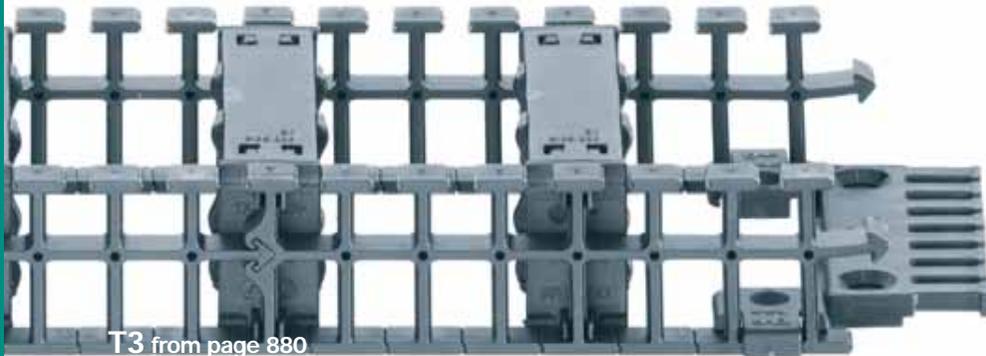


Extremely low-noise, dynamic, cleanroom

System T3 | E3 | E6 | E6.1



T3 from page 880

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

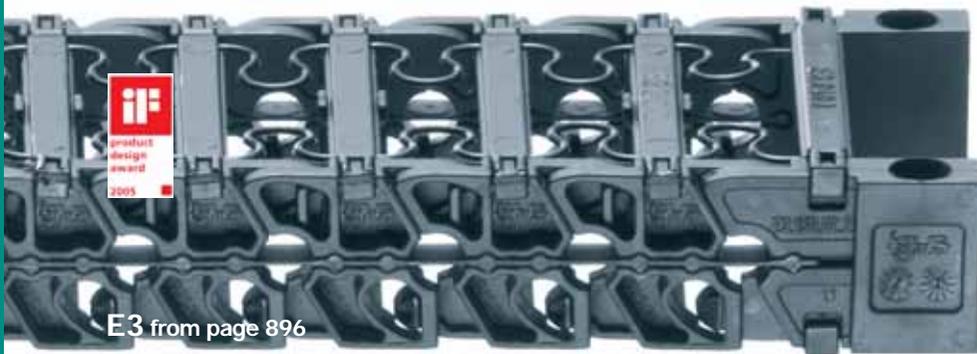
- For short strokes with extreme demands on low noise (33dB(A) - Figures determined in the igus® lab (according to DIN45635) and dynamics
- Cost-effective, modular 3-piece e-chain® for high speeds and accelerations
- Very low weight
- Virtually no wear or abrasion - IPA Class 2 tested (T3.29.050.038.0)
- Inner height: 29 mm
- ▶ www.igus.eu/eu/T3



E6 from page 916

Especially vibration-free, quiet, low abrasion and cleanroom suitable - E6

- Rugged and modular. Connector replaces pin and hole
- Extremely quiet 37dB(A) - Figures determined in the igus® lab (according to DIN45635)
- e-chain® with high stability and tensile strength with very smooth running
- Virtually no wear or abrasion - IPA Class 1 tested (E6.29.060.150.0.CR)
- 5 sizes and 3 designs available (e-chain®, e-tube and light version)
- Inner heights: 29, 35, 40, 52, 62, 80 mm
- ▶ www.igus.eu/eu/E6



E3 from page 896

Elastic, flexible connector strip, highly dynamic and suitable for cleanrooms - E3

- Extremely quiet 38dB (A) Figures determined in the igus® lab (according to DIN45635)
- e-chain® for minimum installation spaces with modular chain link in 3 parts
- Ideal for cables such as ribbon cables
- Virtually no wear or abrasion - IPA Class 1 tested (E3.15.040.075.0)
- For short strokes with extreme demands on low noise and dynamics
- Inner heights: 10, 15, 22 mm
- ▶ www.igus.eu/eu/E3



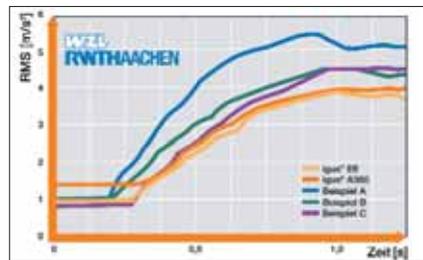
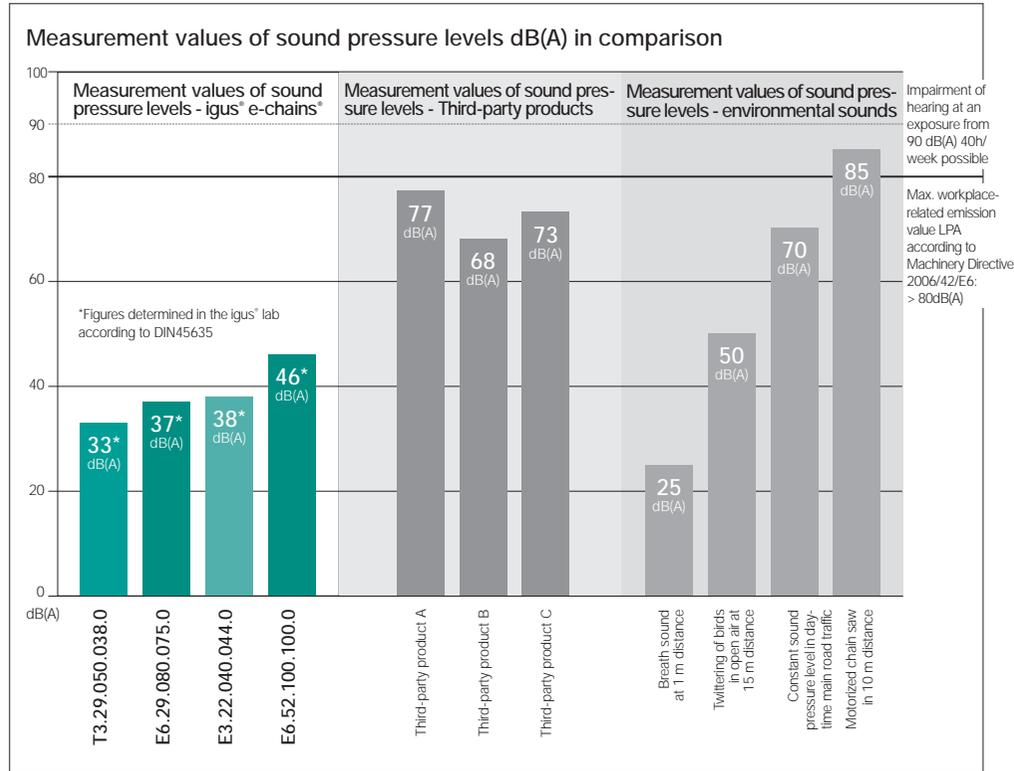
E6.1 from page 994

Quiet running, cleanroom-suitable and cost-effective - E6.1 2nd generation

- Extremely low vibration, virtually no polygon effect, thereby "even" run
- Extremely quiet through small pitch and "brake" in the stop dog system
- Virtually no wear or abrasion - IPA Class 1 tested (E61.29.50.075.0)
- e-chain® with high stability and tensile strength with very smooth running
- E61.29: Crossbars swivel open on both sides and removable in the inner and outer radius
- Weight saving of approx. 30% compared to the E6 system
- Inner heights: 29, 52 mm
- ▶ www.igus.eu/eu/E6.1

The extremely low-noise igus® e-chains® - T3, E3, E6 and E6.1

The e-chain® of the E3, T3, E6 and E6.1 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. The e-chain® Series E3, T3, E6 and E6.1 offer an extensive accessories package and are available in many dimensions off the shelf.



System E6 - extremely smooth running

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



By eliminating the pin-hole connection, the unsupported E6 has very low abrasion and is suitable for cleanrooms

Cleanroom qualification of igus® e-chains®

In many applications where cumbersome special solutions are used, a simple standard e-chain® can be used instead. A comprehensive test program was devised and performed for both gliding use and unsupported use. For many applications, the e-chains® in special materials are practically abrasion-free. Detailed test results are available upon request. IPA tests confirm that standard igus® e-chains® meet cleanroom requirements. "Tested and certified as very good!" e-chains® for cleanroom applications in the test stand cleanroom environments demand very high wear resistance of moving parts. e-chains®, for example, must be very wear resistant, in order to meet normal requirements for such a sensitive environment.

IPA Fraunhofer Institute has tested the following igus® Series according to DIN EN ISO 14644-1

Class per DIN EN ISO 14644-1	Equivalent to VDI 2083	Classification Series	Report Number	Speed [m/s]
ISO Class 1	no comparable classification	E61.29.50.075.0	IG 1303-640-1	0,5 / 1,0 / 2,0
ISO Class 1	no comparable classification	E3.15.040.075.0	IG 0704-400	0,5 / 1,0 / 2,0
ISO Class 1	no comparable classification	E6.29.060.150.0.CR*	IG 0704-400	0,5 / 1,0 / 2,0
ISO Class 2	no comparable classification	1500.050.038.0	IG 1303-640-1	0,5 / 1,0 / 2,0
ISO Class 2	no comparable classification	E4.32.10.063.0.CR*	IG 1303-640-1	0,5 / 1,0 / 2,0
ISO Class 2	no comparable classification	T3.29.050.038.0	IG 1303-640-1	0,5 / 1,0 / 2,0
ISO Class 2	no comparable classification	E14.3.038.0	IG 0308-295	1,0
ISO Class 3	Class 1	2500.05.055.0	IG 0308-295	2,0
ISO Class 3	Class 1	E6.29.060.150.0	IG 0704-400	0,5 / 1,0 / 2,0
ISO Class 5	Class 3	E4.32.10.063.0	IG 1303-640-1	0,5 / 1,0 / 2,0

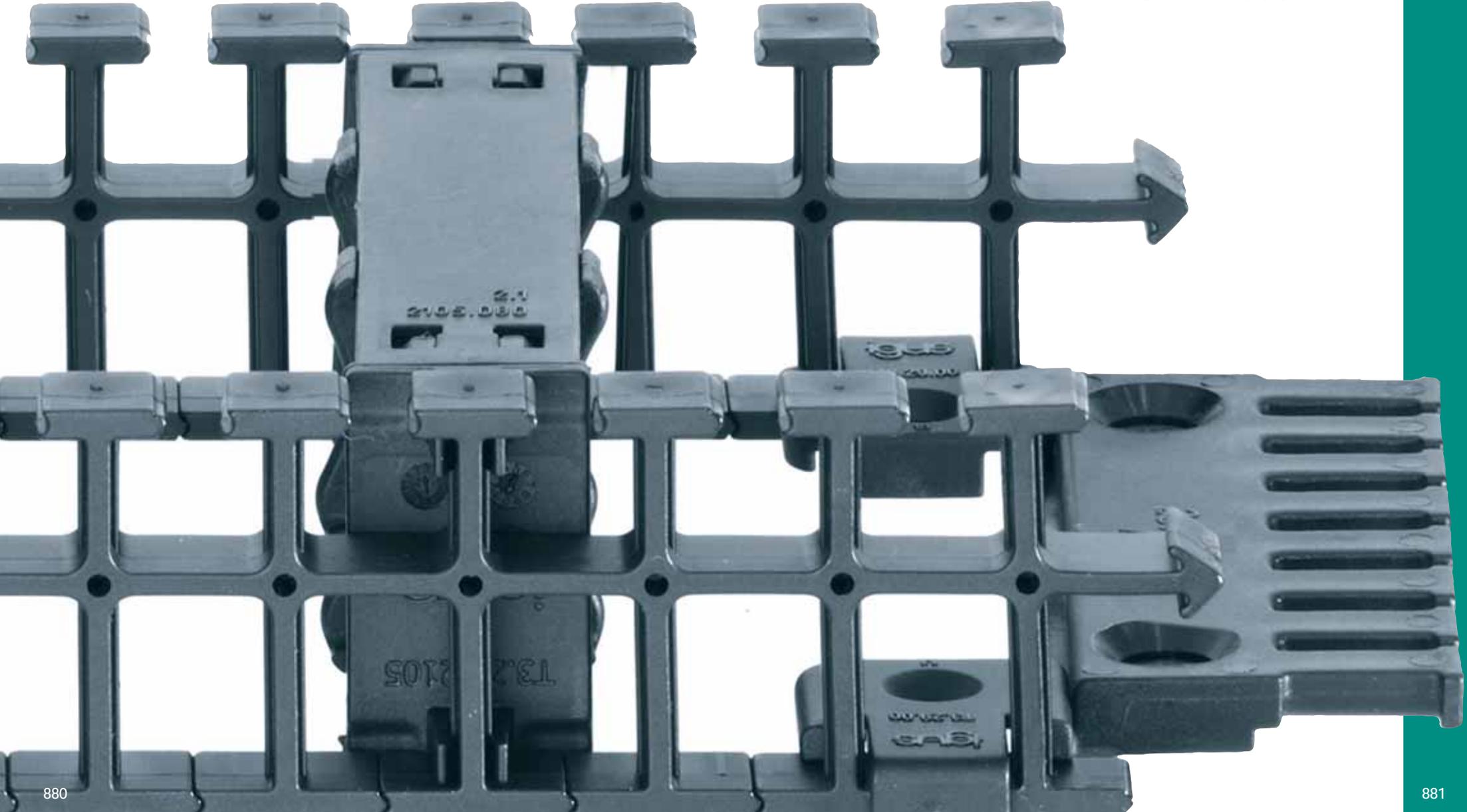
*special material "cleanroom"



Since 1997 igus® is testing e-chains® for cleanroom suitability. Since then many igus® e-chains® have been certified by the IPA cleanroom institute and the program of cleanroom suitable e-chains® is continuously growing.

igus® T3

Highly flexible &
Low-vibration



Highly flexible, low-vibration T-band e-chain® - System T3

The T3-System combines low-noise operation, low sound level, simple installation and economy. The side plates, which can be snapped together, 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.

