick and easy installation - This e-chainSystem® allows faster assembling times. Opening and closing the e-chain® is made easy by "zipperbars on a thread"

System E3 | **Interior Separation** | **Strain Relief**



Vertical separators on a band divide carrier space - Five separators on one thread are simultaneously mounted on the crossbars

The universal strain relief can be individually matched to the chain width. You can fix the e-chain® on the fixed end with brackets (option)

E3 | Series E3.10

Price index

*Noise test values: max. 38 dB(A) - Values determined at the igus® test-lab acc. to DIN 45635 (v = 1,8 m/s)

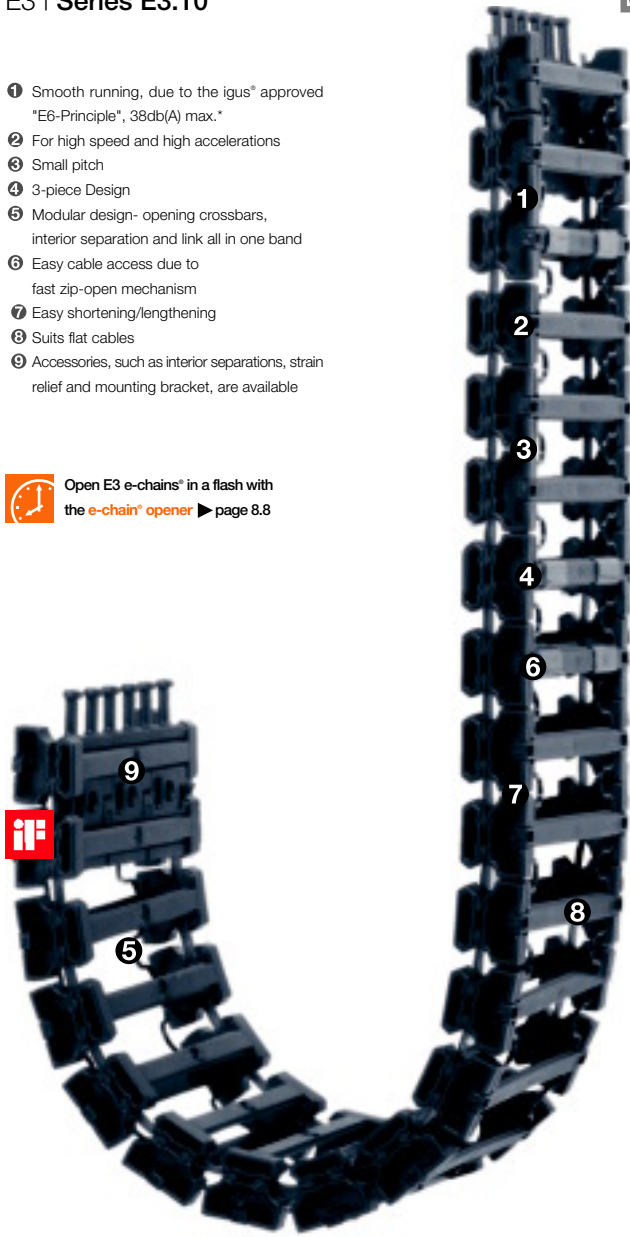
IPA classification - Report IG0704-400: ISO Class 1, according to standard DIN EN ISO 14644-1 for E3, Series E3.15.040.075.0 (at v = 0.5 m/s, 1 m/s, 2 m/s)

Special equipment:
Electrically conductive
ESD/ATEX version upon request

Rapid assembly time with "zipperbars on a strip"

1. Smooth running, due to the igus® approved "E6-Principle", 38db(A) max.*
2. For high speed and high accelerations
3. Small pitch
4. 3-piece Design
5. Modular design- opening crossbars, interior separation and link all in one band
6. Easy cable access due to fast zip-open mechanism
7. Easy shortening/lengthening
8. Suits flat cables
9. Accessories, such as interior separations, strain relief and mounting bracket, are available

Open E3 e-chains® in a flash with the e-chain® opener ▶ page 8.8



When to use the Series E3.10:

- If a low-noise, vibration-free version is required
- At very high speeds and/or accelerations (Theoretically up to 100 g or 1000 m/s)
- Hard-wearing e-chain® (more than 50 million cycles without abrasion)
- If a very light e-chain® is required (up to 40% lighter than a comparable E2-e-chain®)
- For the use of flat cables
- For small bending radii and small spaces
- If easy filling and assembly is required
- Minimal abrasion (e.g. cleanroom applications)

When not to use it:

- If a particularly low-cost, snap-open solution is required
  ▶ **Series E/Z06 easy chain®, page 3.20**
- If a simple, non snap-open e-chain® is required
  ▶ **Series 05 E2 micro, page 5.30**

Order example complete e-chain®

Please indicate chain-lengths or number of links **Example: 1 m or 60 links**

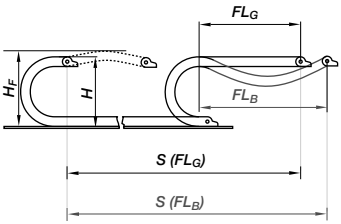
1 m **E3.10.060.015.0**	e-chain®
with 2 separators **E3.10.11** assembled every 2nd link	Interior separation
1 set **E3.10.060.12**	Mounting bracket

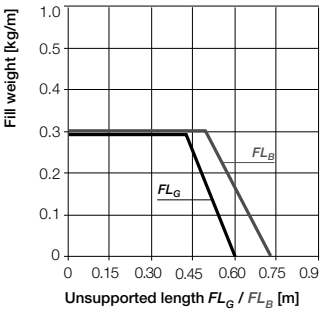
Available from stock. Delivery in 24h or today! (Delivery time means time until shipping of goods)

Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

Unsupported length

FL_G = with straight upper run
FL_B = with permitted sag
Further information ▶ **Design, page 1.12**

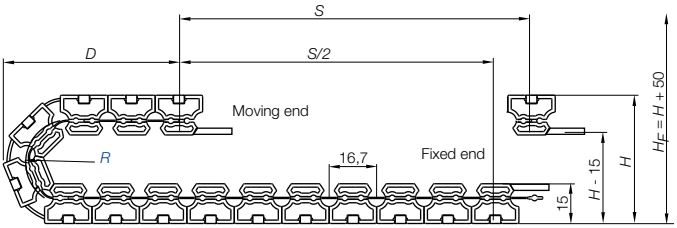




Length of travel *S* [m]

0 0.6 1.2 1.8

S = Length of travel
R = Bending radius
H = Nominal clearence height
H_F = Required clearence height
D = Overlength e-chain® radius in final position
K = $\pi \bullet R$ + "safety"



Short travels - unsupported

Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height H_F. Please consult igus® if space is particularly restricted.

Pitch = 16,7 mm/link **Links/m =** 60 (1.002 mm) **Chain length =** $^{S}/_{2} + K$

R	015	018	028	038	048
H	50	56	76	96	116
D	42	45	55	65	75
K	85	90	125	155	185

The required clearance height:
H_F **= *H* + 50 mm**
(with 0,1 kg/m fill weight)

Technical Data

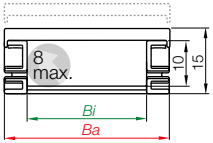
Speed / acceleration FL_G	max. 20 [m/s] / max. 200 [m/s²]
Speed / acceleration FL_B	max. 3 [m/s] / max. 6 [m/s²]
Gliding speed / acceleration (maximum)	upon request
permitted temperature °C	–40° up to +70° C
Flammability class	VDE 0304 IIC UL94 HB

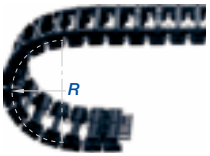
Details of material properties
▶ **page 1.38**

▶ page 8.9

igus® e-chainsystems®
Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222
igus® GmbH
51147 Cologne
Internet: www.igus.eu
E-mail: info@igus.de

E3 | Series E3.10 | Product Range





Series E3.10 - snap-open along outer radius

Part No.	Bi [mm]	Ba [mm]	R [mm]	Bending radii				Weight [kg/m]
E3.10.020.[ ].0	20	32	015	028	–	048		≈ 0,12
E3.10.040.[ ].0	40	52	015	028	038	048		≈ 0,15
E3.10.060.[ ].0	60	72	015	028	–	048		≈ 0,20

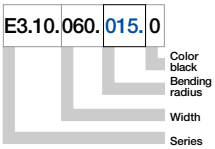
E3.10.020: radii 048 / E3.10.040: radii 028 / E3.10.060: radii 028 048

are available upon request. Delivery time: approx.6-8 weeks after receipt of order!

Supplement Part No. with required radius. Example: E3.10.060.015.0

0 = standard color, other colors ▶ page 1.39 · Pitch = 16,7 mm/link - Links/m = 60

Part No. structure



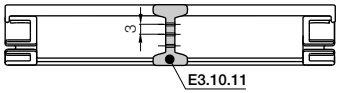
E3 | Series E3.10 | Accessories | Interior Separation

Vertical separator, slotted (single)	
unassembled	E3.10.01
assembled	E3.10.11

Vertical separators

Vertical separators are used if a vertical subdivision of the e-chain® interior is required -

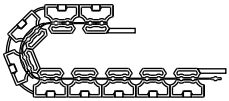
- Subdivision with **vertical separator E3.10.11** (slotted 3 times)

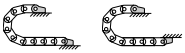


Mounting angle - Polymer

- For fastening the e-chain® to the fixed end
- Simple fastening to base is possible
- Corrosion-resistant
- Various mounting options
- Easy to assemble

Moving end
E3.10...1



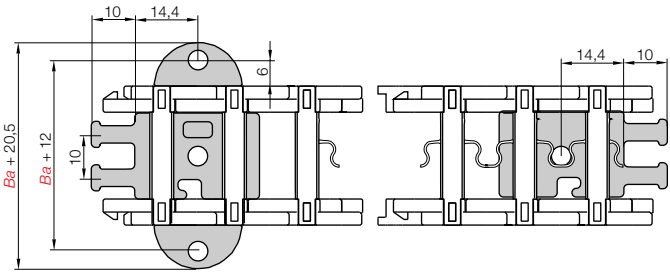


E3.10.....2
Fixed end

Example: Possible installation conditions for E3 mounting brackets

E3.10.....2
Fixed end

E3.10...1
Moving end



Dimensions and order configurations

Part No. structure

E3.10.	020.	12

- 12 — **Full set = 12**
- 020. — Width
- E3.10. — Series

For e-chain®	Part No. full set strain relief for both sides + 2 mounting angles	Part No. strain relief for both sides	Part No. mounting angle (single part)
E3.10.020. ▶	E3.10.020.12	E3.020.12	E3.10.00
E3.10.040. ▶	E3.10.040.12	E3.040.12	E3.10.00
E3.10.060. ▶	E3.10.060.12	E3.060.12	E3.10.00

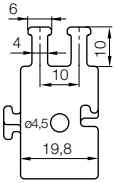
Full set, for both ends:
E3.10. 020. 12
Single-part order:
E3.10. 020. 1
Moving end mounting bracket
E3.10. 020. 2
Fixed end mounting bracket

E3.10.XXX.12

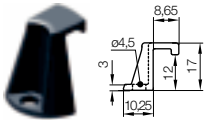
E3 with strain relief for both sides and mounting angles

E3.00.020

Strain relief for both sides as single parts



E3.10.00



Mounting angle as single part

▶ page 8.9

Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

E3 | Series E3.15

15

Price index

*Noise test values: max. 38 dB(A) - Values determined at the igus® test-lab acc. to DIN 45635 (v = 1,8 m/s)

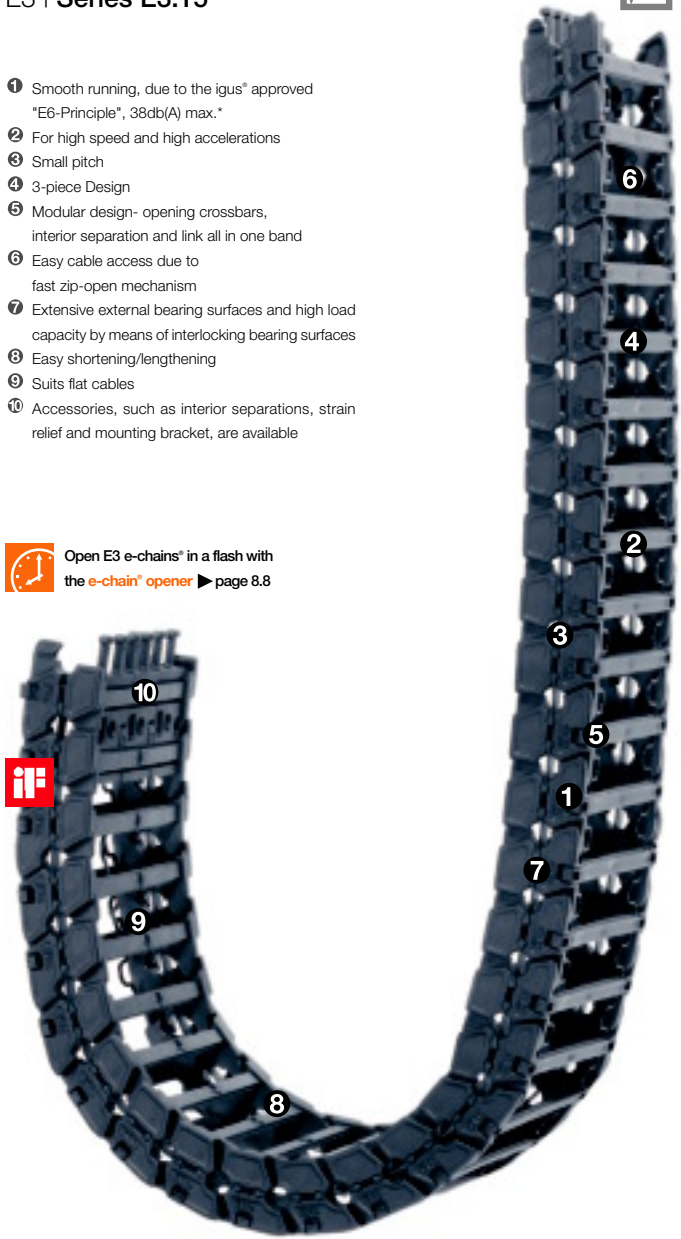
IPA classification - Report IG0704-400: ISO Class 1, according to standard DIN EN ISO 14644-1 for E3, Series E3.15.040.075.0 (at v = 0.5 m/s, 1 m/s, 2 m/s)

Special equipment:
Electrically conductive
ESD/ATEX version upon request

Rapid assembly time with "zipperbars on a strip"

1. Smooth running, due to the igus® approved "E6-Principle", 38db(A) max.*
2. For high speed and high accelerations
3. Small pitch
4. 3-piece Design
5. Modular design- opening crossbars, interior separation and link all in one band
6. Easy cable access due to fast zip-open mechanism
7. Extensive external bearing surfaces and high load capacity by means of interlocking bearing surfaces
8. Easy shortening/lengthening
9. Suits flat cables
10. Accessories, such as interior separations, strain relief and mounting bracket, are available

Open E3 e-chains® in a flash with the e-chain® opener ▶ page 8.8



When to use the Series E3.15:

- If a low-noise, vibration-free version is required
- At very high speeds and/or accelerations (Theoretically up to 100 g or 1000 m/s)
- Hard-wearing e-chain® (more than 50 million cycles without abrasion)
- If a very light e-chain® is required (up to 40% lighter than a comparable E2-e-chain®)
- For the use of flat cables
- For small bending radii and small spaces
- If easy filling and assembly is required
- Minimal abrasion (e.g. cleanroom applications)

When not to use it:

- If a particularly low-cost, snap-open solution is required
  ▶ **Series E/Z08 easy chain®, page 3.28**
- If a simple, non snap-open e-chain® is required
  ▶ **Serie 08 E2 micro, page 5.60**

Order example complete e-chain®

Please indicate chain-lengths or number of links **Example: 1 m or 60 links**

1 m **E3.15.060.032.0**	**e-chain®**
with 2 separators **E3.15.11** assembled every 2nd link	**Interior separation**
1 set **E3.15.060.12**	**Mounting bracket**

Available from stock. Delivery in 24h or today! (Delivery time means time until shipping of goods)

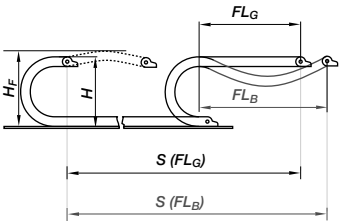
Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

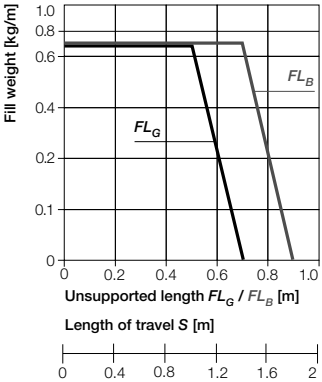
Unsupported length

FL_G = with straight upper run

FL_B = with permitted sag

Further information ▶ **Design, page 1.12**





S = Length of travel

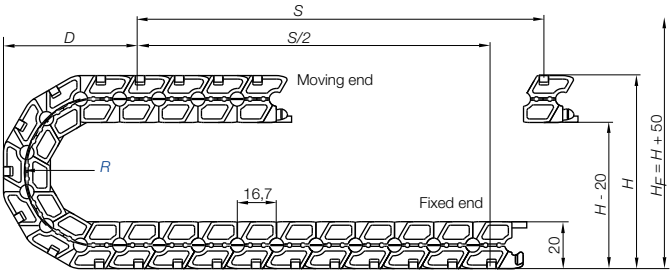
R = Bending radius

H = Nominal clearence height

H_F = Required clearence height

D = Overlength e-chain® radius in final position

K = $\pi \bullet R$ + "safety"



Short travels - unsupported

Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height H_F. Please consult igus® if space is particularly restricted.

Pitch = 16,7 mm/link **Links/m =** 60 (1.002 mm) **Chain length =** $^{S}/_{2} + K$

R	032	038	048	075
H	84	96	116	170
D	59	65	75	102
K	135	155	185	270

The required clearance height:
H_F **= *H* + 50 mm**
(with 0,2 kg/m fill weight)

Technical Data

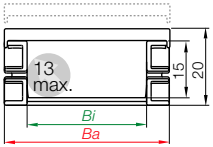
Speed / acceleration FL_G	max. 20 [m/s] / max. 200 [m/s²]
Speed / acceleration FL_B	max. 3 [m/s] / max. 6 [m/s²]
Gliding speed / acceleration (maximum)	upon request
permitted temperature °C	–40° up to +70° C
Flammability class	VDE 0304 IIC UL94 HB

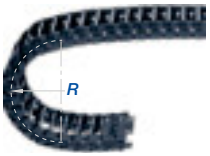
Details of material properties
▶ **page 1.38**

▶ page 8.9

igus® e-chainsystems®
Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222
igus® GmbH
51147 Cologne
Internet: www.igus.eu
E-mail: info@igus.de

E3 | Series E3.15 | Product Range





Series E3.15 - snap-open along outer radius

Part No.	Bi [mm]	Ba [mm]	R [mm]	Bending radii				Weight [kg/m]
E3.15.020.□.0	20	32	032	–	048	–		≈ 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

Series E3.15.020: The bending radius 048 is available upon request.

Delivery time: approx.6-8 weeks after receipt of order!

Supplement Part No. with required radius. Example: E3.15.060.032.0

0 = standard color, other colors ▶ page 1.39 · Pitch = 16,7 mm/link - Links/m = 60

Part No. structure

E3.15.060.032.0

- Color black
- Bending radius
- Width
- Series

E3 | Series E3.15 | Accessories | Interior Separation

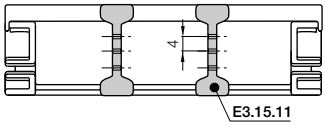
Vertical separator, slotted (single)	
unassembled	E3.15.01
assembled	E3.15.11

Vertical separator on a strip	
unassembled	E3.15.01.10
assembled	E3.15.11.10

Vertical separators

Vertical separators are used if a vertical subdivision of the e-chain® interior is required -

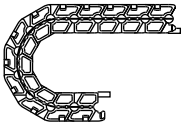
- Subdivision with **vertical separator E3.15.11** (slotted 3 times)
- Five vertical separators altogether on one strip over ten chain links are mounted on the opening crossbars. In this way, controlled chambers are formed, which prevent the sensitive electrical circuit from outage

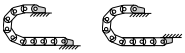


Mounting angle - Polymer

- For fastening the e-chain® to the fixed end
- Simple fastening to base is possible
- Corrosion-resistant
- Various mounting options
- Easy to assemble

Moving end
E3.15...1



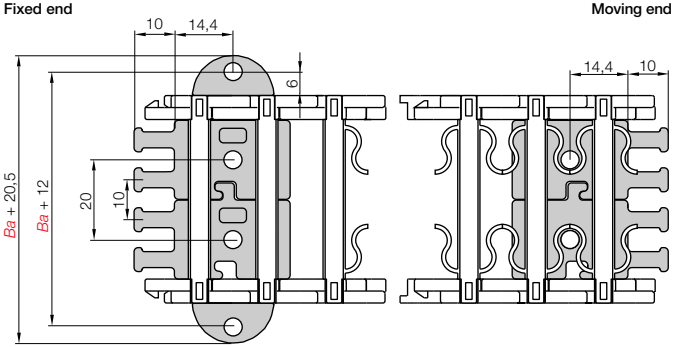


E3.15.....2
Fixed end

Example: Possible installation conditions for E3 mounting brackets

E3.15.....2
Fixed end

E3.15...1
Moving end



Dimensions and order configurations

Part No. structure

E3.15.	020.	12

- Full set = 12
- Width
- Series

For e-chain®	Part No. full set strain relief for both sides + 2 mounting angles	Part No. strain relief for both sides	Part No. mounting angle (single part)
E3.15.020. ▶	E3.15.020.12	E3.020.12	E3.15.00
E3.15.040. ▶	E3.15.040.12	E3.040.12	E3.15.00
E3.15.060. ▶	E3.15.060.12	E3.060.12	E3.15.00

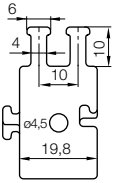
Full set, for both ends:
E3.15. 020. 12
Single-part order:
E3.15. 020. 1
Moving end mounting bracket
E3.15. 020. 2
Fixed end mounting bracket

E3.15.XXX.12

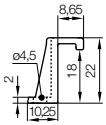
E3 with strain relief for both sides and mounting angles

E3.00.020

Strain relief for both sides as single parts



E3.15.00



Mounting angle as single part

▶ page 8.9

Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

E3 | Series E3.22

Price index

*Noise test values: max. 38 dB(A) - Values determined at the igus® test-lab acc. to DIN 45635 (v = 1,8 m/s)

IPA classification - Report IG0704-400: ISO Class 1, according to standard DIN EN ISO 14644-1 for E3, Series E3.15.040.075.0 (at v = 0.5 m/s, 1 m/s, 2 m/s)

Special equipment:
Electrically conductive
ESD/ATEX version upon request

Rapid assembly time with "zipperbars on a strip"

1. Smooth running, due to the igus® approved "E6-Principle", 38db(A) max.*
2. For high speed and high accelerations
3. Small pitch
4. 3-piece Design
5. Modular design- opening crossbars, interior separation and link all in one band
6. Easy cable access due to fast zip-open mechanism
7. Extensive external bearing surfaces and high load capacity by means of interlocking bearing surfaces
8. Easy shortening/lengthening
9. Suits flat cables
10. Accessories, such as interior separations, strain relief and mounting bracket, are available

Open E3 e-chains® in a flash with the e-chain® opener ▶ page 8.8

When to use the Series E3.22:

- If a low-noise, vibration-free version is required
- At very high speeds and/or accelerations (Theoretically up to 100 g or 1000 m/s)
- Hard-wearing e-chain® (more than 50 million cycles without abrasion)
- If a very light e-chain® is required (up to 40% lighter than a comparable E2-e-chain®)
- For the use of flat cables
- For small bending radii and small spaces
- If easy filling and assembly is required
- Minimal abrasion (e.g. cleanroom applications)

When not to use it:

- If a particularly low-cost, snap-open solution is required
  ▶ Series E/Z14 easy chain®, page 3.32
- If a simple, non snap-open e-chain® is required
  ▶ Series 1400/1450/1480/1500 E2/000, page 5.142

Order example complete e-chain®

Please indicate chain-lengths or number of links **Example: 1 m or 60 links**

1 m **E3.22.060.044.0**	e-chain®
with 2 separators **E3.22.11** assembled every 2nd link	Interior separation
1 set **E3.22.060.12**	Mounting bracket

Available from stock. Delivery in 24h or today! (Delivery time means time until shipping of goods)

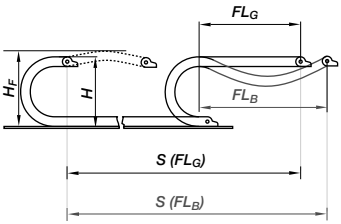
Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

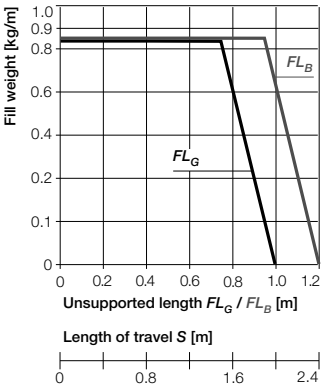
Unsupported length

FL_G = with straight upper run

FL_B = with permitted sag

Further information ▶ **Design, page 1.12**





S = Length of travel

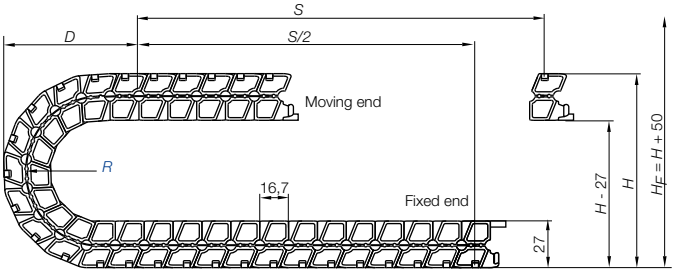
R = Bending radius

H = Nominal clearence height

H_F = Required clearence height

D = Overlength e-chain® radius in final position

K = $\pi \bullet R$ + "safety"



Short travels - unsupported

Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height H_F. Please consult igus® if space is particularly restricted.

Pitch = 16,7 mm/link **Links/m =** 60 (1.002 mm) **Chain length =** $^{S}/_{2} + K$

R	**044**	**050**	**075**
H	114	126	176
D	74	80	105
K	175	195	270

The required clearance height:
H_F **= *H* + 50 mm**
(with 0,3 kg/m fill weight)

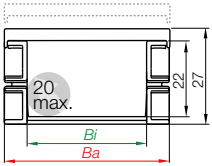
Technical Data

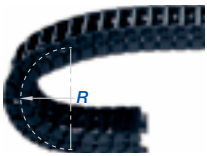
Speed / acceleration FL_G	max. 20 [m/s] / max. 200 [m/s²]
Speed / acceleration FL_B	max. 3 [m/s] / max. 6 [m/s²]
Gliding speed / acceleration (maximum)	upon request
permitted temperature °C	–40° up to +70° C
Flammability class	VDE 0304 IIC UL94 HB

Details of material properties
▶ **page 1.38**

igus® e-chainsystems®
Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222
igus® GmbH
51147 Cologne
Internet: www.igus.eu
E-mail: info@igus.de

E3 | **Series E3.22** | **Product Range**





Part No. structure

E3.22.	060.	044.	0

Color black
Bending radius
Width
Series

Series E3.22 - snap-open along outer radius

Part No.	Bi [mm]	Ba [mm]	R [mm]	Bending radii			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

Supplement Part No. with required radius. Example: E3.22.060.[044].0

0 = standard color, other colors ▶ page 1.39 · Pitch = 16,7 mm/link - Links/m = 60

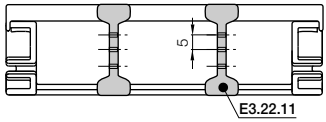
E3 | **Series E3.22** | **Accessories** | Interior Separation

Vertical separator, slotted (single)	
unassembled	E3.22.01
assembled	E3.22.11

Vertical separators

Vertical separators are used if a vertical subdivision of the e-chain® interior is required -

- Subdivision with **vertical separator E3.22.11** (slotted 3 times)

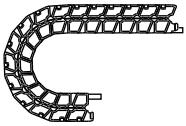


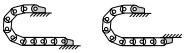
3D-CAD files, pdf-downloads and many online features ▶ www.igus.de/en/e3.22

Mounting angle - Polymer

- For fastening the e-chain® to the fixed end
- Simple fastening to base is possible
- Corrosion-resistant
- Various mounting options
- Easy to assemble

Moving end
E3.22...1



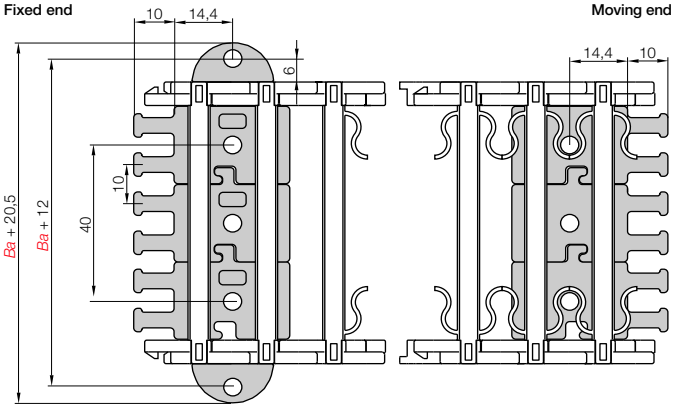


E3.22.....2
Fixed end

Example: Possible installation conditions for E3 mounting brackets

E3.22.....2
Fixed end

E3.22...1
Moving end



Dimensions and order configurations

Part No. structure

For e-chain®	Part No. full set strain relief for both sides + 2 mounting angles	Part No. strain relief for both sides	Part No. mounting angle (single part)
E3.22.020. ▶	E3.22.020.12	E3.020.12	E3.22.00
E3.22.040. ▶	E3.22.040.12	E3.040.12	E3.22.00
E3.22.060. ▶	E3.22.060.12	E3.060.12	E3.22.00

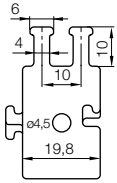
Full set, for both ends:
E3.22. 020. 12
Single-part order:
E3.22. 020. 1
Moving end mounting bracket
E3.22. 020. 2
Fixed end mounting bracket

E3.22.XXX.12

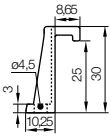
E3 with strain relief for both sides and mounting angles

E3.00.020

Strain relief for both sides as single parts



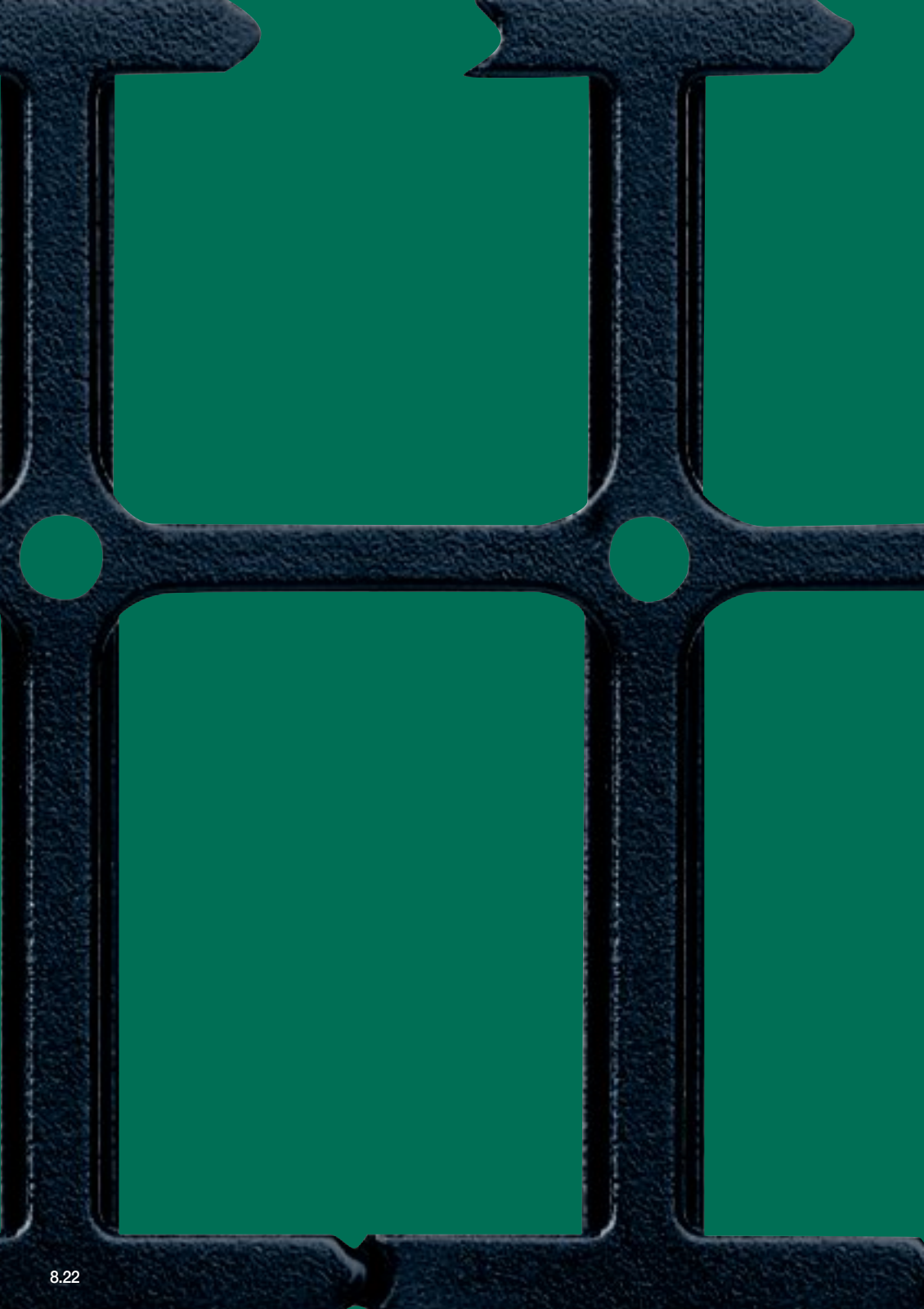
E3.22.00



Mounting angle as single part

▶ page 8.9

Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222



T3

Highly flexible & low-vibration

System T3 - Highly flexible, low-vibration band chain

The E3-System combines low-noise operation, low sound level, simple installation and economy. The side plates that can be plugged into each other replace the conventional pin and bore connection and prevent relative movements between the joints, giving an almost complete freedom from wear. By the novel geometrical shape of the T band, hardly any polygon effect is generated in operation. The T band operates in a very smooth arc giving extremely low vibration and noise. In order to reduce the manufacturing and installation costs, the T band is mounted in a length of 8 chain links. Due to its low mass, the igus® T band, combined with high speeds and accelerations, is suitable for applications with low fill weights and short strokes.

Typical industries and applications

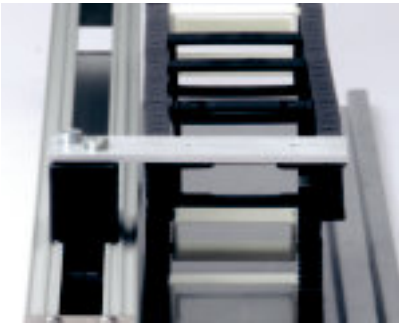
- Printer and plotter
- Cleanroom applications
- Production and processing of semiconductors
- Optics
- Automatic insertion machines
- Measuring technology

igus® tests at 1 m measuring distance: = 33 dB(A) for T3.29.050.038.0 at v = 1 m/s und 26.5 dB(A) basic sound level

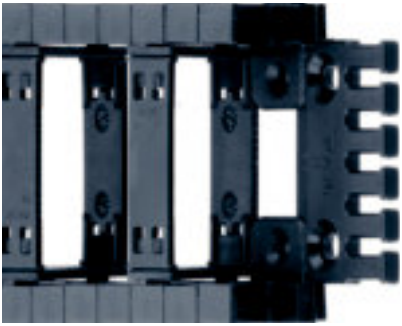
Clean-Room

Cleanroom test upon request

Extremely low noise - System T3 tests in the igus® lab at 1 m measuring distance showed a value of ≈ 33 dB(A) at 26.5 dB(A) basic sound level for Series T3.29.050.038

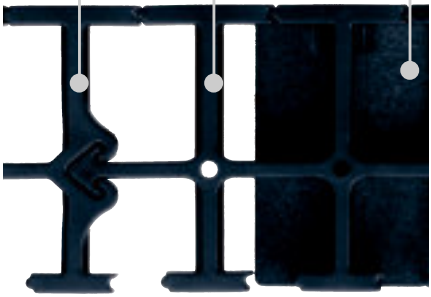


Testing facility at the igus® laboratory System T3 - ideal for high accelerations and short strokes



igus® System T3 T band chain - Inner height 29 mm

Next Page ► Find selection table and assembly instructions



T3: e-chain® band or highly dynamic applications

In the development of the 3-piece, T-shaped band chain "T3", the main focus was on minimum operational noise with lowest cost. This is achieved by the side-plate band consisting of 8 chain links in one piece, as well as the use of existing components of the popular E6 range. The T3 band chain is extremely flexible and runs "round" due to the special geometry. The omission of a pin and bore connection means the T3 band chain features extremely low abrasion and wear and hence is good for cleanroom applications.

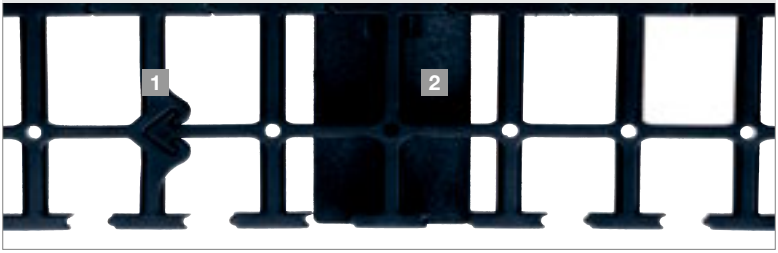
- Extremely low noise and low vibration
- Low-priced e-chain® for simple applications
- For high speeds and accelerations
- Very low weight
- Hardly any abrasion
- For short strokes
- Accessories: Separators, integrated strain relief, mounting brackets
- You can find more technical data about the material, chemical resistance, temperatures ▶ **chapter Design, from page 1.38**

Selection table

Series	Inner height *hi* [mm]	Inner width *Bi* [mm]	Outer width *Ba* [mm]	Outer height *ha* [mm]	Bending radius *R* [mm]	Unsupported length max. [m]	Page
T3.29.	29	30 - 120	55 - 145	35	038	≈ 1,45	**8.28**

System T3 | **Assembly Instructions**

System T3 | **3-piece e-chain®**



The abbreviation "T3" stands for a T-shaped E band, which consists of three basic elements:
❶ 2 side-plate bands (left/right) ❷ Separator element incl. separators

System T3 | **Assembling**

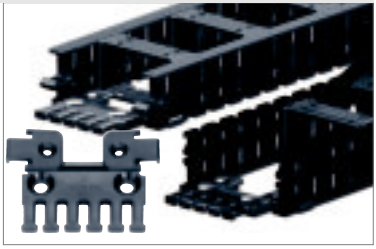
Side plates to be plugged into each other

Clip-on "interior separation clips"

System T3 enables quick installation times. The side plates can be simply plugged in

System T3 | **Interior Separation** | **Strain Relief**

Separators for dividing the chain cross section
from the proven and tested E6 range (E6.29)



Universal strain relief through optional fixing bracket.
You can fix the e-chain® at the fixed end, if need be

T3 | Series T3.29

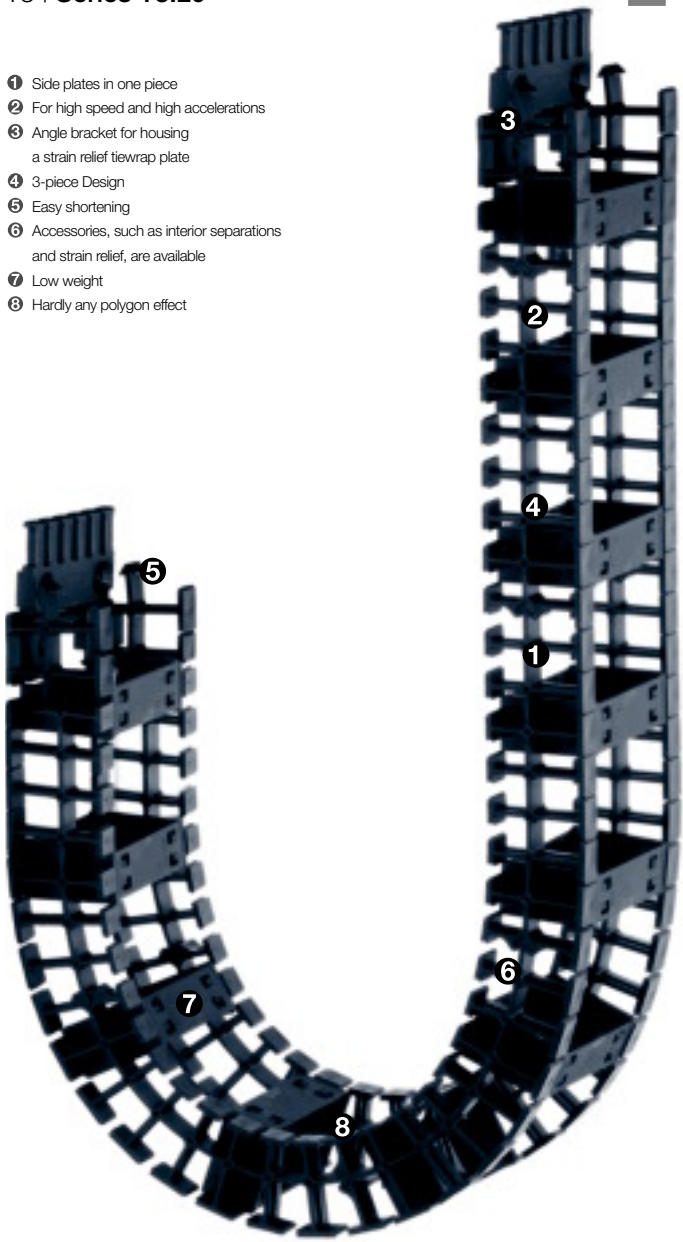
Price index

Extremely low noise
Test results upon request

Clean-Room
Cleanroom test
upon request

1. Side plates in one piece
2. For high speed and high accelerations
3. Angle bracket for housing a strain relief tiewrap plate
4. 3-piece Design
5. Easy shortening
6. Accessories, such as interior separations and strain relief, are available
7. Low weight
8. Hardly any polygon effect

Fast assembly due to the side link strip



When to use the Series T3:

- At very high speeds and/or accelerations
- If a very light e-chain® is required
- If a particularly low-cost e-chain® is required
- For small bending radii and small spaces
- If easy filling and assembly is required
- Minimal abrasion (e.g. cleanroom applications)

When not to use it:

- When an e-chain® is required for more fill weight
  ▶ **Series E6.29, page 8.40**
- When an enclosed e-chain® is required for low noise operation
  ▶ **Series R6.29, page 8.46**

Order example complete e-chain®

Please indicate chain-lengths or number of links **Example: 1 m or 67 links**

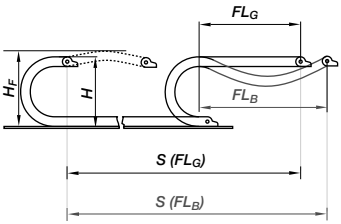
1 m **T3.29.050.038.0**	**e-chain®**
with 2 separators **E6.29.11** assembled every 2nd link	**Interior separation**
1 set **T3.29.050.12**	**Mounting bracket**

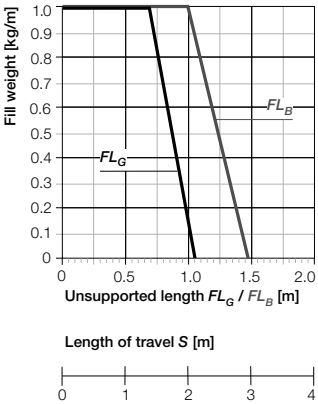
Available from stock. Delivery in 24h or today! (Delivery time means time until shipping of goods)

Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

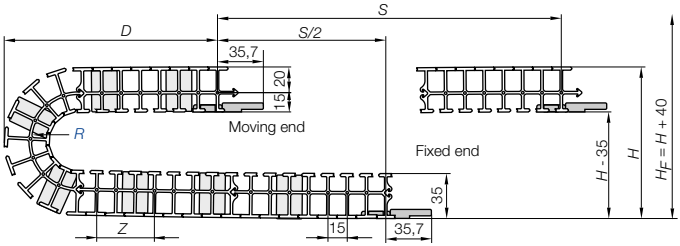
Unsupported length

FL_G = with straight upper run
FL_B = with permitted sag
Further information ▶ **Design, page 1.12**





S = Length of travel
R = Bending radius
H = Nominal clearence height
H_F = Required clearence height
D = Overlength e-chain® radius in final position
K = $\pi \bullet R$ + "safety"
Z = Distance of crossbars (Standard: every 4th chain link)



Pitch = 15 mm/link **Links/m =** 67 (1.005 mm) **Chain length =** $^{S}/_{2} + K$

R (min.)	**038**
H (min.)	116
D	103
K	150

Standard

Short travels - unsupported

Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height H_F. Please consult igus® if space is particularly restricted.

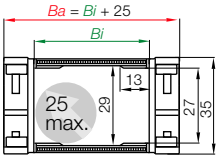
The required clearance height:
$H_F = H + 40$ mm
(with 1,0 kg/m fill weight)

Technical Data

Speed / acceleration FL_G	max. 20 [m/s] / max. 200 [m/s²]
Speed / acceleration FL_B	max. 3 [m/s] / max. 6 [m/s²]
Gliding speed / acceleration (maximum)	upon request
Material - permitted temperature °C	–40° up to +70° C
Flammability class	VDE 0304 IIC UL94 HB

Details of material properties
▶ **page 1.38**

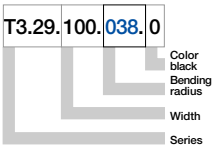
▶ page 8.27



Series T3.29 - with crossbars every 2nd link

Part No.	Bi [mm]	Ba [mm]	R [mm]	Bending radii	Weight [kg/m]
T3.29.030.□.0	30	55	038		≈ 0,40
T3.29.040.□.0	40	65	038		≈ 0,42
T3.29.050.□.0	50	75	038		≈ 0,44
T3.29.060.□.0	60	85	038		≈ 0,46
T3.29.070.□.0	70	95	038		≈ 0,48
T3.29.080.□.0	80	105	038		≈ 0,50
T3.29.090.□.0	90	115	038		≈ 0,51
T3.29.100.□.0	100	125	038		≈ 0,53
T3.29.110.□.0	110	135	038		≈ 0,55
T3.29.120.□.0	120	145	038		≈ 0,57

Part No. structure



Supplement Part No. with required radius. Example: T3.29.100.038.0

0 = standard color, other colors ▶ page 1.39 · Pitch = 15 mm/link - Links/m = 67

Interior separation elements

Distance "Z" for the interior separation elements of the T3 e-chain®

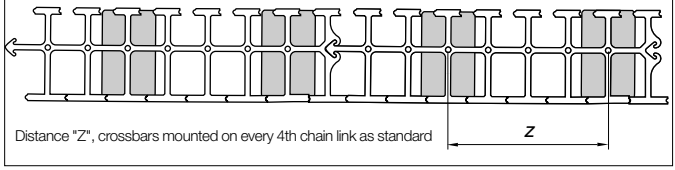
Note: The first and last chain links should not be stuck with the interior separation elements!

As a standard, crossbars are mounted on every 4th chain link!

Part No. T3.29. 100. 038. 0

For other distances, e.g. every 6th chain link, change the part number as follows:

Part No. T3.29. 100. 038. Z6. 0



Distance "Z", crossbars mounted on every 4th chain link as standard

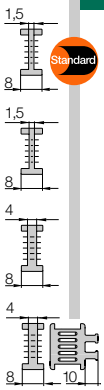
igus® e-chainsystems®
Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222
igus® GmbH
51147 Cologne
Internet: www.igus.eu
E-mail: info@igus.de

Option 1: Vertical separators

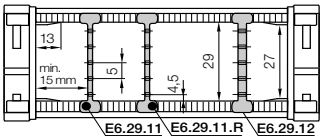
Vertical separators are used if a vertical subdivision of the e-chain® interior is required -
By standard vertical separators are assembled every 4th e-chain® link!

- **Standard** subdivision with **vertical separator E6.29.11*** (slotted 5 times), for combinations with **full-width shelf 111.X**
- **Notch separator E6.29.11.R** (slotted 5 times) can be locked in 2 mm increments due to gaps on the crossbars. For side-mounted applications and combinations with **full-width shelf 111.X**
- **Middle plate* E6.29.12** for combinations with **side plate E6.29.13, full-width shelf 221.X** and **shelf 2210.X**
- **Strain relief separator E6.29.12.Z** (slotted 5 times), can be integrated into the mounting bracket and can be placed there at any point

Vert. separator, slotted*	
unassembled	**E6.29.01**
assembled	**E6.29.11**
Notch separator	
unassembled	**E6.29.01.R**
assembled	**E6.29.11.R**
Middle plate*	
unassembled	**E6.29.02**
assembled	**E6.29.12**
Strain relief separator	
unassembled	**E6.29.02.Z**
assembled	**E6.29.12.Z**



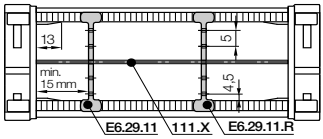
*no minimum space required!



Option 2: Full-width shelves

For applications involving many thin cables with similar or identical diameters

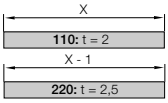
- **Full-width shelf 111.X** for combinations with **vertical separator E6.29.11** and **notch separator E6.29.11.R**
- **Full-width shelf 221.X** for combinations with **middle plate E6.29.12**, **strain relief separator E6.29.12.Z**, and **side plate E6.29.13**



Width	Part No. unassembled		Part No. assembled	
X [mm]	110.X	220.X	111.X	221.X
030	**110.30**	**220.30**	**111.30**	**221.30**
040	**110.40**	**220.40**	**111.40**	**221.40**
050	**110.50**	**220.50**	**111.50**	**221.50**
060	**110.60**	**220.60**	**111.60**	**221.60**
070	**110.70**	**220.70**	**111.70**	**221.70**

Width	Part No. unassembled		Part No. assembled	
X [mm]	110.X	220.X	111.X	221.X
080	**110.80**	**220.80**	**111.80**	**221.80**
090	**110.90**	**220.90**	**111.90**	**221.90**
100	**110.100**	**220.100**	**111.100**	**221.100**
110	**110.110**	**220.110**	**111.110**	**221.110**
120	**110.120**	**220.120**	**111.120**	**221.120**

Full-width shelf

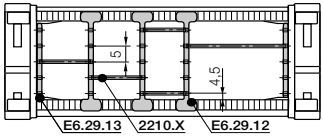


Option 3: Shelves

Shelves can be arranged elevator-shifted with different bottoms within the entire e-chain® width

- **Shelf 2210.X** for combinations with **middle plate E6.29.12**, **strain relief separator E6.29.12.Z and side plate E6.29.13**

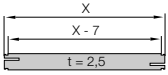
Side plate	
unassembled	**E6.29.03**
assembled	**E6.29.13**



Width	Part No.	Part No.
X [mm]	unassembled	assembled
018	**2200.18**	**2210.18**
023	**2200.23**	**2210.23**
028	**2200.28**	**2210.28**
033	**2200.33**	**2210.33**
038	**2200.38**	**2210.38**
043	**2200.43**	**2210.43**
048	**2200.48**	**2210.48**

Width	Part No.	Part No.
X [mm]	unassembled	assembled
058	**2200.58**	**2210.58**
068	**2200.68**	**2210.68**
073	**2200.73**	**2210.73**
076	**2200.76**	**2210.76**
088	**2200.88**	**2210.88**
099	**2200.99**	**2210.99**

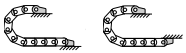
Shelf



▶ page 8.27

System T3
Inner height: 29 mm
Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

T3 | **Series T3.29** | **Accessories** | Strain Relief

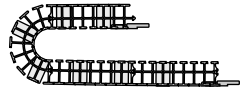


Example: Possible installation conditions for E3 mounting brackets

Plastic fastener

- Housing potential for strain relief tiewrap plate
- Firmly attached to the e-chain®
- Minimized outer width
- Fastening of the e-chain® possible on subsurface

Moving end
T3.29...2



T3.29...1
Fixed end

Dimensions and order configurations

Mounting angle, single

Part No. structure

T3.29.	030.	12

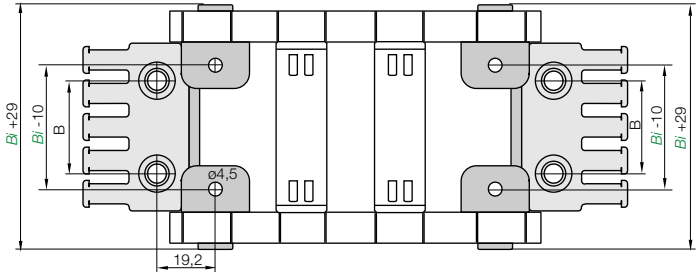
Full set
Width
Mounting angle

Full set, for both ends:
T3.29. 030. 12

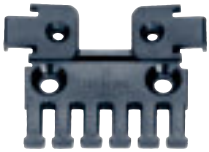
Single-part order:
T3.29. 030. 1
Moving end mounting bracket
T3.29. 030. 2
Moving end mounting bracket

T3.29...2
Moving end

T3.29...1
Fixed end



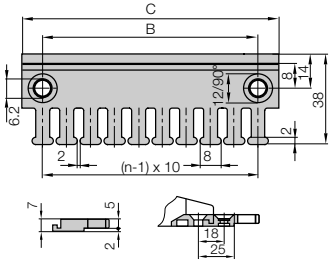
For e-chain®	Part No. full set	For e-chain®	Part No. full set
T3.29.030 ▶	T3.29.030.12	T3.29.080 ▶	T3.29.080.12
T3.29.040 ▶	T3.29.040.12	T3.29.090 ▶	T3.29.090.12
T3.29.050 ▶	T3.29.050.12	T3.29.100 ▶	T3.29.100.12
T3.29.060 ▶	T3.29.060.12	T3.29.110 ▶	T3.29.110.12
T3.29.070 ▶	T3.29.070.12	T3.29.120 ▶	T3.29.120.12



Mounting angle mit strain relief

T3 | **Series T3.29** | **Accessories** | Strain Relief

igus® chainfix tiewrap plate as individual part



Tiewrap plate	*n* Number of teeth	Dim. C [mm]	Dim. B [mm]
2020.ZB	3	30	15
2030.ZB	4	40	20
2040.ZB	5	50	30
2050.ZB	6	60	40
2070.ZB	8	80	60
2090.ZB = (2030.ZB + 2040.ZB)	9	90	–
2100.ZB	10	100	80
2125.ZB = (2050.ZB + 2050.ZB)	12	120	–

E6.29.02.Z

Strain relief separator

Separator with integrated strain relief for the use in the first or last chain link. Individual part for the manufacturing of switchgear cabinets or for the assembly of machines. Easy to assemble without any screws ▶ **chapter 10.**

Part No.	Number of teeth	For Series
E6.29.02.Z	2 one side	**T3.29** e-chain®

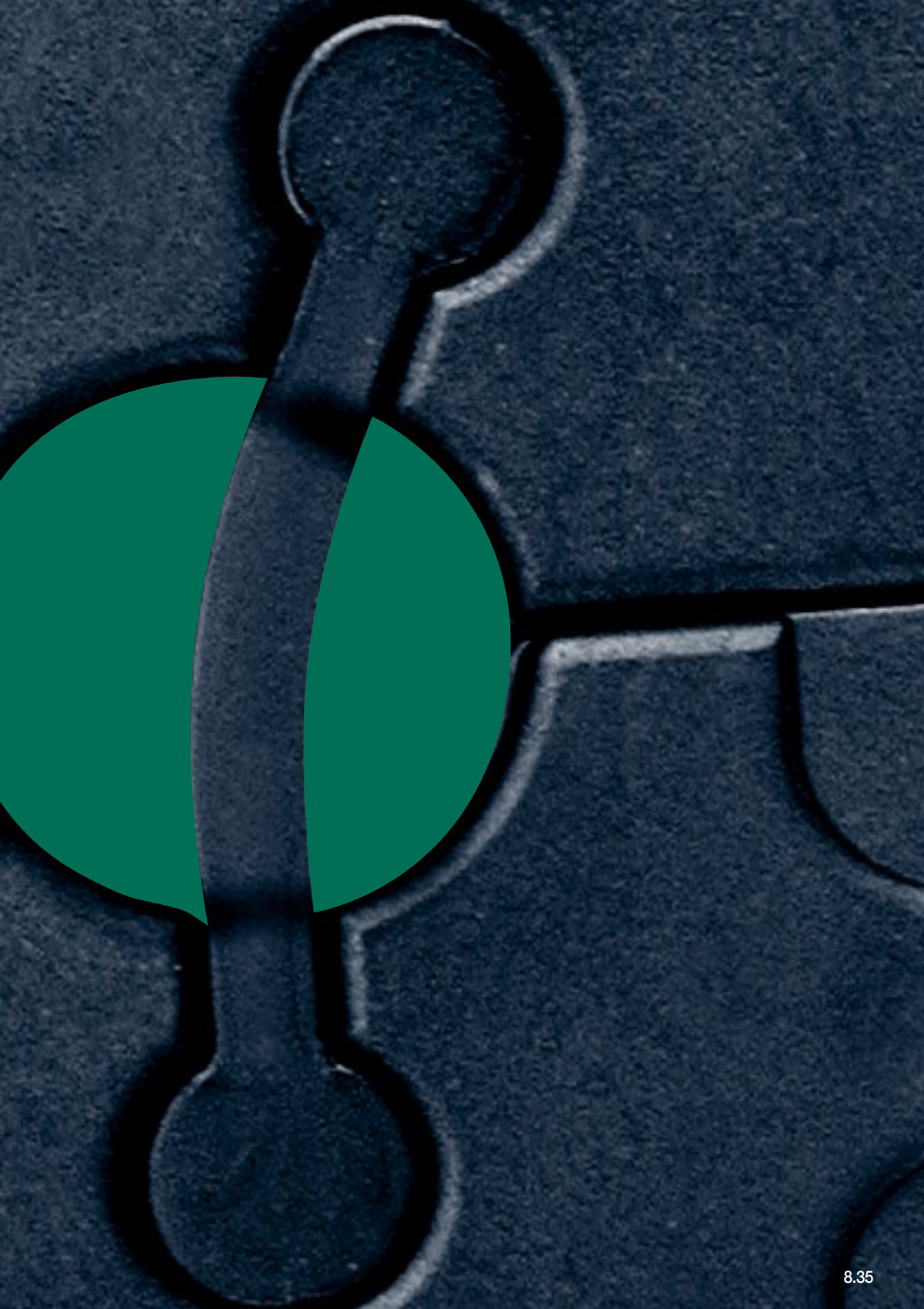
Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222
igus® GmbH
51147 Cologne
Internet: www.igus.eu
E-mail: info@igus.de

Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

▶ page 8.27

E6

Extremely low-noise, minimum vibrations



E6 - 6-piece e-chains® - extremely low-noise, minimum vibrations

The E6 Series offers numerous advantages in additionto long life cycles. It provides extremely quiet, low-vibration operation. It minimizes the polygon effect which can occur during the rolling motion of an e-chain®. The ultra-low noise levels have been confirmed in a recent report by the Rheinland Technical Inspection Agency. Our extensive delivery program offers the right chain size for any application; a wide range of interior separators are also available. The same applies to the mounting brackets. .

Typical industries and applications

- Cleanroom
- Printing machines
- Handling & robot
- Machine Tools
- Measuring machines
- Semiconductor industries
- Medical industries
- Electronic industries
- General machinery

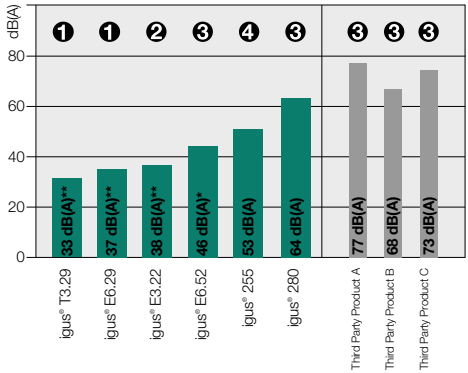
System E6 - Extremely low noise - TÜV certified

System E6 - 6-piece link-design

LEVEL 1 absorption confirmed by IPA-Fraunhofer-Institut according to SEMI E78-0998 for the E6 standard material. Special material "igumid ESD" for ESD/ATEX applications available on request. Continuously constant conductance value as there are no pin-bore connection (no air gaps).

Chart: Study of the Laboratory of Machine Tools and Production Engineering (WZL) of the RWTH Aachen on "Vibration tests in energy supply chains". Result: The "E6" energy supply system of the company igus® GmbH, Cologne, is characterized by extreme low vibration and smooth running

A linear drive provides for highly dynamic feed of PCBs. This system is twice as fast as handling units with a toothed-belt drive; designed to withstand high dynamic loads, the E6 e-chains® ensure a supply of power, coolant and control data with ultra-low noise and vibration



Avaraging of the corrected sound pressure levels in dB(A), rounded

❶ unsupported 1,0 m/s
❷ unsupported 1,8 m/s
❸ unsupported 2,0 m/s
❹ unsupported 1,5 m/s

* Measurement by the TÜV Rheinland 46 dB(A) with 10 dB(A) outer noise

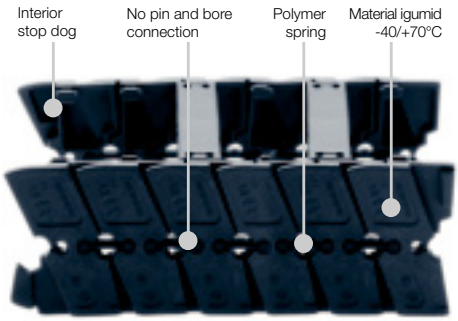
** Values permitted in the igus® laboratory according to DIN45635

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

IPA classification - Report IG0704-400:

- Special material "cleanroom" - **Class 1 according to standard DIN EN ISO 14644-1** - Note: None of the classes corresponding to the DIN EN ISO 14644-1 Class 1 is included in the US standard at v = 0.5 m/s, a = 1.0 m/s² - Series E6.29.060.150.0.CR
- Standard material - **Class 3 according to standard DIN EN ISO 14644-1** (according to US Fed. Stand. 209E, Class 1) at v = 0.5 m/s, a = 1.0 m/s² Series E6.29.060.150.0 and v= 1m/s, a = 2m/s² Series E6.29.050.055.0 with inserted cables CF34.15.04, CF9.05.12, CF11.02.01.02.PBA.LC.D

Next Page ► Find selection table and assembly instructions



E6: e-chain® with 6 pieces per link

- Extremely low-noise operation - 37 dB(A)* depending on the speed
- Snap-open lids along both radii
- Available as closed tube for some types
- High stability "unsupported"
- For high speed and high accelerations
- Modular design, can be shortened and lengthened
- Minimum vibrations, high stability and tensile strength
- Various interior separations available
- KMA mounting brackets available with integrated strain relief
- E6 adapter link - for gliding applications - minimizes excess lengths in end positions - quick and easy assembly
- You can find more technical data about the material, chemical resistance, temperatures ▶ **chapter Design, from page 1.38**

Selection table

Series	Inner height *hi* [mm]	Inner width *Bi* [mm]	Outer width *Ba* [mm]	Outer height *ha* [mm]	Bending radius *R* [mm]	Unsupported length max. [m]	Page
E6.29	29	30 - 120	46 - 136	35	55 - 150	≈ 1,75	**8.40**
R6.29	28	30 - 120	46 - 136	35	55 - 150	≈ 1,75	**8.46**
E6.35	35	30- 120	50 - 140	42	55 - 100	≈ 1,9	**8.50**
E6.40	40	40 - 300	60 - 320	54	63 - 200	≈ 2,75	**8.56**
R6.40	40	62	82	54	63 - 200	≈ 2,75	**8.62**
E6.52	52	40 - 300	64 - 324	65	75 - 250	≈ 3,0	**8.66**
R6.52	52	50 - 175	74 - 199	65	75 - 250	≈ 3,0	**8.72**
E6.62	62	50 - 400	86 - 436	84	115 - 350	≈ 4,0	**8.76**
E6.80L	80	87 - 550	115 - 578	108	175	≈ 2,5	**8.82**
E6.80	80	50 - 600	100 - 650	108	150 - 450	≈ 5,25	**8.88**

Selected noise tests - External noise corrected measurement values

e-chain® Series	Averaging of the corrected sound pressure levels	Test method
igus® Series E6.29*	**≈ 37 dB(A)**	unsupported v = 1,0 m/s
igus® Series E6.52*	**≈ 41 dB(A)**	unsupported, side mounted v = 0,5 m/s
igus® Series E6.52	**≈ 46 dB(A)**	unsupported v = 2,0 m/s
Chain 1 Third-party product	≈ 77 dB(A)	unsupported v = 2,0 m/s
Chain 2 Third-party product	≈ 68 dB(A)	unsupported v = 2,0 m/s
Chain 3 Third-party product	≈ 73 dB(A)	unsupported v = 2,0 m/s

Source: TÜV Rheinland *Source: igus® laboratory

Noise level ≤ 46 dB(A)

A measurement conducted by the Rhineland Technical Inspection Authority (TÜV Rheinland) in May 2002 indicates a value of ≤ 46 dB(A) at 2 m/s and with an unsupported length of 1.5 m with **Series E6.52.100.100.0**, and all this with at least 10 dB(A) sound pressure level generated by external noise. **We have received an official noise certificate from the Rhineland Technical Inspection Authority (TÜV Rheinland Berlin Brandenburg) and we are happy to provide you with a copy upon request.**

For support of the lower run - **Support Tray tool kit** available ▶ page 9.70

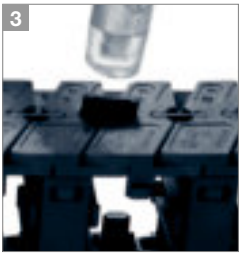
System E6 | e-chain® | **Assembling**

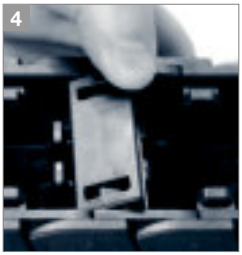
1

Position side links...

2

... gently twist and snap in

3

Gently reinsert connector
by using hammer

4

Position crossbars,
push down and snap in

e-tube | **Assembling lids**

1

Insert lid...

2

...push down and snap in

System E6 | e-chain® | **Separating**

1

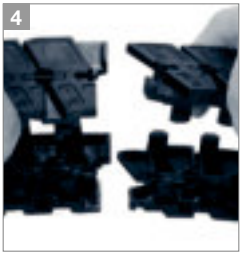
Lever crossbars with screwdriver

2

Tap gently to remove connectors

3

Twist and...

4

...separate side links

e-tube | **Separating lids**

1

Lever with screwdriver...