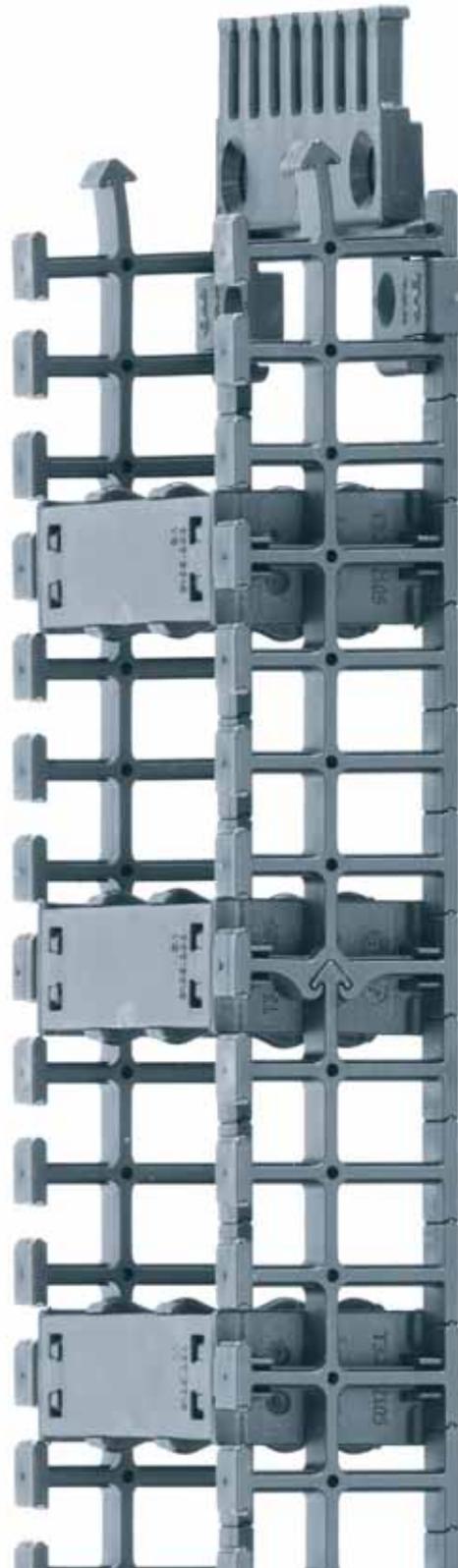
Typical industries and applications

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

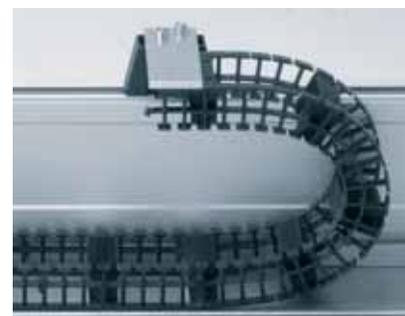


IPA Qualification Certificate - Report IG 1303-640-1:
ISO Class 2, according to DIN EN ISO 14644-1
for System T3, Series T3.29.050.038.0
at v = 0,5 m/s, 1 m/s, 2 m/s

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



T3 system on the Z-axis in the positioning system. It has very low vibration and is quiet



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



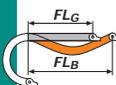
Standardised modules for rotational movements with the T3 system. Various sizes available in a short time

Series	Inner height <i>hi</i> [mm]	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Outer height <i>ha</i> [mm]	Bending radius <i>R</i> [mm]	Unsupported length max. [m]	page
T3.29.	29	30 - 140	55 - 165	35	038	≈ 1,45	888



System T3 - 3-piece e-chains®
T-shaped band e-chains®

T3 | Technical Data | Overview

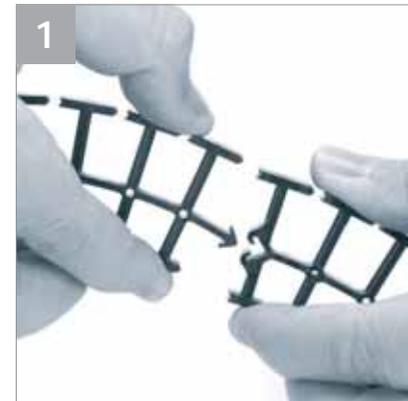


Speed / acceleration FL_G max.	max. 20 [m/s] / max. 200 [m/s ²]
Speed / acceleration FL_B max.	max. 3 [m/s] / max. 6 [m/s ²]
Material of lid - permitted temperature °C	-40° up to +70° C
Flammability class	VDE 0304 IIC UL94-HB

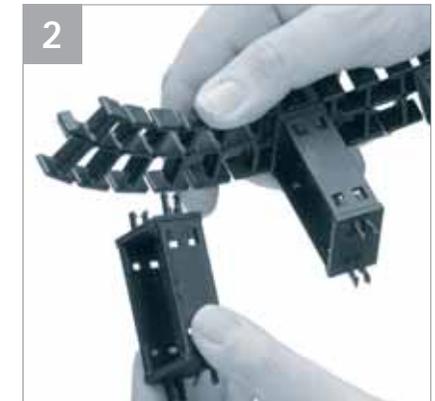
■ FL_G = with straight upper run ■ FL_B = with permitted sag

T3 e-chains® and modules for circular movement

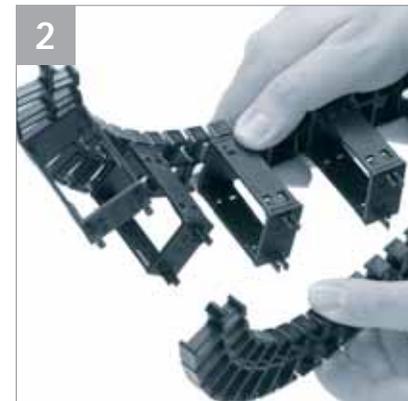
T3 e-chains® for reverse bending radii (RBR) ● Several reverse bending radii ● Quiet ● Low wear ● Several mounting positions ● Complete program of interior separation of Series T3.29 ● RBR: 55, 75, 100, 150. Part No. T3.29.050.38/55, T3.29.050.38/75, T3.29.050.38/100, T3.29.050.38/150. Delivery time upon request. More information ► www.igus.eu/eu/circularmovement



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



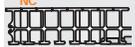
Can be shortened or lengthened easily

T3 RBR-module for reverse bending radii

Consists of 4 elements: T3 RBR e-chain®, guiding system, chainflex®-cables, iglidur® PRT slewing ring bearing. ● Compact guiding module ● Turnable in inner and outer radius ● For high speeds, quiet ● Compact dimensions ● Several mounting positions. Part No. T3.29.070.038/055. Delivery time upon request. More information ► www.igus.eu/eu/circularmovement



T3 | Configuration options and order key

 Standard	NC-Version - (no camber) without pretension	Reverse bending radius for circular movements	ATEX/ESD classified e-chains® - II 2 GD
Part No. Standard 	Part No. NC-Version 	Part No. RBR 	Part No. ESD-Material 
 T3.29.100.R.0	T3.29.100.R.0.NC	T3.29.100.R1/R2.0 <small>*RBR possible with igus® T3 RBR e-chains® or T3 RBR module ▶ www.igus.eu/eu/circularmovement</small>	T3.29.100.R.0.ESD
 Delivery time* 24h or today!	Delivery time* 5-5 work days	Delivery time* 5-10 work days	Delivery time* 10 work days

*Delivery time means time until shipping of goods (after technical release)

Order example | Order key and color options

 Order example for complete e-chain® (1,0 m), color black, mounting brackets and interior separation

e-chain® (1,0 m)	Please indicate e-chain® length or number of links: 1,0 m or 67 links	T3.10.100.038.0
+ Mounting brackets	1 set (+ tiewrap plates)	T3.100.12
+ Interior separation	with 2 separators assembled every 2 nd link	2 x 29.1.1

Order text: 1,0 m T3.29.100.038.0 + T3.100.12 + 2 x 29.1.1

 Order key	Color options for e-chains® and e-tubes			
T3.29.100.038.0	Color	Order index	Color	Order index
	Black	Standard, from stock! .0	White	special color .1
Standard color black	Slate grey	only ESD material .ESD	Gray white	special color .1S
Bending radius R	Gray brown	only HT material .HT	Orange	special color .2
Width index	Gray	special color only e-chains® .3	Yellow	special color .4
Series / Type	Dusty grey	special color only e-tubes .31	Light grey	special color .14

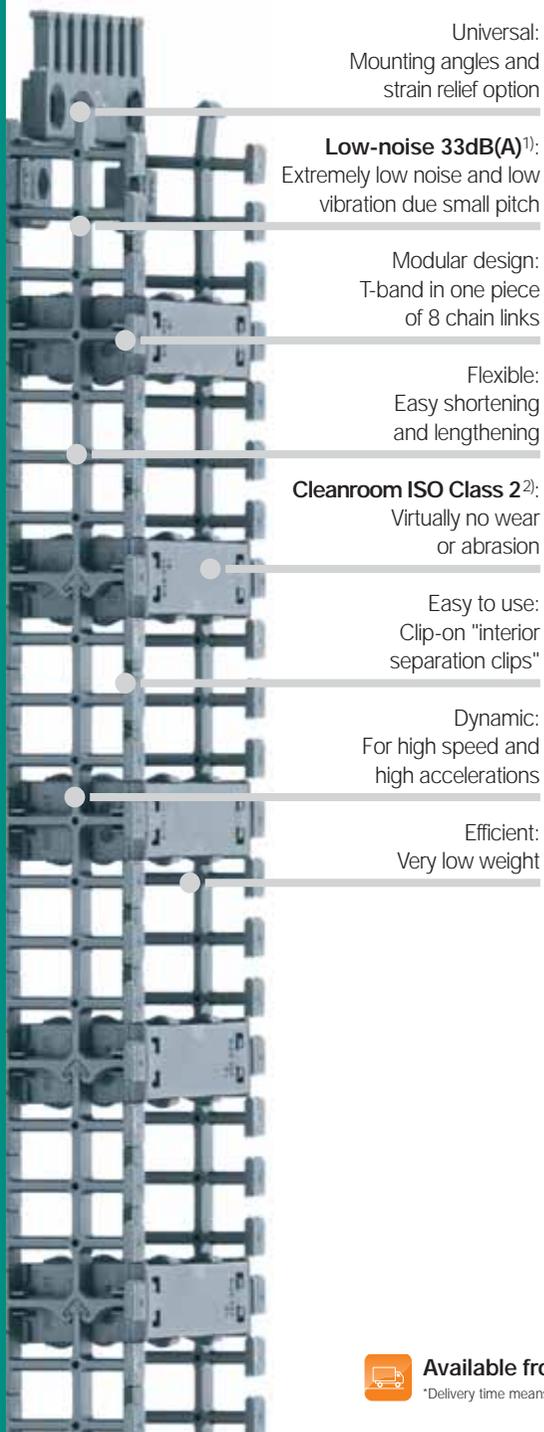
Black e-chains® available from stock!
Delivery time* for special colors: from 5 work days

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

T3 | Application



Perfect match. Cleanroom-suitable igus® chainflex® cables are safely guided in the T3 e-chain®



Universal:
Mounting angles and strain relief option

Low-noise 33dB(A)¹⁾:
Extremely low noise and low vibration due small pitch

Modular design:
T-band in one piece of 8 chain links

Flexible:
Easy shortening and lengthening

Cleanroom ISO Class 2²⁾:
Virtually no wear or abrasion

Easy to use:
Clip-on "interior separation clips"

Dynamic:
For high speed and high accelerations

Efficient:
Very low weight

+ **Highly flexible, low-vibration, T-shaped band e-chain***

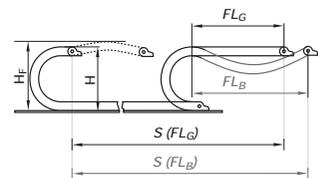
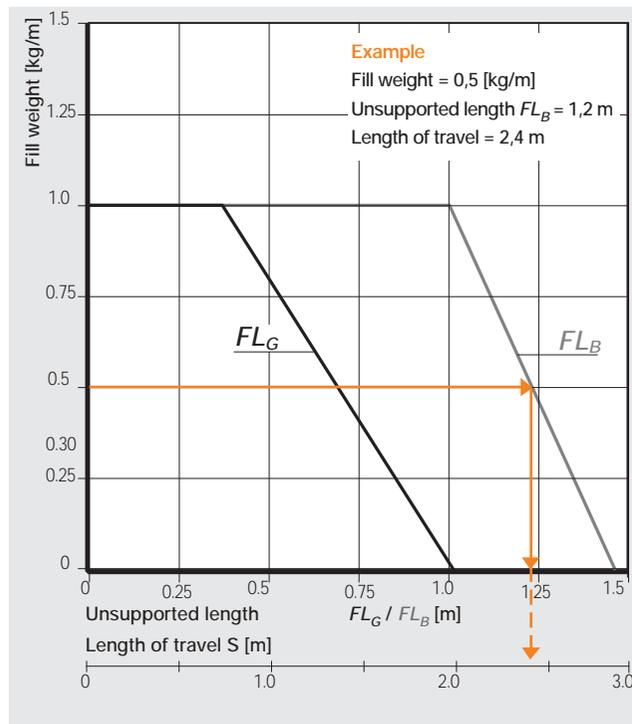
When to use Series T3.29:

- If a particularly low weight, cost-effective e-chain* with an inner height of 29 mm is required
- Inner widths up to 140 mm
- For unsupported lengths up to 1,45 m and fill weights up to 1,0 kg/m
- At very high speeds and/or accelerations
- Hardly any polygon effect
- For small bending radii and small spaces
- If easy filling and assembly is required
- Minimal abrasion (e.g. cleanroom applications)

1) Low-noise - testetd series, more details ► page 878
2) Cleanroom - Series T3.29.050.038.0, more details ► page 879

- **When to use a different igus* Series:**

- If an e-chain* for more fill weight is required
► **Series E61.29, page 1002**
- If an enclosed e-chain* for low noise operation is required
► **Series R6.29, page 928**



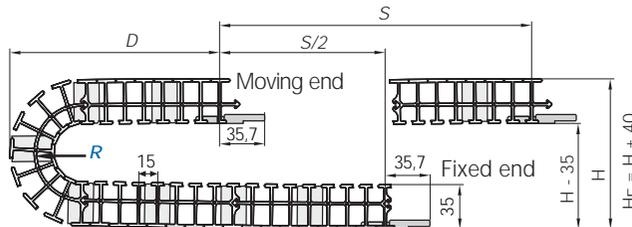
Standard **Unsupported applications**

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. More information ► **Design, page 95**

Technical Data

Speed, material, temperature and flammability class ► **page 884**

- Pitch** = 15 mm/link
- Links/m** = 67 (1005 mm)
- Chain length** = $S/2 + K$



R (min.)	038
H (min.)	216
D	111
K	210

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

i FL_G = with straight upper run FL_B = with permitted sag S = Length of travel R = Bending radius H = Nominal clearance height H_F = Required clearance height D = Overlength e-chain*, radius in final position $K = \pi \cdot R + \text{"safety"}$



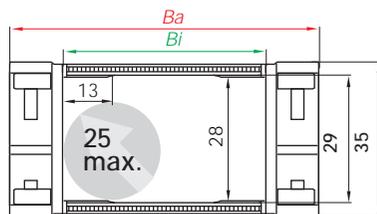
Series T3.29 | T-shaped band e-chain® | Openable along inner and outer radius

e-chain* openable along outer radius	Bi [mm]	Ba [mm]	R Bending radii [mm]	Weight [kg/m]
T3.29.030.R.0	30	55	038	≈ 0,40
T3.29.040.R.0	40	65	038	≈ 0,42
T3.29.050.R.0	50	75	038	≈ 0,44
T3.29.060.R.0	60	85	038	≈ 0,46
T3.29.070.R.0	70	95	038	≈ 0,48
T3.29.080.R.0	80	105	038	≈ 0,50
T3.29.090.R.0	90	115	038	≈ 0,51
T3.29.100.R.0	100	125	038	≈ 0,53
T3.29.110.R.0	110	135	038	≈ 0,55
T3.29.120.R.0	120	145	038	≈ 0,57
T3.29.140.R.0	140	165	038	≈ 0,59

Supplement Part No. with required radius (R), example: T3.29.100.038.0

Order key
T3.29. 100. 038. 0 e-chain®

- Standard color black
- Bending radius R
- Width index (depends on B)
- Series / Type

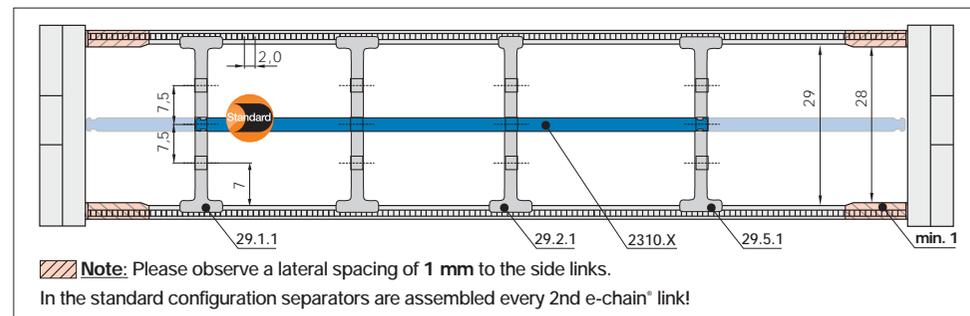


Configuration options and order keys, overview ► page 886

Available from stock. Delivery time* in 24h or today!

*Delivery time means time until shipping of goods (after technical release)

New generation interior separation



Standard separator, wide base

unassembled	29.1
assembled	29.1.1

Standard - for all applications

Separator with a wide base for maximum locking strength and safe standing in e-chains*.

Separator, narrow head

unassembled	29.2
assembled	29.2.1

For even faster installation

Firm hold to one side with a wide base, narrow on opposed side for easy cable assembly (slight grip).