2

...and remove lids by hand

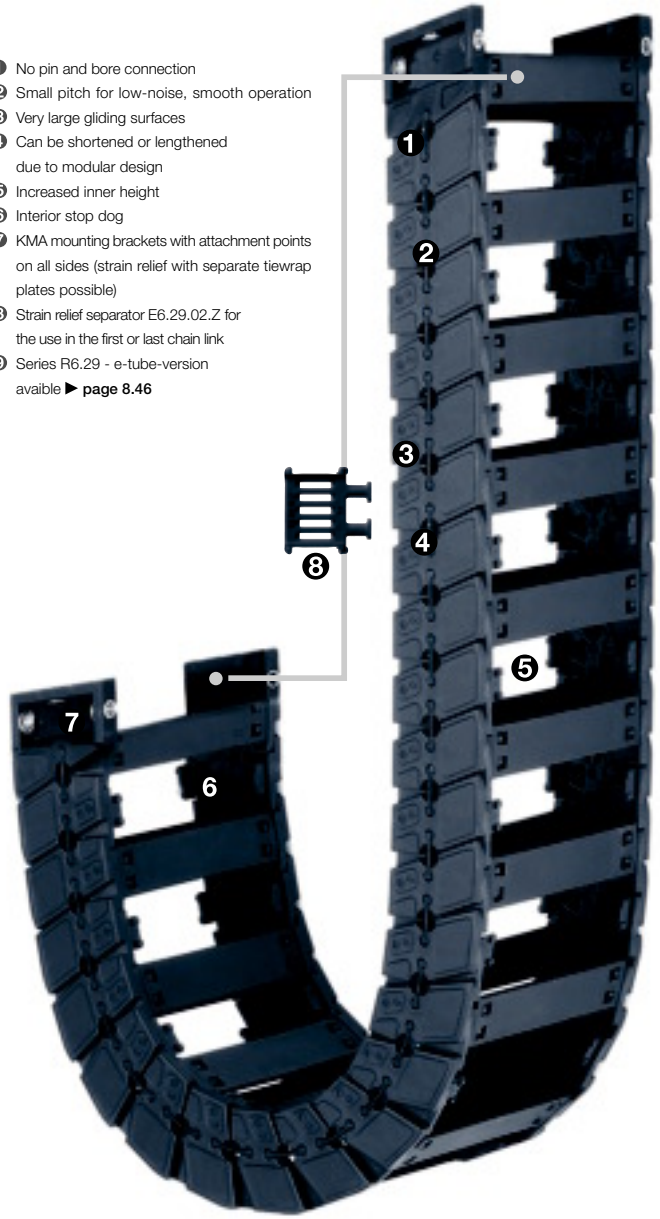
Price index

Extremely low noise
Test results upon request

IPA certificate: Class 1, according to standard DIN EN ISO 14644-1 for the E6 system (Series E6.29.060.150.0.CR, v = 0.5 m/s, a = 1.0 m/s²)

LEVEL 1 absorption confirmed by IPA-Fraunhofer-Institut according to SEMI E78-0998 for the E6 standard material

1. No pin and bore connection
2. Small pitch for low-noise, smooth operation
3. Very large gliding surfaces
4. Can be shortened or lengthened due to modular design
5. Increased inner height
6. Interior stop dog
7. KMA mounting brackets with attachment points on all sides (strain relief with separate tiewrap plates possible)
8. Strain relief separator E6.29.02.Z for the use in the first or last chain link
9. Series R6.29 - e-tube-version avaible ▶ **page 8.46**



To close, push and click shut

When to use the Series E6.29:

- If a low-noise version is required
- At very high speeds and/or accelerations
- For enlarged thrusts and tensile forces
- For small bending radii
- If less vibration is required
- Minimal abrasion (e.g. cleanroom applications)

When not to use it:

- Limited in side-mounted applications
  ▶ **Series 2400/2500 E2/000, page 5.160**
- No use with RBR (reverse bending radius)
  ▶ **Series 2400/2500 E2/000, page 5.160**
- No use with high additional loads
  ▶ **Series 2400/2500 E2/000, page 5.160**
- No use in dirty environments
  ▶ **Series 2400/2500 E2/000, page 5.160**

Order example complete e-chain®

Please indicate chain-lengths or number of links **Example: 2 m or 92 links**

2 m **E6.29.100.075.0**	**e-chain®**
with 2 separators **E6.29.11** assembled every 2nd link	**Interior separation**
1 set **E6.290.100.12**	**Mounting bracket**

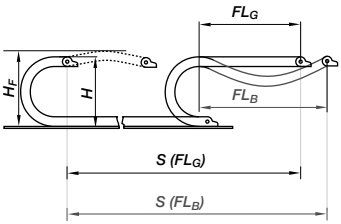
Available from stock. Delivery in 24h or today! (Delivery time means time until shipping of goods)

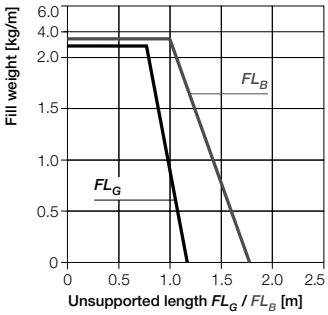
Unsupported length

FL_G = with straight upper run

FL_B = with permitted sag

Further information ▶ **Design, page 1.12**





Length of travel *S* [m]

0 1 2 3 4 5

S = Length of travel

R = Bending radius

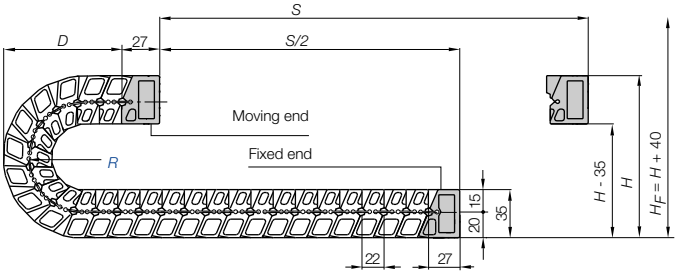
H = Nominal clearence height

H_F = Required clearence height

D = Overlength e-chain® radius in final position

K = $\pi \bullet R$ + "safety"

Other installation methods
Vertical, hanging ≤ 30 m
Vertical, standing ≤ 2 m
Side mounted, unsupported
= possible to a limited extent
Unsupported length of upper run
= upon request



Pitch = 22 mm/link **Links/m =** 46 (1012 mm) **Chain length =** $^{S}/_{2} + K$

R	055	075	100	150
H	180	220	270	370
D	97	117	142	192
K	220	280	360	520

Standard

Short travels - unsupported

Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height H_F. Please consult igus® if space is particularly restricted.

The required clearance height:

$H_F = H + 40$ **mm**

(with 2,0 kg/m fill weight)

Technical Data

Speed / acceleration FL_G	max. 20 [m/s] / max. 200 [m/s²]
Speed / acceleration FL_B	max. 3 [m/s] / max. 6 [m/s²]
Gliding speed / acceleration (maximum)	upon request
permitted temperature °C	–40° up to +70° C
Flammability class	VDE 0304 IIC UL94 HB

Details of material properties

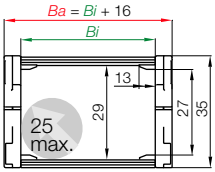
▶ **page 1.38**

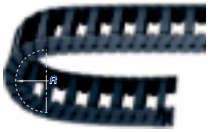
For support of the lower run - **Support Tray tool kit** available ▶ page 9.70

System E6
Inner height: 29 mm

Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

▶ page 8.39

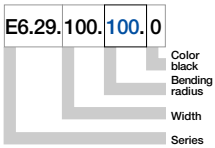




Series E6.29 - with crossbars every 2nd link

Part No.	*Bi* [mm]	*Ba* [mm]	*R* [mm]	Bending radii				Weight [kg/m]
E6.29.030.□.0	30	46	055	075	100	150		≈ 0,73
E6.29.040.□.0	40	56	055	075	100	150		≈ 0,75
E6.29.050.□.0	50	66	055	075	100	150		≈ 0,78
E6.29.060.□.0	60	76	055	075	100	150		≈ 0,80
E6.29.070.□.0	70	86	055	075	100	150		≈ 0,83
E6.29.080.□.0	80	96	055	075	100	150		≈ 0,85
E6.29.090.□.0	90	106	055	075	100	150		≈ 0,88
E6.29.100.□.0	100	116	055	075	100	150		≈ 0,90
E6.29.110.□.0	110	126	055	075	100	150		≈ 0,93
E6.29.120.□.0	120	136	055	075	100	150		≈ 0,95

Part No. structure

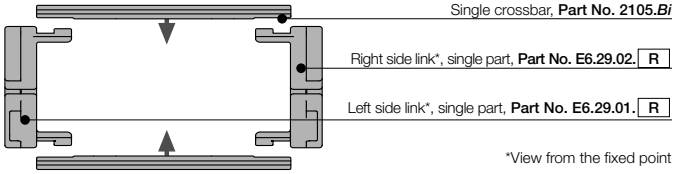


Supplement Part No. with required radius. Example: E6.29.100.100.0

0 = standard color, other colors ▶ page 1.39 · Pitch = 22 mm/link - Links/m = 46

Part No. e-chain® - links, single parts

Polymer spring as single part - Part No. E6.29.140

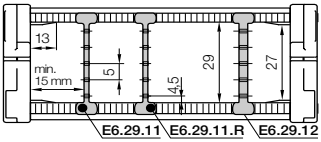


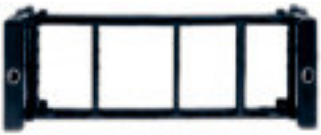
igus® e-chainsystems®
Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222
igus® GmbH
51147 Cologne
Internet: www.igus.eu
E-mail: info@igus.de

Option 1: Vertical separators

Vertical separators are used if a vertical subdivision of the e-chain® interior is required -
By standard vertical separators are assembled every other e-chain® link

- **Standard** subdivision with **vertical separator E6.29.11*** (slotted 5 times), for combinations with **full-width shelf 111.X**
- **Notch separator E6.29.11.R** (slotted 5 times) can be locked in 2 mm increments due to gaps on the crossbars. For side-mounted applications and combinations with **full-width shelf 111.X**
- **Middle plate* E6.29.12** (slotted 5 times) for combinations with **side plate E6.29.13, full-width shelf 221.X** and **Shelf 2210.X**
- **Strain relief separator E6.29.12.Z** (slotted 5 times),can be integrated into the mounting bracket and can be placed there at any point





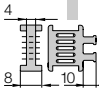
Vert. separator, slotted*	
unassembled	**E6.29.01**
assembled	**E6.29.11**

Standard

Notch separator	
unassembled	**E6.29.01.R**
assembled	**E6.29.11.R**

Middle plate*	
unassembled	**E6.29.02**
assembled	**E6.29.12**

Strain relief separator	
unassembled	**E6.29.02.Z**
assembled	**E6.29.12.Z**

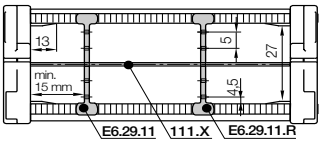


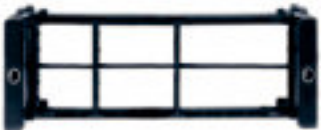
*no minimum space required!

Option 2: Full-width shelves

For applications involving many thin cables with similar or identical diameters

- **Full-width shelf 111.X** for combinations with **vertical separator E6.29.11** and **notch separator E6.29.11.R**
- **Full-width shelf 221.X** for combinations with **middle plate E6.29.12**, **strain relief separator E6.29.12.Z**, and **side plate E6.29.13**

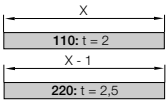




Width	Part No. unassembled		Part No. assembled	
X [mm]	110.X	220.X	111.X	221.X
030	**110.30**	**220.30**	**111.30**	**221.30**
040	**110.40**	**220.40**	**111.40**	**221.40**
050	**110.50**	**220.50**	**111.50**	**221.50**
060	**110.60**	**220.60**	**111.60**	**221.60**
070	**110.70**	**220.70**	**111.70**	**221.70**

Width	Part No. unassembled		Part No. assembled	
X [mm]	110.X	220.X	111.X	221.X
080	**110.80**	**220.80**	**111.80**	**221.80**
090	**110.90**	**220.90**	**111.90**	**221.90**
100	**110.100**	**220.100**	**111.100**	**221.100**
110	**110.110**	**220.110**	**111.110**	**221.110**
120	**110.120**	**220.120**	**111.120**	**221.120**

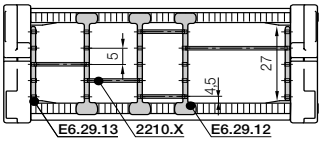
Full-width shelf



Option 3: Shelves

Shelves can be arranged elevator-shifted with different bottoms within the entire e-chain® width

- **Shelf 2210.X** for combinations with **middle plate E6.29.12**, **strain relief separator E6.29.12.Z**, and **side plate E6.29.13**

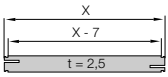


Side plate, slotted	
unassembled	**E6.29.03**
assembled	**E6.29.13**

Width	Part No.	Part No.
X [mm]	unassembled	assembled
018	**2200.18**	**2210.18**
023	**2200.23**	**2210.23**
028	**2200.28**	**2210.28**
033	**2200.33**	**2210.33**
038	**2200.38**	**2210.38**
043	**2200.43**	**2210.43**
048	**2200.48**	**2210.48**

Width	Part No.	Part No.
X [mm]	unassembled	assembled
058	**2200.58**	**2210.58**
068	**2200.68**	**2210.68**
073	**2200.73**	**2210.73**
076	**2200.76**	**2210.76**
088	**2200.88**	**2210.88**
099	**2200.99**	**2210.99**

Shelf

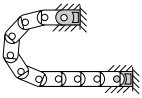


System E6
Inner height: 29 mm
Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

▶ page 8.39

E6 | e-chain® | **Series E6.29** | **Accessories** | Mounting Brackets KMA

The attachment variants arising automatically by the choice of the KMA mounting bracket

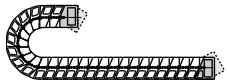


* KMA = Polymer Metal Mounting Bracket

Option KMA* - pivoting

- Bolted connection outside of chain cross-section
- Recommended for unsupported applications (for gliding applications please contact igus®)
- Confined installation conditions
- Universal mountable with attachment capability on all sides

Moving end
E6.290...2

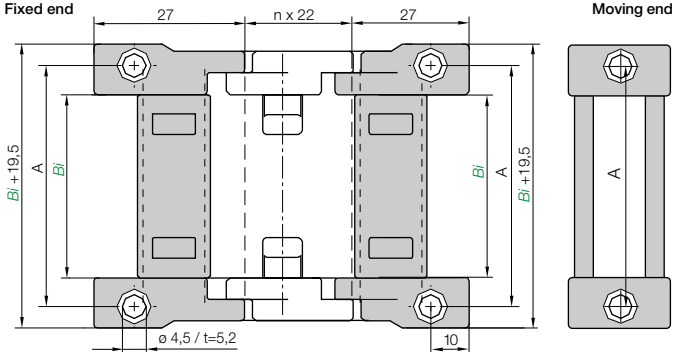


E6.290...1
Fixed end

Dimensions and order configurations

E6.290...2
Fixed end

E6.290...1
Moving end



Part No. structure

E6.290.	030.	12

- **Full set**
- Width
- KMA **pivoting** for selected chain type

Full set, for both ends:
E6.290.030.12

Single-part order:
E6.290.030.1

Fixed end mounting bracket
E6.290.030.2

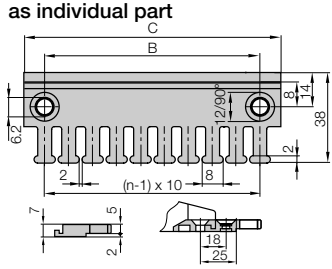
Moving end mounting bracket

For e-chain®	Part No. full set	Dim. A [mm]	For e-chain®	Part No. full set	Dim. A [mm]
E6.29.030 ▶	E6.290.030.12	40	E6.29.080 ▶	E6.290.080.12	90
E6.29.040 ▶	E6.290.040.12	50	E6.29.090 ▶	E6.290.090.12	100
E6.29.050 ▶	E6.290.050.12	60	E6.29.100 ▶	E6.290.100.12	110
E6.29.060 ▶	E6.290.060.12	70	E6.29.110 ▶	E6.290.110.12	120
E6.29.070 ▶	E6.290.070.12	80	E6.29.120 ▶	E6.290.120.12	130

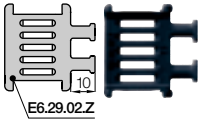
E6 | e-chain® | **Series E6.29** | **Accessories** | Strain Relief

Other strain relief elements - optional ▶ chapter 10

igus® chainfix tiewrap plate as individual part



Tiewrap plate	*n* Number of teeth	Dim. C [mm]	Dim. B [mm]
2020.ZB	3	30	15
2030.ZB	4	40	20
2040.ZB	5	50	30
2050.ZB	6	60	40
2070.ZB	8	80	60
2090.ZB = (2030.ZB + 2040.ZB)	9	90	–
2100.ZB	10	100	80
2125.ZB = (2050.ZB + 2050.ZB)	12	120	–



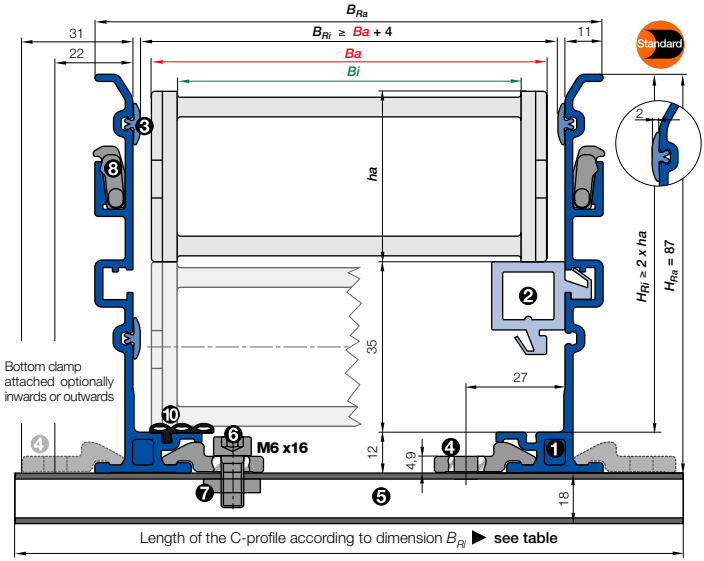
Strain relief separator

Separator with integrated strain relief for the use in the first or last chain link. Individual part for the manufacturing of switchgear cabinets or for the assembly of machines. Easy to assemble without any screws ▶ **chapter 10.**

Part No.	Number of teeth	For Series	
E6.29.02.Z	2 one side	**E6.29**	e-chain®

Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222
igus® GmbH
51147 Cologne
Internet: www.igus.eu
E-mail: info@igus.de

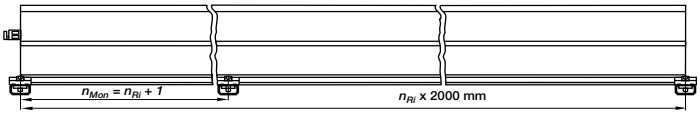
Part No. 971.30.SL | 971.31.SL | Trough height: 87 mm
Aluminum "SuperTrough" | Basic Version



● **Components, trough "Basic":** ❶ Trough side parts, aluminum, 2 m ❷ Glide bar, plastic, 2 m ❸ Glide strips, plastic, 2 m (without glide strips on request) ❿ Optional: Silencer profile, rubber ● **Components, installation set "Basic":** ❹ Bottom clamp, aluminum ❺ C-profile, steel galvanized ❻ Screw M6 x16 ❼ Sliding nut M6 ❽ Interface connector, plastic

Order example: Length of travel 30 m - Center mounted for Series E6.29.060.100.0 with B_{Ri} = 80

Guide trough set (set of 2 trough side parts, incl. glide strips) **without** glide bar		
Order text: 16 m guide trough without glide bar (8 x 2 m sections)	Part No.	971.30.SL
Guide trough set (set of 2 trough side parts, incl. glide strips) **with** glide bar		
Order text: 16 m guide trough with glide bar (8 x 2 m sections)	Part No.	971.31.SL
Installation set "Basic" complete **(guide trough-sets + 1)**		
Order text: 17 installation sets "Basic"	Part No.	960.30.150
Option: For an additional noise dampening with silencer profile, please add Index A - Example:	Part No.	971.30.SLA



Principle sketch: Number of installation sets to be installed = Number of trough sections + 1

Ba = Outer width e-chains® / e-tube
Bi = Inner width e-chains® / e-tube
ha = Outer height e-chains® / e-tube
H_{Ri} = Inner trough height
H_{Ra} = Outer trough height
B_{Ri} = Inner trough width ▶ depends on dim. *Ba*
B_{Ra} = Outer trough width
n_{Mon} = Number of installation sets (left/right)
n_{Ri} = Number of trough sets (left/right)

! $H_{Ri} \geq 2 \bullet ha$
$B_{Ri} \geq Ba + 4$

● = Guide trough set ● = Glide bar
● = Installation set "Basic" ● = C-profile

Installation set "Basic" with C-profile

Bottom Clamp attached optionally **inwards** or **outwards**

E6.29.**030**.100.0 ▶ Order example

	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards
.030	50	–	960.30.150
.040	60	–	960.30.175
.050	70	–	960.30.175
.060	80	960.30.150	960.30.175
.070	90	960.30.150	960.30.200
.080	100	960.30.150	960.30.200
.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

Insert for the installation set "Heavy-Duty": **971.50.XXX** instead of (**960.30.XXX**) on the right column "attached outwards"

Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

▶ chapter 10
▶ chapter 9
▶ page 8.39

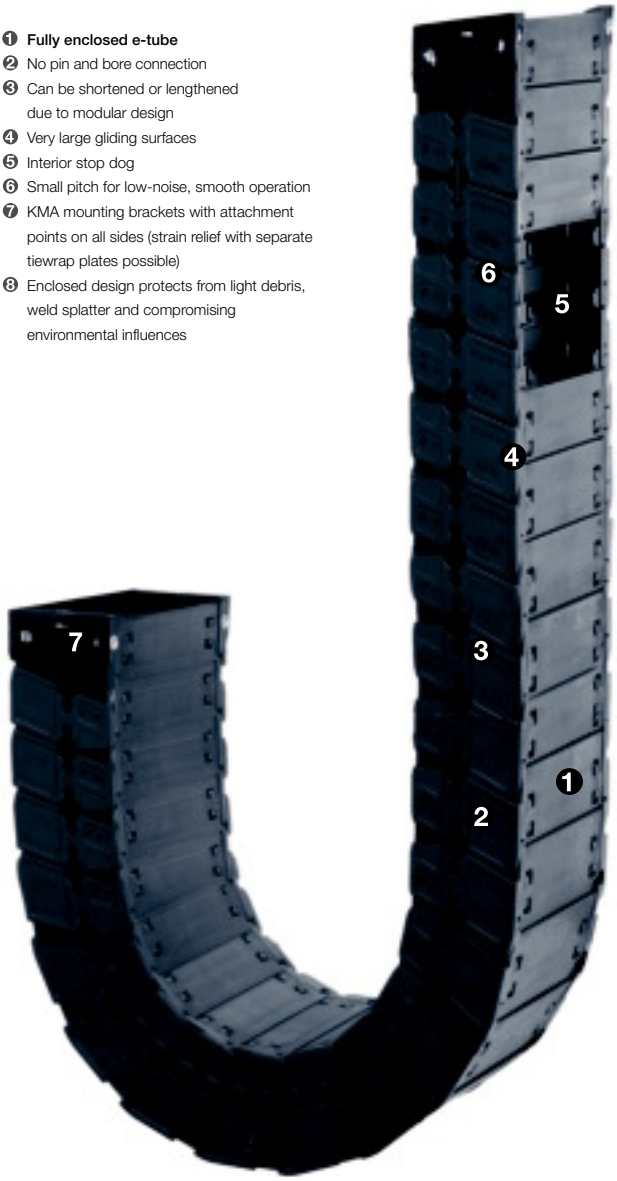
Price index

Extremely low noise
Test results upon request

IPA certificate: Class 1, according to standard DIN EN ISO 14644-1 for the E6 system (Series E6.29.060.150.0.CR, v = 0.5 m/s, a = 1.0 m/s²)

LEVEL 1 absorption confirmed by IPA-Fraunhofer-Institut according to SEMI E78-0998 for the E6 standard material

1. **Fully enclosed e-tube**
2. No pin and bore connection
3. Can be shortened or lengthened due to modular design
4. Very large gliding surfaces
5. Interior stop dog
6. Small pitch for low-noise, smooth operation
7. KMA mounting brackets with attachment points on all sides (strain relief with separate tiewrap plates possible)
8. Enclosed design protects from light debris, weld splatter and compromising environmental influences



When to use the Series R6.29:

- If a low-noise version is required
- At very high speeds and/or accelerations
- Protection against dirt and chips
- For small bending radii
- If less vibration is required
- Minimal abrasion (e.g. cleanroom applications)

When not to use it:

- Limited in side-mounted applications
  ▶ **Series 2450/2480 E2/000, page 5.160**
- No use with RBR (reverse bending radius)
  ▶ **Series 2450/2480 E2/000, page 5.160**
- No use with high additional loads
  ▶ **Series 2450/2480 E2/000, page 5.160**

Order example complete e-chain®

Please indicate chain-lengths or number of links **Example: 2 m or 92 links**

2 m **R6.29.080.100.0**	**e-tube**
with 2 separators **R6.29.11** assembled every 2nd link	**Interior separation**
1 set **R6.290.080.12**	**Mounting bracket**

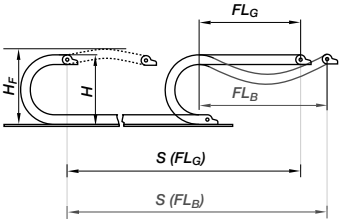
Available from stock. Delivery in 24h or today! (Delivery time means time until shipping of goods)

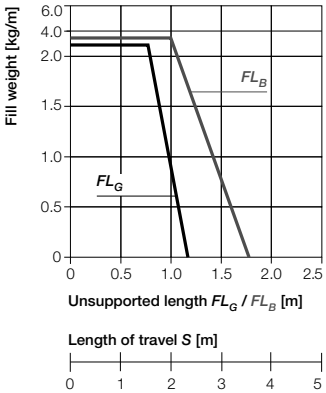
Unsupported length

FL_G = with straight upper run

FL_B = with permitted sag

Further information ▶ **Design, page 1.12**





S = Length of travel

R = Bending radius

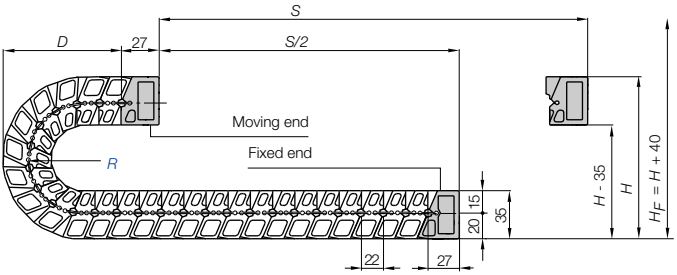
H = Nominal clearence height

H_F = Required clearence height

D = Overlength e-chain® radius in final position

K = $\pi \bullet R$ + "safety"

Other installation methods
Vertical, hanging ≤ 30 m
Vertical, standing ≤ 2 m
Side mounted, unsupported
= possible to a limited extent
Unsupported length of upper run
= upon request



Pitch = 22 mm/link **Links/m** = 46 (1012 mm) **Chain length** = $^{S}/_{2} + K$

R	055	075	100	150
H	180	220	270	370
D	97	117	142	192
K	220	280	360	520

Standard

Short travels - unsupported

Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height H_F. Please consult igus® if space is particularly restricted.

The required clearance height:

H_F = H + 40 mm

(with 2,0 kg/m fill weight)

Technical Data

Speed / acceleration FL_G	max. 20 [m/s] / max. 200 [m/s²]
Speed / acceleration FL_B	max. 3 [m/s] / max. 6 [m/s²]
Gliding speed / acceleration (maximum)	upon request
permitted temperature °C	–40° up to +70° C
Flammability class	VDE 0304 IIC UL94 HB

Details of material properties

▶ **page 1.38**

For support of the lower run - **Support Tray tool kit** available ▶ page 9.70

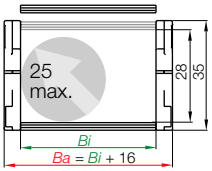
Trough E6.29
▶ page 8.45

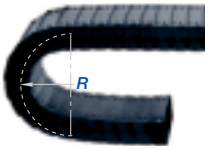
▶ page 8.39

System E6
Inner height: 28 mm

Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

E6 | e-tube | **Series R6.29** | **Product Range**





Series R6.29 - e-tube, lids can be removed along inner and outer radius

Part No.	*Bi* [mm]	*Ba* [mm]	*R* [mm]	Bending radii				Weight [kg/m]
R6.29.030.□.0	30	46	055	075	100	150		≈ 0,80
R6.29.040.□.0	40	56	055	075	100	150		≈ 0,85
R6.29.050.□.0	50	66	055	075	100	150		≈ 0,89
R6.29.060.□.0	60	76	055	075	100	150		≈ 0,94
R6.29.070.□.0	70	86	055	075	100	150		≈ 0,97
R6.29.080.□.0	80	96	055	075	100	150		≈ 1,03
R6.29.090.□.0	90	106	055	075	100	150		≈ 1,08
R6.29.100.□.0	100	116	055	075	100	150		≈ 1,13
R6.29.110.□.0	110	126	055	075	100	150		≈ 1,18
R6.29.120.□.0	120	136	055	075	100	150		≈ 1,22

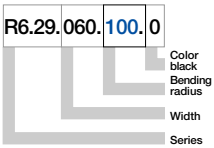
The widths *Bi* **070 / 090** are available upon request.

Time of delivery approx. 6-8 weeks after order.

Supplement Part No. with required radius. Example: R6.29.060.100.0

0 = standard color, other colors ▶ page 1.39 · Pitch = 22 mm/link - Links/m = 46

Part No. structure



Vertical separator	
unassembled	R6.29.01
assembled	R6.29.11

E6 | e-tube | **Series R6.29** | **Accessories** | Interior Separation

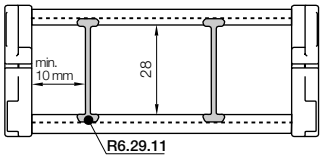
Option 1: Vertical separators

Vertical separators are used if a vertical subdivision of the e-chain® interior is required -

By standard vertical separators are assembled every other e-chain® link!