Notch separator for notch crossbar

unassembled	29.5
assembled	29.5.1

Locks safely in 2 mm increments

Notch separator for exact positioning in e-chains*. Recommended for side-mounted applications.

Full-width shelf, lockable

unassembled	2300.X
assembled	2310.X

Horizontal separation

Shelf locks safely into separators on both ends, fixed width possible. Separators can be moved freely over the shelf in horizontal direction. Can be arranged at 3 different heights.



Lockable full-width shelves - for the standard interior separation

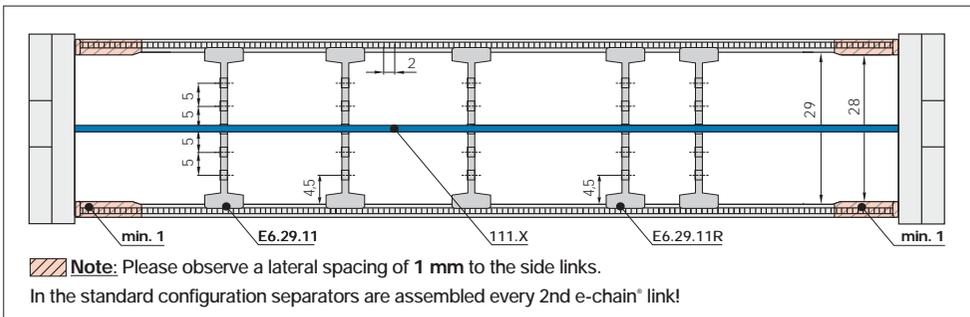
Width X [mm]	unassembled	assembled	Width X [mm]	unassembled	assembled	Width X [mm]	unassembled	assembled
015	2300.015	2310.015	060	2300.060	2310.060	087	2300.087	2310.087
025	2300.025	2310.025	062	2300.062	2310.062	090	2300.090	2310.090
030	2300.030	2310.030	065	2300.065	2310.065	100	2300.100	2310.100
038	2300.038	2310.038	070	2300.070	2310.070	103	2300.103	2310.103
040	2300.040	2310.040	075	2300.075	2310.075	110	2300.110	2310.110
050	2300.050	2310.050	077	2300.077	2310.077	120	2300.120	2310.120
057	2300.057	2310.057	080	2300.080	2310.080	125	2300.125	2310.125

Interior separation with single-part order. Delivery time* in 24h or today!

*Delivery time means time until shipping of goods (after technical release)

Previous interior separation

All elements of the previous interior separation can still be ordered ► www.igus.eu/eu/T3.29



Slotted separator for e-chains*
unassembled **E6.29.01**
assembled **E6.29.11**

Slotted separator E6.29.01
is used when vertical and horizontal separation is required. Due to its slot, it allows basic vertical/horizontal shelving arrangements.

Notch separator, slotted, for e-chains*
unassembled **E6.29.01.R**
assembled **E6.29.11.R**

Notch separator, slotted E6.29.01.R
Locks safely in 2 mm increments. Notch separator for exact positioning in e-chains*. Slipping of the separator during operation is therefore impossible.

Full-width shelf for e-chains*
unassembled **110.X**
assembled **111.X**

Full-width shelf 110.X
This option makes sense in applications with many thin cables with similar diameters. Full-width shelves can be arranged at 5 different heights (in 5 mm increments).

Full-width shelves

Width X (mm)	unassembled	assembled	Width X (mm)	unassembled	assembled	Width X (mm)	unassembled	assembled
030	110.30	111.30	070	110.70	111.70	110	110.110	111.110
040	110.40	111.40	080	110.80	111.80	120	110.120	111.120
050	110.50	111.50	090	110.90	111.90			
060	110.60	111.60	100	110.10	111.100			

Separator with integrated strain relief

Strain relief separator Part No. **E6.29.02.Z** can be integrated into the mounting bracket and can be placed there at any point of the e-chain*. It combines strain relief and interior separation ● For the use in the first or last chain link ● Easy to assemble without any screws. **More information ► from page 1170**

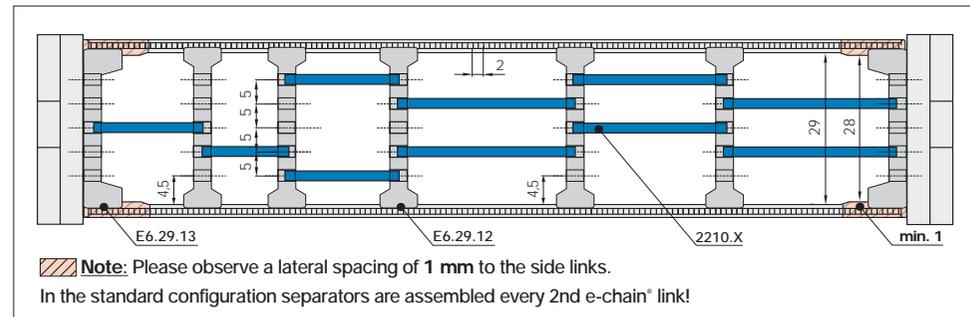


Interior separation with single-part order. **Delivery time* in 24h or today!**

*Delivery time means time until shipping of goods (after technical release)

Previous interior separation

All elements of the previous interior separation can still be ordered ► www.igus.eu/eu/T3.29



Middle plate, slotted for e-chains*
unassembled **E6.29.02**
assembled **E6.29.12**

Middle plate E6.29.12
To achieve a modular shelving the shelf 2200.X can be arranged at 5 different heights (in 5 mm increments).

Side plate slotted, for e-chains*
unassembled **E6.29.03**
assembled **E6.29.13**

Side plate E6.29.03
Works like middle plate. Allows modular shelving close to the side links. No lateral spacing necessary!

Shelf for e-chains*
unassembled **2200.X**
assembled **2210.X**

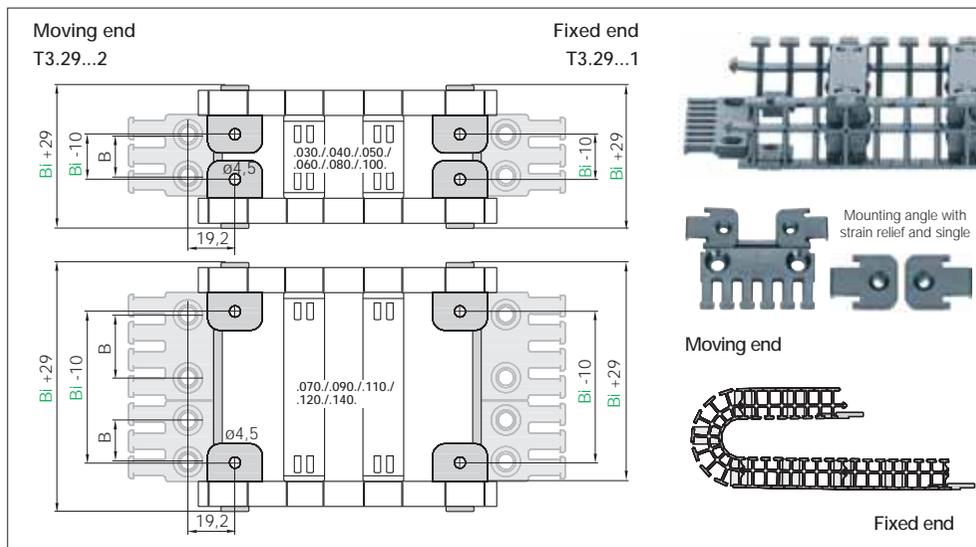
Shelf 2200.X
For applications involving many cables with different diameters, shelves can be arranged at alternate heights. They can be arranged at 5 different heights (in 5 mm increments).

Shelves

Width X (mm)	unassembled	assembled	Width X (mm)	unassembled	assembled	Width X (mm)	unassembled	assembled
018	2200.18	2210.18	043	2200.43	2210.43	076	2200.76	2210.76
023	2200.23	2210.23	048	2200.48	2210.48	088	2200.88	2210.88
028	2200.28	2210.28	058	2200.58	2210.58	099	2200.99	2210.99
033	2200.33	2210.33	068	2200.68	2210.68			
038	2200.38	2210.38	073	2200.73	2210.73			

Interior separation with single-part order. **Delivery time* in 24h or today!**

*Delivery time means time until shipping of goods (after technical release)



Plastic fastener | Mounting angle

For width index	Part No. full set with tiewrap plate	Part No. full set without tiewrap plate	Bi [mm]	Dim. B [mm]	Number of teeth
030.	T3.29.030.12PZ	T3.29.030.12	30	15	3
040.	T3.29.040.12PZ	T3.29.040.12	40	20	4
050.	T3.29.050.12PZ	T3.29.050.12	50	30	5
060.	T3.29.060.12PZ	T3.29.060.12	60	40	6
070.	T3.29.070.12PZ	T3.29.070.12	70	15+20	7
080.	T3.29.080.12PZ	T3.29.080.12	80	60	8
090.	T3.29.090.12PZ	T3.29.090.12	90	20+30	9
100.	T3.29.100.12PZ	T3.29.100.12	100	80	10
110.	T3.29.110.12PZ	T3.29.110.12	110	30+40	11
120.	T3.29.120.12PZ	T3.29.120.12	120	40+40	12
140.	T3.29.140.12PZ	T3.29.140.12	140	60+40	14



- Housing potential for strain relief tiewrap plate
- Minimized outer width
- Fastening of the e-chain* possible on subsurface

Part No. structure

T3.29.100.12



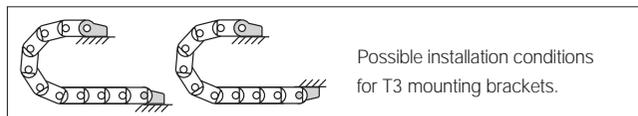
Single-part order:

Mounting bracket Moving end

T3.29.100.2

Mounting bracket Fixed end

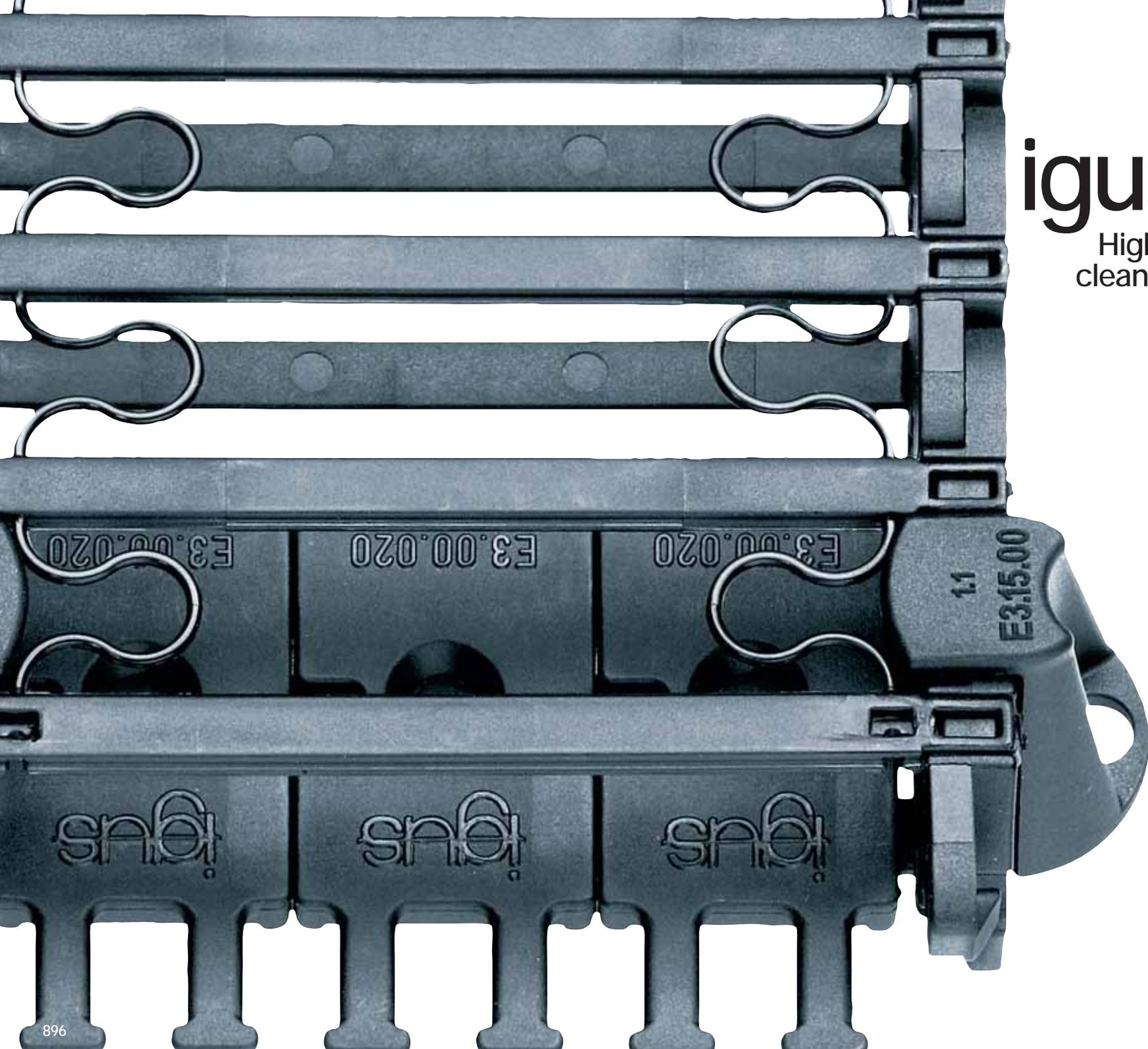
T3.29.100.1



Possible installation conditions for T3 mounting brackets.

Strain relief, e.g. clamps, tiewrap plates, nuggets and plug-in clips are available from stock. The complete chainfix range with order options ► from page 1148





igus® E3

Highly dynamic &
cleanroom suitable

Highly dynamic and cleanroom compatible - System E3

E3 combines small pitch, smooth running, low noise, easy assembly and cost 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. To reduce production and assembling costs, the spring connector is not mounted individually, but on a length of ten e-chain links. Another E3 option is safe performance. A modified spring element made of electrically conductive material, which connects the e-chain links mechanically and electrically, permanently guarantees 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 IG 0704-400:
 ISO Class 1, according to 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 determined at the igus® test-lab acc. to DIN 45635, with consideration of background noises, E3.22.060.044.0 at v = 1,8 m/s

ESD classification: 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/s² showed reductions of 19-20 dB(A) compared to conventional e-chains®.



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



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



iF product design award
 2005 igus® Series E3.15

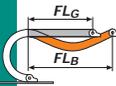
Series	Inner height <i>hi</i> [mm]	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Outer height <i>ha</i> [mm]	Bending radius <i>R</i> [mm]	Unsupported length max. [m]	page
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System E3 - 3-piece e-chains®
Zip-open along outer radius

E3.10	10	20 - 60	32 - 72	15	15 - 48	≈ 0,70	904
E3.15	15	20 - 60	32 - 72	20	32 - 75	≈ 0,90	908
E3.22	22	20 - 60	32 - 72	27	44 - 75	≈ 1,20	912

E3 | Technical Data | Overview



Speed / acceleration FL_G max. max. 20 [m/s] / max. 200 [m/s²]

Speed / acceleration FL_B max. max. 3 [m/s] / max. 6 [m/s²]



Material lidl - permitted temperature °C -40° up to +70° C



Flammability class VDE 0304 IIC UL94-HB

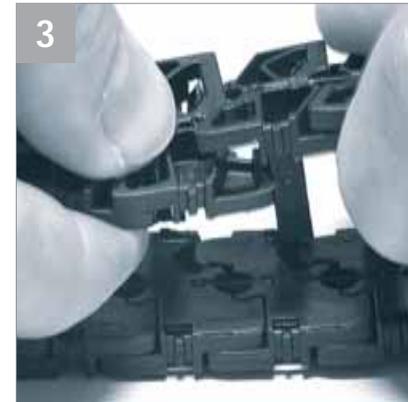
■ FL_G = with straight upper run ■ FL_B = with permitted sag



Rip open the opening strip



Separate connector strip at any point or separate at the parting of the strip (approximately every 10th link) of the e-chain®

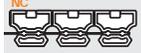


Turn the e-chain® apart, so that the interlocking of the chain links detaches



Separated e-chain® can be shortened or lengthened



 Standard	<i>NC-Version - (no camber) without pretension</i>	<i>ATEX/ESD classified e-chains® -  II 2 GD</i>
Part No. Standard	Part No. NC-Version	Part No. ESD-Material
		
 E3.15.060.R.0	E3.15.060.R.0.NC	E3.15.060.R.0.ESD
 Delivery time* 24h or today!	Delivery time* 2-5 work days	Delivery time* 10 work days
*Delivery time means time until shipping of goods (after technical release)		

Order example | Order key and color options

 Order example for complete e-chain® Series E3.15 (1,0 m), color black, mounting brackets and interior separation

e-chain® (1,0 m)	Please indicate e-chain® length or number of links: 1,0 m or 60 links	E3.15.060.032.0
+ Mounting brackets	1 set (+ tiewrap plates)	E3.060.12
+ Interior separation	with 2 separators assembled every 2 nd link	2 x E3.15.11
Order text: 1,0 m E3.15.060.032.0 + E3.060.12 + 2 x E3.15.11		

 Order key E3.15.060.038.0	Color options for e-chains® and e-tubes			
	Color	Order index	Color	Order index
	 Black Standard, from stock!	.0	 White special color	.1
	 Slate grey only ESD material	.ESD	 Gray white special color	.1S
	 Gray brown only HT material	.HT	 Orange special color	.2
	 Gray special color only e-chains®	.3	 Yellow special color	.4
	 Dusty grey special color only e-tubes	.31	 Light grey special color	.14

Black e-chains® available from stock!
Delivery time* for special colors: from 5 work days

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



igus® Series E3.15 side-mounted in a flat-bed scanner



Universal:
KMA all-sides attachment
or mounting angle

Low-noise 38dB(A)¹⁾:
Small pitch for
smooth running

Flexible:
Easy shortening
and lengthening

Fast opening:
zip-open mechanism
along outer radius

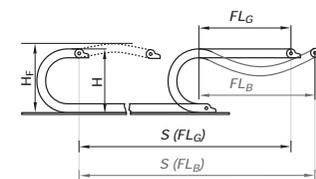
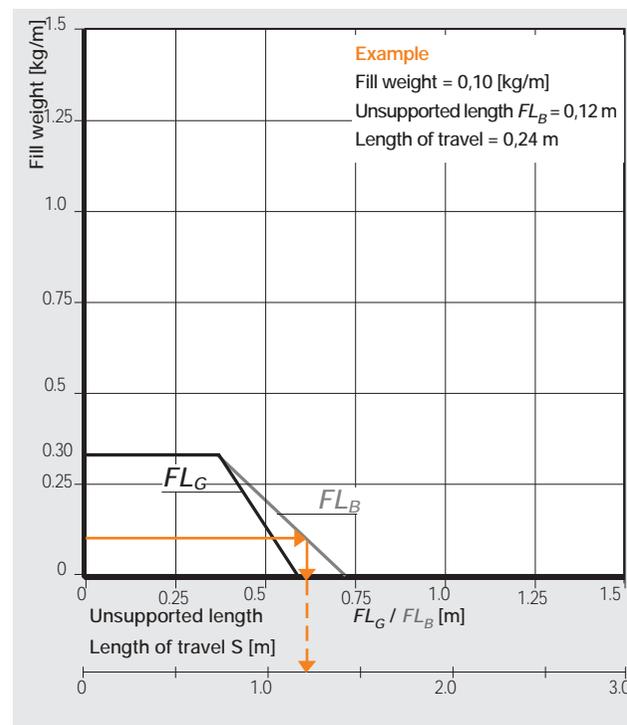
Modular design:
Crossbars, interior
separation and links
all in one band

Dynamic:
For high speeds and
high accelerations

Cleanroom²⁾:
Virtually no wear
or abrasion

- +** **Highly dynamic and cleanroom suitable**
- When to use Series E3.10:**
- If an e-chain® with an inner height of 10 mm is required
 - Inner widths up to 60 mm
 - For unsupported lengths up to 0,70 m and fill weights up to 0,3 kg/m
 - At very high speeds and/or accelerations
 - Small pitch for smooth running
 - If easy filling and assembly is required
 - Minimal abrasion (e.g. cleanroom applications)
- 1) Low-noise - testetd series, more details ▶ page 878
2) Cleanroom - testetd series, more details ▶ page 879

-
- When to use a different igus® Series:**
- If a particularly cost-effective, snap-open solution is required
 - ▶ **Series E/Z06 easy chain®**, page 168
 - If a simple, non snap-open e-chain® is required
 - ▶ **Series 05 E2 micro**, page 314



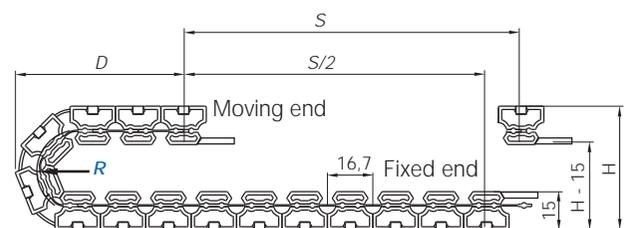
Standard **Unsupported applications**

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. More information ▶ **Design**, page 95

Technical Data

Speed, material, temperature and flammability class ▶ **page 900**

Pitch = 16,7 mm/link
Links/m = 60 (1002 mm)
Chain length = $S/2 + K$



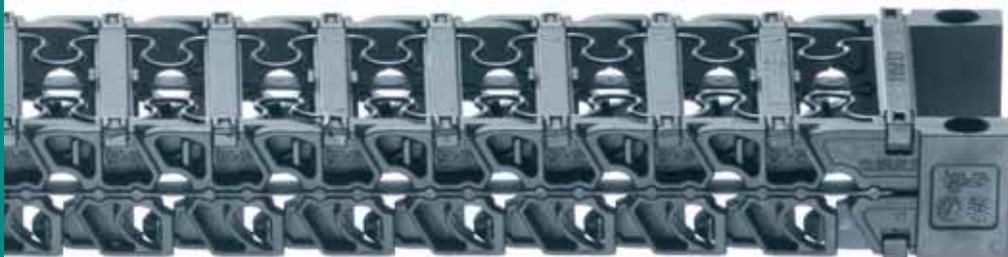
R	015	028	038	048
H	60	86	106	126
D	50	63	73	83
K	85	125	155	185

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

i FL_G = with straight upper run
 FL_B = with permitted sag
 S = Length of travel
 R = Bending radius
 H = Nominal clearance height
 H_f = Required clearance height
 D = Overlength e-chain®, radius in final position
 $K = \pi \cdot R + \text{"safety"}$

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

3D-CAD files, configurators, PDF ▶ www.igus.eu/eu/E3.10



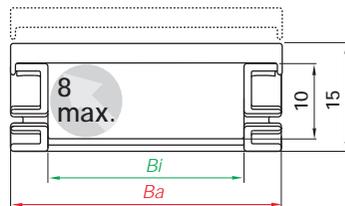
e-chain® | Series E3.10 | Zip-open along outer radius

e-chain* zip-open along outer radius	Bi [mm]	Ba [mm]	R Bending radii [mm]	Weight [kg/m]
E3.10.020.R.0	20	32	015 028 - 048*	≈ 0,12
E3.10.040.R.0	40	52	015 028* 038 048	≈ 0,15
E3.10.060.R.0	60	72	015 028* 038 048*	≈ 0,20

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

Supplement Part No. with required radius (R), example: E3.10.060.015.0

 Order key
E3.10. 060. 015. 0 e-chain®



 Configuration options and order keys, overview ► page 902

 Available from stock. Delivery time* in 24h or today!

*Delivery time means time until shipping of goods (after technical release)

KMA mounting bracket or mounting angle

Fixed end
E3.10.....2

View mounting angle

Moving end
E3.10...1

View KMA mounting bracket

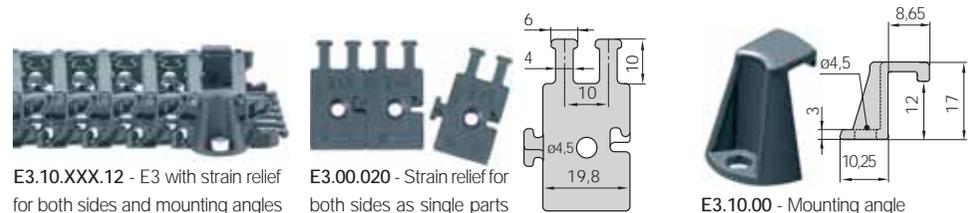
E3.100.XXX.12 - Space-saving allround KMA mounting bracket

Moving end

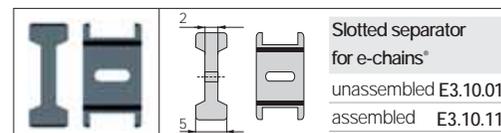
Fixed end

KMA mounting bracket | Optional: Polymer mounting angle
For unsupported applications

Width index	Part No. New in this catalog	Dim. A [mm]	Dim. B [mm]	Part No.	Part No.	Part No. full set
				mounting angle (single part)	strain relief for both sides	strain relief for both sides + 2 mounting angles
.020.	► E3.100.020.12	28	36	E3.10.00	E3.020.12	E3.10.020.12
.040.	► E3.100.040.12	48	56	E3.10.00	E3.040.12	E3.10.040.12
.060.	► E3.100.060.12	68	76	E3.10.00	E3.060.12	E3.10.060.12



Interior separation



Slotted separator E3.10.01
Vertical separators are used if a vertical subdivision of the e-chain® interior is required.



Universal:
KMA all-sides attachment
or mounting angle

Low-noise 38dB(A)¹⁾:
Small pitch for
smooth running

Flexible:
Easy shortening
and lengthening

Fast opening:
zip-open mechanism
along outer radius

Modular design:
Crossbars, interior
separation and links
all in one band

Dynamic:
For high speeds and
high accelerations

Cleanroom ISO Class 1²⁾:
Virtually no wear
or abrasion

+ Highly dynamic and cleanroom suitable

- When to use Series E3.15:**
- If an e-chain® with an inner height of 10 mm is required
 - Inner widths up to 60 mm
 - For unsupported lengths up to 0,90 m and fill weights up to 0,7 kg/m
 - At very high speeds and/or accelerations
 - Small pitch for smooth running
 - If easy filling and assembly is required
 - Minimal abrasion (e.g. cleanroom applications)
- 1) Low-noise - testetd series, more details ▶ page 878
2) Cleanroom - Series E3.15.040.075.0, more details ▶ page 879

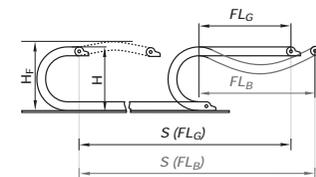
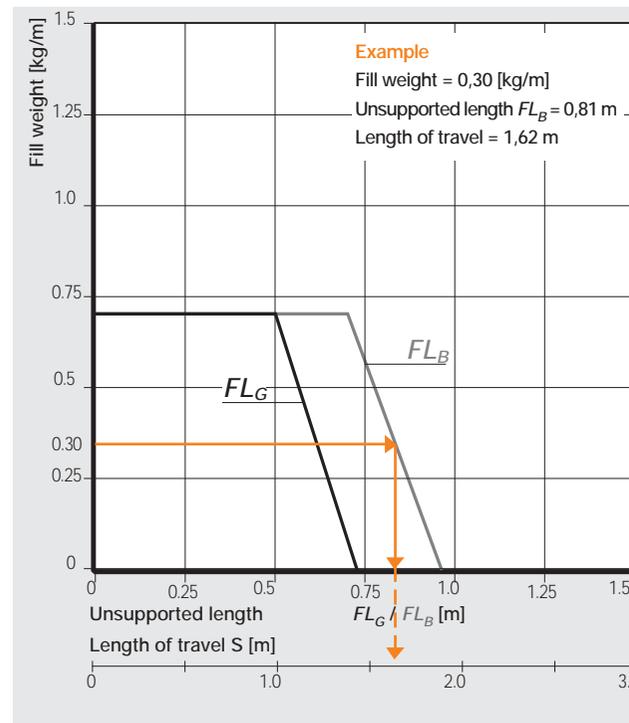
- When to use a different igus® Series:

- If a particularly cost-effective, snap-open solution is required
- ▶ Series E/Z06 easy chain®, page 168
- If a simple, non snap-open e-chain® is required
- ▶ Series 05 E2 micro, page 314



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

3D-CAD files, configurators, PDF ▶ www.igus.eu/eu/E3.15



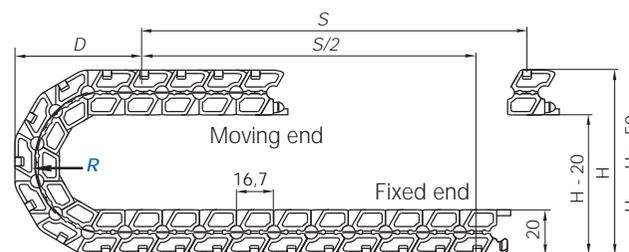
Standard Unsupported applications

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. More information ▶ Design, page 95

Technical Data

Speed, material, temperature and flammability class ▶ page 900

Pitch = 16,7 mm/link
Links/m = 60 (1002 mm)
Chain length = $S/2 + K$



R	032	038	048	075
H	99	111	131	185
D	67	73	83	110
K	135	155	185	270

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

i FL_G = with straight upper run S = Length of travel H = Nominal clearance height D = Overlength e-chain®, radius in final position
 FL_B = with permitted sag R = Bending radius H_f = Required clearance height $K = \pi \cdot R + \text{"safety"}$



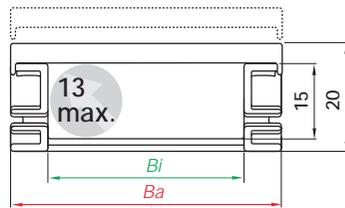
e-chain® | Series E3.15 | Zip-open along outer radius

e-chain* zip-open along outer radius	Bi [mm]	Ba [mm]	R Bending radii [mm]	Weight [kg/m]
E3.15.020.R.0	20	32	032 - 048* -	≈ 0.22
E3.15.040.R.0	40	52	032 038 048 075	≈ 0.25
E3.15.060.R.0	60	72	032 038 048 075	≈ 0.32

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

Supplement Part No. with required radius (R), example: E3.15.060.032.0

Order key
E3.15. 060. 032. 0 e-chain®

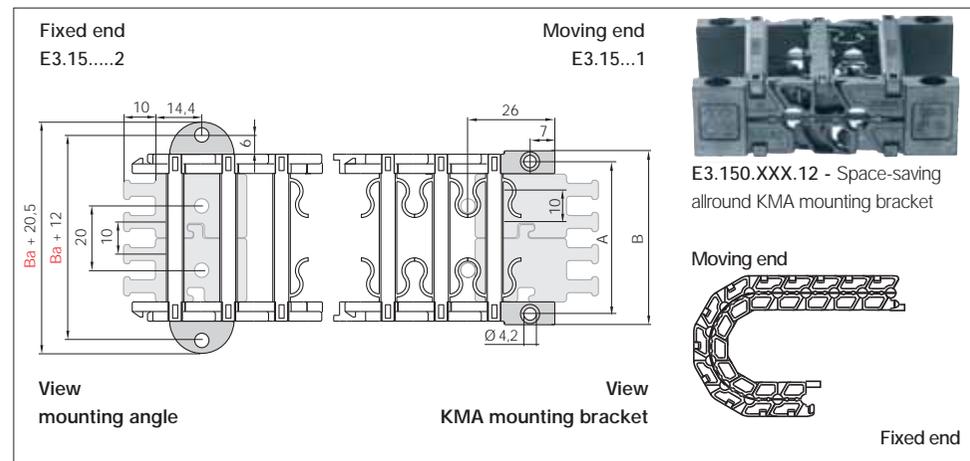


Configuration options and order keys, overview ▶ page 902

Available from stock. Delivery time* in 24h or today!