- **The notches on this seperator marks the sticking side for a stuck mounting on the lid**
- **Standard** subdivision with **vertical separator E6.29.11**

Vertical separator E6.29.01 (side view)



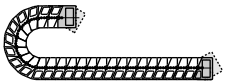
igus® e-chainsystems®
Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222
igus® GmbH
51147 Cologne
Internet: www.igus.eu
E-mail: info@igus.de

* KMA = Polymer Metal Mounting Bracket

Option KMA* - pivoting

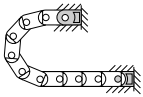
- Bolted connection outside of chain cross-section
- Recommended for unsupported applications (for gliding applications please contact igus®)
- Confined installation conditions
- Universal mountable with attachment capability on all sides

Moving end
R6.290...2



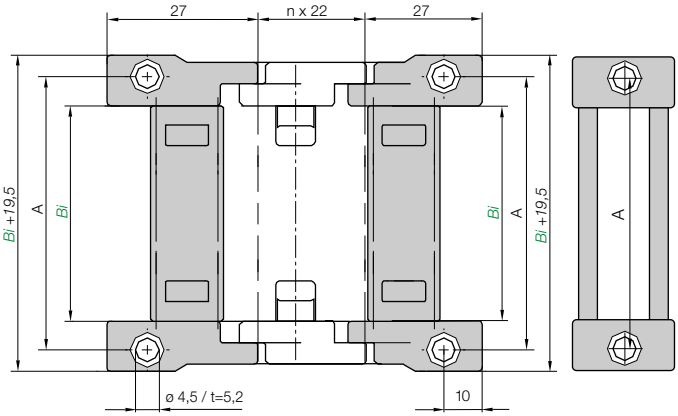
R6.290...1
Fixed end

The attachment variants arising automatically by the choice of the KMA mounting bracket



R6.290...2
Fixed end

R6.290...1
Moving end



Dimensions and order configurations

Part No. structure

R6.290.	030.	12

- **Full set**
- Width
- KMA **pivoting** for selected chain type

Full set, for both ends:
R6.290.030.12

Single-part order:
R6.290.030.1
Fixed end mounting bracket

R6.290.030.2
Moving end mounting bracket

For e-chain®	Part No. full set	Dim. A [mm]
R6.29.030 ▶	**R6.290.030.12**	40
R6.29.050 ▶	**R6.290.050.12**	60
R6.29.060 ▶	**R6.290.060.12**	70

For e-chain®	Part No. full set	Dim. A [mm]
R6.29.080 ▶	**R6.290.080.12**	90
R6.29.110 ▶	**R6.290.110.12**	120
R6.29.120 ▶	**R6.290.120.12**	130

Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

▶ chapter 10

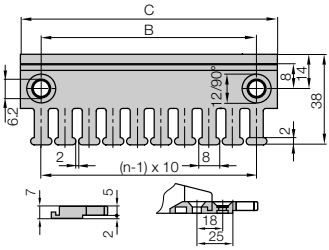
Trough E6.29
▶ page 8.45

▶ page 8.39

E6 | e-chain® | **Series R6.29** | **Accessories** | Strain Relief

Tiewrap plate	*n* Number of teeth	Dim. C [mm]	Dim. B [mm]
2020.ZB	3	30	15
2030.ZB	4	40	20
2040.ZB	5	50	30
2050.ZB	6	60	40
2070.ZB	8	80	60
2090.ZB = (2030.ZB + 2040.ZB)	9	90	–
2100.ZB	10	100	80
2125.ZB = (2050.ZB + 2050.ZB)	12	120	–

igus® chainfix tiewrap plate as individual part



Other strain relief elements - optional ▶ chapter 10

Aluminum "SuperTrough" for Series R6.29 ▶ page 8.45

Price index

Extremely low noise
Test results upon request

IPA certificate: Class 1, according to standard DIN EN ISO 14644-1 for the E6 system (Series E6.29.060.150.0.CR, v = 0.5 m/s, a = 1.0 m/s²)

LEVEL 1 absorption confirmed by IPA-Fraunhofer-Institut according to SEMI E78-0998 for the E6 standard material

To close, push and click shut

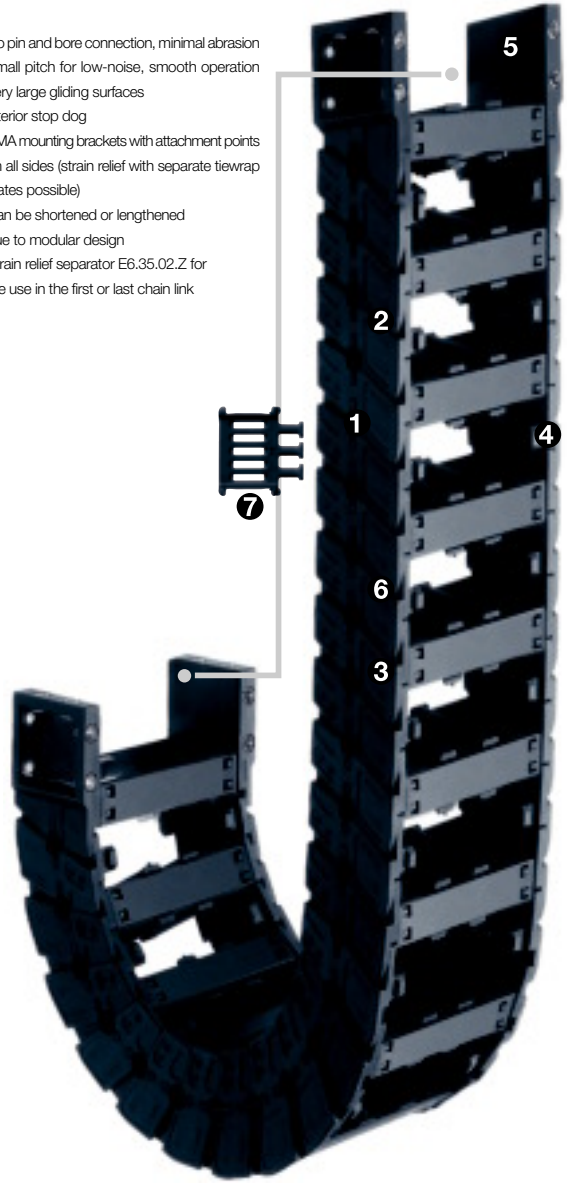
When to use the Series E6.35:

- If a low-noise version is required
- At very high speeds and/or accelerations
- For enlarged thrusts and tensile forces
- For small bending radii
- If less vibration is required
- Minimal abrasion (e.g. cleanroom applications)

When not to use it:

- Limited in side-mounted applications
  ▶ **Series E4.32 System E4.1, page 7.42**
- No use with RBR (reverse bending radius)
  ▶ **Series E4.32 System E4.1, page 7.42**
- No use with high additional loads
  ▶ **Series E4.32 System E4.1, page 7.42**
- No use in dirty environments
  ▶ **Series R4.32 System E4.1, page 7.42**
- If a fully enclosed e-tube is required
  ▶ **Series R58 E2 Tubes, page 6.34**

1. No pin and bore connection, minimal abrasion
2. Small pitch for low-noise, smooth operation
3. Very large gliding surfaces
4. Interior stop dog
5. KMA mounting brackets with attachment points on all sides (strain relief with separate tiewrap plates possible)
6. Can be shortened or lengthened due to modular design
7. Strain relief separator E6.35.02.Z for the use in the first or last chain link



Order example complete e-chain®

Please indicate chain-lengths or number of links **Example: 2 m or 80 links**

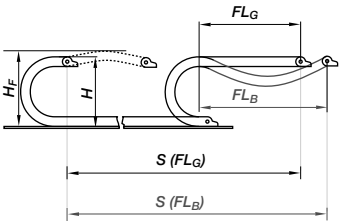
2 m **E6.35.100.055.0**	**e-chain®**
with 2 separators **E6.35.01** assembled every 2nd link	**Interior separation**
1 set **E6.350.100.12**	**Mounting bracket**

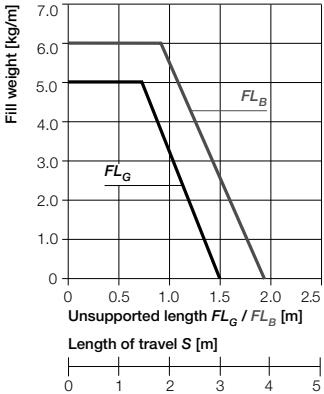
Available from stock. Delivery in 24h or today! (Delivery time means time until shipping of goods)

Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

Unsupported length

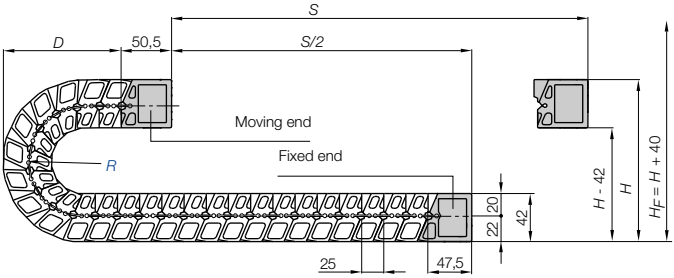
FL_G = with straight upper run
FL_B = with permitted sag
Further information ▶ **Design, page 1.12**





S = Length of travel
R = Bending radius
H = Nominal clearence height
H_F = Required clearence height
D = Overlength e-chain® radius in final position
K = $\pi \bullet R$ + "safety"

Other installation methods
Vertical, hanging ≤ 30 m
Vertical, standing ≤ 2 m
Side mounted, unsupported
= possible to a limited extent
Unsupported length of upper run
= upon request



Pitch = 25 mm/link **Links/m =** 40 (1.000 mm) **Chain length =** $^{S}/_{2} + K$

R	055	075*	100	125*	150*
H	189	229	279	329	379
D	102	122	147	172	197
K	225	290	365	445	525

*Available upon request. Delivery time: approx. 6-8 weeks after receipt of order!

Standard

Short travels - unsupported

Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height H_F. Please consult igus® if space is particularly restricted.

The required clearance height:
H_F = *H* + 40 mm
(with 2,0 kg/m fill weight)

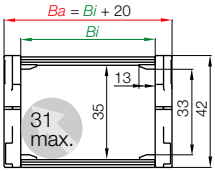
Technical Data

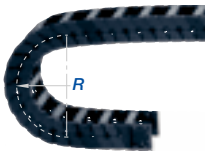
Speed / acceleration FL_G	max. 20 [m/s] / max. 200 [m/s²]
Speed / acceleration FL_B	max. 3 [m/s] / max. 6 [m/s²]
Gliding speed / acceleration (maximum)	upon request
Material - permitted temperature °C	–40° up to +70° C
Flammability class	VDE 0304 IIC UL94 HB

Details of material properties
▶ **page 1.38**

▶ page 8.39

For support of the lower run - **Support Tray tool kit** available ▶ page 9.70





Series E6.35 - with crossbars every 2nd link

Part No.	*Bi* [mm]	*Ba* [mm]	*R* [mm]	Bending radii	Weight [kg/m]
E6.35.030.□.0	30	50	055	075 100 125 150	≈ 0,88
E6.35.040.□.0	40	60	055	075 100 125 150	≈ 0,90
E6.35.050.□.0	50	70	055	075 100 125 150	≈ 0,92
E6.35.060.□.0	60	80	055	075 100 125 150	≈ 0,94
E6.35.070.□.0	70	90	055	075 100 125 150	≈ 0,96
E6.35.080.□.0	80	100	055	075 100 125 150	≈ 0,99
E6.35.090.□.0	90	110	055	075 100 125 150	≈ 1,01
E6.35.100.□.0	100	120	055	075 100 125 150	≈ 1,03
E6.35.110.□.0	110	130	055	075 100 125 150	≈ 1,05
E6.35.120.□.0	120	140	055	075 100 125 150	≈ 1,07

The bending radii 075 125 150 are available upon request.

Delivery time: approx. 6-8 weeks after receipt of order!

Supplement Part No. with required radius. Example: E6.35.100.055.0

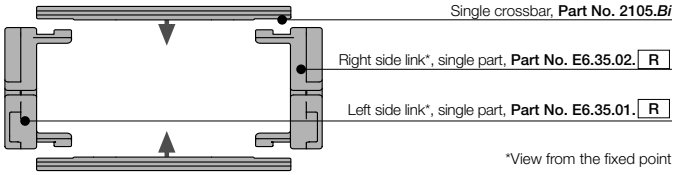
0 = standard color, other colors ▶ page 1.39 · Pitch = 25 mm/link - Links/m = 40

Part No. structure

E6.35.100.055.0

- Color black
- Bending radius
- Width
- Series

Part No. e-chain® - links, single parts



Polymer spring as single part - Part No. E6.35.150

igus® e-chainsystems®
Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222
igus® GmbH
51147 Cologne
Internet: www.igus.eu
E-mail: info@igus.de

Option 1: Vertical separators

Vertical separators are used if a vertical subdivision of the e-chain® interior is required -
By standard vertical separators are assembled every other e-chain® link!

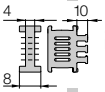
- **Standard** subdivision with **vertical separator E6.35.11**, for combinations with **full-width shelf 111.X**
- **Middle plate* E6.35.12** (slotted 5 times) for combinations with **side plate E6.35.13, full-width shelf 221.X** and **Shelf 2210.X**
- **Strain relief separator E6.35.12.Z** (slotted 5 times), can be integrated into the mounting bracket and can be placed there at any point

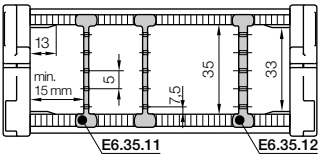
Vert. separator, slotted	
unassembled	**E6.35.01**
assembled	**E6.35.11**

Standard

Middle plate	
unassembled	**E6.35.02**
assembled	**E6.35.12**

Strain relief separator	
unassembled	**E6.35.02.Z**
assembled	**E6.35.12.Z**

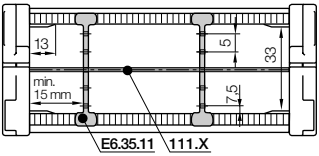


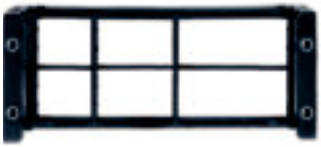


Option 2: Full-width shelves

For applications involving many thin cables with similar or identical diameters

- **Full-width shelf 111.X** for combinations with **vertical separator E6.35.11**
- **Full-width shelf 221.X** for combinations with **middle plate E6.35.12**, **strain relief separator E6.35.12.Z**, and **side plate E6.35.13**

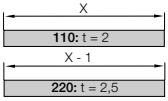




Width	Part No. unassembled		Part No. assembled	
X [mm]	110.X	220.X	111.X	221.X
030	**110.30**	**220.30**	**111.30**	**221.30**
040	**110.40**	**220.40**	**111.40**	**221.40**
050	**110.50**	**220.50**	**111.50**	**221.50**
060	**110.60**	**220.60**	**111.60**	**221.60**
070	**110.70**	**220.70**	**111.70**	**221.70**

Width	Part No. unassembled		Part No. assembled	
X [mm]	110.X	220.X	111.X	221.X
080	**110.80**	**220.80**	**111.80**	**221.80**
090	**110.90**	**220.90**	**111.90**	**221.90**
100	**110.100**	**220.100**	**111.100**	**221.100**
110	**110.110**	**220.110**	**111.110**	**221.110**
120	**110.120**	**220.120**	**111.120**	**221.120**

Full-width shelf

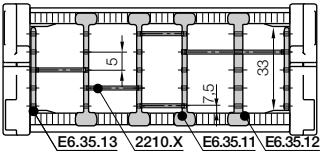


Option 3: Shelves

Shelves can be arranged elevator-shifted with different bottoms within the entire e-chain® width

- **Shelf 2210.X** for combinations with **middle plate E6.35.12**, **strain relief separator E6.35.12.Z**, and **side plate E6.35.13**

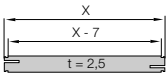
Side plate	
unassembled	**E6.35.03**
assembled	**E6.35.13**



Width	Part No.	Part No.
X [mm]	unassembled	assembled
018	**2200.18**	**2210.18**
023	**2200.23**	**2210.23**
028	**2200.28**	**2210.28**
033	**2200.33**	**2210.33**
038	**2200.38**	**2210.38**
043	**2200.43**	**2210.43**
048	**2200.48**	**2210.48**

Width	Part No.	Part No.
X [mm]	unassembled	assembled
058	**2200.58**	**2210.58**
063	**2200.65**	**2210.65**
068	**2200.68**	**2210.68**
073	**2200.73**	**2210.73**
076	**2200.76**	**2210.76**
088	**2200.88**	**2210.88**
099	**2200.99**	**2210.99**

Shelf



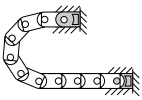
System E6
Inner height: 35 mm

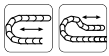
Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

▶ page 8.39

E6 | e-chain® | **Series E6.35** | **Accessories** | Mounting Brackets KMA

The attachment variants arising automatically by the choice of the KMA mounting bracket



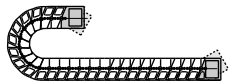


* KMA = Polymer Metal Mounting Bracket

Option KMA* - pivoting

- Option - integrated C-profile strain relief device with chainfix clip or strain relief tiewrap plates
- C-profile mountable in the inner or outer radius of the e-chain®
- Bolted connection outside of chain cross-section
- Recommended for unsupported and gliding applications
- Confined installation conditions
- Universal mountable with attachment capability on all sides

Moving end
E6.350...2

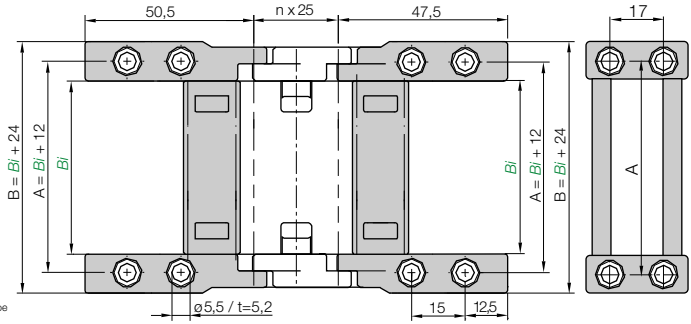


E6.350...1
Fixed end

Dimensions and order configurations

E6.350...2
Fixed end

E6.350...1
Moving end



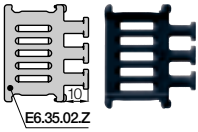
Part No. structure

E6.350.	040.	12

- **Full set**
- Width
- KMA **pivoting** for selected chain type

	For e-chain®	Part No. full set	Dim. B [mm]	Dim. A [mm]	For e-chain®	Part No. full set	Dim. B [mm]	Dim. A [mm]
Full set, for both ends: E6.350. 040. 12								
Single-part order: E6.350. 040. 1	E6.35.030. ▶	E6.350.030.12	54	42	E6.35.080. ▶	E6.350.080.12	104	92
	E6.35.040. ▶	E6.350.040.12	64	52	E6.35.090. ▶	E6.350.090.12	114	102
Fixed end mounting bracket E6.350. 040. 2	E6.35.050. ▶	E6.350.050.12	74	62	E6.35.100. ▶	E6.350.100.12	124	112
	E6.35.060. ▶	E6.350.060.12	84	72	E6.35.110. ▶	E6.350.110.12	134	122
Moving end mounting bracket	E6.35.070. ▶	E6.350.070.12	94	82	E6.35.120. ▶	E6.350.120.12	144	132

E6 | e-chain® | **Series E6.35** | **Accessories** | Strain Relief



Strain relief separator

Separator with integrated strain relief for the use in the first or last chain link. Individual part for the manufacturing of switchgear cabinets or for the assembly of machines. Easy to assemble without any screws ▶ **chapter 10.**

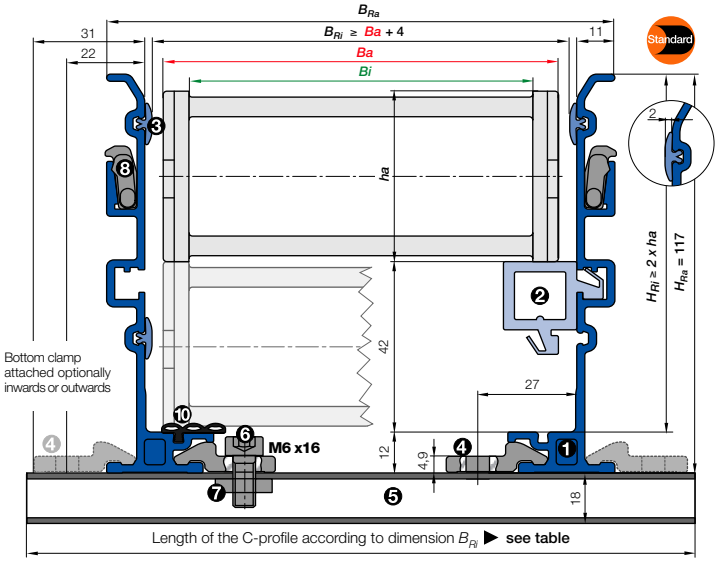
Part No.	Number of teeth	For Series	
E6.35.02.Z	3 one side	E6.35	e-chain®

Other strain relief elements - optional ▶ chapter 10

3D-CAD files, pdf-downloads and many online features ▶ www.igus.de/en/e6.35

Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222
igus® GmbH
51147 Cologne
Internet: www.igus.eu
E-mail: info@igus.de

Part No. 972.02.30.SL | 972.02.31.SL | Trough height: 117 mm
Aluminum "SuperTrough" | Basic Version



● **Components, trough "Basic":** ❶ Trough side parts, aluminum, 2 m ❷ Glide bar, plastic, 2 m ❸ Glide strips, plastic, 2 m (without glide strips on request) ❿ Optional: Silencer profile, rubber ● **Components, installation set "Basic":** ❹ Bottom clamp, aluminum ❺ C-profile, steel galvanized ❻ Screw M6 x16 ❼ Sliding nut M6 ❽ Interface connector, plastic

Ba = Outer width e-chains® / e-tube
Bi = Inner width e-chains® / e-tube
ha = Outer height e-chains® / e-tube
H_{Ri} = Inner trough height
H_{Ra} = Outer trough height
B_{Ri} = Inner trough width ▶ depends on dim. *Ba*
B_{Ra} = Outer trough width
n_{Mon} = Number of installation sets (left/right)
n_{Ri} = Number of trough sets (left/right)

! $H_{Ri} \geq 2 \bullet ha$
$B_{Ri} \geq Ba + 4$

● = Guide trough set ● = Glide bar
● = Installation set "Basic" ● = C-profile

Installation set "Basic" with C-profile

Bottom Clamp attached optionally **inwards** or **outwards**

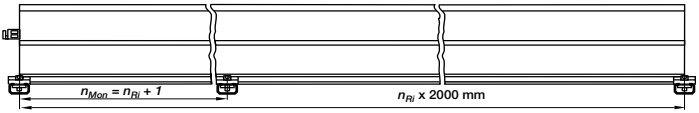
E6.35.**100**.055.0 ▶ Order example

	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards
.030	54	–	**960.30.150**
.040	64	–	**960.30.175**
.050	74	**960.30.125**	**960.30.175**
.060	84	**960.30.150**	**960.30.200**
.070	94	**960.30.150**	**960.30.200**
.080	104	**960.30.150**	**960.30.200**
.090	114	**960.30.175**	**960.30.225**
.100	124	**960.30.175**	**960.30.225**
.110	134	**960.30.200**	**960.30.250**
.120	144	**960.30.200**	**960.30.250**

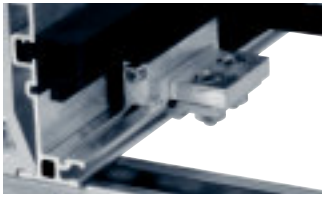
Insert for the installation set "Heavy-Duty": **972.50.XXX** instead of (**960.30.XXX**) on the right column "attached outwards"

Order example: Length of travel 30 m - Center mounted for Series E6.35.100.055.0 with B_{Ri} = 124

Guide trough set (set of 2 trough side parts, incl. glide strips) **without** glide bar **Order text: 16 m guide trough without glide bar (8 x 2 m sections)**	Part No.	972.02.30.SL
Guide trough set (set of 2 trough side parts, incl. glide strips) **with** glide bar **Order text: 16 m guide trough with glide bar (8 x 2 m sections)**	Part No.	972.02.31.SL
Installation set "Basic" complete **(guide trough-sets + 1)** **Order text: 17 installation sets "Basic"**	Part No.	960.30.175
Module for the fixed end **Order text: 1 set**	Part No.	972.82
Option: For an additional noise dampening with silencer profile, please add Index A - Example:	Part No.	972.02.30.SLA



Principle sketch: Number of installation sets to be installed = Number of trough sections + 1



A quick fix for mounting the stationary end of an e-chain®

With this module for the fixed end, fast and easy mounting onto the Aluminum "SuperTrough" is now possible without any drilling. Fast mounting of the e-chain® by clamping onto the aluminum trough ● Quick relocation of the stationary end ● No drilling necessary ▶ **page 9.16**

Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

▶ Chapter 10
▶ Chapter 9
▶ page 8.39

Price index

Extremely low noise
Test results upon request

IPA certificate: Class 1, according to standard DIN EN ISO 14644-1 for the E6 system (Series E6.29.060.150.0.CR, v = 0.5 m/s, a = 1.0 m/s²)

LEVEL 1 absorption confirmed by IPA-Fraunhofer-Institut according to SEMI E78-0998 for the E6 standard material

To close, push and click shut

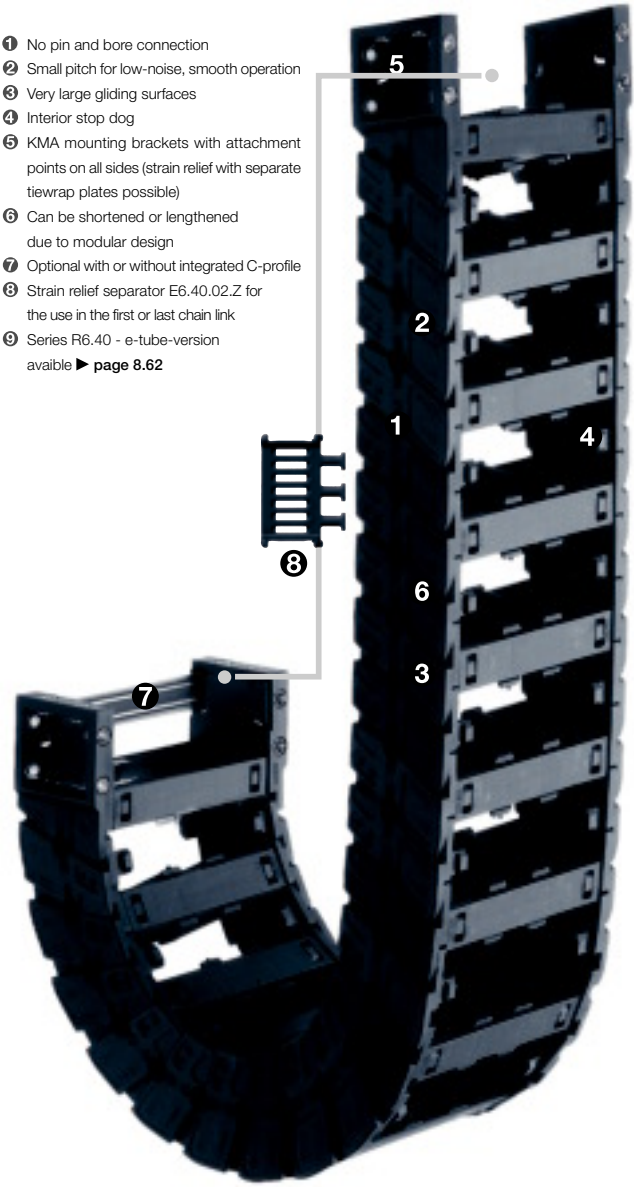
When to use the Series E6.40:

- If a low-noise version is required
- At very high speeds and/or accelerations
- For enlarged thrusts and tensile forces
- For small bending radii
- If less vibration is required
- Minimal abrasion (e.g. cleanroom applications)

When not to use it:

- Limited in side-mounted applications
  ▶ **Series E4.32 System E4.1, page 7.42**
- No use with RBR (reverse bending radius)
  ▶ **Series E4.32 System E4.1, page 7.42**
- No use with high additional loads
  ▶ **Series E4.32 System E4.1, page 7.42**
- No use in dirty environments
  ▶ **Series R4.32 System E4.1, page 7.42**

1. No pin and bore connection
2. Small pitch for low-noise, smooth operation
3. Very large gliding surfaces
4. Interior stop dog
5. KMA mounting brackets with attachment points on all sides (strain relief with separate tiewrap plates possible)
6. Can be shortened or lengthened due to modular design
7. Optional with or without integrated C-profile
8. Strain relief separator E6.40.02.Z for the use in the first or last chain link
9. Series R6.40 - e-tube-version avaible ▶ **page 8.62**



Order example complete e-chain®

Please indicate chain-lengths or number of links **Example: 2 m or 72 links**

2 m **E6.40.100.075.0**	**e-chain®**
with 2 separators **28222** assembled every 2nd link	**Interior separation**
1 set **E6.400.100.12**	**Mounting bracket**

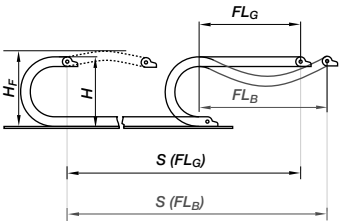
Available from stock. Delivery in 24h or today! (Delivery time means time until shipping of goods)

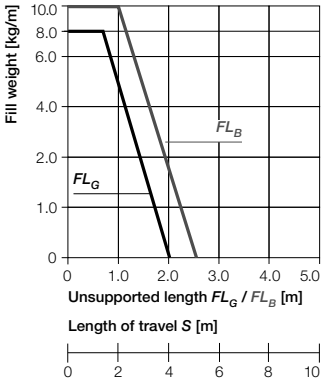
Unsupported length

FL_G = with straight upper run

FL_B = with permitted sag

Further information ▶ **Design, page 1.12**





S = Length of travel

R = Bending radius

H = Nominal clearence height

H_F = Required clearence height

H_{RI} = Trough inner height

D = Overlength e-chain® radius in final position

K = $\pi \bullet R$ + "safety"

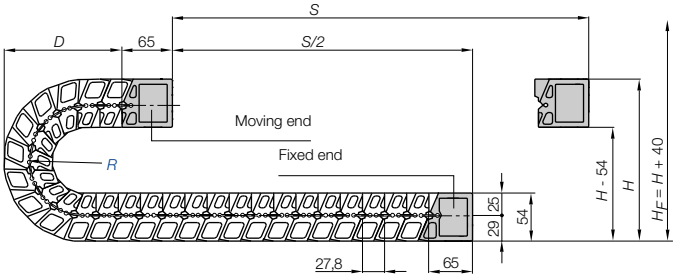
D_2 = Over length - long travels, gliding

K_2 = *Further add-on

H_2 = *Mounting height

*if the mounting bracket location is set lower

Other installation methods
Vertical, hanging ≤ 30 m
Vertical, standing ≤ 2 m
Side mounted, unsupported
= possible to a limited extent
Unsupported length of upper run
= upon request



Pitch = 27,8 mm/link **Links/m** = 36 (1001 mm) **Chain length** = $S/2 + K$

R	063	075	100	125	150	200
H	224	248	298	348	398	498
D	120	132	157	182	207	257
K	255	295	370	450	530	685
H_2	140	140	140	140	140	140
D_2^{+25}	214	263	388	574	760	1382
K_2	112	306	743	723	973	1474

Standard

Short travels - unsupported

Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height H_F. Please consult igus® if space is particularly restricted.

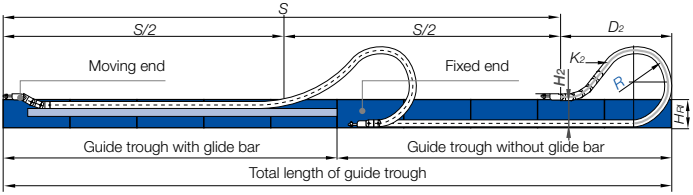
The required clearance height:

$H_F = H + 40$ **mm**

(with 2,0 kg/m fill weight)

Long travel lengths from 6 m to max. 60 m

Chain length = $S/2 + K_2$



In case of travels between 4 m and 6 m we recommend a longer unsupported length.

Gliding, long travel applications (max. 60 m)

In this case the e-chain® upper run will be introduced in a guide trough on the lower run. We recommend to realize the engineering of such a plant by our technicians.

Technical Data

Speed / acceleration FL_G	max. 20 [m/s] / max. 200 [m/s²]
Speed / acceleration FL_B	max. 3 [m/s] / max. 6 [m/s²]
Gliding speed / acceleration (maximum)	upon request
permitted temperature °C	–40° up to +70° C
Flammability class	VDE 0304 IIC UL94 HB

Details of material properties

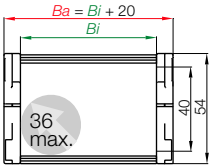
▶ **page 1.38**

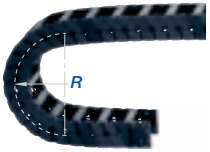
For support of the lower run - **Support Tray tool kit** available ▶ page 9.70

System E6
Inner height: 40 mm

Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

▶ page 8.39

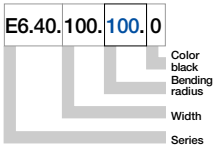




Series E6.40 - with crossbars every 2nd link

Part No.	*Bi* [mm]	*Ba* [mm]	*R* [mm]	Bending radii						Weight [kg/m]
E6.40.040.□.0	40	60	063	075	100	125	150	200		≈ 1,29
E6.40.050.□.0	50	70	063	075	100	125	150	200		≈ 1,33
E6.40.062.□.0	62	82	063	075	100	125	150	200		≈ 1,38
E6.40.070.□.0	70	90	063	075	100	125	150	200		≈ 1,41
E6.40.075.□.0	75	95	063	075	100	125	150	200		≈ 1,43
E6.40.087.□.0	87	107	063	075	100	125	150	200		≈ 1,48
E6.40.100.□.0	100	120	063	075	100	125	150	200		≈ 1,53
E6.40.125.□.0	125	145	063	075	100	125	150	200		≈ 1,63
E6.40.150.□.0	150	170	063	075	100	125	150	200		≈ 1,73
E6.40.175.□.0	175	195	063	075	100	125	150	200		≈ 1,83
E6.40.200.□.0	200	220	063	075	100	125	150	200		≈ 1,93
E6.40.225.□.0	225	245	063	075	100	125	150	200		≈ 2,02
E6.40.250.□.0	250	270	063	075	100	125	150	200		≈ 2,12
E6.40.275.□.0	275	295	063	075	100	125	150	200		≈ 2,22
E6.40.300.□.0	300	320	063	075	100	125	150	200		≈ 2,32

Part No. structure

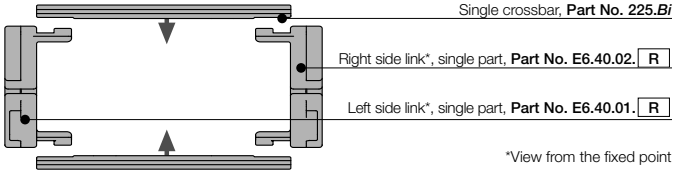


Supplement Part No. with required radius. Example: E6.40.100.100.0

0 = standard color, other colors ▶ page 1.39 · Pitch = 27,8 mm/link - Links/m = 36

Part No. e-chain® - links, single parts

Polymer spring as single part - Part No. E6.40.177

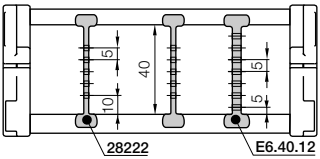


igus® e-chainsystems®
Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222
igus® GmbH
51147 Cologne
Internet: www.igus.eu
E-mail: info@igus.de

Option 1: Vertical separators

Vertical separators are used if a vertical subdivision of the e-chain® interior is required -
By standard vertical separators are assembled every other e-chain® link

- **Standard** subdivision with **vertical separator, slotted 28222 -** for combinations with **full-width shelf 221.X**
- **Locking vertical separator E6.40.12**, (slotted, 7 times) - for combinations with **shelf 2210.X**
- **Strain relief separator E6.40.12.Z** (slotted 7 times), can be integrated into the mounting bracket and can be placed there at any point



Vert. separator, slotted	
unassembled	**28221**
assembled	**28222**

Standard

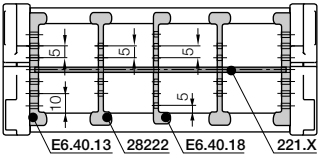
Locking vertical separator	
unassembled	**E6.40.02**
assembled	**E6.40.12**

Strain relief separator	
unassembled	**E6.40.02.Z**
assembled	**E6.40.12.Z**

Option 2: Full-width shelves

For applications involving many thin cables with similar or identical diameters

- **Full-width shelf 221.X** for combinations with **Vertical separator, slotted 28222 and Side plate E6.40.13** und **Asymmetrical separator E6.40.18**



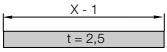
Side plate	
unassembled	**E6.40.03**
assembled	**E6.40.13**

Asymmetrical separator	
unassembled	**E6.40.08**
assembled	**E6.40.18**

Width X [mm]	Part No. unassembled	Part No. assembled
040	**220.40**	**221.40**
050	**220.50**	**221.50**
062	**220.62**	**221.62**
070	**220.70**	**221.70**
075	**220.75**	**221.75**
087	**220.87**	**221.87**

Width X [mm]	Part No. unassembled	Part No. assembled
100	**220.100**	**221.100**
125	**220.125**	**221.125**
150	**220.150**	**221.150**
175	**220.175**	**221.175**
200	**220.200**	**221.200**