*Delivery time means time until shipping of goods (after technical release)

KMA mounting bracket or mounting angle

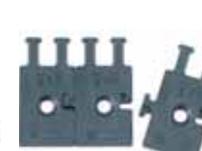


KMA mounting bracket | Optional: Polymer mounting angle
For unsupported applications

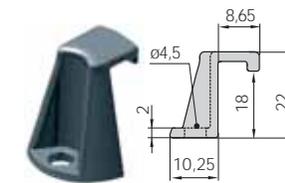
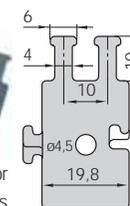
Width index	Part No. New in this catalog Full set	Dim. A [mm]	Dim. B [mm]	Part No. mounting angle (single part)	Part No. strain relief for both sides	Part No. full set strain relief for both sides + 2 mounting angles
.020.	▶ E3.150.020.12	28	36	E3.15.00	E3.020.12	E3.15.020.12
.040.	▶ E3.150.040.12	48	56	E3.15.00	E3.040.12	E3.15.040.12
.060.	▶ E3.150.060.12	68	76	E3.15.00	E3.060.12	E3.15.060.12



E3.15.XXX.12 - E3 with strain relief for both sides and mounting angles

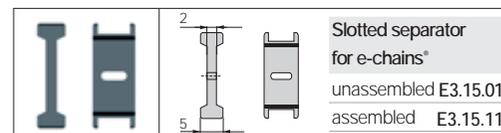


E3.00.020 - Strain relief for both sides as single parts



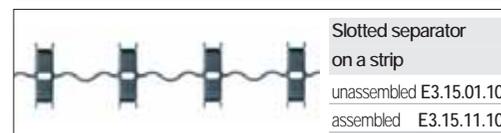
E3.15.00 - Mounting angle

Interior separation



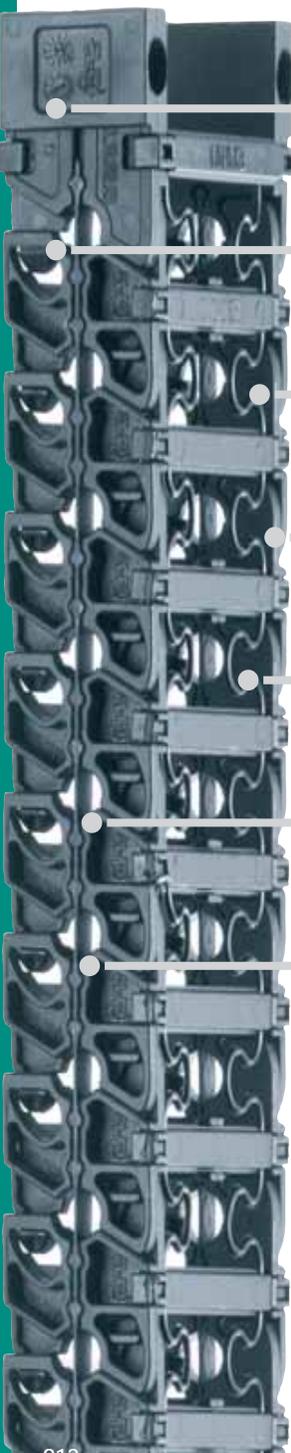
Slotted separator E3.15.01

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



Slotted separator on a strip E3.15.01.10

Five vertical separators altogether on one strip over ten e-chain® links are mounted on the opening crossbars. In this way separate chambers are formed, protecting the cables. Dimensions same as E3.15.01.



Universal:
KMA all-sides attachment
or mounting angle

Low-noise 38dB(A)¹⁾:
Small pitch for
smooth running

Flexible:
Easy shortening
and lengthening

Fast opening:
zip-open mechanism
along outer radius

Modular design:
Crossbars, interior
separation and links
all in one band

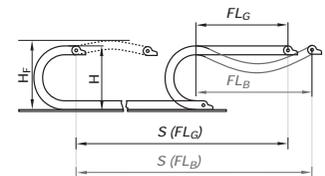
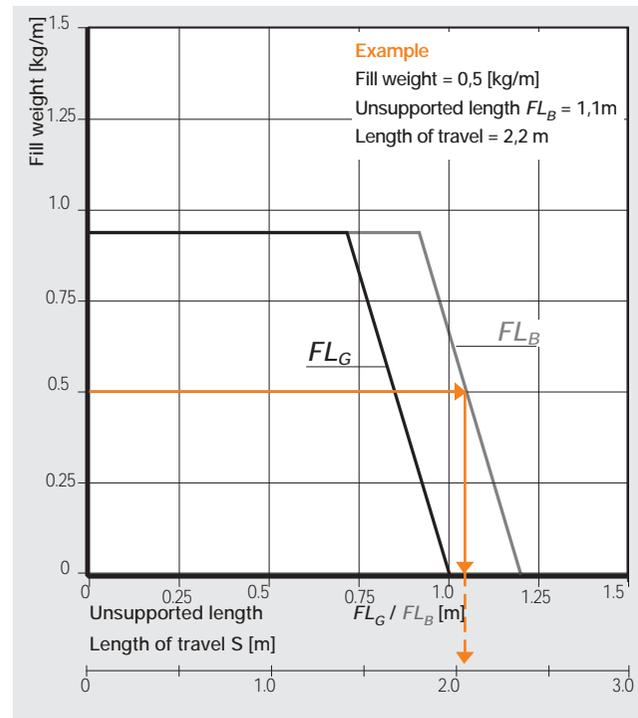
Dynamic:
For high speeds and
high accelerations

Cleanroom²⁾:
Virtually no wear
or abrasion

- +** **Highly dynamic and cleanroom suitable**
- When to use Series E3.22:**
- If an e-chain® with an inner height of 10 mm is required
 - Inner widths up to 60 mm
 - For unsupported lengths up to 1,20 m and fill weights up to 0,9 kg/m
 - At very high speeds and/or accelerations
 - Small pitch for smooth running
 - If easy filling and assembly is required
 - Minimal abrasion (e.g. cleanroom applications)

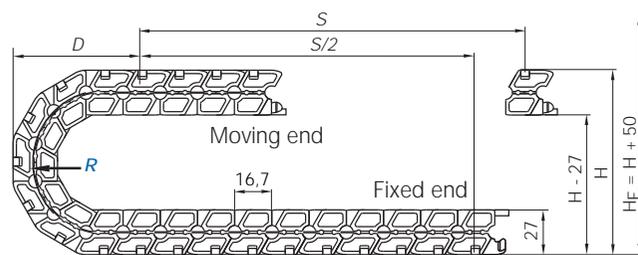
1) Low-noise - testetd series, more details ▶ page 878
2) Cleanroom - testetd series, more details ▶ page 879

-
- When to use a different igus® Series:**
- If a particularly cost-effective, snap-open solution is required
 - ▶ **Series E/Z06 easy chain®**, page 168
 - If a simple, non snap-open e-chain® is required
 - ▶ **Series 05 E2 micro**, page 314



Standard **Unsupported applications**

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. More information ▶ **Design, page 95**



Technical Data

Speed, material, temperature and flammability class ▶ **page 900**

Pitch = 16,7 mm/link
Links/m = 60 (1002 mm)
Chain length = $S/2 + K$

R	044	050	075
H	134	146	196
D	82	88	113
K	175	195	270

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

i FL_G = with straight upper run S = Length of travel H = Nominal clearance height D = Overlength e-chain®, radius in final position
 FL_B = with permitted sag R = Bending radius H_f = Required clearance height $K = \pi \cdot R + \text{"safety"}$

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

3D-CAD files, configurators, PDF ▶ www.igus.eu/eu/E3.22

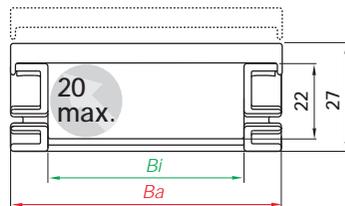


e-chain® | Series E3.22 | Zip-open along outer radius

e-chain* zip-open along outer radius	Bi [mm]	Ba [mm]	R Bending radii [mm]	Weight [kg/m]
E3.22.020.R.0	20	32	044 050 075	≈ 0,30
E3.22.040.R.0	40	52	044 050 075	≈ 0,32
E3.22.060.R.0	60	72	044 - 075	≈ 0,41

Supplement Part No. with required radius (R), example: E3.22.060.044.0

Order key
E3.22. 060. 044. 0 e-chain®

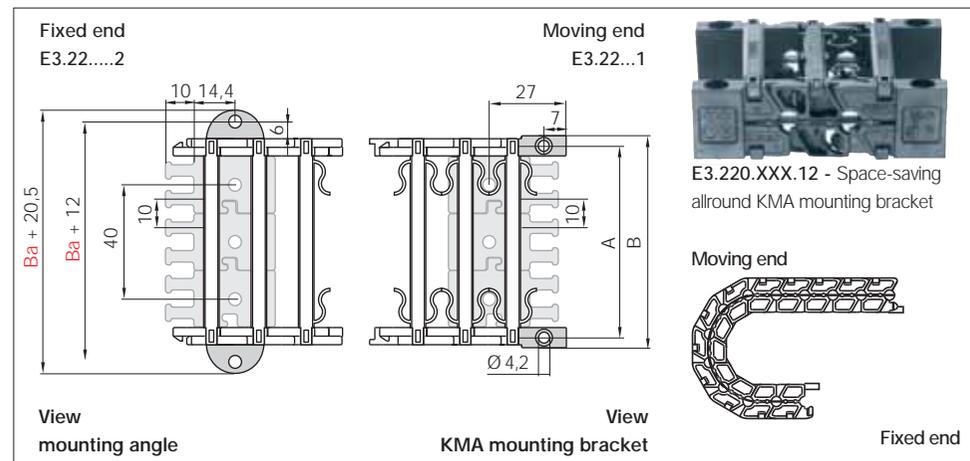


Configuration options and order keys, overview ▶ page 902

Available from stock. Delivery time* in 24h or today!

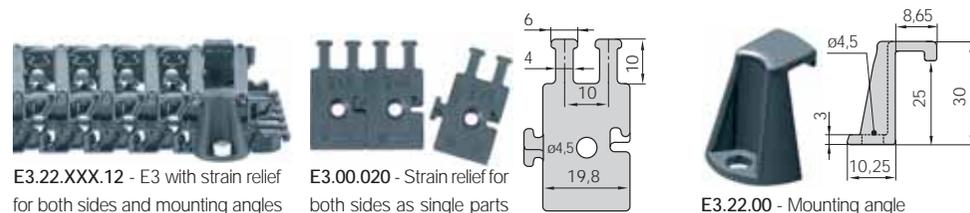
*Delivery time means time until shipping of goods (after technical release)

KMA mounting bracket or mounting angle

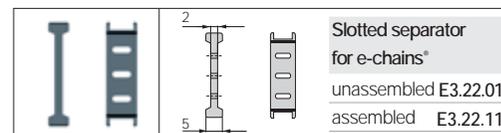


KMA mounting bracket | Optional: Polymer mounting angle
For unsupported applications

Width index	Part No. Full set	Part No. New in this catalog KMA mounting bracket	Dim. A [mm]	Dim. B [mm]	Part No. mounting angle (single part)	Part No. strain relief for both sides	Part No. full set strain relief for both sides + 2 mounting angles
					.020.	▶ E3.220.020.12	28
.040.	▶ E3.220.040.12	48	56	E3.22.00	E3.040.12	E3.22.040.12	
.060.	▶ E3.220.060.12	68	76	E3.22.00	E3.060.12	E3.22.060.12	



Interior separation



Slotted separator E3.22.01

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



igus[®]
System E6

extremely low-noise,
minimum vibration and abrasion,
cleanroom suitable

Extremely low-noise, minimum vibration and abrasion, clean room suitable - System E6

The E6 Series offers numerous advantages in addition to 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.

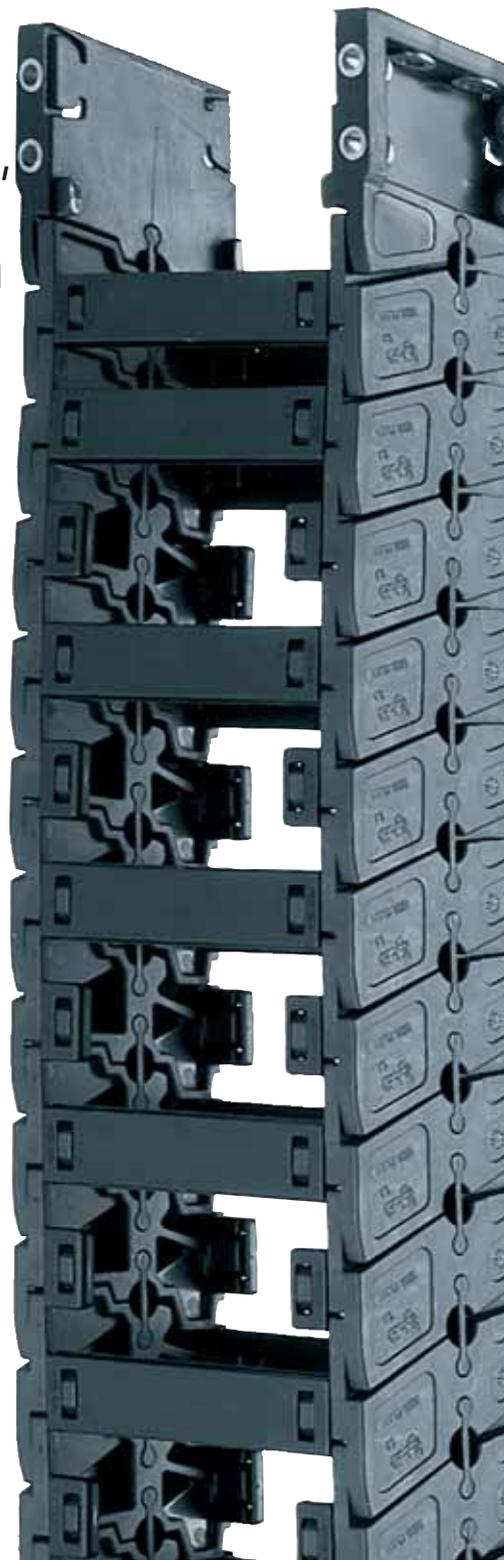
Typical industries and applications

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

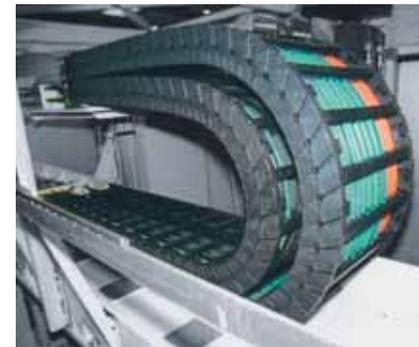
 37dB(A) - Values determined at the igus® test-lab, (v = 1,8 m/s), Series E6.29.080.075.0

 System E6 - 6-piece e-chains®-links

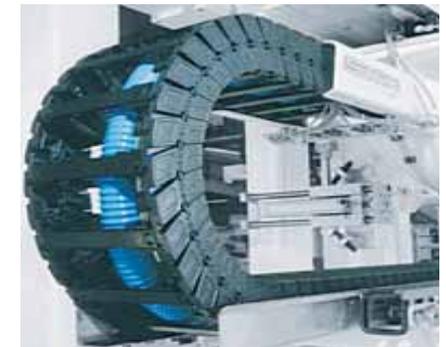
 LEVEL 1 absorption confirmed by IPA-Fraunhofer-Institut according to SEMI E78-0998 for the E6 standard material. Special material "igumid ESD" for ESD/ATEX applications available on request. Continuously constant conductance value as there are no pin-bore connection



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



Nested e-chains® reduce vibrations and improve milling accuracy Series E6.80



System E6 in a pick and place robot. Handles injection molded CD covers in a split second: Tool open gripper in....tool closed - all in 0.25 seconds, speed 8m/s, acceleration: 78,5 m/s²



IPA Qualification Certificate - Report IG 0704-400:

ISO Class 1, according to DIN EN ISO 14644-1 for System E6, Series E6.29.060.150.0.CR at v = 0,5 m/s, 2 m/s



By eliminating the pin-hole connection, the unsupported E6 has very low abrasion and is suitable for cleanrooms

Cleanroom qualification of E6 e-chains®

In many applications where cumbersome special solutions are used, a simple standard e-chain® can be used instead. A comprehensive test program was devised and performed for both gliding use and unsupported use. For many applications, the e-chains® in special materials are practically abrasion-free. Detailed test results are available upon request. IPA tests confirm that standard igus® e-chains® meet cleanroom requirements. "Tested and certified as very good!" e-chains® for cleanroom applications in the test stand cleanroom environments demand very high wear resistance of moving parts. e-chains®, for example, must be very wear resistant, in order to meet normal requirements for such a sensitive environment.



IPA Qualification Certificate - Report IG 0704-400:

- **Special material "cleanroom" - ISO Class 1, according to DIN EN ISO 14644-1**

for Series E6.29.060.150.0.CR at v = 0,5 m/s, 2,0 m/s

- **Standard material - ISO Class 3, according to DIN EN ISO 14644-1**

for Series E6.29.060.150.0 at v = 0,5 m/s, 2,0 m/s and

Series E6.29.050.055.0 with inserted cables CF34.15.04, CF9.05.12, CF11.02.01.02.PBA.LC.D



Noise test in the igus® laboratory 40db(A) E6.29.100.100.0 series for long travel paths, v = 2 m/s

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 ≤ 37 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. A measurement in the igus® laboratory gave a value of 37dB(A) for series E6.29.080.075.0 at v = 1.0 m/s unsupported.

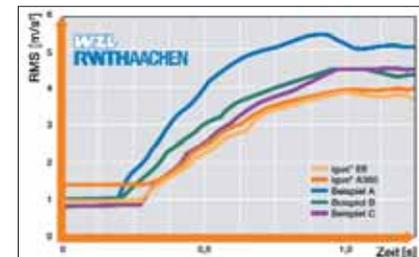


Chart: Study of the Laboratory of Machine Tools and Production Engineering (WZL) of the RWTH Aachen on "Vibration tests in energy supply chains". Result: The "E6" energy supply system of the company igus® GmbH, Cologne, is characterized by extreme low vibration and smooth running

Series	Inner height <i>hi</i> [mm]	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Outer height <i>ha</i> [mm]	Bending radius <i>R</i> [mm]	Unsupported length max. [m]	page
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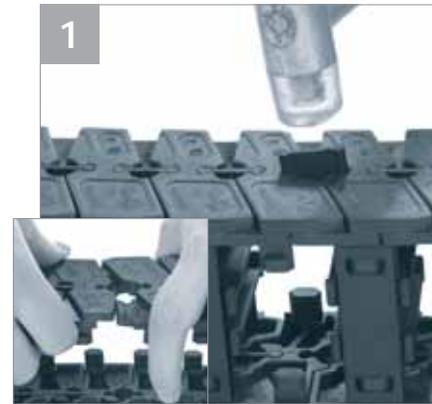
Crossbars every 2nd link - the E6 e-chain® standard
Crossbars removable along both radii

E6.29	29	30 - 140	46 - 156	35	55 - 150	≈ 1,75	928
E6.35	35	30 - 140	50 - 160	42	55 - 100	≈ 1,90	938
E6.40	40	40 - 300	60 - 320	54	63 - 200	≈ 2,75	946
E6.52	52	40 - 300	64 - 324	65	75 - 250	≈ 3,00	956
E6.62	62	50 - 400	86 - 436	84	115 - 350	≈ 4,00	966
E6.80L	80	87 - 550	115 - 578	108	175	≈ 2,50	976
E6.80	80	50 - 600	100 - 650	108	150 - 450	≈ 5,25	984

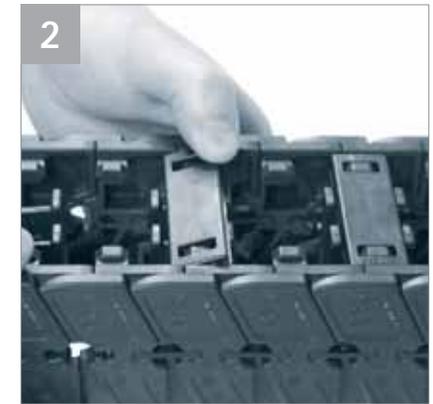


Fully enclosed e-tubes
Enclosed design protects from light debris, weld splatter and compromising environmental influences

R6.29	28	30 - 120	46 - 136	35	55 - 150	≈ 1,75	928
R6.40	40	62	82	54	63 - 200	≈ 2,75	946
R6.52	52	50 - 175	74 - 199	65	75 - 250	≈ 3,00	956



Position side links, gently twist and snap in. Gently reinsert connector by using hammer



Position crossbars, push down and snap in



Lever crossbars with screwdriver. Tap gently to remove connectors...



...twist and separate side links



Technical Data, overview ► page 924



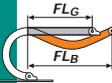
e-chain® links as single parts, overview ► page 925



Configuration options and order keys, overview ► page 926



Technical Data - E6

	Gliding speed / acceleration (maximum)	upon request ¹⁾
	Speed / acceleration FL_G max.	max. 20 [m/s] / max. 200 [m/s ²]
	Speed / acceleration FL_B max.	max. 3 [m/s] / max. 6 [m/s ²]
	Material - permitted temperature °C	-40° up to +70° C
	Flammability class	VDE 0304 IIC UL94-HB

■ FL_G = with straight upper run ■ FL_B = with permitted sag

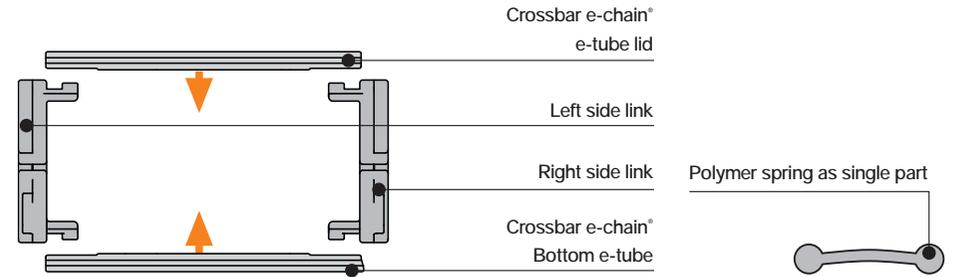
¹⁾ In special cases, gliding applications are also possible, please consult igus*.

Installation methods overview, maximum travels - E6

e-chain® Series	Unsupported application	Gliding application ¹⁾	Vertical hanging	Vertical standing	Side mounted unsupported
E6.29 / R6.29	≤ 1,75 m	upon request	≤ 30 m	≤ 2,0 m	upon request
E6.35	≤ 1,90 m	upon request	≤ 30 m	≤ 2,0 m	upon request
E6.40 / R6.40	≤ 2,75 m	upon request	≤ 30 m	≤ 2,0 m	upon request
E6.52 / R6.52	≤ 3,00 m	upon request	≤ 50 m	≤ 2,0 m	upon request
E6.62	≤ 4,00m	upon request	≤ 60 m	≤ 3,0 m	upon request
E6.80L	≤ 2,50 m	upon request	≤ 60 m	≤ 4,0 m	upon request
E6.80	≤ 5,25 m	upon request	≤ 60 m	≤ 4,0 m	upon request

¹⁾ In special cases, gliding applications are also possible, please consult igus*.

 Part No. 6-piece e-chain® links as single parts - E6



 Series	Crossbar ¹⁾ e-chain®	Lid ¹⁾ e-tube	Bottom ¹⁾ e-tube	Side link left ²⁾	Side link right ²⁾	Polymer spring e-chain®/e-tube
E6.29 / R6.29	2105. <i>Bi</i>	E6.295. <i>Bi</i>	E6.296. <i>Bi</i>	E6.29.01. <i>R</i>	E6.29.02. <i>R</i>	E6.29.140
E6.35	2105. <i>Bi</i>	-	-	E6.35.01. <i>R</i>	E6.35.02. <i>R</i>	E6.35.150
E6.40 / R6.40	225. <i>Bi</i>	E6.405. <i>Bi</i>	E6.406. <i>Bi</i>	E6.40.01. <i>R</i>	E6.40.02. <i>R</i>	E6.40.177
E6.52 / R6.52	225. <i>Bi</i>	E6.525. <i>Bi</i>	E6.526. <i>Bi</i>	E6.52.01. <i>R</i>	E6.52.02. <i>R</i>	E6.52.195
E6.62	385. <i>Bi</i>	-	-	E6.62.01. <i>R</i>	E6.62.02. <i>R</i>	E6.62.340
E6.80L	450. <i>Bi</i>	-	-	E6.80L.01. <i>R</i>	E6.80L.02. <i>R</i>	E6.80.350
E6.80	450. <i>Bi</i>	-	-	E6.80.01. <i>R</i>	E6.80.02. <i>R</i>	E6.80.350

¹⁾ Crossbar / lid / bottom - supplement Part No. with required width index (*Bi*), example: 450.150

²⁾ Side link- supplement Part No. with required radius (*R*), example: E6.50.150

 Available from stock. Delivery time* in 24h or today!

*Delivery time means time until shipping of goods (after technical release)

i **Standard** *QuickLock crossbar ¹⁾ - bis reduce assembly time up to 25%*
1) not for Series E6.29 / E6.35 / E6.40 / E6.52

Part No. Standard	Part No. QuickLock crossbar ¹⁾ for inner radius	Part No. QuickLock crossbar ¹⁾ for outer radius	Part No. QuickLock crossbar ¹⁾ for both radii	Part No. NC-Version (no camber) without pretension
	 QuickLock crossbars: inner widths from B/10 (100 mm)			
E6.62.100.R.0 Crossbar every 2 nd link	E6.62.100QZ.R.0 Crossbar every 2 nd link	E6.62.100QE.R.0 Crossbar every 2 nd link	E6.62.100Q.R.0 Crossbar every 2 nd link	E6.62.100.R.0.NC Crossbar every 2 nd link
Delivery time* 24h or today!	Delivery time* 3-5 work days	Delivery time* 3-5 work days	Delivery time* 3-5 work days	Delivery time* 2-5 work days

*Delivery time means time until shipping of goods (after technical release)

Order example | Order key and color options

Order example for complete e-chain® Series E6.62 (1,0 m, with crossbars every 2nd link, color black, mounting brackets and interior separation):

e-chain® (1,0 m) Please indicate e-chain® length or number of links: 1,0 m or 20 links **E6.62.10.250.0**

+ Mounting brackets 1 set (with odd number of links and integrated C-profiles) **E6.620.10.12.C**

+ Interior separation with 2 separators assembled every 2nd link **2 x 62.1.1**

Order text: 1,0 m E6.62.10.250.0 + E6.620.10.12.C + 2 x Part No. 62.1.1

Order key
E6.62.10.250.0

Color options for e-chains® and e-tubes			
Color	Order index	Color	Order index
Black Standard, from stock!	.0	White special color	.1
Slate grey only ESD material	.ESD	Gray white special color	.1S
Gray brown only HT material	.HT	Orange special color	.2
Gray special color only e-chains®	.3	Yellow special color	.4
Dusty grey special color only e-tubes	.31	Light grey special color	.14

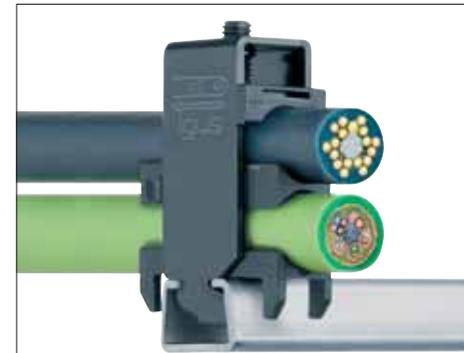
Standard color black
 Bending radius **R**
 Width index
 Inner height
 Series / Type

Black e-chains® available from stock!
Delivery time* for special colors: from 5 work days

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



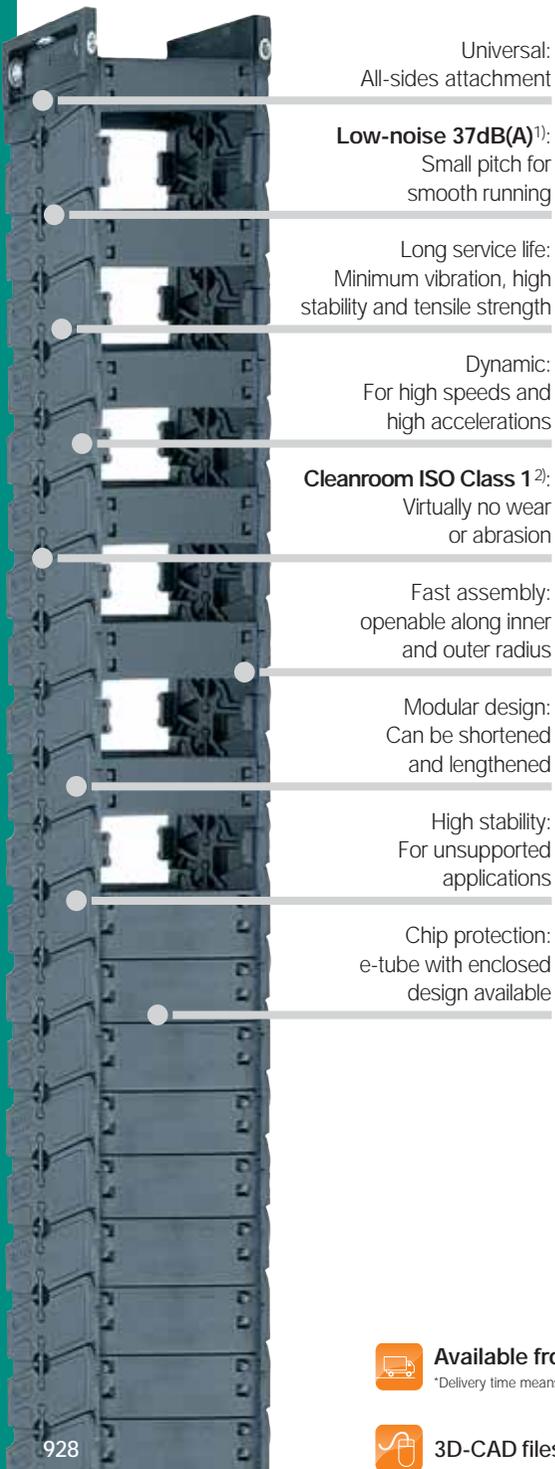
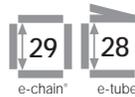
e-chainsystem® E6 without classical pin-hole connection.
 At present, the solution with the lowest noise and vibration in the igus® e-chains® range



Strain relief system
 Clamps, tiwrap plates, nuggets and plug-in clips. The complete chainfix range with many order options ▶ from page 1148



Support tray tool kit
 For support of the lower run. Simple one-piece support trays according to your requirements and specification ▶ from page 1258