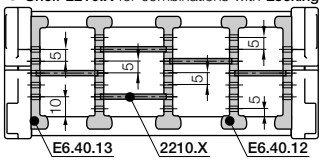
Full-width shelf

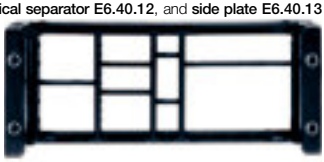


Option 3: Shelves

Shelves can be arranged elevator-shifted with different bottoms within the entire e-chain® width

- **Shelf 2210.X** for combinations with **Locking vertical separator E6.40.12**, and **side plate E6.40.13**

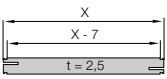




Width X [mm]	Part No. unassembled	Part No. assembled
018	**2200.18**	**2210.18**
023	**2200.23**	**2210.23**
028	**2200.28**	**2210.28**
033	**2200.33**	**2210.33**
038	**2200.38**	**2210.38**
043	**2200.43**	**2210.43**
048	**2200.48**	**2210.48**

Width X [mm]	Part No. unassembled	Part No. assembled
058	**2200.58**	**2210.58**
063	**2200.65**	**2210.65**
068	**2200.68**	**2210.68**
073	**2200.73**	**2210.73**
076	**2200.76**	**2210.76**
088	**2200.88**	**2210.88**
099	**2200.99**	**2210.99**

Shelf

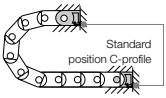


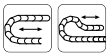
▶ page 8.39

System E6
Inner height: 40 mm
Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

E6 | e-chain® | **Series E6.40** | **Accessories** | Mounting Brackets KMA

The attachment variants arising automatically by the choice of the KMA mounting bracket



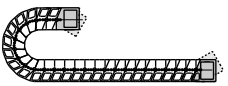


* KMA = Polymer Metal Mounting Bracket

Option KMA* - pivoting

- Option - integrated C-profile strain relief device with chainfix clip or strain relief tiewrap plates
- C-profile mountable in the inner or outer radius of the e-chain®
- Bolted connection outside of chain cross-section
- Recommended for unsupported and gliding applications
- Confined installation conditions
- Universal mountable with attachment capability on all sides

Moving end
E6.400...2



E6.400...1
Fixed end

Dimensions and order configurations

Adapters for gliding applications available upon request

Part No. structure

E6.400.	040.	12.	C

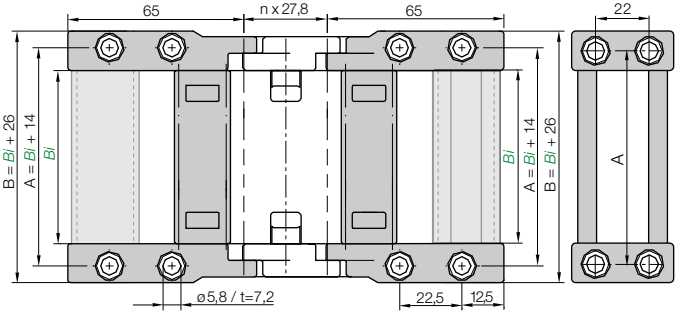
- C: Optional with C-profile
- 12: **Full set**
- 040: Width
- E6.400.: KMA **pivoting** for selected chain type

Full set, for both ends:
E6.400.040.12

Single-part order:
E6.400.040.1
Fixed end mounting bracket
E6.400.040.2
Moving end mounting bracket

E6.400...2
Fixed end

E6.400...1
Moving end



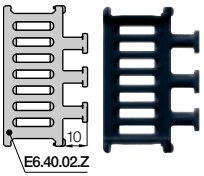
For e-chain®	Part No. full set optional with C-profile	Dim. A [mm]	Dim. B [mm]
E6.40.040.	E6.400.040.12.C	54	66
E6.40.050.	E6.400.050.12.C	64	76
E6.40.062.	E6.400.062.12.C	76	88
E6.40.070.	E6.400.070.12.C	84	96
E6.40.075.	E6.400.075.12.C	89	101
E6.40.087.	E6.400.087.12.C	101	113
E6.40.100.	E6.400.100.12.C	114	126
E6.40.125.	E6.400.125.12.C	139	151

For e-chain®	Part No. full set optional with C-profile	Dim. A [mm]	Dim. B [mm]
E6.40.150.	E6.400.150.12.C	164	176
E6.40.175.	E6.400.175.12.C	189	201
E6.40.200.	E6.400.200.12.C	214	226
E6.40.225.	E6.400.225.12.C	239	251
E6.40.250.	E6.400.250.12.C	264	276
E6.40.275.	E6.400.275.12.C	289	301
E6.40.300.	E6.400.300.12.C	314	326

Other strain relief elements - optional ▶ chapter 10

E6 | e-chain® | **Series E6.40** | **Accessories** | Strain Relief

Strain relief tiewrap plate can be fixed on the last crossbar, alternatively with C-profile. Tiewrap plate as individual part - **Part No. 20XX.ZB**. Further strain relief elements ▶ **chapter 10**



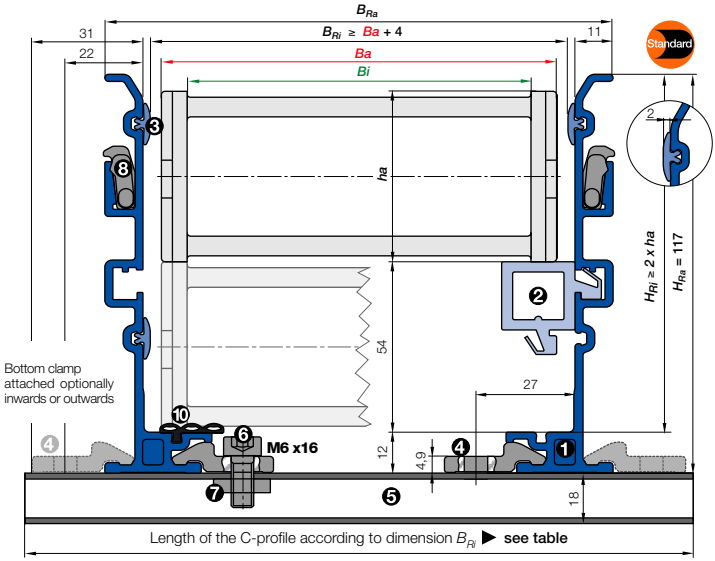
Strain relief separator

Separator with integrated strain relief for the use in the first or last chain link. Individual part for the manufacturing of switchgear cabinets or for the assembly of machines. Easy to assemble without any screws ▶ **chapter 10.**

Part No.	Number of teeth	For Series	
E6.40.02.Z	3 one side	E6.40	e-chain®

Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222
igus® GmbH
51147 Cologne
Internet: www.igus.eu
E-mail: info@igus.de

Part No. 972.30.SL | 972.31.SL | Trough height: 117 mm
Aluminum "SuperTrough" | Basic Version



Ba = Outer width e-chains® / e-tube
Bi = Inner width e-chains® / e-tube
ha = Outer height e-chains® / e-tube
H_{Ri} = Inner trough height
H_{Ra} = Outer trough height
B_{Ri} = Inner trough width ▶ depends on dim. *Ba*
B_{Ra} = Outer trough width
n_{Mon} = Number of installation sets (left/right)
n_{Ri} = Number of trough sets (left/right)

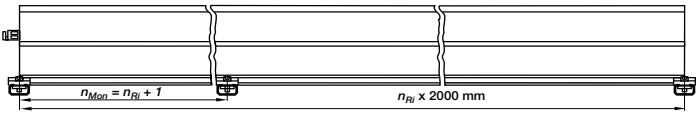
! $H_{Ri} \geq 2 \bullet ha$
$B_{Ri} \geq Ba + 4$

● = Guide trough set ● = Glide bar
● = Installation set "Basic" ● = C-profile

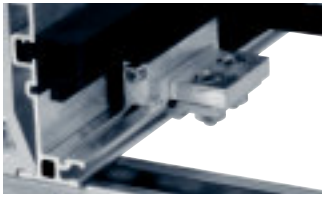
● **Components, trough "Basic":** ❶ Trough side parts, aluminum, 2 m ❷ Glide bar, plastic, 2 m ❸ Glide strips, plastic, 2 m (without glide strips on request) ❿ Optional: Silencer profile, rubber ● **Components, installation set "Basic":** ❹ Bottom clamp, aluminum ❺ C-profile, steel galvanized ❻ Screw M6 x16 ❼ Sliding nut M6 ❽ Interface connector, plastic

Order example: Length of travel 30 m - Center mounted for Series E6.40.050.063.0 with B_{Ri} = 74

Guide trough set (set of 2 trough side parts, incl. glide strips) **without** glide bar		
Order text: 16 m guide trough without glide bar (8 x 2 m sections)	Part No.	972.30.SL
Guide trough set (set of 2 trough side parts, incl. glide strips) **with** glide bar		
Order text: 16 m guide trough with glide bar (8 x 2 m sections)	Part No.	972.31.SL
Installation set "Basic" complete **(guide trough-sets + 1)**		
Order text: 17 installation sets "Basic"	Part No.	960.30.125
Module for the fixed end		
Order text: 1 set	Part No.	972.80
Option: For an additional noise dampening with silencer profile, please add Index A - Example:	Part No.	972.30.SLA



Principle sketch: Number of installation sets to be installed = Number of trough sections + 1



A quick fix for mounting the stationary end of an e-chain®

With this module for the fixed end, fast and easy mounting onto the Aluminum "SuperTrough" is now possible without any drilling. Fast mounting of the e-chain® by clamping onto the aluminum trough ● Quick relocation of the stationary end ● No drilling necessary ▶ **page 9.16**

Installation set "Basic" with C-profile

Bottom Clamp attached optionally **inwards** or **outwards**

E6.40.**040**.063.0 ▶ Order example

	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards
.040	64	–	960.30.175
.050	74	960.30.125	960.30.175
.062	86	960.30.150	960.30.200
.070	94	960.30.150	960.30.200
.075	99	960.30.150	960.30.200
.087	111	960.30.175	960.30.225
.100	124	960.30.175	960.30.225
.125	149	960.30.200	960.30.250
.150	174	960.30.225	960.30.275
.175	199	960.30.250	960.30.300
.200	224	960.30.275	960.30.325
.225	249	960.30.300	960.30.350
.250	274	960.30.325	960.30.375
.275	299	960.30.350	960.30.400
.300	324	960.30.375	960.30.425

Insert for the installation set "Heavy-Duty": **972.50.XXX** instead of (**960.30.XXX**) on the right column "attached outwards"

Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

▶ Chapter 10
▶ Chapter 9
▶ page 8.39

Price index

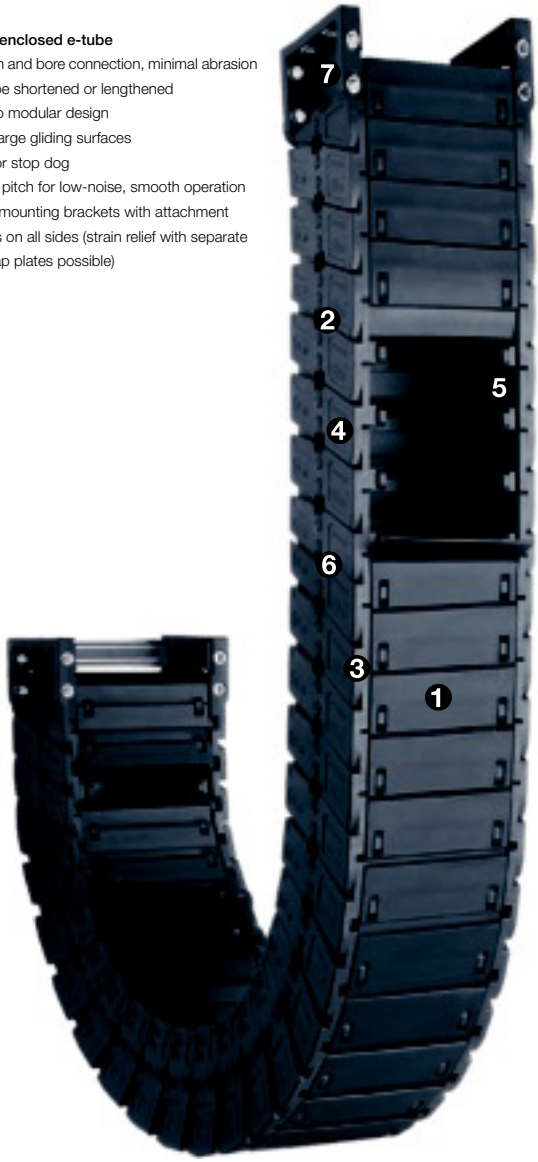
Extremely low noise
Test results upon request

IPA certificate: Class 1, according to standard DIN EN ISO 14644-1 for the E6 system (Series E6.29.060.150.0.CR, v = 0.5 m/s, a = 1.0 m/s²)

LEVEL 1 absorption confirmed by IPA-Fraunhofer-Institut according to SEMI E78-0998 for the E6 standard material

Deckel entfernen durch aufhebeln

1. **Fully enclosed e-tube**
2. No pin and bore connection, minimal abrasion
3. Can be shortened or lengthened due to modular design
4. Very large gliding surfaces
5. Interior stop dog
6. Small pitch for low-noise, smooth operation
7. KMA mounting brackets with attachment points on all sides (strain relief with separate tiewrap plates possible)



When to use the Series R6.40:

- If a low-noise version is required
- At very high speeds and/or accelerations
- For enlarged thrusts and tensile forces
- For small bending radii
- If less vibration is required
- Minimal abrasion (e.g. cleanroom applications)

When not to use it:

- Limited in side-mounted applications
  ▶ **Series R4.32 System E4.1, page 7.42**

Order example complete e-chain®

Please indicate chain-lengths or number of links **Example: 2 m or 72 links**

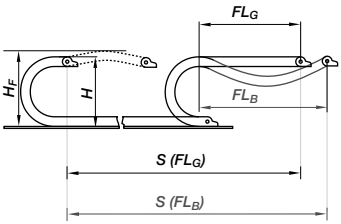
2 m **R6.40.062.075.0**	**e-chain®**
with 2 separators **R6.40.11** assembled every 2nd link	**Interior separation**
1 set **R6.400.062.12**	**Mounting bracket**

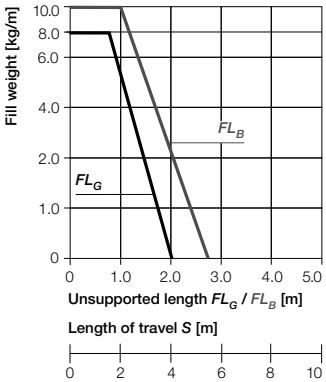
Available from stock. Delivery in 24h or today! (Delivery time means time until shipping of goods)

Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

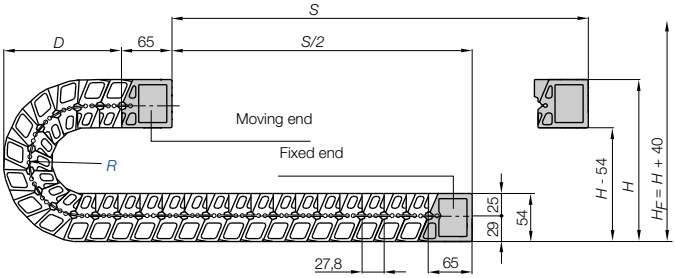
Unsupported length

FL_G = with straight upper run
FL_B = with permitted sag
Further information ▶ **Design, page 1.12**





S = Length of travel
R = Bending radius
H = Nominal clearence height
H_F = Required clearence height
H_{RI} = Trough inner height
D = Overlength e-chain® radius in final position
K = $\pi \bullet R$ + "safety"
D_2 = Over length - long travels, gliding
K_2 = *Further add-on
H_2 = *Mounting height
*if the mounting bracket location is set lower



Pitch = 27,8 mm/link **Links/m** = 36 (1.000,8 mm) **Chain length** = $S/2 + K$

R	063	075	100	125	150	200
H	224	248	298	348	398	498
D	120	132	157	182	207	257
K	255	295	343	423	530	685
H_2	140	140	140	140	140	140
D_2^{+25}	214	263	388	574	760	1382
K_2	112	306	743	723	973	1474

If you intend to use this series on long travels, we request you to consult us!

Other installation methods
Vertical, hanging ≤ 30 m
Vertical, standing ≤ 2 m
Side mounted, unsupported
= possible to a limited extent
Unsupported length of upper run
= upon request

Standard

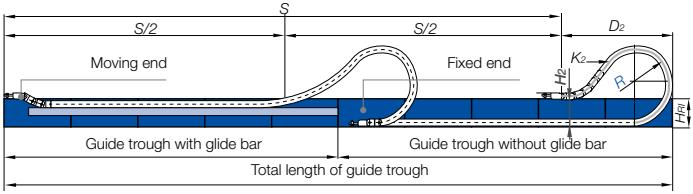
Short travels - unsupported

Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height H_F. Please consult igus® if space is particularly restricted.

The required clearance height:
$H_F = H + 40$ mm
(with 2,0 kg/m fill weight)

Long travel lengths from 6 m to max. 60 m

Chain length = $S/2 + K_2$



In case of travels between 4 m and 6 m we recommend a longer unsupported length.

Gliding, long travel applications (max. 60 m)

In this case the e-chain® upper run will be introduced in a guide trough on the lower run. We recommend to realize the engineering of such a plant by our technicians.

Technical Data

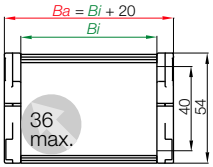
Speed / acceleration FL_G	max. 20 [m/s] / max. 200 [m/s²]
Speed / acceleration FL_B	max. 3 [m/s] / max. 6 [m/s²]
Gliding speed / acceleration (maximum)	upon request
Material - permitted temperature °C	–40° up to +70° C
Flammability class	VDE 0304 IIC UL94 HB

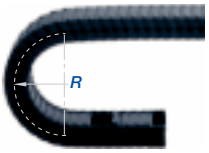
Details of material properties
▶ **page 1.38**

Trough E6.40
▶ page 8.61
▶ page 8.39

For support of the lower run - **Support Tray tool kit** available ▶ page 9.70

E6 | e-tube | **Series R6.40** | **Product Range**





Series R6.40 - e-tube, lids can be removed along inner and outer radius

Part No.	Bi [mm]	Ba [mm]	R [mm]	Bending radii						Weight [kg/m]
R6.40.062.□.0	62	82	063	075	100	125	150	200		≈ 1,44
R6.40.075.□.0	75	95	063	075	100	125	150	200		–
R6.40.087.□.0	87	107	063	075	100	125	150	200		–
R6.40.100.□.0	100	120	063	075	100	125	150	200		–
R6.40.125.□.0	125	145	063	075	100	125	150	200		–
R6.40.150.□.0	150	170	063	075	100	125	150	200		–
R6.40.175.□.0	175	195	063	075	100	125	150	200		–
R6.40.200.□.0	200	220	063	075	100	125	150	200		–
R6.40.225.□.0	225	245	063	075	100	125	150	200		–
R6.40.275.□.0	275	295	063	075	100	125	150	200		–
R6.40.300.□.0	300	320	063	075	100	125	150	200		–

The widths **075 / 087/ 100 / 125 / 150 / 175 / 200 / 225 / 275 / 300** are available upon request.

Time of delivery approx. 6-8 weeks after order.

Supplement Part No. with required radius. Example: R6.40.062.100.0

0 = standard color, other colors ▶ page 1.39 · Pitch = 27,8 mm/link - Links/m = 36

Part No. structure

R6.40.062.100.0

- Series
- Width
- Bending radius
- Color black

Vertical separator	
unassembled	R6.40.01
assembled	R6.40.11

E6 | e-tube | **Series R6.40** | **Accessories** | Interior Separation

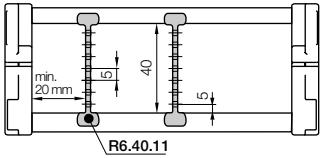
Option 1: Vertical separators

Vertical separators are used if a vertical subdivision of the e-chain® interior is required -

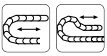
By standard vertical separators are assembled every other e-chain® link!

- **The notches on this seperator marks the sticking side for a stuck mounting on the lid**
- **Standard** subdivision with **vertical separator R6.40.11**

Vertical separator R6.40.01 (side view)



igus® e-chainsystems®
Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222
igus® GmbH
51147 Cologne
Internet: www.igus.eu
E-mail: info@igus.de

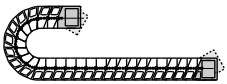


* KMA = Polymer Metal Mounting Bracket

Option KMA* - pivoting

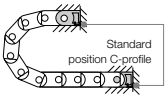
- Option - integrated C-profile strain relief device with chainfix clip or strain relief tiewrap plates
- C-profile mountable in the inner or outer radius of the e-chain®
- Bolted connection outside of chain cross-section
- Recommended for unsupported and gliding applications
- Confined installation conditions
- Universal mountable with attachment capability on all sides

Moving end
R6.400...2



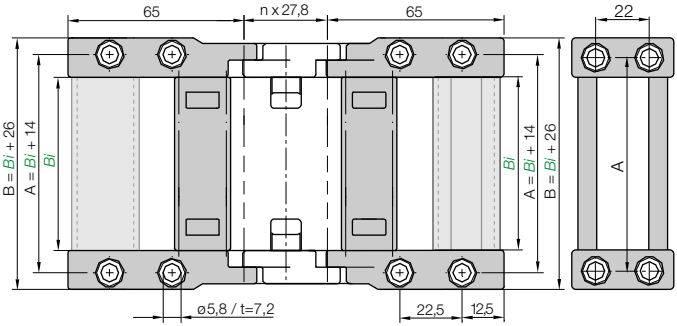
R6.400...1
Fixed end

The attachment variants arising automatically by the choice of the KMA mounting bracket



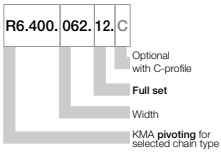
R6.400...2
Fixed end

R6.400...1
Moving end



Dimensions and order configurations

Part No. structure



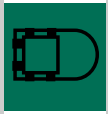
For e-chain®	Part No. full set optional with C-profile	Dim. A [mm]	Dim. B [mm]
R6.40.062. ▶	**R6.400.062.12.** C	76	88
R6.40.075. ▶	R6.400.075.12. C	89	101
R6.40.087. ▶	R6.400.087.12. C	101	113
R6.40.100. ▶	R6.400.100.12. C	114	126
R6.40.125. ▶	R6.400.125.12. C	139	151
R6.40.150. ▶	R6.400.150.12. C	164	176

For e-chain®	Part No. full set optional with C-profile	Dim. A [mm]	Dim. B [mm]
R6.40.175. ▶	R6.400.175.12. C	189	201
R6.40.200. ▶	R6.400.200.12. C	214	226
R6.40.225. ▶	R6.400.225.12. C	239	251
R6.40.275. ▶	R6.400.275.12. C	289	301
R6.40.300. ▶	R6.400.300.12. C	314	326

Full set, for both ends:
R6.400. 062. 12

Single-part order:
R6.400. 062. 1
Fixed end mounting bracket
R6.400. 062. 2
Moving end mounting bracket

Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222



Trough E6.40
▶ page 8.61

▶ page 8.39

E6 | e-tube | **Series R6.40** | **Accessories** | Strain Relief

Strain relief tiewrap plate can be fixed on the last crossbar, alternatively with C-profile. Tiewrap plate as individual part - **Part No. 30XX.ZB**. Further strain relief elements ▶ **chapter 10**

Other strain relief elements - optional ▶ chapter 10

Aluminum "SuperTrough" for Series R6.40 ▶ page 8.61

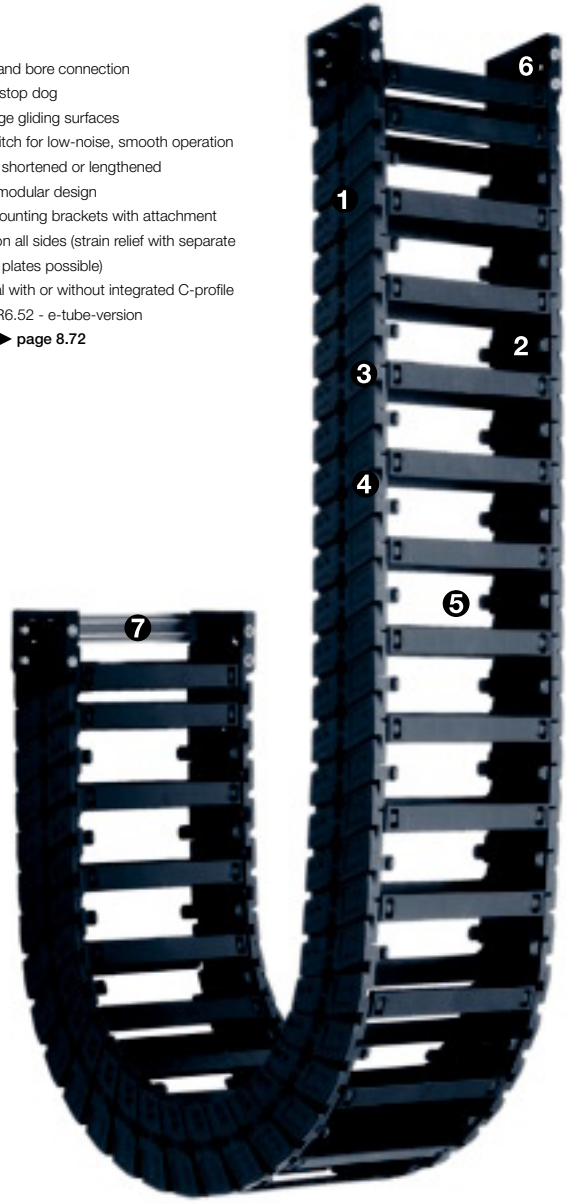
Price index

Extremely low noise
Test results upon request

IPA certificate: Class 1, according to standard DIN EN ISO 14644-1 for the E6 system (Series E6.29.060.150.0.CR, v = 0.5 m/s, a = 1.0 m/s²)

LEVEL 1 absorption confirmed by IPA-Fraunhofer-Institut according to SEMI E78-0998 for the E6 standard material

1. No pin and bore connection
2. Interior stop dog
3. Very large gliding surfaces
4. Small pitch for low-noise, smooth operation
5. Can be shortened or lengthened due to modular design
6. KMA mounting brackets with attachment points on all sides (strain relief with separate tiewrap plates possible)
7. Optional with or without integrated C-profile
8. Series R6.52 - e-tube-version avaible ▶ **page 8.72**



To close, push and click shut

When to use the Series E6.52:

- If a low-noise version is required
- At very high speeds and/or accelerations
- For enlarged thrusts and tensile forces
- For small bending radii
- If less vibration is required
- Minimal abrasion (e.g. cleanroom applications)

When not to use it:

- Limited in side-mounted applications
  ▶ **Series E4.42 System E4.1, page 7.60**
- No use with RBR (reverse bending radius)
  ▶ **Series E4.42 System E4.1, page 7.60**
- No use with high additional loads
  ▶ **Series E4.42 System E4.1, page 7.60**
- No use in dirty environments
  ▶ **Series R4.42 System E4.1, page 7.60**

Order example complete e-chain®

Please indicate chain-lengths or number of links **Example: 2 m or 68 links**

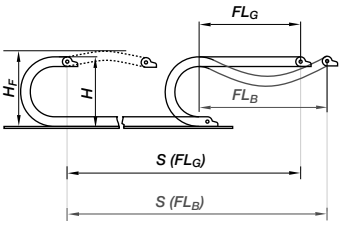
2 m **E6.52.100.075.0**	**e-chain®**
with 2 separators **38222** assembled every 2nd link	**Interior separation**
1 set **E6.520.100.12**	**Mounting bracket**

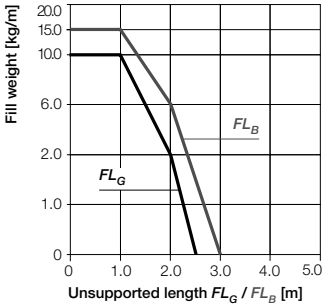
Unsupported length

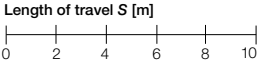
FL_G = with straight upper run

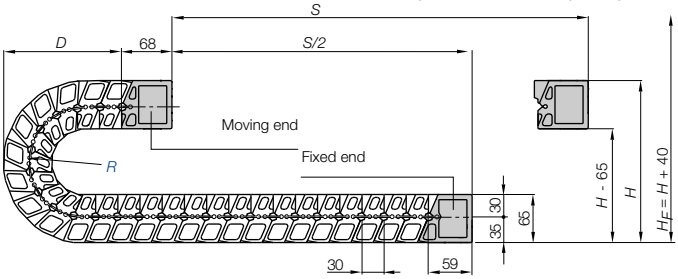
FL_B = with permitted sag

Further information ▶ **Design, page 1.12**









Pitch = 30 mm/link **Links/m** = 34 (1020 mm) **Chain length** = $^{S}/_{2} + K$

R	075	100	150	200	250
H	270	320	420	520	620
D	140	165	215	265	315
K	300	375	535	690	850
H_2	140	140	140	140	140
D_2^{+25}	270	398	768	1138	1508
K_2	300	480	990	1470	1950

- **S** = Length of travel
- **R** = Bending radius
- **H** = Nominal clearence height
- H_F = Required clearence height
- H_{RI} = Trough inner height
- **D** = Overlength e-chain® radius in final position
- **K** = $\pi \bullet R$ + "safety"
- D_2 = Over length - long travels, gliding
- K_2 = *Further add-on
- H_2 = *Mounting height

*if the mounting bracket location is set lower

Other installation methods
Vertical, hanging ≤ 50 m
Vertical, standing ≤ 2 m
Side mounted, unsupported
= possible to a limited extent
Unsupported length of upper run
= upon request

Standard

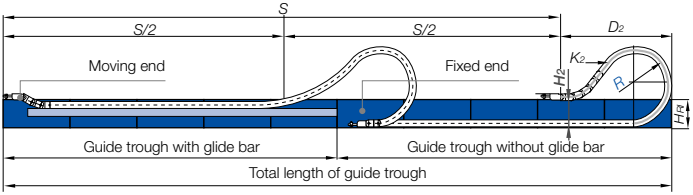
Short travels - unsupported

Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height H_F. Please consult igus® if space is particularly restricted.

The required clearance height:
H_F = H + 40 mm
(with 2,0 kg/m fill weight)

Long travel lengths from 6 m to max. 80 m

Chain length = $^{S}/_{2} + K_2$



In case of travels between 4 and 6 m we recommend a longer unsupported length.

Gliding, long travel applications (max. 80 m)

In this case the e-chain® upper run will be introduced in a guide trough on the lower run. We recommend to realize the engineering of such a plant by our technicians.