Universal:
All-sides attachment

Low-noise 37dB(A)¹⁾:
Small pitch for
smooth running

Long service life:
Minimum vibration, high
stability and tensile strength

Dynamic:
For high speeds and
high accelerations

Cleanroom ISO Class 1²⁾:
Virtually no wear
or abrasion

Fast assembly:
openable along inner
and outer radius

Modular design:
Can be shortened
and lengthened

High stability:
For unsupported
applications

Chip protection:
e-tube with enclosed
design available

+ Extremely low-noise, low vibration, high stability

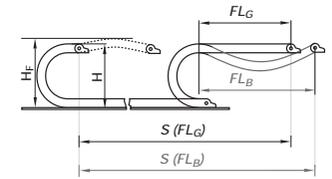
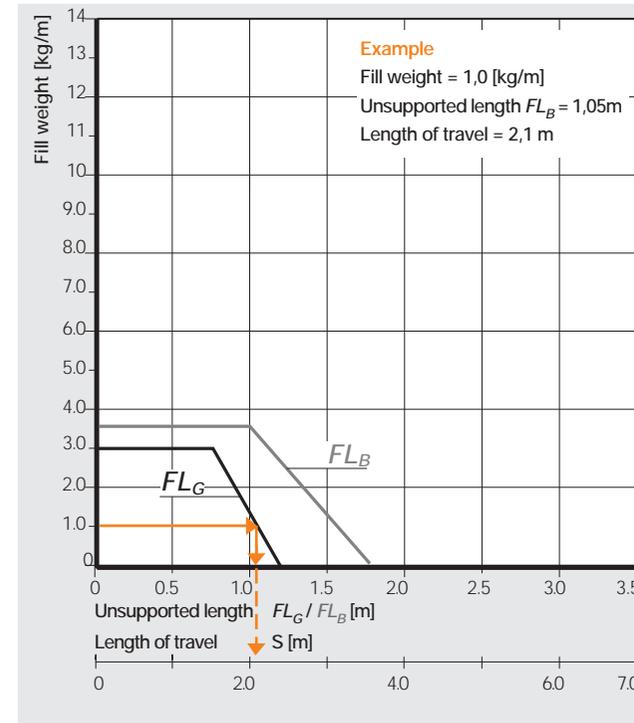
When to use Series E6.29·R6.29:

- If a particularly low noise, low vibration e-chain® with an inner height of 29 mm (e-tube 28 mm) is required
- At very high speeds and/or accelerations
- Inner widths up to 140 mm
- For unsupported lengths up to 1,75 m and fill weights up to 3,6 kg/m
- For enlarged thrusts and tensile forces
- For small bending radii
- Minimal abrasion (e.g. cleanroom applications)

1) Low-noise - testetd series, more details ▶ page 878
2) Cleanroom - Series E6.29.060.150.0.CR, more details ▶ page 879

- When to use a different igus® Series:

- Limited in side-mounted applications
▶ Series 2400/2500 E2/000, page 426
- No use with RBR (reverse bending radius)
▶ Series 2400/2500 E2/000, page 426
- No use with high additional fill weights
▶ Series 2400/2500 E2/000, page 426
- No use in dirty environments
▶ Series 2480 E2/000, page 426
- For still less vibration and noise generation or even higher dynamics
▶ Series E61.29 System E6.1, page 1002

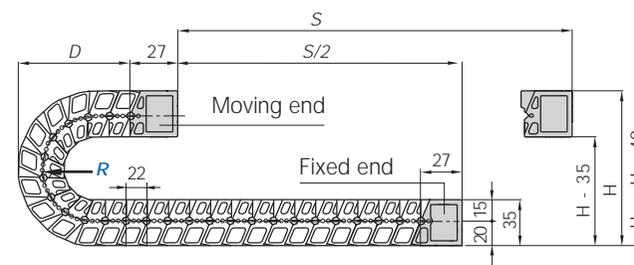


Standard Unsupported applications

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. More information ▶ Design, page 95



In special cases, gliding applications are also possible, please consult igus®.



Technical Data

Speed, material, temperature and flammability class ▶ page 924

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

R	055	075	100	150
H	180	220	270	370
D	108	128	153	203
K	220	280	360	520

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

i FL_G = with straight upper run FL_B = with permitted sag S = Length of travel R = Bending radius H = Nominal clearance height H_F = Required clearance height D = Overlength e-chain®, radius in final position $K = \pi \cdot R + \text{"safety"}$

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

3D-CAD files, configurators, PDF ▶ www.igus.eu/eu/E6.29



Crossbars every 2nd link

e-chains® | Series E6.29 Crossbars every 2nd link | Removable along both radii

Part No.	<i>Bi</i> [mm]	<i>Ba</i> [mm]	E6.29 [kg/m]
Crossbars every 2 nd link			
E6.29. 030. R.0	30	46	0,73
E6.29. 040. R.0	40	56	0,75
E6.29. 050. R.0	50	66	0,78
E6.29. 060. R.0	60	76	0,80
E6.29. 070. R.0	70	86	0,83
E6.29. 080. R.0	80	96	0,85

Available bending radii *R* [mm] 055 | 075 | 100 | 150

Supplement Part No. with required radius (*R*), example: E6.29.050.100.0

e-chain® links as single parts, overview ► page 925

Configuration options and order keys, overview ► page 926

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



Fully enclosed

e-tubes | Series R6.29 fully enclosed | Crossbars removable along both radii

Part No.	<i>Bi</i> [mm]	<i>Ba</i> [mm]	R6.29 [kg/m]
fully enclosed			
R6.29. 030. R.0	30	46	0,80
R6.29. 040. R.0	40	56	0,85
R6.29. 050. R.0	50	66	0,89
R6.29. 060. R.0	60	76	0,94
R6.29. 070. R.0*	70	86	0,97
R6.29. 080. R.0	80	96	1,03

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

Available bending radii *R* [mm] 055 | 075 | 100 | 150

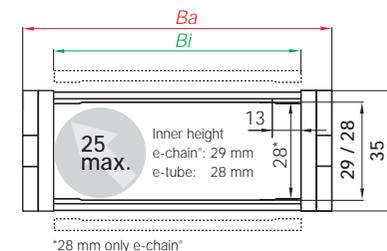
Supplement Part No. with required radius (*R*), example: R6.29.050.100.0

Order key

E6.29.050.100.0 Crossbar every 2nd link
R6.29.050.100.0 Fully enclosed e-tube



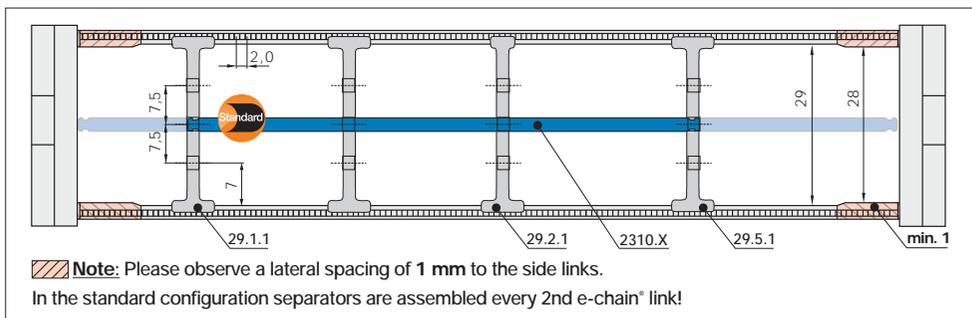
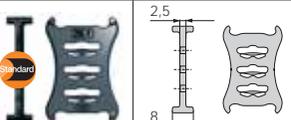
Dimensioning



e-chain® links as single parts, overview ► page 925

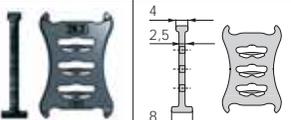
Configuration options and order keys, overview ► page 926

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

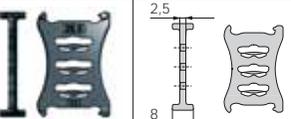
Standard separator, wide base
unassembled 29.1
assembled 29.1.1

Standard - for all applications
Separator with a wide base for maximum locking strength and safe standing in e-chains®.



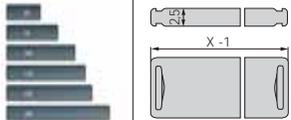
Separator, narrow head
unassembled 29.2
assembled 29.2.1

For even faster installation
Firm hold to one side with a wide base, narrow on opposed side for easy cable assembly (slight grip).



Notch separator for notch crossbar
unassembled 29.5
assembled 29.5.1

Locks safely in 2 mm increments
Notch separator for exact positioning in e-chains®. Recommended for side-mounted applications.



Full-width shelf, lockable
unassembled 2300.X
assembled 2310.X

Horizontal separation
Shelf locks safely into separators on both ends, fixed width possible. Separators can be moved freely over the shelf in horizontal direction. Can be arranged at 3 different heights.



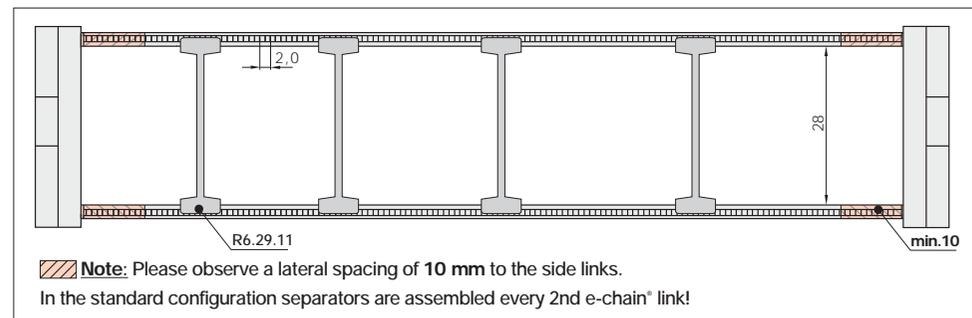
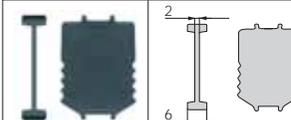
Lockable full-width shelves - for the standard interior separation

Width X [mm]	unassembled	assembled	Width X [mm]	unassembled	assembled	Width X [mm]	unassembled	assembled
015	2300.015	2310.015	060	2300.060	2310.060	087	2300.087	2310.087
025	2300.025	2310.025	062	2300.062	2310.062	090	2300.090	2310.090
030	2300.030	2310.030	065	2300.065	2310.065	100	2300.100	2310.100
038	2300.038	2310.038	070	2300.070	2310.070	103	2300.103	2310.103
040	2300.040	2310.040	075	2300.075	2310.075	110	2300.110	2310.110
050	2300.050	2310.050	077	2300.077	2310.077	120	2300.120	2310.120
057	2300.057	2310.057	080	2300.080	2310.080	125	2300.125	2310.125



Interior separation with single-part order. Delivery time* in 24h or today!

*Delivery time means time until shipping of goods (after technical release)

Separator for e-tubes
unassembled R6.29.01
assembled R6.29.11

Vertical separator R6.29.01
For e-tubes R6.29. The notches on this separator mark the side that fixes to the lid.

Separator with integrated strain relief

Strain relief separators Part No. E6.29.02.Z (for e-chains®) and R6.29.02.Z (for e-tubes) can be integrated into the mounting bracket and can be placed there at any point of the e-chain®. It combines strain relief and interior separation ● For the use in the first or last chain link ● Easy to assemble without any screws.
More information ▶ from page 1170

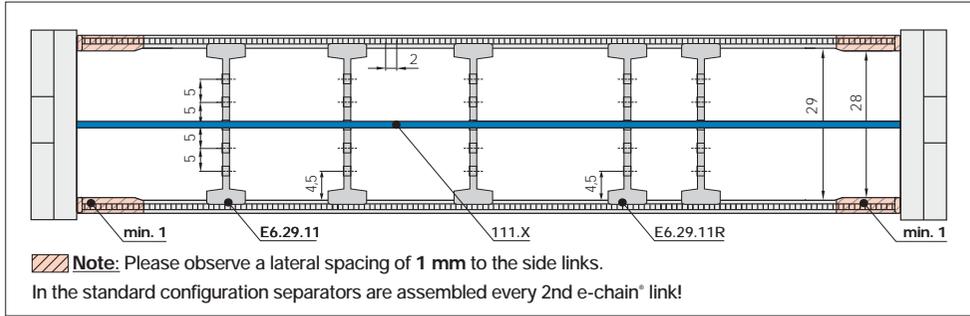



Interior separation with single-part order. Delivery time* in 24h or today!

*Delivery time means time until shipping of goods (after technical release)

Previous interior separation - for e-chains®

All elements of the previous interior separation can still be ordered ▶ www.igus.eu/eu/R6.29



Slotted separator for e-chains®
is used when vertical and horizontal separation is required. Due to its slot, it allows basic vertical/horizontal shelving arrangements.

unassembled E6.29.01
assembled E6.29.11

Notch separator, slotted, for e-chains®
Locks safely in 2 mm increments. Notch separator for exact positioning in e-chains®. Slipping of the separator during operation is therefore impossible.

unassembled E6.29.01.R
assembled E6.29.11.R

Full-width shelf for e-chains®

unassembled 110.X
assembled 111.X

Slotted separator E6.29.01

is used when vertical and horizontal separation is required. Due to its slot, it allows basic vertical/horizontal shelving arrangements.

Notch separator, slotted E6.29.01.R

Locks safely in 2 mm increments. Notch separator for exact positioning in e-chains®. Slipping of the separator during operation is therefore impossible.

Full-width shelf 110.X

This option makes sense in applications with many thin cables with similar diameters. Full-width shelves can be arranged at 5 different heights (in 5 mm increments).

Full-width shelves

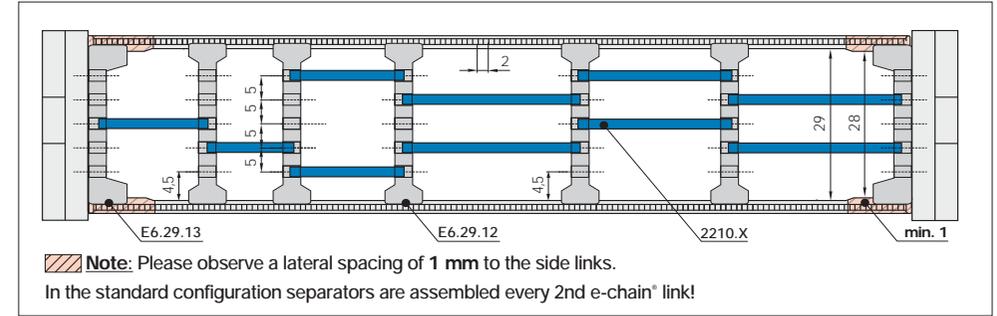
Width X (mm)	unassembled	assembled	Width X (mm)	unassembled	assembled	Width X (mm)	unassembled	assembled
030	110.30	111.30	070	110.70	111.70	110	110.110	111.110
040	110.40	111.40	080	110.80	111.80	120	110.120	111.120
050	110.50	111.50	090	110.90	111.90			
060	110.60	111.60	100	110.10	111.100			

Interior separation with single-part order. **Delivery time* in 24h or today!**

*Delivery time means time until shipping of goods (after technical release)

Previous interior separation - for e-chains®

All elements of the previous interior separation can still be ordered ▶ www.igus.eu/eu/R6.29



Middle plate, slotted for e-chains®
To achieve a modular shelving the shelf 2200.X can be arranged at 5 different heights (in 5 mm increments).

unassembled E6.29.02
assembled E6.29.12

Middle plate E6.29.12

To achieve a modular shelving the shelf 2200.X can be arranged at 5 different heights (in 5 mm increments).

Side plate slotted, for e-chains®
Works like middle plate. Allows modular shelving close to the side links. No lateral spacing necessary!

unassembled E6.29.03
assembled E6.29.13

Side plate E6.29.03

Works like middle plate. Allows modular shelving close to the side links. No lateral spacing necessary!

Shelf for e-chains®
For applications involving many cables with different diameters, shelves can be arranged at alternate heights. They can be arranged at 5 different heights (in 5 mm increments).

unassembled 2200.X
assembled 2210.X

Shelf 2200.X

For applications involving many cables with different diameters, shelves can be arranged at alternate heights. They can be arranged at 5 different heights (in 5 mm increments).