Technical Data

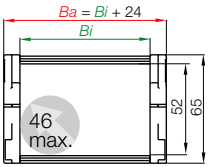
Speed / acceleration FL_G	max. 20 [m/s] / max. 200 [m/s²]
Speed / acceleration FL_B	max. 3 [m/s] / max. 6 [m/s²]
Gliding speed / acceleration (maximum)	upon request
permitted temperature °C	–40° up to +70° C
Flammability class	VDE 0304 IIC UL94 HB

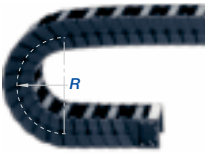
Details of material properties
▶ **page 1.38**

For support of the lower run - **Support Tray tool kit** available ▶ page 9.70

System E6
Inner height: 52 mm
Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

▶ page 8.39

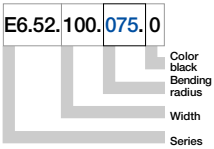




Series E6.52 - with crossbars every 2nd link

Part No.	*Bi* [mm]	*Ba* [mm]	*R* [mm]	Bending radii					Weight [kg/m]
E6.52.040.□.0	40	64	075	100	150	200	250		≈ 1,76
E6.52.050.□.0	50	74	075	100	150	200	250		≈ 1,80
E6.52.062.□.0	62	86	075	100	150	200	250		≈ 1,84
E6.52.070.□.0	70	94	075	100	150	200	250		≈ 1,87
E6.52.075.□.0	75	99	075	100	150	200	250		≈ 1,89
E6.52.087.□.0	87	111	075	100	150	200	250		≈ 1,94
E6.52.100.□.0	100	124	075	100	150	200	250		≈ 1,98
E6.52.125.□.0	125	149	075	100	150	200	250		≈ 2,07
E6.52.150.□.0	150	174	075	100	150	200	250		≈ 2,17
E6.52.175.□.0	175	199	075	100	150	200	250		≈ 2,26
E6.52.200.□.0	200	224	075	100	150	200	250		≈ 2,36
E6.52.225.□.0	225	249	075	100	150	200	250		≈ 2,45
E6.52.250.□.0	250	274	075	100	150	200	250		≈ 2,54
E6.52.275.□.0	275	299	075	100	150	200	250		≈ 2,64
E6.52.300.□.0	300	324	075	100	150	200	250		≈ 2,73

Part No. structure

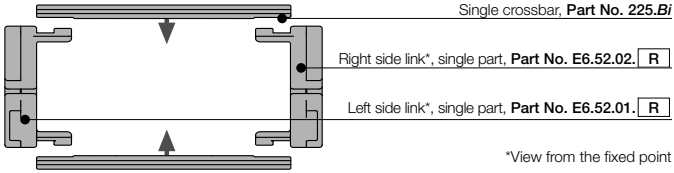


Supplement Part No. with required radius. Example: E6.52.100.075.0

0 = standard color, other colors ▶ page 1.39 · Pitch = 30 mm/link - Links/m = 34

Part No. e-chain® - links, single parts

Polymer spring as single part - Part No. E6.52.195



igus® e-chainsystems®

Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

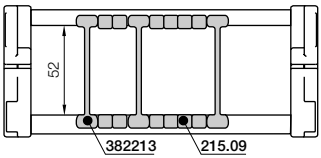
igus® GmbH
51147 Cologne

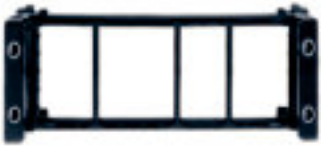
Internet: www.igus.eu
E-mail: info@igus.de

Option 1: Vertical separators and spacers

Vertical separators are used if a vertical subdivision of the e-chain® interior is required -
By standard vertical separators are assembled every other e-chain® link

- **Standard** subdivision with **Separator 382213**
- If a broad distance shall be kept between the separators, **Spacers 215.09** can be used.
  They are generally used on side-mounted e-chains®





Separator	
unassembled	**382212**
assembled	**382213**

Standard

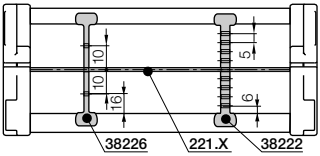
Spacer*	
unassembled	**205.09**
assembled	**215.09**

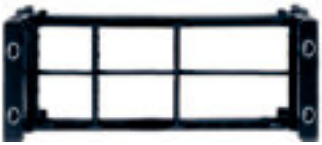
* for side-mounted applications

Option 2: Full-width shelves

For applications involving many thin cables with similar or identical diameters

- **Slotted separators 38226 and middle plate, slotted 38222** -
  for applications with **full-width shelf 321.X**
- **Locking vertical separator 382215** - for applications with **full-width shelf 221.X**





Slotted separator	
unassembled	**38225**
assembled	**38226**

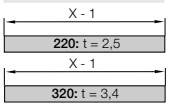
Locking separator	
unassembled	**38228**
assembled	**38229**

Middle plate, slotted	
unassembled	**38221**
assembled	**38222**

Width	Part No. unassembled		Part No. assembled	
X [mm]	220.X	320.X	221.X	321.X
040	**220.40**	320.040	221.40	321.040
050	**220.50**	320.050	221.50	321.050
062	**220.62**	320.062	221.62	321.062
070	**220.70**	320.070	221.70	321.070
075	**220.75**	320.075	221.75	321.075
087	**220.87**	320.087	221.87	321.087

Width	Part No. unassembled		Part No. assembled	
X [mm]	220.X	320.X	221.X	321.X
100	**220.100**	320.100	221.100	321.100
125	**220.125**	320.125	221.125	321.125
150	**220.150**	320.150	221.150	321.150
175	**220.175**	320.175	221.175	321.175
200	**220.200**	320.200	221.200	321.200

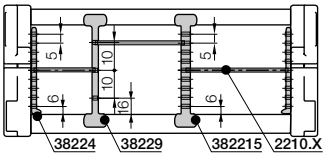
Full-width shelf



Option 3: Shelves

Shelves can be arranged elevator-shifted with different bottoms within the entire e-chain® width

- Shelf **2210.X** for combinations with **middle plate 38222** (slotted, 9 times), **locking separator 382215** ((slotted, 9 times) with higher retention force and **side plate 38224**



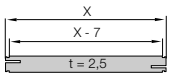
Locking separator	
unassembled	**382214**
assembled	**382215**

Side plate	
unassembled	**38223**
assembled	**38224**

Width	Part No.	Part No.
X [mm]	unassembled	assembled
018	**2200.18**	2210.18
023	**2200.23**	2210.23
028	**2200.28**	2210.28
033	**2200.33**	2210.33
038	**2200.38**	2210.38
043	**2200.43**	2210.43
048	**2200.48**	2210.48

Width	Part No.	Part No.
X [mm]	unassembled	assembled
058	**2200.58**	2210.58
063	**2200.65**	2210.65
068	**2200.68**	2210.68
073	**2200.73**	2210.73
076	**2200.76**	2210.76
088	**2200.88**	2210.88
099	**2200.99**	2210.99

Shelf

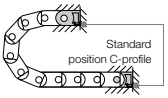


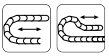
Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

▶ page 8.39

E6 | e-chain® | **Series E6.52** | **Accessories** | Mounting Brackets **KMA**

The attachment variants arising automatically by the choice of the KMA mounting bracket



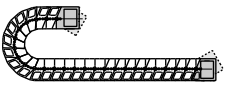


* KMA = Polymer Metal Mounting Bracket

Option KMA* - pivoting

- Option - integrated C-profile strain relief device with chainfix clip or strain relief tiewrap plates
- C-profile mountable in the inner or outer radius of the e-chain®
- Bolted connection outside of chain cross-section
- Recommended for unsupported and gliding applications
- Confined installation conditions
- Universal mountable with attachment capability on all sides

Moving end
E6.520...2



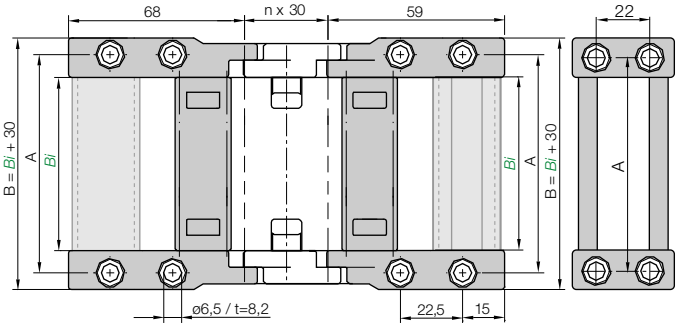
E6.520...1
Fixed end

Dimensions and order configurations

Adapters for gliding applications available upon request

E6.520...2
Moving end

E6.520...1
Fixed end



Part No. structure

E6.520.	040.	12.	C

- C: Optional with C-profile
- 12.: **Full set**
- 040.: Width
- E6.520.: KMA **pivoting** for selected chain type

Full set, for both ends:
E6.520.040.12.C (with C-profile)
Single-part order:
E6.520.040.1.C (with C-profile)
Fixed end mounting bracket
E6.520.040.2.C (with C-profile)
Moving end mounting bracket

For e-chain®	Part No. full set optional with C-profile	Dim. A [mm]	Dim. B [mm]
E6.52.040. ▶	E6.520.040.12.C	56	70
E6.52.050. ▶	E6.520.050.12.C	66	80
E6.52.062. ▶	E6.520.062.12.C	78	92
E6.52.070. ▶	E6.520.070.12.C	86	100
E6.52.075. ▶	E6.520.075.12.C	91	105
E6.52.087. ▶	E6.520.087.12.C	103	117
E6.52.100. ▶	E6.520.100.12.C	116	130
E6.52.125. ▶	E6.520.125.12.C	141	155

For e-chain®	Part No. full set optional with C-profile	Dim. A [mm]	Dim. B [mm]
E6.52.150. ▶	E6.520.150.12.C	166	180
E6.52.175. ▶	E6.520.175.12.C	191	205
E6.52.200. ▶	E6.520.200.12.C	216	230
E6.52.225. ▶	E6.520.225.12.C	241	255
E6.52.250. ▶	E6.520.250.12.C	266	280
E6.52.275. ▶	E6.520.275.12.C	291	300
E6.52.300. ▶	E6.520.300.12.C	316	330

Other strain relief elements

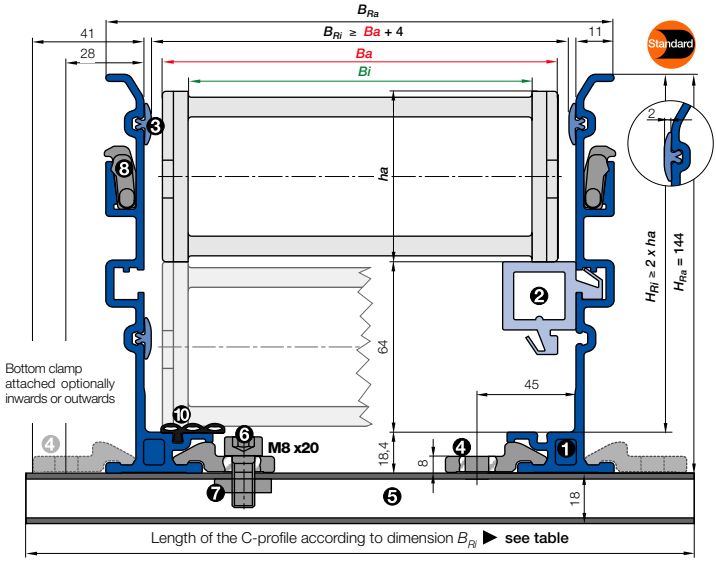
E6 | e-tube | **Series E6.52** | **Accessories** | Strain Relief

Strain relief tiewrap plate can be fixed on the last crossbar, alternatively with C-profile. Tiewrap plate as individual part - **Part No. 30XX.ZB**. Further strain relief elements ▶ **chapter 10**

Other strain relief elements - optional ▶ chapter 10

Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222
igus® GmbH
51147 Cologne
Internet: www.igus.eu
E-mail: info@igus.de

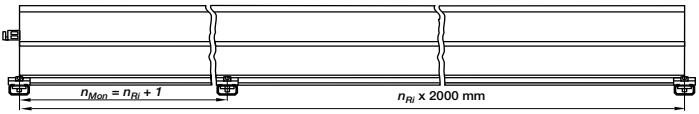
Part No. 973.30.SL | 973.31.SL | Trough height: 144 mm
Aluminum "SuperTrough" | Basic Version



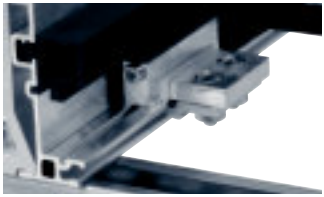
● **Components, trough "Basic":** ❶ Trough side parts, aluminum, 2 m ❷ Glide bar, plastic, 2 m ❸ Glide strips, plastic, 2 m (without glide strips on request) ❿ Optional: Silencer profile, rubber ● **Components, installation set "Basic":** ❹ Bottom clamp, aluminum ❺ C-profile, steel galvanized ❻ Screw M8 x20 ❼ Sliding nut M8 ❽ Interface connector, plastic

Order example: Length of travel 30 m - Center mounted for Series E6.52.100.200.0 with B_{Ri} = 128

Guide trough set (set of 2 trough side parts, incl. glide strips) **without** glide bar		
Order text: 16 m guide trough without glide bar (8 x 2 m sections)	Part No.	973.30.SL
Guide trough set (set of 2 trough side parts, incl. glide strips) **with** glide bar		
Order text: 16 m guide trough with glide bar (8 x 2 m sections)	Part No.	973.31.SL
Installation set "Basic" complete **(guide trough-sets + 1)**		
Order text: 17 installation sets "Basic"	Part No.	960.40.175
Module for the fixed end		
Order text: 1 set	Part No.	973.81
Option: For an additional noise dampening with silencer profile, please add Index A - Example:	Part No.	973.30.SLA



Principle sketch: Number of installation sets to be installed = Number of trough sections + 1



A quick fix for mounting the stationary end of an e-chain®

With this module for the fixed end, fast and easy mounting onto the Aluminum "SuperTrough" is now possible without any drilling. Fast mounting of the e-chain® by clamping onto the aluminum trough ● Quick relocation of the stationary end ● No drilling necessary ▶ **page 9.16**

Ba = Outer width e-chains® / e-tube
Bi = Inner width e-chains® / e-tube
ha = Outer height e-chains® / e-tube
H_{Ri} = Inner trough height
H_{Ra} = Outer trough height
B_{Ri} = Inner trough width ▶ depends on dim. *Ba*
B_{Ra} = Outer trough width
n_{Mon} = Number of installation sets (left/right)
n_{Ri} = Number of trough sets (left/right)

! $H_{Ri} \geq 2 \bullet ha$
$B_{Ri} \geq Ba + 4$

● = Guide trough set ● = Glide bar
● = Installation set "Basic" ● = C-profile

Installation set "Basic" with C-profile

Bottom Clamp attached optionally **inwards** or **outwards**

E6.52.**040**.200.0 ▶ Order example

	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards
.040	68	–	960.40.200
.050	78	–	960.40.200
.062	90	–	960.40.225
.070	98	–	960.40.225
.075	103	–	960.40.225
.087	115	–	960.40.250
.100	128	960.40.175	960.40.250
.125	153	960.40.200	960.40.275
.150	178	960.40.225	960.40.300
.175	203	960.40.250	960.40.325
.200	228	960.40.275	960.40.350
.225	253	960.40.300	960.40.375
.250	278	960.40.325	960.40.400
.275	303	960.40.350	960.40.425
.300	328	960.40.375	960.40.450

Insert for the installation set "Heavy-Duty": **973.50.XXX** instead of (**960.40.XXX**) on the right column "attached outwards"

Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

▶ Chapter 10
▶ Chapter 9
▶ page 8.39

Price index

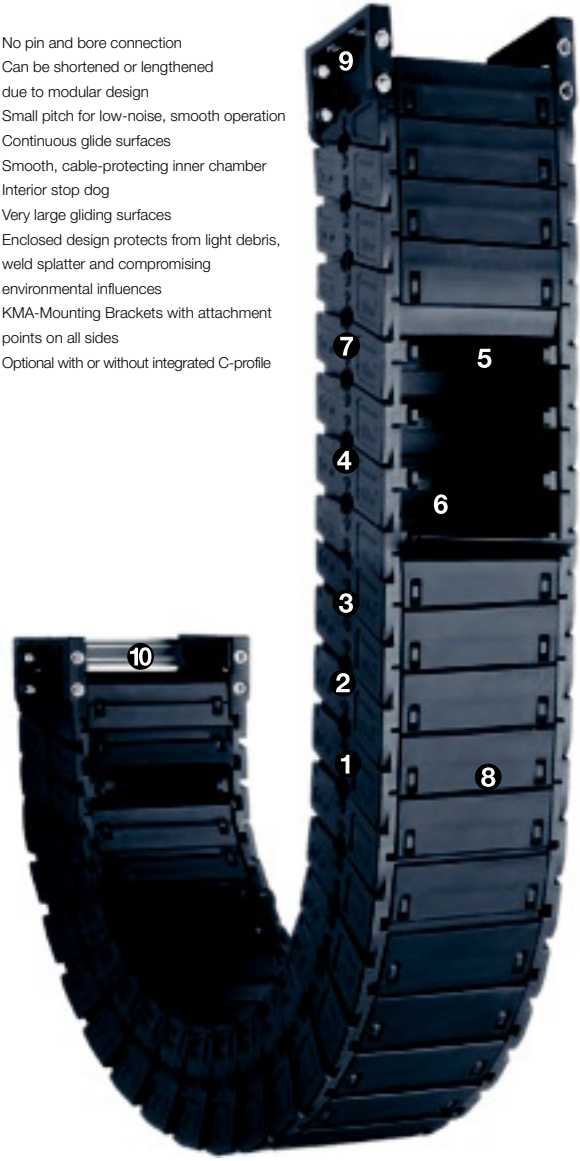
Extremely low noise
Test results upon request

IPA certificate: Class 1, according to standard DIN EN ISO 14644-1 for the E6 system (Series E6.29.060.150.0.CR, v = 0.5 m/s, a = 1.0 m/s²)

LEVEL 1 absorption confirmed by IPA-Fraunhofer-Institut according to SEMI E78-0998 for the E6 standard material

Lever and remove lids

1. No pin and bore connection
2. Can be shortened or lengthened due to modular design
3. Small pitch for low-noise, smooth operation
4. Continuous glide surfaces
5. Smooth, cable-protecting inner chamber
6. Interior stop dog
7. Very large gliding surfaces
8. Enclosed design protects from light debris, weld splatter and compromising environmental influences
9. KMA-Mounting Brackets with attachment points on all sides
10. Optional with or without integrated C-profile



When to use the Series R6.52:

- Protection against dirt and chips
- If a low-noise version is required
- At very high speeds and/or accelerations
- For enlarged thrusts and tensile forces
- For small bending radii
- If less vibration is required
- Minimal abrasion (e.g. cleanroom applications)

When not to use it:

- Limited in side-mounted applications
  ▶ **Series R4.42 System E4.1, page 7.60**

Order example complete e-chain®

Please indicate chain-lengths or number of links **Example: 2 m or 68 links**

2 m **R6.52.100.075.0**	**e-tube**
with 2 separators **R6.52.11** assembled every 2nd link	**Interior separation**
1 set **R6.520.100.12**	**Mounting bracket**

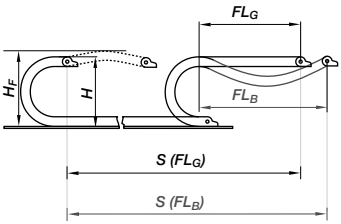
Available from stock. Delivery in 24h or today! (Delivery time means time until shipping of goods)

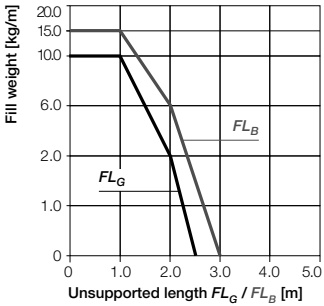
Unsupported length

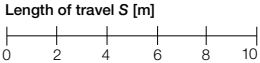
FL_G = with straight upper run

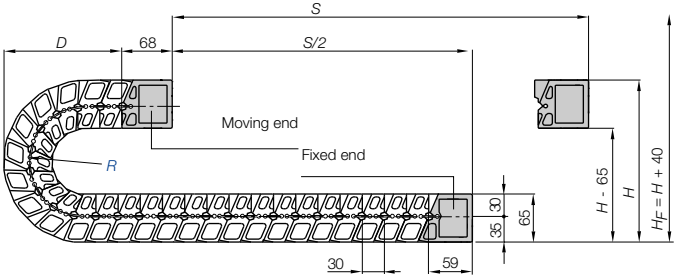
FL_B = with permitted sag

Further information ▶ **Design, page 1.12**









Pitch = 30 mm/link **Links/m** = 34 (1020 mm) **Chain length** = $^{S}/_{2} + K$

R	075	100	150	200	250
H	270	320	420	520	620
D	140	165	215	265	315
K	300	375	535	690	850
H_2	140	140	140	140	140
D_2^{+25}	270	398	768	1138	1508
K_2	300	480	990	1470	1950

If you intend to use this series on long travels, we request you to consult us!

S = Length of travel
R = Bending radius
H = Nominal clearence height
H_F = Required clearence height
H_{RI} = Trough inner height
D = Overlength e-chain® radius in final position
K = $\pi \bullet R$ + "safety"
D_2 = Over length - long travels, gliding
K_2 = *Further add-on
H_2 = *Mounting height

*if the mounting bracket location is set lower

Other installation methods
Vertical, hanging ≤ 50 m
Vertical, standing ≤ 2 m
Side mounted, unsupported
= possible to a limited extent
Unsupported length of upper run
= upon request

Standard

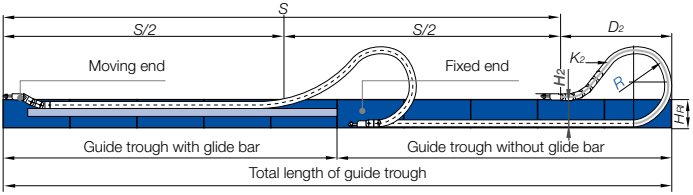
Short travels - unsupported

Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height H_F. Please consult igus® if space is particularly restricted.

The required clearance height:
$H_F = H + 40$ mm
(with 2,0 kg/m fill weight)

Long travel lengths from 6 m to max. 80 m

Chain length = $^{S}/_{2} + K_2$



In case of travels between 4 m and 6 m we recommend a longer unsupported length.

Gliding, long travel applications (max. 80 m)

In this case the e-chain® upper run will be introduced in a guide trough on the lower run. We recommend to realize the engineering of such a plant by our technicians.

Technical Data

Speed / acceleration FL_G	max. 20 [m/s] / max. 200 [m/s²]
Speed / acceleration FL_B	max. 3 [m/s] / max. 6 [m/s²]
Gliding speed / acceleration (maximum)	upon request
permitted temperature °C	–40° up to +70° C
Flammability class	VDE 0304 IIC UL94 HB

Details of material properties
▶ **page 1.38**

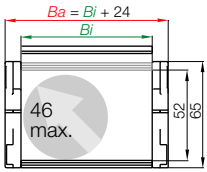
▶ page 8.39

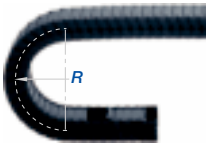
For support of the lower run - **Support Tray tool kit** available ▶ page 9.70

System E6
Inner height: 52 mm

Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

E6 | e-tube | **Series R6.52** | **Product Range**





Serie R6.52 e-tube, lids can be removed along inner and outer radius

Part No.	*Bi* [mm]	*Ba* [mm]	*R* [mm]	Bending radii					Weight [kg/m]
R6.52.040.□.0	40	64	075	100	150	200	250		≈ 1,78
R6.52.050.□.0	50	74	075	100	150	200	250		≈ 1,89
R6.52.062.□.0	62	86	075	100	150	200	250		≈ 1,97
R6.52.070.□.0	70	94	075	100	150	200	250		≈ 2,07
R6.52.075.□.0	75	99	075	100	150	200	250		≈ 2,12
R6.52.087.□.0	87	111	075	100	150	200	250		≈ 2,21
R6.52.100.□.0	100	124	075	100	150	200	250		≈ 2,35
R6.52.125.□.0	125	149	075	100	150	200	250		≈ 2,57
R6.52.150.□.0	150	174	075	100	150	200	250		≈ 2,80
R6.52.175.□.0	175	199	075	100	150	200	250		≈ 3,03
R6.52.200.□.0	200	224	075	100	150	200	250		≈ 3,25
R6.52.225.□.0	225	249	075	100	150	200	250		≈ 3,46
R6.52.250.□.0	250	274	075	100	150	200	250		≈ 3,68
R6.52.275.□.0	275	299	075	100	150	200	250		≈ 3,92
R6.52.300.□.0	300	324	075	100	150	200	250		≈ 4,15

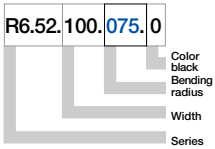
The widths **040 / 062 / 062 / 070 / 200 / 225 / 250 / 275 / 300** are available upon request.

Time of delivery approx. 6-8 weeks after order.

Supplement Part No. with required radius. Example: R6.52.100.075.0

0 = standard color, other colors ▶ page 1.39 · Pitch = 30 mm/link - Links/m = 34

Part No. structure



E6 | e-tube | **Series R6.52** | **Accessories** | Interior Separation

Trennsteg	
unassembled	R6.52.01
assembled	R6.52.11

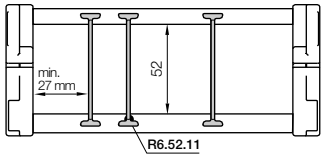
Option 1: Vertical separators

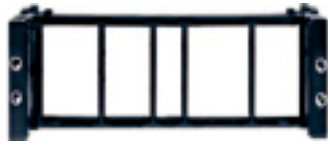
Vertical separators are used if a vertical subdivision of the e-chain® interior is required -

By standard vertical separators are assembled every other e-chain® link!

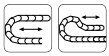
- **The notches on this seperator marks the sticking side for a stuck mounting on the lid**
- **Standard** subdivision with **vertical separator R6.52.11**

Separator, R6.52.01 (side view)





igus® e-chainsystems®
Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222
igus® GmbH
51147 Cologne
Internet: www.igus.eu
E-mail: info@igus.de

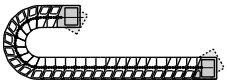


* KMA = Polymer Metal Mounting Bracket

Option KMA* - pivoting

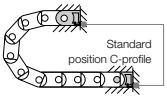
- Option - integrated C-profile strain relief device with chainfix clip or strain relief tiewrap plates
- C-profile mountable in the inner or outer radius of the e-chain®
- Bolted connection outside of chain cross-section
- Recommended for unsupported and gliding applications
- Confined installation conditions
- Universal mountable with attachment capability on all sides

Moving end
R6.520...2



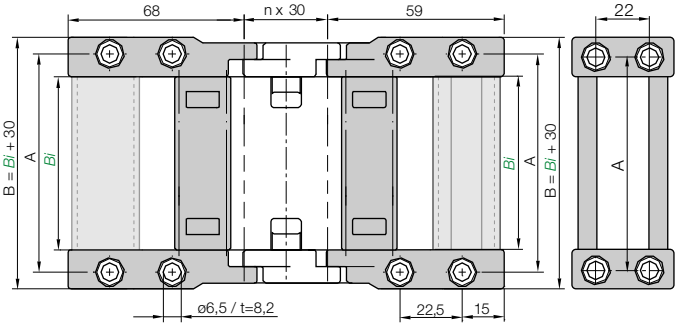
R6.520...1
Fixed end

The attachment variants arising automatically by the choice of the KMA mounting bracket



R6.520...2
Fixed end

R6.520...1
Moving end

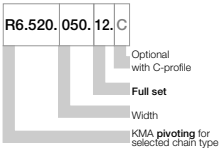


Dimensions and order configurations

For e-chain®	Part No. full set optional with C-profile	Dim. A [mm]	Dim. B [mm]
R6.52.040. ▶	R6.520.040.12.C	56	70
R6.52.050. ▶	R6.520.050.12.C	66	80
R6.52.062. ▶	R6.520.062.12.C	78	92
R6.52.070. ▶	R6.520.070.12.C	86	100
R6.52.075. ▶	R6.520.075.12.C	91	105
R6.52.087. ▶	R6.520.087.12.C	103	117
R6.52.100. ▶	R6.520.100.12.C	116	130
R6.52.125. ▶	R6.520.125.12.C	141	155

For e-chain®	Part No. full set optional with C-profile	Dim. A [mm]	Dim. B [mm]
R6.52.150. ▶	R6.520.150.12.C	166	180
R6.52.175. ▶	R6.520.175.12.C	191	205
R6.52.200. ▶	R6.520.200.12.C	216	230
R6.52.225. ▶	R6.520.225.12.C	241	255
R6.52.250. ▶	R6.520.250.12.C	266	280
R6.52.275. ▶	R6.520.275.12.C	291	300
R6.52.300. ▶	R6.520.300.12.C	316	330

Part No. structure



Full set, for both ends:
R6.520. 050. 12. C (with C-profile)

Single-part order:
R6.520. 050. 1. C (with C-profile)
Fixed end mounting bracket
R6.520. 050. 2. C (with C-profile)
Moving end mounting bracket

E6 | e-tube | **Series R6.52** | **Accessories** | Strain Relief

Strain relief tiewrap plate can be fixed on the last crossbar, alternatively with C-profile. Tiewrap plate as individual part - **Part No. 30XX.ZB**. Further strain relief elements ▶ **chapter 10**

Other strain relief elements - optional ▶ chapter 10

Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

▶ Chapter 10
Trough E6.52 ▶ page 8.71
▶ page 8.39

Aluminum "SuperTrough" for Series R6.52 ▶ page 8.71

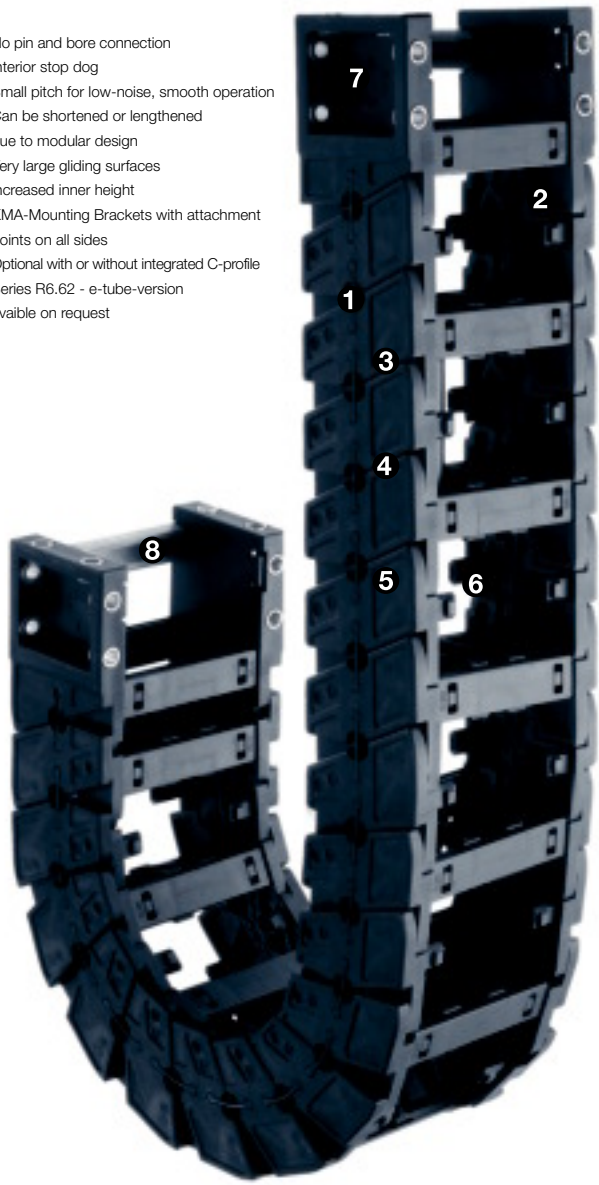
Price index

Extremely low noise
Test results upon request

IPA certificate: Class 1, according to standard DIN EN ISO 14644-1 for the E6 system (Series E6.29.060.150.0.CR, v = 0.5 m/s, a = 1.0 m/s²)

LEVEL 1 absorption confirmed by IPA-Fraunhofer-Institut according to SEMI E78-0998 for the E6 standard material

1. No pin and bore connection
2. Interior stop dog
3. Small pitch for low-noise, smooth operation
4. Can be shortened or lengthened due to modular design
5. Very large gliding surfaces
6. Increased inner height
7. KMA-Mounting Brackets with attachment points on all sides
8. Optional with or without integrated C-profile
9. Series R6.62 - e-tube-version avaible on request



To close, push and click shut

When to use the Series E6.62:

- If a low-noise version is required
- At very high speeds and/or accelerations
- For enlarged thrusts and tensile forces
- For small bending radii
- If less vibration is required
- Minimal abrasion (e.g. cleanroom applications)

When not to use it:

- Limited in side-mounted applications
  ▶ **Series E4.56 System E4.1, page 7.78**
- No use with RBR (reverse bending radius)
  ▶ **Series E4.56 System E4.1, page 7.78**
- No use with high additional loads
  ▶ **Series E4.56 System E4.1, page 7.78**
- No use in dirty environments
  ▶ **Series R4.56 System E4.1, page 7.78**

Order example complete e-chain®

Please indicate chain-lengths or number of links **Example: 3 m or 60 links**

3 m **E6.62.10.200.0**	**e-chain®**
with 2 separators **E6.62.11** assembled every 2nd link	**Interior separation**
1 set **E6.620.10.12C**	**Mounting bracket**

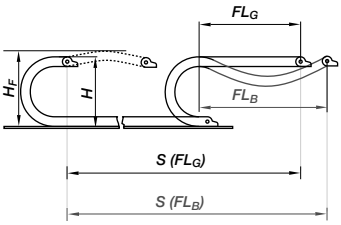
Available from stock. Delivery in 24h or today! (Delivery time means time until shipping of goods)

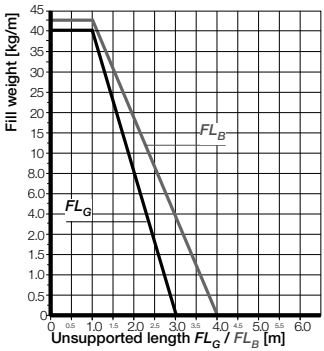
Unsupported length

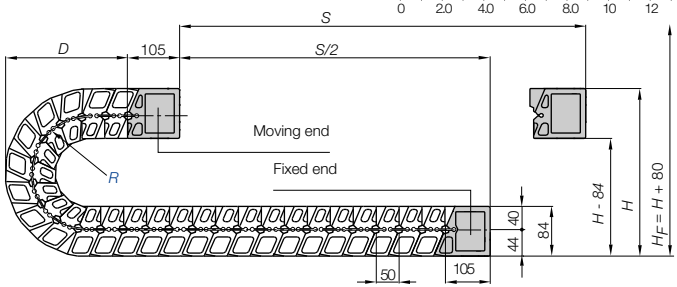
FL_G = with straight upper run

FL_B = with permitted sag

Further information ▶ **Design, page 1.12**







Pitch = 50 mm/link **Links/m** = 20 (1000 mm) **Chain length** = $^{S}/_{2} + K$

R	115	150	200	250	300	350
H	388	458	558	658	758	858
D	209	244	294	344	394	444
K	465	575	730	890	1045	1200
H_2	140	140	140	140	140	140
D_2^{+25}	463	498	1012	1314	1616	1918
K_2	550	650	1300	1700	2150	2600

If you intend to use this series on long travels, we request you to consult us!

S = Length of travel

R = Bending radius

H = Nominal clearence height

H_F = Required clearence height

H_{RI} = Trough inner height

D = Overlength e-chain® radius in final position

K = $\pi \bullet R$ + "safety"

D_2 = Over length - long travels, gliding

K_2 = *Further add-on

H_2 = *Mounting height

*if the mounting bracket location is set lower

Other installation methods
Vertical, hanging ≤ 60 m
Vertical, standing ≤ 3 m
Side mounted, unsupported
= possible to a limited extent
Unsupported length of upper run
= upon request

Standard

Short travels - unsupported

Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height H_F. Please consult igus® if space is particularly restricted.

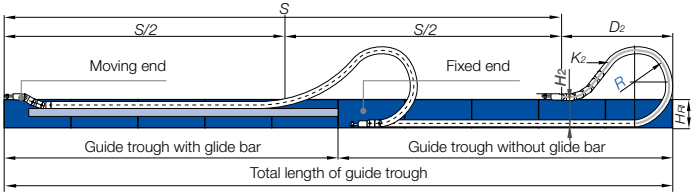
The required clearance height:

$H_F = H + 80$ mm

(with 2,0 kg/m fill weight)

Long travel lengths from 10 m to max. 100 m

Chain length = $^{S}/_{2} + K_2$



In case of travels between 6,0 m and 10 m we recommend a longer unsupported length.

Gliding, long travel applications (max. 100 m)

In this case the e-chain® upper run will be introduced in a guide trough on the lower run. We recommend to realize the engineering of such a plant by our technicians.

Technical Data

Speed / acceleration FL_G	max. 20 [m/s] / max. 200 [m/s²]
Speed / acceleration FL_B	max. 3 [m/s] / max. 6 [m/s²]
Gliding speed / acceleration (maximum)	upon request
permitted temperature °C	–40° up to +70° C
Flammability class	VDE 0304 IIC UL94 HB

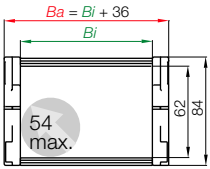
Details of material properties ▶ **page 1.38**

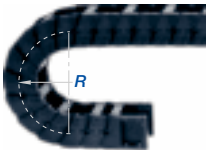
For support of the lower run - **Support Tray tool kit** available ▶ page 9.70

System E6
Inner height: 62 mm

Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

▶ page 8.39





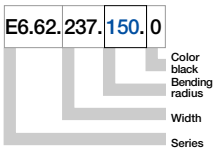
Series E6.62 - with crossbars every 2nd link

Part No.	Bi [mm]	Ba [mm]	R [mm]	Bending radii						Weight [kg/m]
E6.62.05. ☐.0	50	86	115	150	200	250	300	350		≈ 3,22
E6.62.06. ☐.0	68	104	115	150	200	250	300	350		≈ 3,28
E6.62.07. ☐.0	75	111	115	150	200	250	300	350		≈ 3,31
E6.62.087. ☐.0	87	123	115	150	200	250	300	350		≈ 3,35
E6.62.10. ☐.0	100	136	115	150	200	250	300	350		≈ 3,39
E6.62.11. ☐.0	108	144	115	150	200	250	300	350		≈ 3,42
E6.62.112. ☐.0	112	148	115	150	200	250	300	350		≈ 3,43
E6.62.12. ☐.0	125	161	115	150	200	250	300	350		≈ 3,48
E6.62.137. ☐.0	137	173	115	150	200	250	300	350		≈ 3,52
E6.62.15. ☐.0	150	186	115	150	200	250	300	350		≈ 3,57
E6.62.162. ☐.0	162	198	115	150	200	250	300	350		≈ 3,61
E6.62.17. ☐.0	168	204	115	150	200	250	300	350		≈ 3,63
E6.62.18. ☐.0	175	211	115	150	200	250	300	350		≈ 3,65
E6.62.187. ☐.0	187	223	115	150	200	250	300	350		≈ 3,69
E6.62.20. ☐.0	200	236	115	150	200	250	300	350		≈ 3,74
E6.62.212. ☐.0	212	248	115	150	200	250	300	350		≈ 3,78
E6.62.23. ☐.0	225	261	115	150	200	250	300	350		≈ 3,83
E6.62.237. ☐.0	237	273	115	150	200	250	300	350		≈ 3,87
E6.62.25. ☐.0	250	286	115	150	200	250	300	350		≈ 3,91
E6.62.262. ☐.0	262	298	115	150	200	250	300	350		≈ 3,95
E6.62.28. ☐.0	275	311	115	150	200	250	300	350		≈ 4,00
E6.62.29. ☐.0	287	323	115	150	200	250	300	350		≈ 4,04
E6.62.30. ☐.0	300	336	115	150	200	250	300	350		≈ 4,09
E6.62.312. ☐.0	312	348	115	150	200	250	300	350		≈ 4,13
E6.62.325. ☐.0	325	361	115	150	200	250	300	350		≈ 4,17
E6.62.337. ☐.0	337	373	115	150	200	250	300	350		≈ 4,21
E6.62.350. ☐.0	350	386	115	150	200	250	300	350		≈ 4,26
E6.62.362. ☐.0	362	398	115	150	200	250	300	350		≈ 4,30
E6.62.375. ☐.0	375	411	115	150	200	250	300	350		≈ 4,35
E6.62.387. ☐.0	387	423	115	150	200	250	300	350		≈ 4,39
E6.62.400. ☐.0	400	436	115	150	200	250	300	350		≈ 4,43

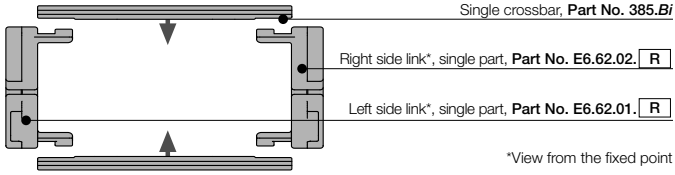
Supplement Part No. with required radius. Example: E6.62.237.150.0

0 = standard color, other colors ▶ page 1.39 · Pitch = 50 mm/link - Links/m = 20

Part No. structure



Part No. e-chain® - links, single parts



Polymer spring as single part - Part No. E6.62.340

igus® e-chainsystems®
Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222
igus® GmbH
51147 Cologne
Internet: www.igus.eu
E-mail: info@igus.de

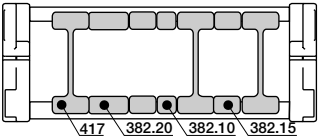
Option 1: Vertical separators and spacers

Vertical separators are used if a vertical subdivision of the e-chain® interior is required -

By standard vertical separators are assembled every other e-chain® link

- **Standard separator 417** offers safe stability due to its wide base design, even when used with large diameter cables or hoses
- If a broad distance shall be kept between the separators or they have to be fixed in their position, e.g. in case of side mounted applications, **Spacers 382.10, 382.15** and **382.20** can be used

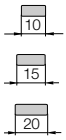
Instruction: The available interior height is reduced by 2 mm per spacer, and can hence amount to 4 mm when spacers are fitted on both sides. To avoid this, the parts can also be installed from the outside on the opening crossbar. (no long travels)



Vertical separator	
unassembled	**407**
assembled	**417**

Standard

Spacer*	
unassembled	**381.10**
assembled	**382.10**
unassembled	**381.15**
assembled	**382.15**
unassembled	**381.20**
assembled	**382.20**

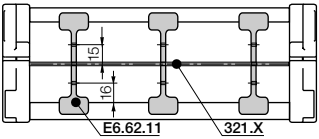


* for side-mounted applications

Option 2: Full-width shelves

For applications involving many thin cables with similar or identical diameters

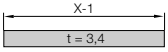
- **Vertical separator, slotted E6.62.11** - for applications with **full-width shelf 321.X**



Vertical separator, slotted	
unassembled	**E6.62.01**
assembled	**E6.62.11**

Width X [mm]	Part No. unassem.	Part No. assem.	Width X [mm]	Part No. unassem.	Part No. assem.	Width X [mm]	Part No. unassem.	Part No. assem.	Width X [mm]	Part No. unassem.	Part No. assem.
050	**320.50**	**321.50**	108	**320.108**	**321.108**	162	**320.162**	**321.162**	212	**320.212**	**321.212**
068	**320.68**	**321.68**	112	**320.112**	**321.112**	168	**320.168**	**321.168**	225	**320.225**	**321.225**
075	**320.75**	**321.75**	125	**320.125**	**321.125**	175	**320.175**	**321.175**	237	**320.237**	**321.237**
087	**320.87**	**321.87**	137	**320.137**	**321.137**	187	**320.187**	**321.187**	250	**320.250**	**321.250**
100	**320.100**	**321.100**	150	**320.150**	**321.150**	200	**320.200**	**321.200**			

Full-width shelf

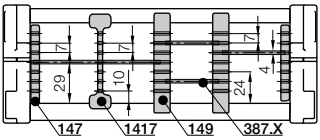


Option 3: Shelves

Shelves can be arranged elevator-shifted with different bottoms within the entire e-chain® width

They can be arranged at 7 different heights (in 7 mm increments)

- **Shelf 387.X** can be combined with **middle plate 149** and **side plate 147**
  - ▶ **Design, chapter 1 for layout recommendations.**
- **Slotted separators 1417** are used for complex subdivisions.



Middle plate	
unassembled	**148**
assembled	**149**

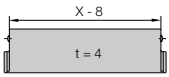
Side plate	
unassembled	**146**
assembled	**147**

Slotted separator**	
unassembled	**1407**
assembled	**1417**

**retrofit of an existing interior shelving not possible without disassembling of the parts

Width X [mm]	Part No. unassembled	Part No. assembled	Width X [mm]	Part No. unassembled	Part No. assembled
018	**386.18**	**387.18**	075	**386.75**	**387.75**
023	**386.23**	**387.23**	087	**386.87**	**387.87**
025	**386.25**	**387.25**	100	**386.100**	**387.100**
028	**386.28**	**387.28**	108	**386.108**	**387.108**
033	**386.33**	**387.33**	125	**386.125**	**387.125**
043	**386.43**	**387.43**	150	**386.150**	**387.150**
050	**386.50**	**387.50**	175	**386.175**	**387.175**
054	**386.54**	**387.54**	200	**386.200**	**387.200**
062	**386.62**	**387.62**	208	**386.208**	**387.208**

Shelf



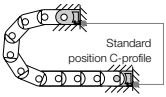
System E6
Inner height: 62 mm

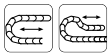
Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

▶ page 8.39

E6 | e-chain® | **Series R6.62** | **Accessories** | Mounting Brackets KMA

The attachment variants arising automatically by the choice of the KMA mounting bracket



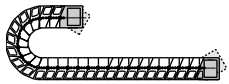


* KMA = Polymer Metal Mounting Bracket

Option KMA* - pivoting

- Option - integrated C-profile strain relief device with chainfix clip or strain relief tiewrap plates
- C-profile mountable in the inner or outer radius of the e-chain®
- Bolted connection outside of chain cross-section
- Recommended for unsupported and gliding applications
- Confined installation conditions
- Universal mountable with attachment capability on all sides

Moving end
E6.620...2



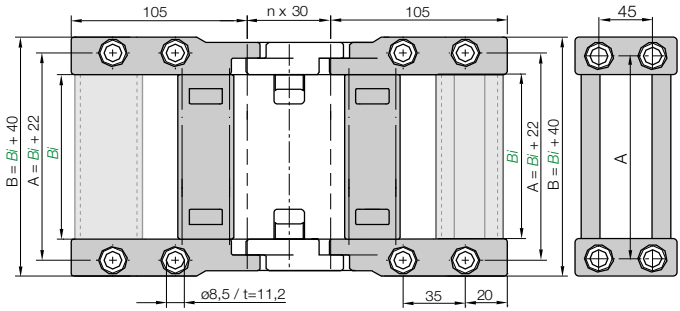
E6.620...1
Fixed end

Dimensions and order configurations

Adapters for gliding applications available upon request

E6.620...2
Moving end

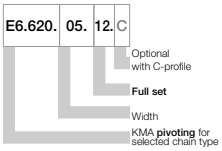
E6.620...1
Fixed end



For e-chain®	Part No. full set optional with C-profile		*Bi* [mm]
E6.62.05. ▶	E6.620.05.12.	C	50
E6.62.06. ▶	E6.620.06.12.	C	68
E6.62.07. ▶	E6.620.07.12.	C	75
E6.62.087. ▶	E6.620.087.12.	C	087
E6.62.10. ▶	E6.620.10.12.	C	100
E6.62.11. ▶	E6.620.11.12.	C	108
E6.62.112. ▶	E6.620 .112.12.	C	112
E6.62.12. ▶	E6.620.12.12.	C	125
E6.62.137. ▶	E6.620.137.12.	C	137
E6.62.15. ▶	E6.620.15.12.	C	150
E6.62.162. ▶	E6.620.162.12.	C	162
E6.62.17. ▶	E6.620.17.12.	C	168
E6.62.18. ▶	E6.620.18.12.	C	175
E6.62.187 ▶	E6.620.187.12.	C	187
E6.62.20. ▶	E6.620.20.12.	C	200
E6.62.212. ▶	E6.620.212.12.	C	212

For e-chain®	Part No. full set optional with C-profile		*Bi* [mm]
E6.62.23. ▶	E6.620.23.12.	C	225
E6.62.237. ▶	E6.620.237.12.	C	237
E6.62.25. ▶	E6.620.25.12.	C	250
E6.62.262. ▶	E6.620.262.12.	C	262
E6.62.28. ▶	E6.620.28.12.	C	275
E6.62.29. ▶	E6.620.29.12.	C	287
E6.62.30. ▶	E6.620.30.12.	C	300
E6.62.312. ▶	E6.620.312.12.	C	312
E6.62.325. ▶	E6.620.325.12.	C	325
E6.62.337. ▶	E6.620.337.12.	C	337
E6.62.350. ▶	E6.620.350.12.	C	350
E6.62.362. ▶	E6.620.362.12.	C	362
E6.62.375. ▶	E6.620.375.12.	C	375
E6.62.387. ▶	E6.620.387.12.	C	387
E6.62.400. ▶	E6.620.400.12.	C	400

Part No. structure



Full set, for both ends:
E6.620. 05. 12.C (with C-profile)

Single-part order:
E6.620. 05. 1. C (with C-profile)
Fixed end mounting bracket
E6.620. 05. 2. C (with C-profile)
Moving end mounting bracket

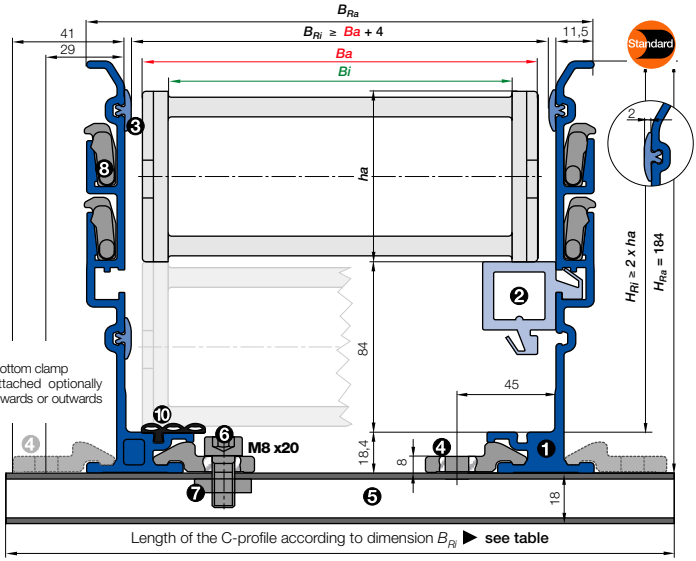
E6 | e-tube | **Series E6.62** | **Accessories** | Strain Relief

Strain relief tiewrap plate can be fixed on the last crossbar, alternatively with C-profile. Tiewrap plate as individual part - **Part No. 30XX.ZB**. Further strain relief elements ▶ **chapter 10**

Other strain relief elements - optional ▶ chapter 10

Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222
igus® GmbH
51147 Cologne
Internet: www.igus.eu
E-mail: info@igus.de

Part No. 974.30.SL | Nr. 974.31.SL | Trough height: 184 mm
Aluminum "SuperTrough" | Basic Version



Ba = Outer width e-chains® / e-tube
Bi = Inner width e-chains® / e-tube
ha = Outer height e-chains® / e-tube
H_{Ri} = Inner trough height
H_{Ra} = Outer trough height
B_{Ri} = Inner trough width ▶ depends on dim. *Ba*
B_{Ra} = Outer trough width
n_{Mon} = Number of installation sets (left/right)
n_{Ri} = Number of trough sets (left/right)

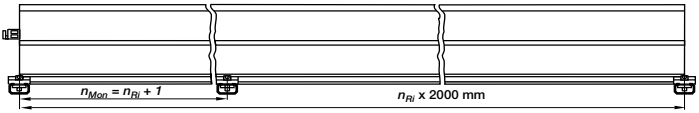
! $H_{Ri} \geq 2 \bullet ha$
$B_{Ri} \geq Ba + 4$

● = Guide trough set ● = Glide bar
● = Installation set "Basic" ● = C-profile

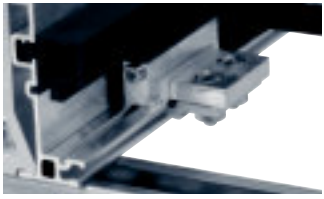
● **Components, trough "Basic":** ❶ Trough side parts, aluminum, 2 m ❷ Glide bar, plastic, 2 m ❸ Glide strips, plastic, 2 m (without glide strips on request) ❿ Optional: Silencer profile, rubber ● **Components, installation set "Basic":** ❹ Bottom clamp, aluminum ❺ C-profile, steel galvanized ❻ Screw M8 x20 ❼ Sliding nut M8 ❽ Interface connector, plastic

Order example: Length of travel 30 m - Center mounted for Series E6.62.087.200.0 with B_{Ri} = 127

Guide trough set (set of 2 trough side parts, incl. glide strips) **without** glide bar		
Order text: 16 m guide trough without glide bar (8 x 2 m sections)	Part No.	974.30.SL
Guide trough set (set of 2 trough side parts, incl. glide strips) **with** glide bar		
Order text: 16 m guide trough with glide bar (8 x 2 m sections)	Part No.	974.31.SL
Installation set "Basic" complete **(guide trough-sets + 1)**		
Order text: 17 installation sets "Basic"	Part No.	960.50.175
Module for the fixed end		
Order text: 1 set	Part No.	974.80
Option: For an additional noise dampening with silencer profile, please add Index A - Example:	Part No.	974.30.SLA



Principle sketch: Number of installation sets to be installed = Number of trough sections + 1



A quick fix for mounting the stationary end of an e-chain®

With this module for the fixed end, fast and easy mounting onto the Aluminum "SuperTrough" is now possible without any drilling. Fast mounting of the e-chain® by clamping onto the aluminum trough ● Quick relocation of the stationary end ● No drilling necessary ▶ page 9.16

Installation set "Basic" with C-profile

Bottom Clamp attached optionally **inwards** or **outwards**

E6.62.**05**.200.0 ▶ Order example

	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards
.05	90	–	960.50.225
.06	108	–	960.50.225
.07	115	–	960.50.250
.087	127	960.50.175	960.50.250
.10	140	960.50.200	960.50.275
.11	148	960.50.200	960.50.275
.112	152	960.50.200	960.50.275
.12	165	960.50.225	960.50.300
.137	177	960.50.225	960.50.300
.15	190	960.50.250	960.50.325
.162	202	960.50.250	960.50.325
.17	208	960.50.275	960.50.325
.18	215	960.50.275	960.50.350
.187	227	960.50.275	960.50.350
.20	240	960.50.300	960.50.375
.212	252	960.50.300	960.50.375
.23	265	960.50.325	960.50.400
.237	277	960.50.325	960.50.400
.25	290	960.50.350	960.50.425
.262	302	960.50.350	960.50.425
.28	315	960.50.375	960.50.450
.29	327	960.50.375	960.50.450
.30	340	960.50.400	960.50.475
.312	352	960.50.400	960.50.475
.325	365	960.50.425	960.50.500
.337	377	960.50.425	960.50.500
.350	390	960.50.450	960.50.525
.362	402	960.50.450	960.50.525
.375	415	960.50.475	960.50.550
.387	427	960.50.475	960.50.550
.400	440	960.50.500	960.50.575

Insert for the installation set "Heavy-Duty": **974.50.XXX** instead of (**960.50.XXX**) on the right column "attached outwards"

Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

▶ Chapter 10
▶ Chapter 9
▶ page 8.39

Price index

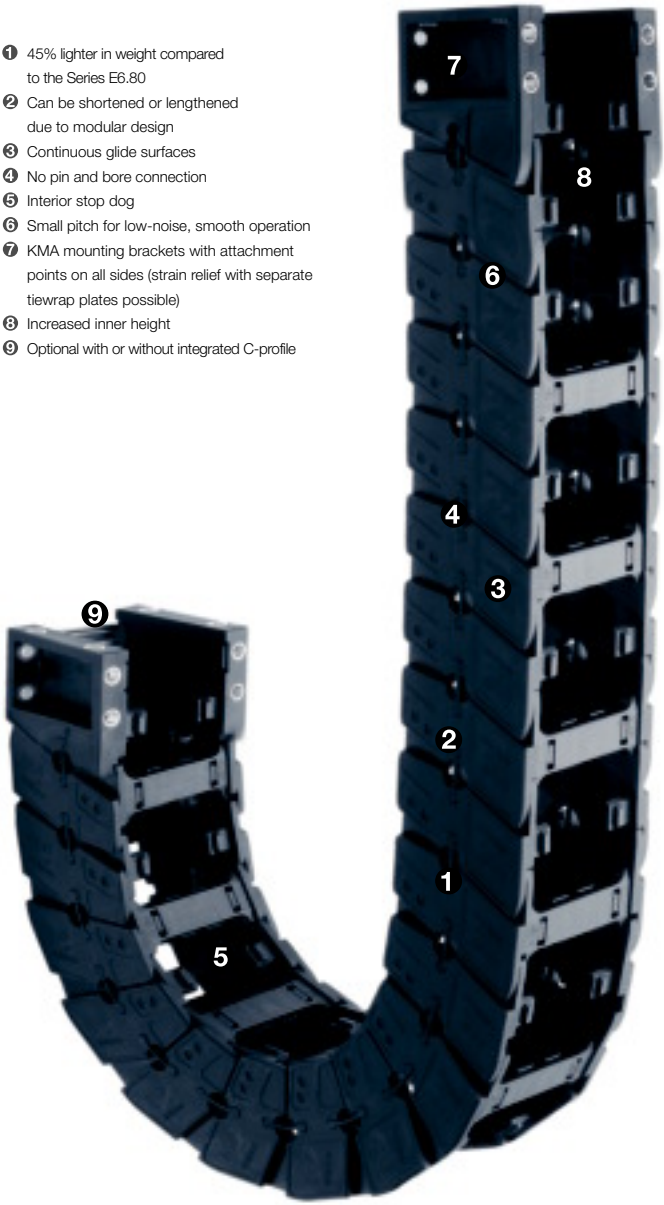
Extremely low noise
Test results upon request

IPA certificate: Class 1, according to standard DIN EN ISO 14644-1 for the E6 system (Series E6.29.060.150.0.CR, v = 0.5 m/s, a = 1.0 m/s²)

LEVEL 1 absorption confirmed by IPA-Fraunhofer-Institut according to SEMI E78-0998 for the E6 standard material

1. 45% lighter in weight compared to the Series E6.80
2. Can be shortened or lengthened due to modular design
3. Continuous glide surfaces
4. No pin and bore connection
5. Interior stop dog
6. Small pitch for low-noise, smooth operation
7. KMA mounting brackets with attachment points on all sides (strain relief with separate tiewrap plates possible)
8. Increased inner height
9. Optional with or without integrated C-profile

To close, push and click shut



When to use the Series E6.80L:

- If a low-noise version is required
- At very high speeds and/or accelerations
- For enlarged thrusts and tensile forces
- For small bending radii
- If less vibration is required
- Minimal abrasion (e.g. cleanroom applications)

When not to use it:

- Limited in side-mounted applications
  ▶ **Series 15050 System E4/light, page 7.216**
- No use with RBR (reverse bending radius)
  ▶ **Series 15050 System E4/light, page 7.216**
- No use with high additional loads
  ▶ **Series 15050 System E4/light, page 7.216**

Order example complete e-chain®

Please indicate chain-lengths or number of links **Example: 5 m or 80 links**

5 m **E6.80L.15.175.0**	**e-chain®**
with 2 separators **511** assembled every 2nd link	**Interior separation**
1 set **E6.800L.15.12**	**Mounting bracket**

Available from stock. Delivery in 24h or today! (Delivery time means time until shipping of goods)

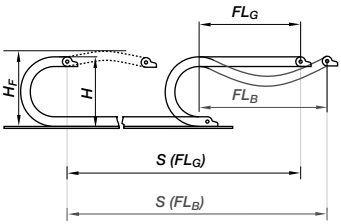
Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

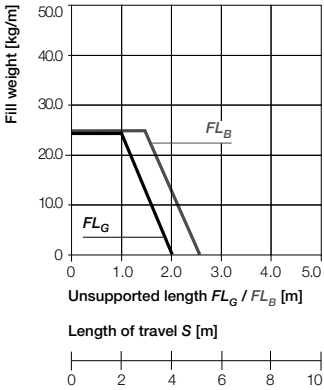
Unsupported length

FL_G = with straight upper run

FL_B = with permitted sag

Further information ▶ **Design, page 1.12**





S = Length of travel

R = Bending radius

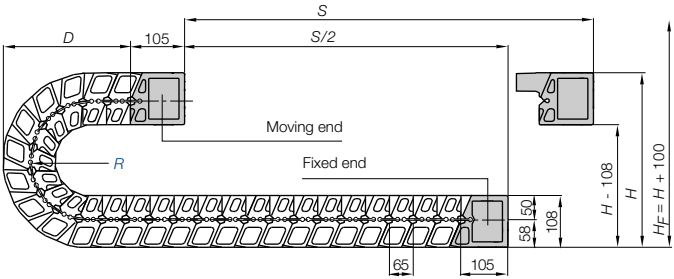
H = Nominal clearence height

H_F = Required clearence height

D = Overlength e-chain® radius in final position

K = π • R + "safety"

Other installation methods
Vertical, hanging ≤ 60 m
Vertical, standing ≤ 4 m
Side mounted, unsupported
= possible to a limited extent
Unsupported length of upper run
= upon request



Pitch = 65 mm/link **Links/m =** 16 (1040 mm) **Chain length =** $^{S}/_{2} + K$

R	**175**
H	566
D	298
K	680

If you intend to use this series on long travels, we request you to consult us!

Standard

Short travels - unsupported

Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height H_F. Please consult igus® if space is particularly restricted.

The required clearance height:

H_F = H + 100 mm

(with 5,0 kg/m fill weight)

Technical Data

Speed / acceleration FL_G	max. 20 [m/s] / max. 200 [m/s²]
Speed / acceleration FL_B	max. 3 [m/s] / max. 6 [m/s²]
Gliding speed / acceleration (maximum)	upon request
Material - permitted temperature °C	–40° up to +70° C
Flammability class	VDE 0304 IIC UL94 HB

Details of material properties

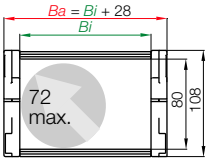
▶ **page 1.38**

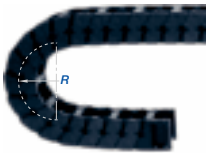
▶ page 8.39

For support of the lower run - **Support Tray tool kit** available ▶ page 9.70

igus® e-chainsystems®
Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222
igus® GmbH
51147 Cologne
Internet: www.igus.eu
E-mail: info@igus.de

E6 | e-chain® | Series E6.80L | Product Range





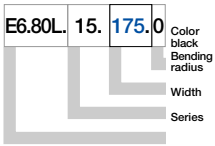
Series E6.80L - with crossbars every 2nd link

Part No.	Bi [mm]	Ba [mm]	R [mm]	Bending radii	Weight [kg/m]
E6.80L.08.□.0	87	115	175		≈ 3,28
E6.80L.10.□.0	100	128	175		≈ 3,33
E6.80L.11.□.0	112	140	175		≈ 3,38
E6.80L.12.□.0	125	153	175		≈ 3,43
E6.80L.13.□.0	137	165	175		≈ 3,49
E6.80L.15.□.0	150	178	175		≈ 3,55
E6.80L.16.□.0	162	190	175		≈ 3,61
E6.80L.17.□.0	175	203	175		≈ 3,67
E6.80L.18.□.0	187	215	175		≈ 3,73
E6.80L.20.□.0	200	228	175		≈ 3,79
E6.80L.21.□.0	212	240	175		≈ 3,85
E6.80L.22.□.0	225	253	175		≈ 3,91
E6.80L.23.□.0	237	265	175		≈ 3,97
E6.80L.25.□.0	250	278	175		≈ 4,02
E6.80L.26.□.0	262	290	175		≈ 4,09
E6.80L.27.□.0	275	303	175		≈ 4,14
E6.80L.28.□.0	287	315	175		≈ 4,20
E6.80L.30.□.0	300	328	175		≈ 4,26
E6.80L.31.□.0	312	340	175		≈ 4,32
E6.80L.32.□.0	325	353	175		≈ 4,38
E6.80L.33.□.0	337	365	175		≈ 4,44
E6.80L.35.□.0	350	378	175		≈ 4,50
E6.80L.36.□.0	362	390	175		≈ 4,56
E6.80L.37.□.0	375	403	175		≈ 4,62
E6.80L.38.□.0	387	415	175		≈ 4,68
E6.80L.40.□.0	400	428	175		≈ 4,74
E6.80L.41.□.0	412	440	175		≈ 4,80
E6.80L.42.□.0	425	453	175		≈ 4,85
E6.80L.43.□.0	437	465	175		≈ 4,92
E6.80L.45.□.0	450	478	175		≈ 5,03
E6.80L.46.□.0	462	490	175		≈ 5,09
E6.80L.47.□.0	475	503	175		≈ 5,15
E6.80L.48.□.0	487	515	175		≈ 5,21
E6.80L.50.□.0	500	528	175		≈ 5,27
E6.80L.51.□.0	512	540	175		≈ 5,33
E6.80L.52.□.0	525	553	175		≈ 5,39
E6.80L.53.□.0	537	565	175		≈ 5,45
E6.80L.55.□.0	550	578	175		≈ 5,51

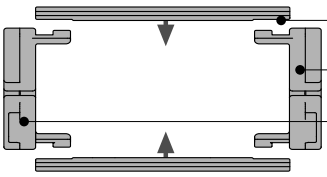
Supplement Part No. with required radius. Example: E6.80L.15.175.0

0 = standard color, other colors ▶ page 1.39 · Pitch = 65 mm/link - Links/m = 16

Part No. structure



Part No. e-chain® - links, single parts



Single crossbar, **Part No. 450.*Bi***

Right side link*, single part, **Part No. E6.80L.02.R**

Left side link*, single part, **Part No. E6.80L.01.R**

*View from the fixed point

Polymer spring as single part - Part No. E6.80.350

3D-CAD files, pdf-downloads and many online features ▶ www.igus.de/en/e6.80l

Option 1: Vertical separators and spacers

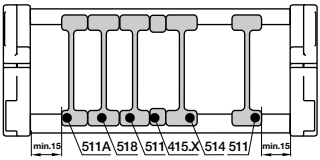
Vertical Separators are used if a vertical subdivision of the e-chain® interior is required - By standard vertical separators are assembled every other e-chain® link

- **Standard separator 511** offers safe stability due to its wide base design, even when used with large diameter cables or hoses

Also available:

- **Locking separator 514** with increased retention force for extreme applications
- The **locking separator 518** is used in applications with very high relative humidity, such as composting plants. The lateral cam serves to ensure the uniform alignment of the vertical separator
  (in the case of uneven alignment, the e-chain® can only be opened by breaking the vertical separator)
- If a broad distance shall be kept between the separators or they have to be fixed in their position, e.g. in case of side mounted applications, **spacers 415.10, 415.15, 415.20, 415.30** and **415.40** can be used. Here a great number of possible distances between the vertical separators can be achieved by combining spacers of different widths with the **vertical separator, asymmetrical 511A**

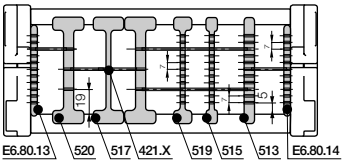
Instruction: The available interior height is reduced by 2 mm per spacer, and can hence amount to 4 mm when spacers are fitted on both sides. To avoid this, the parts can also be installed from the outside on the opening crossbar. (no long travels)

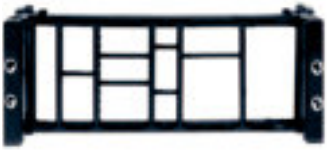


Option 2: Shelves

For applications involving many cables with similar or identical diameters. Shelves of various widths can be arranged at 11 different heights (in 7 mm increments)

- **Shelf 421.X** can be combined with **Locking vertical separator 521, Locking separator, slotted 517, middle plate 1313, slotted separator 515** and **slotted separator, open 519**
- **Slotted separators 515** are used for complex subdivisions. When **slotted separators, open 519** and **Locking vertical separator 521** are installed only the middle slot can be used for shelves.





Width X [mm]	Part No. unassembled	Part No. assembled
018	**420.18**	**421.18**
023	**420.23**	**421.23**
025	**420.25**	**421.25**
028	**420.28**	**421.28**
033	**420.33**	**421.33**
043	**420.43**	**421.43**
050	**420.50**	**421.50**
062	**420.62**	**421.62**

Width X [mm]	Part No. unassembled	Part No. assembled
075	**420.75**	**421.075**
088	**420.88**	**421.88**
100	**420.100**	**421.100**
125	**420.125**	**421.125**
150	**420.150**	**421.150**
175	**420.175**	**421.175**
187	**420.187**	**421.187**
200	**420.200**	**421.200**

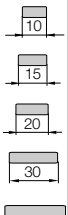
Vertical separator	
unassembled	**501**
assembled	**511**

Locking separator	
unassembled	**504**
assembled	**514**

Locking separator	
unassembled	**508**
assembled	**518**

Ver. separator, asymmetrical	
unassembled	**501A**
assembled	**511A**

Spacer*	
unassembled	**405.10**
assembled	**415.10**
unassembled	**405.15**
assembled	**415.15**
unassembled	**405.20**
assembled	**415.20**
unassembled	**405.30**
assembled	**415.30**
unassembled	**405.40**
assembled	**405.40**



* for side-mounted applications

Locking vert. separator	
unassembled	**510**
assembled	**520**

Locking separator slotted	
unassembled	**507**
assembled	**517**

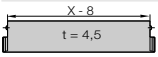
Middle plate	
unassembled	**503**
assembled	**513**

Slotted separator	
unassembled	**505**
assembled	**515**

Slotted separator, open	
unassembled	**509**
assembled	**519**

Side plate** left/right	
unassembled	**E6.80.03**
assembled	**E6.80.13**
unassembled	**E6.80.04**
assembled	**E6.80.14**

Shelf

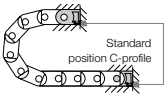


System E6
Inner height: 80 mm

Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

▶ page 8.39

The attachment variants arising automatically by the choice of the KMA mounting bracket

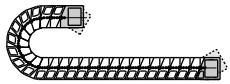


* KMA = Polymer Metal Mounting Bracket

Option KMA* - pivoting

- Option - integrated C-profile strain relief device with chainfix clip or strain relief tiewrap plates
- C-profile mountable in the inner or outer radius of the e-chain®
- Bolted connection outside of chain cross-section
- Recommended for unsupported applications
- Confined installation conditions
- Universal mountable with attachment capability on all sides

Moving end
E6.800L...2

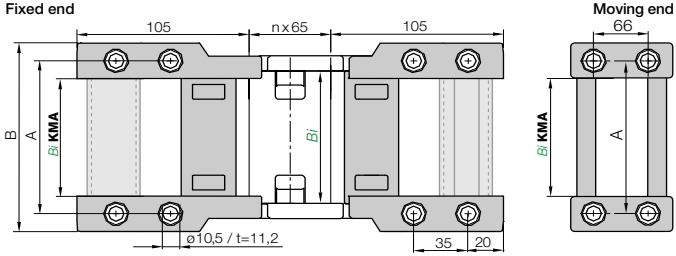


E6.800L...1
Fixed end

Dimensions and order configurations

E6.800L...2
Fixed end

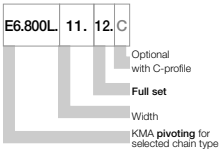
E6.800L...1
Moving end



For width-index	Part No. full set optional with C-profile	Dim. A [mm]	Dim. B [mm]	KMA Bi [mm]
08.	**E6.800L.07.12.C**	103	125	**87**
10.	**E6.800L.08.12.C**	115	137	**100**
11.	**E6.800L.10.12.C**	128	150	**112**
12.	**E6.800L.11.12.C**	140	162	**125**
13.	**E6.800L.12.12.C**	153	175	**137**
15.	**E6.800L.13.12.C**	165	187	**150**
16.	**E6.800L.15.12.C**	178	200	**162**
17.	**E6.800L.16.12.C**	190	212	**175**
18.	**E6.800L.17.12.C**	203	225	**187**
20.	**E6.800L.18.12.C**	215	237	**200**
21.	**E6.800L.20.12.C**	228	250	**212**
22.	**E6.800L.21.12.C**	240	262	**225**
23.	**E6.800L.22.12.C**	253	275	**237**
25.	**E6.800L.23.12.C**	265	287	**250**
26.	**E6.800L.25.12.C**	278	300	**262**
27.	**E6.800L.26.12.C**	290	312	**275**
28.	**E6.800L.27.12.C**	303	325	**287**
30.	**E6.800L.28.12.C**	315	337	**300**
31.	**E6.800L.30.12.C**	328	350	**312**

For width-index	Part No. full set optional with C-profile	Dim. A [mm]	Dim. B [mm]	KMA Bi [mm]
32.	**E6.800L.31.12.C**	340	362	**325**
33.	**E6.800L.32.12.C**	353	375	**337**
35.	**E6.800L.33.12.C**	365	387	**350**
36.	**E6.800L.35.12.C**	378	400	**362**
37.	**E6.800L.36.12.C**	390	412	**375**
38.	**E6.800L.37.12.C**	403	425	**387**
40.	**E6.800L.38.12.C**	415	437	**400**
41.	**E6.800L.40.12.C**	428	450	**412**
42.	**E6.800L.41.12.C**	440	462	**425**
43.	**E6.800L.42.12.C**	453	475	**437**
45.	**E6.800L.43.12.C**	465	487	**450**
46.	**E6.800L.45.12.C**	478	500	**462**
47.	**E6.800L.46.12.C**	490	512	**475**
48.	**E6.800L.47.12.C**	503	525	**487**
50.	**E6.800L.48.12.C**	515	537	**500**
51.	**E6.800L.50.12.C**	528	550	**512**
52.	**E6.800L.51.12.C**	540	562	**525**
53.	**E6.800L.52.12.C**	553	575	**537**
55	**E6.800L.53.12.C**	565	587	**550**

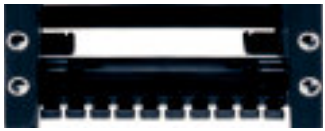
Part No. structure



Full set, for both ends:
E6.800L. 11. 12. C (with C-profile)
Single-part order:
E6.800L. 11. 1. C (with C-profile)
Fixed end mounting bracket
E6.800L. 11. 2. C (with C-profile)
Moving end mounting bracket

Series E6.80L | Accessories | Strain Relief

Strain relief tiewrap plate can be fixed on the last crossbar, alternatively with C-profile. Tiewrap plate as individual part - **Part No. 30XX.ZB**. Further strain relief elements ▶ **chapter 10**



Other strain relief elements - optional ▶ chapter 10

3D-CAD files, pdf-downloads and many online features ▶ www.igus.de/en/e6.80l

Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

igus® GmbH
51147 Cologne

Internet: www.igus.eu
E-mail: info@igus.de

Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

▶ Kapitel 10

▶ Seite 8.39

Price index

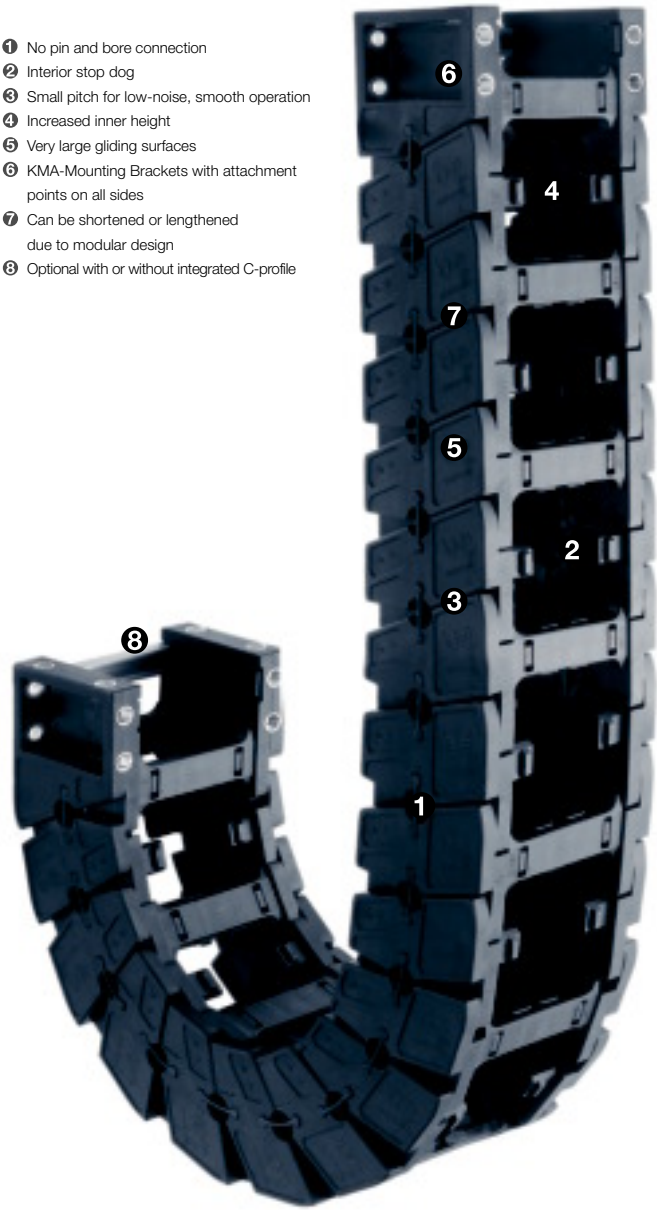
Extremely low noise
Test results upon request

IPA certificate: Class 1, according to standard DIN EN ISO 14644-1 for the E6 system (Series E6.29.060.150.0.CR, v = 0.5 m/s, a = 1.0 m/s²)

LEVEL 1 absorption confirmed by IPA-Fraunhofer-Institut according to SEMI E78-0998 for the E6 standard material

To close, push and click shut

1. No pin and bore connection
2. Interior stop dog
3. Small pitch for low-noise, smooth operation
4. Increased inner height
5. Very large gliding surfaces
6. KMA-Mounting Brackets with attachment points on all sides
7. Can be shortened or lengthened due to modular design
8. Optional with or without integrated C-profile



When to use the Series E6.80:

- If a low-noise version is required
- At very high speeds and/or accelerations
- For enlarged thrusts and tensile forces
- For small bending radii
- If less vibration is required
- Minimal abrasion (e.g. cleanroom applications)

When not to use it:

- Limited in side-mounted applications
  ▶ **Series E4.80 System E4.1, page 7.96**
- No use with RBR (reverse bending radius)
  ▶ **Series E4.80 System E4.1, page 7.96**
- No use with high additional loads
  ▶ **Series E4.80 System E4.1, page 7.96**

Order example complete e-chain®

Please indicate chain-lengths or number of links **Example: 5 m or 80 links**

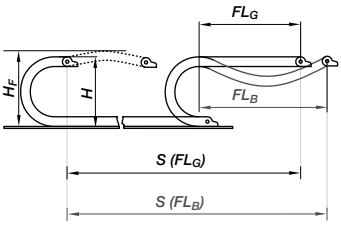
5 m **E6.80.10.200.0**	**e-chain®**
with 2 separators **511** assembled every 2nd link	**Interior separation**
1 set **E6.800.10.12**	**Mounting bracket**

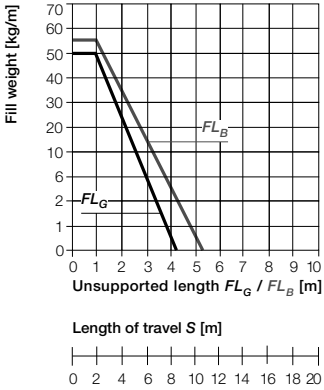
Available from stock. Delivery in 24h or today! (Delivery time means time until shipping of goods)

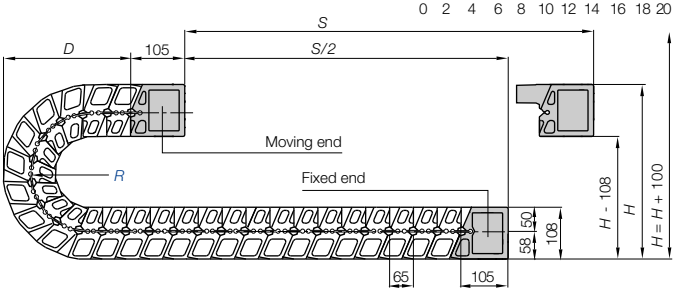
Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

Unsupported length

FL_G = with straight upper run
FL_B = with permitted sag
Further information ▶ **Design, page 1.12**







Pitch = 65 mm/link **Links/m** = 16 (1040 mm) **Chain length** = $^{S}/_{2} + K$

R	150	200	250	300	350	400	450
H	516	616	716	816	916	1016	1116
D	273	323	373	423	473	523	573
K	605	760	920	1075	1230	1390	1545
H_2	242	242	242	242	242	242	242
D_2^{+25}	524	936	1349	1762	2175	2588	3000
K_2	650	1170	1690	2275	2795	3315	3835

If you intend to use this series on long travels, we request you to consult us!

S = Length of travel
R = Bending radius
H = Nominal clearence height
H_F = Required clearence height
H_{RI} = Trough inner height
D = Overlength e-chain® radius in final position
K = π • *R* + "safety"
D_2 = Over length - long travels, gliding
K_2 = *Further add-on
H_2 = *Mounting height
*if the mounting bracket location is set lower

Other installation methods
Vertical, hanging ≤ 60 m
Vertical, standing ≤ 4 m
Side mounted, unsupported
= possible to a limited extent
Unsupported length of upper run
= upon request

Standard

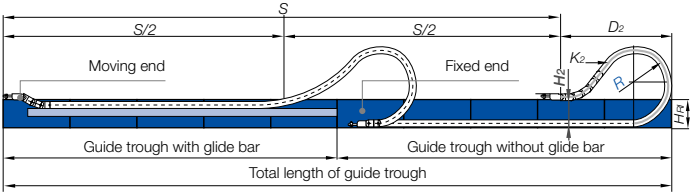
Short travels - unsupported

Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height H_F. Please consult igus® if space is particularly restricted.

The required clearance height:
H_F = *H* + 100 mm
(with 5,0 kg/m fill weight)

Long travel lengths from 12 m to max. 120 m

Chain length = $^{S}/_{2} + K_2$



In case of travels between 8,0 m and 12 m m we recommend a longer unsupported length.

Gliding, long travel applications (max. 120 m)

In this case the e-chain® upper run will be introduced in a guide trough on the lower run. We recommend to realize the engineering of such a plant by our technicians.

Technical Data

Speed / acceleration FL_G	max. 20 [m/s] / max. 200 [m/s²]
Speed / acceleration FL_B	max. 3 [m/s] / max. 6 [m/s²]
Gliding speed / acceleration (maximum)	upon request
permitted temperature °C	–40° up to +70° C
Flammability class	VDE 0304 IIC UL94 HB

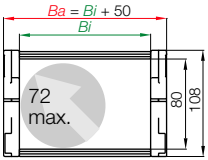
Details of material properties
▶ **page 1.38**

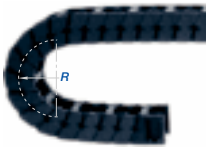
▶ page 8.39

For support of the lower run - **Support Tray tool kit** available ▶ page 9.70

igus® e-chainsystems®
Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222
igus® GmbH
51147 Cologne
Internet: www.igus.eu
E-mail: info@igus.de

E6 | e-chain® | Series E6.80 | Product Range





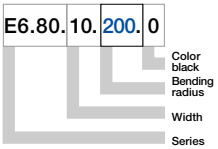
Series E6.80 - with crossbars every 2nd link

Part No.	Bi [mm]	Ba [mm]	R [mm]	Bending radii							Weight [kg/m]
E6.80.05. ☐.0	50	100	150	200	250	300	350	400	450	≈ 5,21
E6.80.06. ☐.0	65	115	150	200	250	300	350	400	450	≈ 5,28
E6.80.07. ☐.0	75	125	150	200	250	300	350	400	450	≈ 5,33
E6.80.08. ☐.0	87	137	150	200	250	300	350	400	450	≈ 5,38
E6.80.10. ☐.0	100	150	150	200	250	300	350	400	450	≈ 5,45
E6.80.11. ☐.0	112	162	150	200	250	300	350	400	450	≈ 5,50
E6.80.12. ☐.0	125	175	150	200	250	300	350	400	450	≈ 5,57
E6.80.13. ☐.0	137	187	150	200	250	300	350	400	450	≈ 5,62
E6.80.15. ☐.0	150	200	150	200	250	300	350	400	450	≈ 5,68
E6.80.16. ☐.0	162	212	150	200	250	300	350	400	450	≈ 5,74
E6.80.17. ☐.0	175	225	150	200	250	300	350	400	450	≈ 5,80
E6.80.18. ☐.0	187	237	150	200	250	300	350	400	450	≈ 5,86
E6.80.20. ☐.0	200	250	150	200	250	300	350	400	450	≈ 5,92
E6.80.21. ☐.0	212	262	150	200	250	300	350	400	450	≈ 5,98
E6.80.22. ☐.0	225	275	150	200	250	300	350	400	450	≈ 6,04
E6.80.23. ☐.0	237	287	150	200	250	300	350	400	450	≈ 6,10
E6.80.25. ☐.0	250	300	150	200	250	300	350	400	450	≈ 6,16
E6.80.26. ☐.0	262	312	150	200	250	300	350	400	450	≈ 6,21
E6.80.27. ☐.0	275	325	150	200	250	300	350	400	450	≈ 6,28
E6.80.28. ☐.0	287	337	150	200	250	300	350	400	450	≈ 6,33
E6.80.30. ☐.0	300	350	150	200	250	300	350	400	450	≈ 6,39
E6.80.31. ☐.0	312	362	150	200	250	300	350	400	450	≈ 6,45
E6.80.32. ☐.0	325	375	150	200	250	300	350	400	450	≈ 6,51
E6.80.33. ☐.0	337	387	150	200	250	300	350	400	450	≈ 6,57
E6.80.35. ☐.0	350	400	150	200	250	300	350	400	450	≈ 6,63
E6.80.36. ☐.0	362	412	150	200	250	300	350	400	450	≈ 6,69
E6.80.37. ☐.0	375	425	150	200	250	300	350	400	450	≈ 6,75
E6.80.38. ☐.0	387	437	150	200	250	300	350	400	450	≈ 6,80
E6.80.40. ☐.0	400	450	150	200	250	300	350	400	450	≈ 6,88
E6.80.41. ☐.0	412	462	150	200	250	300	350	400	450	≈ 6,92
E6.80.42. ☐.0	425	475	150	200	250	300	350	400	450	≈ 6,99
E6.80.43. ☐.0	437	487	150	200	250	300	350	400	450	≈ 7,04
E6.80.45. ☐.0	450	500	150	200	250	300	350	400	450	≈ 7,10
E6.80.46. ☐.0	462	512	150	200	250	300	350	400	450	≈ 7,16
E6.80.47. ☐.0	475	525	150	200	250	300	350	400	450	≈ 7,22
E6.80.48. ☐.0	487	537	150	200	250	300	350	400	450	≈ 7,28
E6.80.50 ☐.0	500	550	150	200	250	300	350	400	450	≈ 7,34
E6.80.51. ☐.0	512	562	150	200	250	300	350	400	450	≈ 7,40
E6.80.52. ☐.0	525	575	150	200	250	300	350	400	450	≈ 7,46
E6.80.53. ☐.0	537	587	150	200	250	300	350	400	450	≈ 7,52
E6.80.55. ☐.0	550	600	150	200	250	300	350	400	450	≈ 7,58
E6.80.60. ☐.0	600	650	150	200	250	300	350	400	450	≈ 7,81

Supplement Part No. with required radius. Example: E6.80.10.[200].0

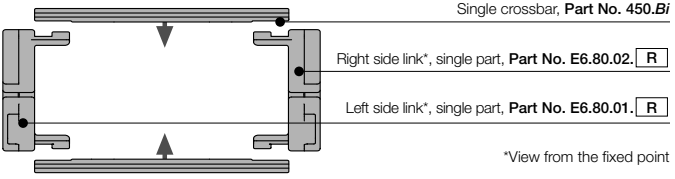
0 = standard color, other colors ▶ page 1.39 · Pitch = 65 mm/link - Links/m = 16

Part No. structure



Part No. e-chain® - links, single parts

Polymer spring as single part - Part No. E6.80.350



*View from the fixed point

Option 1: Vertical separators and spacers

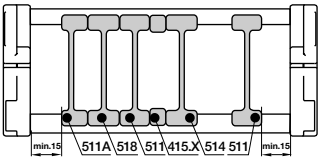
Vertical separators are used if a vertical subdivision of the e-chain® interior is required -
By standard vertical separators are assembled every other e-chain® link

- **Standard separator 511** offers safe stability due to its wide base design, even when used with large diameter cables or hoses

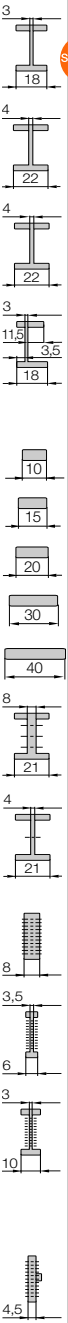
Also available:

- **Locking separator 514** with increased retention force for extreme applications
- The **locking separator 518** is used in applications with very high relative humidity, such as composting plants. The lateral cam serves to ensure the uniform alignment of the vertical separator
  (in the case of uneven alignment, the e-chain® can only be opened by breaking the vertical separator)
- If a broad distance shall be kept between the separators or they have to be fixed in their position, e.g. in case of side mounted applications, **Spacers 415.10, 415.15, 415.20, 415.30** and **415.40** can be used. Here a great number of possible distances between the vertical separators can be achieved by combining spacers of different widths with the **vertical separator, asymmetrical 511A**

Instruction: The available interior height is reduced by 2 mm per spacer, and can hence amount to 4 mm when spacers are fitted on both sides. To avoid this, the parts can also be installed from the outside on the opening crossbar. (no long travels)



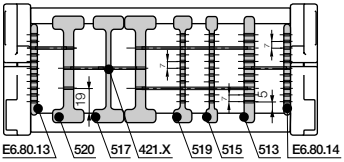
Vertical separator		
unassembled	**501**	
assembled	**511**	
Locking separator		
unassembled	**504**	
assembled	**514**	
Locking separator		
unassembled	**508**	
assembled	**518**	
Ver. separator, asymmetrical		
unassembled	**501A**	
assembled	**511A**	
Spacer*		
unassembled	**405.10**	
assembled	**415.10**	
unassembled	**405.15**	
assembled	**415.15**	
unassembled	**405.20**	
assembled	**415.20**	
unassembled	**405.30**	
assembled	**415.30**	
unassembled	**405.40**	
assembled	**405.40**	
* for side-mounted applications		
Locking vert. separator		
unassembled	**510**	
assembled	**520**	
Locking separator ,slotted		
unassembled	**507**	
assembled	**517**	
Middle plate		
unassembled	**503**	
assembled	**513**	
Slotted separator		
unassembled	**505**	
assembled	**515**	
Slotted separator, open		
unassembled	**509**	
assembled	**519**	
Side plate** left/right		
unassembled	**E6.80.03**	
assembled	**E6.80.13**	
unassembled	**E6.80.04**	
assembled	**E6.80.14**	

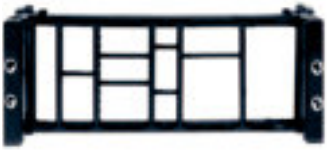


Option 2: Shelves

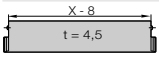
For applications involving many cables with similar or identical diameters. Shelves of various widths can be arranged at 11 different heights (in 7 mm increments)

- **Shelf 421.X** can be combined with **Locking vertical separator 521, Locking separator, slotted 517, middle plate 1313, slotted separator 515** and **slotted separator, open 519**
- **Slotted separators 515** are used for complex subdivisions. When **slotted separators, open 519** and **Locking vertical separator 521** are installed only the middle slot can be used for shelves





Shelf



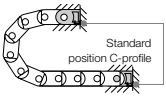
Width X [mm]	Part No. unassembled	Part No. assembled
018	**420.18**	**421.18**
023	**420.23**	**421.23**
025	**420.25**	**421.25**
028	**420.28**	**421.28**
033	**420.33**	**421.33**
043	**420.43**	**421.43**
050	**420.50**	**421.50**
062	**420.62**	**421.62**

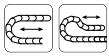
Width X [mm]	Part No. unassembled	Part No. assembled
075	**420.75**	**421.75**
088	**420.88**	**421.88**
100	**420.100**	**421.100**
125	**420.125**	**421.125**
150	**420.150**	**421.150**
175	**420.175**	**421.175**
187	**420.187**	**421.187**
200	**420.200**	**421.200**

Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

▶ page 8.39

The attachment variants arising automatically by the choice of the KMA mounting bracket



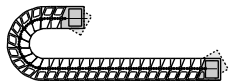


* KMA = Polymer Metal Mounting Bracket

Option KMA* - pivoting

- Option - integrated C-profile strain relief device with chainfix clip or strain relief tiewrap plates
- C-profile mountable in the inner or outer radius of the e-chain®
- Bolted connection outside of chain cross-section
- Recommended for unsupported and gliding applications
- Confined installation conditions
- Universal mountable with attachment capability on all sides

Moving end
E6.800...2



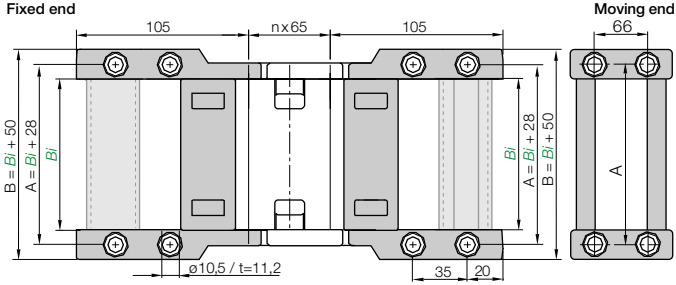
E6.800...1
Fixed end

Dimensions and order configurations

Adapters for gliding applications available upon request

E6.800...2
Fixed end

E6.800...1
Moving end



For e-chain®	Part No. full set optional with C-profile	*Bi* [mm]	For e-chain®	Part No. full set optional with C-profile	*Bi* [mm]
E6.80.05. ▶	E6.800.05.12.C	50	E6.80.31. ▶	E6.800.31.12.C	312
E6.80.06. ▶	E6.800.06.12.C	65	E6.80.32. ▶	E6.800.32.12.C	325
E6.80.07. ▶	E6.800.07.12.C	75	E6.80.33. ▶	E6.800.33.12.C	337
E6.80.08. ▶	E6.800.08.12.C	87	E6.80.35. ▶	E6.800.35.12.C	350
E6.80.10. ▶	E6.800.10.12.C	100	E6.80.36. ▶	E6.800.36.12.C	362
E6.80.11. ▶	E6.800.11.12.C	112	E6.80.37. ▶	E6.800.37.12.C	375
E6.80.12. ▶	E6.800.12.12.C	125	E6.80.38. ▶	E6.800.38.12.C	387
E6.80.13. ▶	E6.800.13.12.C	137	E6.80.40. ▶	E6.800.40.12.C	400
E6.80.15. ▶	E6.800.15.12.C	150	E6.80.41. ▶	E6.800.41.12.C	412
E6.80.16. ▶	E6.800.16.12.C	162	E6.80.42. ▶	E6.800.42.12.C	425
E6.80.17. ▶	E6.800.17.12.C	175	E6.80.43. ▶	E6.800.43.12.C	437
E6.80.18. ▶	E6.800.18.12.C	187	E6.80.45. ▶	E6.800.45.12.C	450
E6.80.20. ▶	E6.800.20.12.C	200	E6.80.46. ▶	E6.800.46.12.C	462
E6.80.21. ▶	E6.800.21.12.C	212	E6.80.47. ▶	E6.800.47.12.C	475
E6.80.22. ▶	E6.800.22.12.C	225	E6.80.48. ▶	E6.800.48.12.C	487
E6.80.23. ▶	E6.800.23.12.C	237	E6.80.50. ▶	E6.800.50.12.C	500
E6.80.25. ▶	E6.800.25.12.C	250	E6.80.51. ▶	E6.800.51.12.C	512
E6.80.26. ▶	E6.800.26.12.C	262	E6.80.52. ▶	E6.800.52.12.C	525
E6.80.27. ▶	E6.800.27.12.C	275	E6.80.53. ▶	E6.800.53.12.C	537
E6.80.28. ▶	E6.800.28.12.C	287	E6.80.55. ▶	E6.800.55.12.C	550
E6.80.30. ▶	E6.800.30.12.C	300	E6.80.60. ▶	E6.800.60.12.C	600

Part No. structure

E6.800.	05.	12.	C

- C: Optional with C-profile
- 12.: **Full set**
- 05.: Width
- E6.800.: KMA **pivoting** for selected chain type

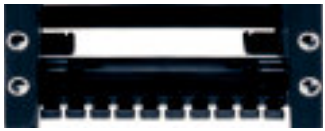
Full set, for both ends:
E6.800. 05. 12.C (with C-profile)

Single-part order:
E6.800. 05. 1. C (with C-profile) **Fixed end** mounting bracket
E6.800. 05. 2. C (with C-profile) **Moving end** mounting bracket

Series E6.80 | Accessories | Strain Relief

Other strain relief elements - optional ▶ chapter 10

Strain relief tiewrap plate can be fixed on the last crossbar, alternatively with C-profile. Tiewrap plate as individual part - **Part No. 30XX.ZB**. Further strain relief elements ▶ **chapter 10**

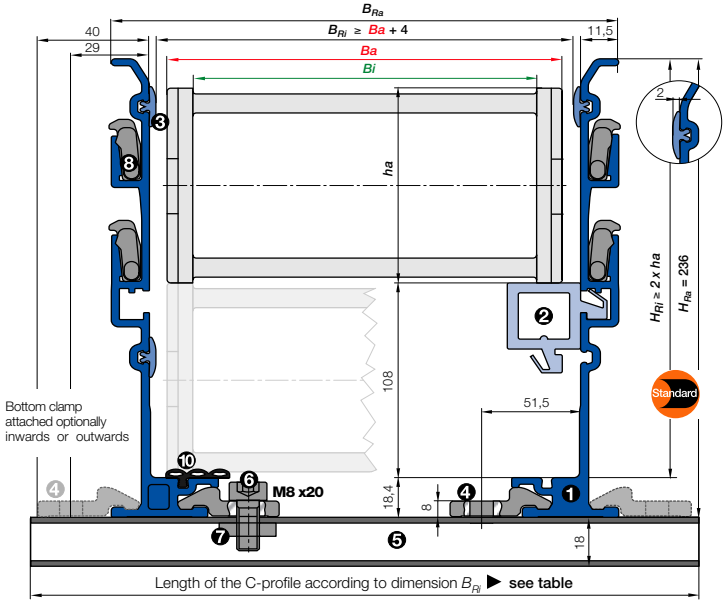


Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

igus® GmbH
51147 Cologne

Internet: www.igus.eu
E-mail: info@igus.de

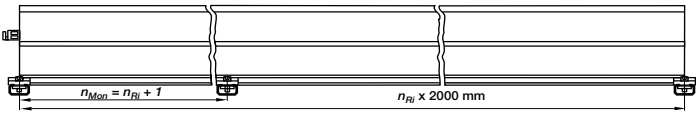
Part No. 975.30.SL | 975.31.SL | Trough height: 236 mm
Aluminum "SuperTrough" | Basic Version



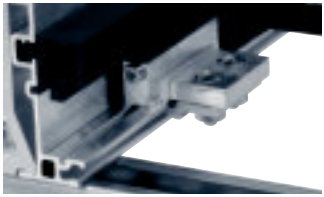
● **Components, trough "Basic":** ❶ Trough side parts, aluminum, 2 m ❷ Glide bar, plastic, 2 m ❸ Glide strips, plastic, 2 m (without glide strips on request) ❿ Optional: Silencer profile, rubber ● **Components, installation set "Basic":** ❹ Bottom clamp, aluminum ❺ C-profile, steel galvanized ❻ Screw M8 x20 ❼ Sliding nut M8 ❽ Interface connector, plastic

Order example: Length of travel 30 m - Center mounted for Series E6.80.30.300.0 with B_{Ri} = 354

Guide trough set (set of 2 trough side parts, incl. glide strips) **without** glide bar		
Order text: 16 m guide trough without glide bar (8 x 2 m sections)	Part No.	975.30.SL
Guide trough set (set of 2 trough side parts, incl. glide strips) **with** glide bar		
Order text: 16 m guide trough with glide bar (8 x 2 m sections)	Part No.	975.31.SL
Installation set "Basic" complete **(guide trough-sets + 1)**		
Order text: 17 installation sets "Basic"	Part No.	960.50.425
Module for the fixed end		
Order text: 1 set	Part No.	975.80
Option: For an additional noise dampening with silencer profile, please add Index A - Example:	Part No.	975.30.SLA



Principle sketch: Number of installation sets to be installed = Number of trough sections + 1



A quick fix for mounting the stationary end of an e-chain®

With this module for the fixed end, fast and easy mounting onto the Aluminum "SuperTrough" is now possible without any drilling. Fast mounting of the e-chain® by clamping onto the aluminum trough ● Quick relocation of the stationary end ● No drilling necessary ▶ page 9.16

Ba = Outer width e-chains® / e-tube
Bi = Inner width e-chains® / e-tube
ha = Outer height e-chains® / e-tube
H_{Ri} = Inner trough height
H_{Ra} = Outer trough height
B_{Ri} = Inner trough width ▶ depends on dim. *Ba*
B_{Ra} = Outer trough width
n_{Mon} = Number of installation sets (left/right)
n_{Ri} = Number of trough sets (left/right)

! $H_{Ri} \geq 2 \bullet ha$
$B_{Ri} \geq Ba + 4$

● = Guide trough set ● = Glide bar
● = Installation set "Basic" ● = C-profile

Installation set "Basic" with C-profile

Bottom Clamp attached optionally **inwards** or **outwards**

E6.80.**30**.300.0 ▶ Order example

	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards
.05	104	–	960.50.225
.06	119	–	960.50.250
.07	129	–	960.50.250
.08	141	960.50.200	960.50.275
.10	154	960.50.225	960.50.275
.11	167	960.50.225	960.50.300
.12	179	960.50.250	960.50.300
.13	192	960.50.250	960.50.325
.15	204	960.50.275	960.50.325
.16	217	960.50.275	960.50.350
.17	229	960.50.300	960.50.350
.18	242	960.50.300	960.50.375
.20	254	960.50.325	960.50.375
.21	267	960.50.325	960.50.400
.22	279	960.50.350	960.50.400
.23	292	960.50.350	960.50.425
.25	304	960.50.375	960.50.425
.26	317	960.50.375	960.50.450
.27	329	960.50.400	960.50.450
.28	342	960.50.400	960.50.475
.30	354	960.50.425	960.50.475
.31	367	960.50.425	960.50.500
.32	379	960.50.450	960.50.500
.33	392	960.50.450	960.50.525
.35	404	960.50.475	960.50.525
.36	417	960.50.475	960.50.550
.37	429	960.50.500	960.50.550
.38	442	960.50.500	960.50.575
.40	454	960.50.525	960.50.575
.41	467	960.50.525	960.50.600
.42	479	960.50.550	960.50.600
.43	492	960.50.550	960.50.625
.45	504	960.50.575	960.50.625
.46	517	960.50.575	960.50.650
.47	529	960.50.600	960.50.650
.48	542	960.50.600	960.50.675
.50	554	960.50.625	960.50.675
.51	567	960.50.625	960.50.700
.52	579	960.50.650	960.50.700
.53	592	960.50.650	960.50.725
.55	604	960.50.675	960.50.725
.60	654	960.50.725	960.50.775

Insert for the installation set "Heavy-Duty": **974.50.XXX** instead of (**960.50.XXX**) on the right column "attached outwards"

Details about Alu "SuperTrough" and further guidance possibilities ▶ chapter 9

Phone +49- (0) 22 03-96 49-800
Fax +49- (0) 22 03-96 49-222

▶ Chapter 10
▶ Chapter 9
▶ page 8.39