Shelves

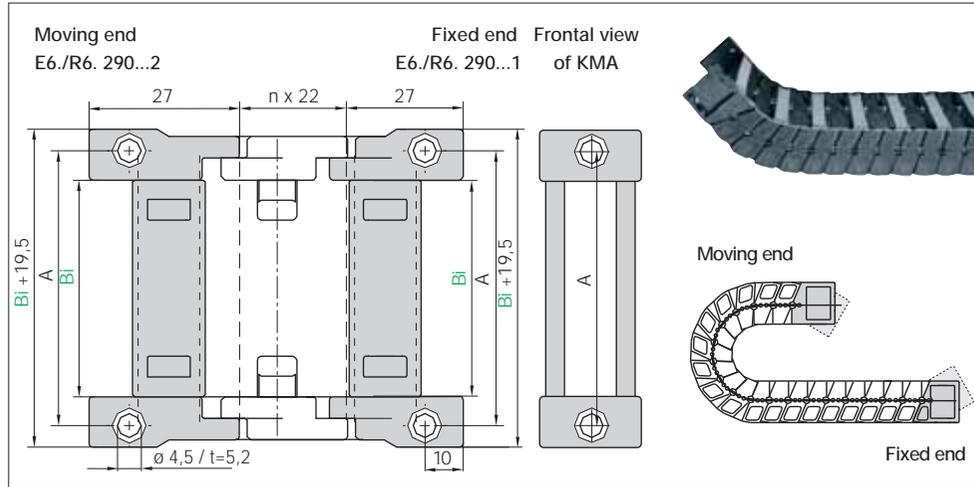
Width X (mm)	unassembled	assembled	Width X (mm)	unassembled	assembled	Width X (mm)	unassembled	assembled
018	2200.18	2210.18	043	2200.43	2210.43	076	2200.76	2210.76
023	2200.23	2210.23	048	2200.48	2210.48	088	2200.88	2210.88
028	2200.28	2210.28	058	2200.58	2210.58	099	2200.99	2210.99
033	2200.33	2210.33	068	2200.68	2210.68			
038	2200.38	2210.38	073	2200.73	2210.73			

Interior separation with single-part order. **Delivery time* in 24h or today!**

*Delivery time means time until shipping of goods (after technical release)

E6 | Series E6.29 | KMA mounting brackets **pivoting**

For tight installation conditions, all-sides attachment



KMA pivoting | All-sides attachment | Recommended for unsupported applications

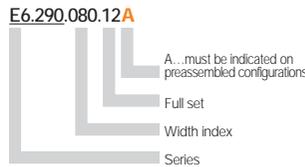
Width index	Part No. Full set KMA pivoting	A [mm]	Bi [mm]	Width index	Part No. Full set KMA pivoting	A [mm]	Bi [mm]
030.	▶ E6.290. R6.290. 030. 12	40	30	090.	▶ E6.290. R6.290.* 090. 12	100	90
040.	▶ E6.290. R6.290. 040. 12	50	40	100.	▶ E6.290. R6.290.* 100. 12	110	100
050.	▶ E6.290. R6.290. 050. 12	60	50	110.	▶ E6.290. R6.290. 110. 12	120	110
060.	▶ E6.290. R6.290. 060. 12	70	60	120.	▶ E6.290. R6.290. 120. 12	130	120
070.	▶ E6.290. R6.290. 070. 12	80	70	140.	▶ E6.290 - 140. 12	150	140
080.	▶ E6.290. R6.290. 080. 12	90	80				

*Width available upon request.
(KMA = Polymer Metal Mounting Bracket) Please consult igus* for delivery time.



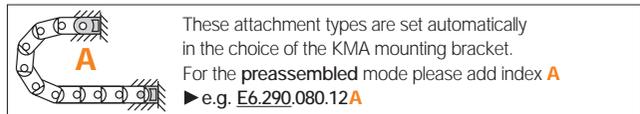
- Standard
- For tight installation conditions
- Corrosion resistant
- Option: threaded sockets upon request (KMA = Polymer Metal Mounting Bracket)

Part No. structure



Single-part order:

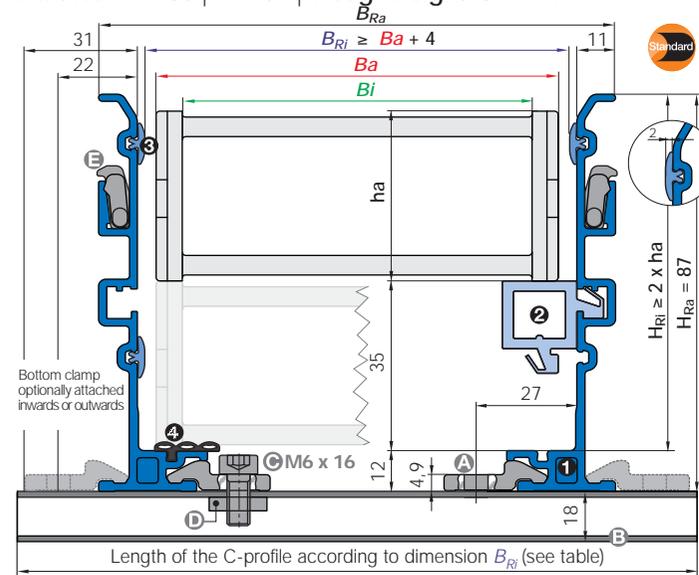
- Mounting bracket Moving end **E6.290.080.2A**
- Mounting bracket Fixed end **E6.290.080.1A**



Strain relief, e.g. clamps, tie-wrap plates, nuggets and plug-in clips are available from stock. The complete chainfix range with order options ▶ from page 1148

Aluminum SuperTrough | Basic Version

Part No. 971.30 | 971.31 | Trough height: 87 mm



Installation set "Basic" with C-Profile

Bottom clamp optionally attached inwards or outwards

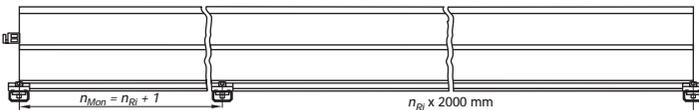
For Width Index	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards
.030	50	upon request	960.30.150
.040	60	upon request	960.30.175
.050	70	upon request	960.30.175
.060	80	960.30.150	960.30.175
.070	90	960.30.150	960.30.200
.080	100	960.30.150	960.30.200
.090	110	960.30.175	960.30.225
.100	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"

- Components, trough "Basic": ① Trough side parts, aluminum, 2 m ② Glide bar, plastic, 2 m ③ Glide strips, plastic, 2 m (without glide strips on request) ④ Optional: Silencer profile, rubber
- Components, installation set "Basic": A Bottom clamp, aluminum B C-profile, galvanized steel ▶ table C Screw M6 x 16 D Sliding nut M6 E Interface connector, plastic

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

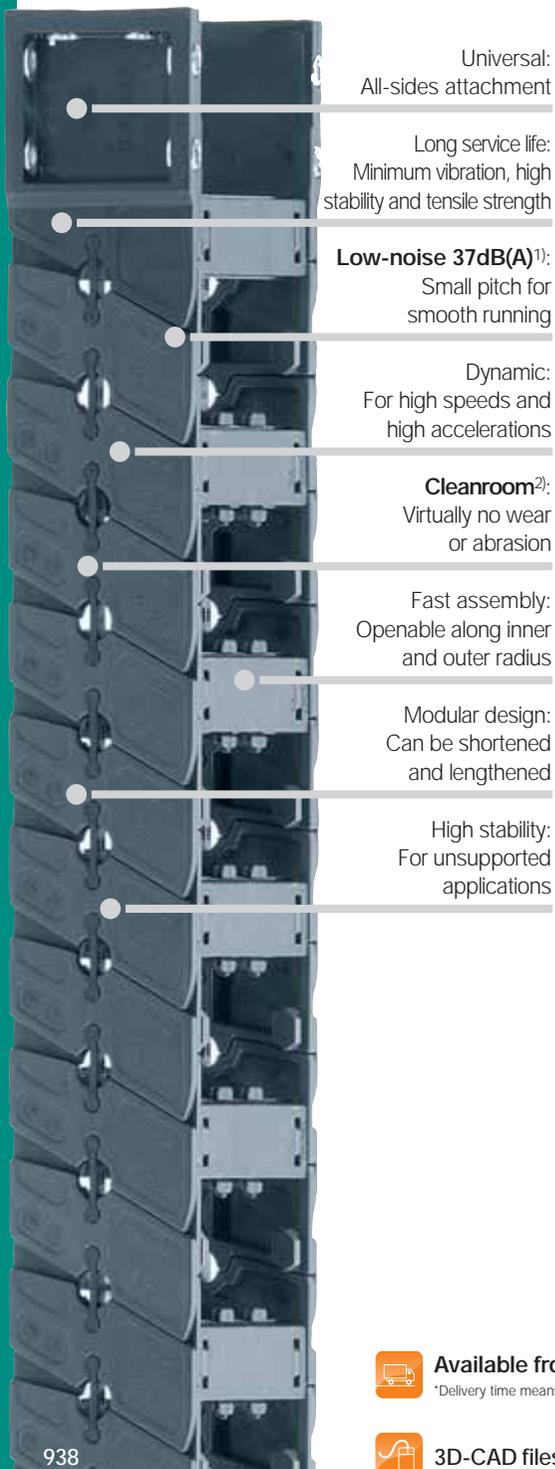
- Guide trough set **without glide bar** (set of 2 trough side parts, incl. glide strips)
Order text: 16 m guide trough without glide bar (8 x 2 m sections) Part No. 971.30.SL
- Guide trough set **with glide bar** (set of 2 trough side parts, incl. glide strips)
Order text: 16 m guide trough with glide bar (8 x 2 m sections) Part No. 971.31.SL
- Installation set "Basic" complete (guide trough-sets + 1)
Order text: 17 installation sets 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

Aluminum SuperTrough "Basic" in detail and the "Heavy-Duty" version for heavy machinery ▶ from page 1198

- Trough set
- Installation set
- Glide bar
- C-Profile
- B_a = Outer width e-chains*
- B_i = Inner width e-chains*
- B_{Ri} = Inner trough width
- B_{Rea} = Outer trough width
- H_{Ri} = Inner trough height
- H_{Rea} = Outer trough height
- n_{Mon} = Number of installation sets
- n_{Ri} = Number of trough sets



Universal:
All-sides attachment

Long service life:
Minimum vibration, high stability and tensile strength

Low-noise 37dB(A)¹⁾:
Small pitch for smooth running

Dynamic:
For high speeds and high accelerations

Cleanroom²⁾:
Virtually no wear or abrasion

Fast assembly:
Openable along inner and outer radius

Modular design:
Can be shortened and lengthened

High stability:
For unsupported applications

+ Extremely low-noise, low vibration, high stability

When to use Series E6.35:

- If a particularly low noise, low vibration e-chain[®] with an inner height of 35 mm is required
- At very high speeds and/or accelerations
- Inner widths up to 140 mm
- For unsupported lengths up to 1,9 m and fill weights up to 6 kg/m
- For enlarged thrusts and tensile forces
- For small bending radii
- Minimal abrasion (e.g. cleanroom applications)

1) Low-noise - testetd series, more details ▶ page 878

2) Cleanroom - testetd series, more details ▶ page 879

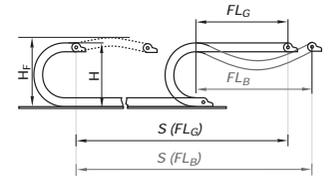
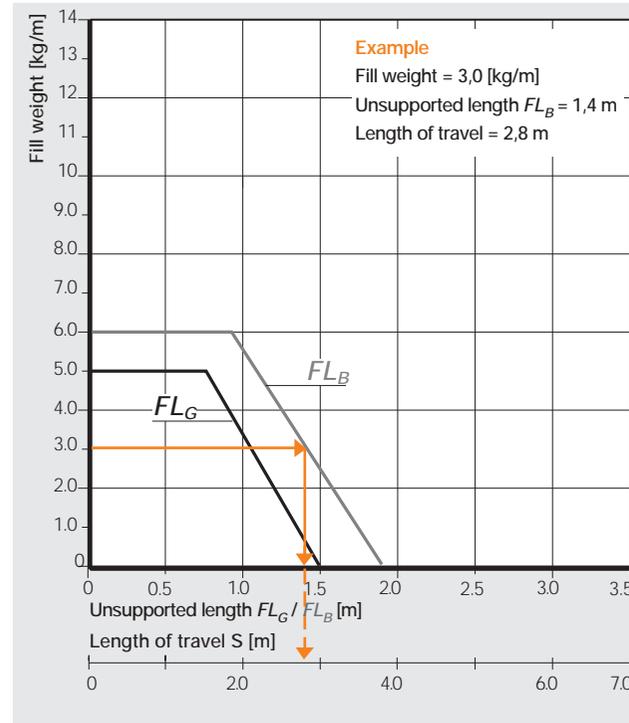


When to use a different igus[®] Series:

- Limited in side-mounted applications
- ▶ **Series E4.32 System E4.1, page 646**
- No use with RBR (reverse bending radius)
- ▶ **Series E4.32 System E4.1, page 646**
- No use with high additional fill weights
- ▶ **Series E4.32 System E4.1, page 646**
- No use in dirty environments
- ▶ **Series R4.32 System E4.1, page 646**
- If a fully enclosed e-tube is required
- ▶ **Series R58 E2 e-tubes, page 550**

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

3D-CAD files, configurators, PDF ▶ www.igus.eu/eu/E6.35

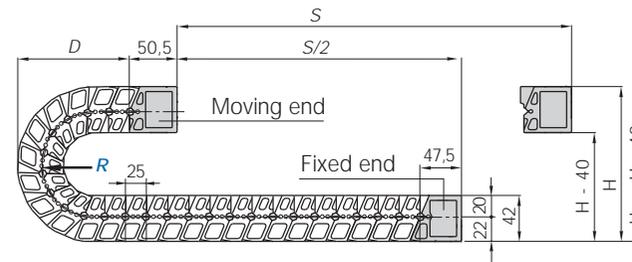


Standard **Unsupported applications**

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. More information ▶ **Design, page 95**



In special cases, gliding applications are also possible, please consult igus[®].



Technical Data

Speed, material, temperature and flammability class ▶ **page 924**

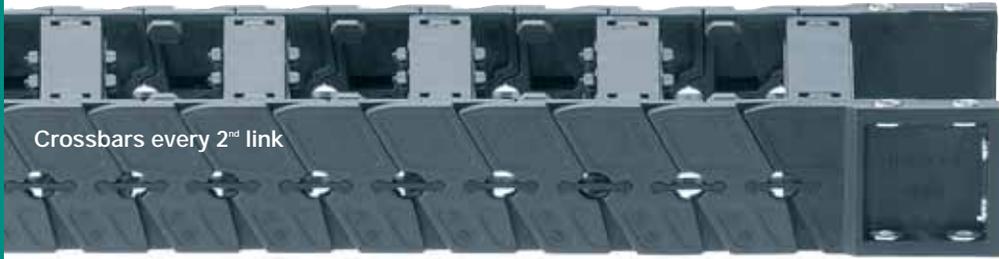
- Pitch** = 25 mm/link
- Links/m** = 40 (1000 mm)
- Chain length** = $S/2 + K$

R	055	075	100	125*	150
H	189	229	279	329	379
D	115	135	160	185	210
K	225	290	365	445	525

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

*Radius available upon request, please consult igus[®] for delivery time

- FL_G = with straight upper run FL_B = with permitted sag
- S = Length of travel R = Bending radius
- H = Nominal clearance height H_F = Required clearance height
- D = Overlength e-chain[®], radius in final position $K = \pi \cdot R + \text{"safety"}$



Crossbars every 2nd link

e-chains® | Series E6.35 Crossbars every 2nd link | Removable along both radii

Part No.	<i>Bi</i>	<i>Ba</i>	E6.35
Crossbars every 2 nd link	[mm]	[mm]	[kg/m]
E6.35. 030. <i>R.0</i>	30	50	0,88
E6.35. 040. <i>R.0</i>	40	60	0,90
E6.35. 050. <i>R.0</i>	50	70	0,92
E6.35. 060. <i>R.0</i>	60	80	0,94
E6.35. 070. <i>R.0</i>	70	90	0,96
E6.35. 080. <i>R.0</i>	80	100	0,99

Part No.	<i>Bi</i>	<i>Ba</i>	E6.35
Crossbars every 2 nd link	[mm]	[mm]	[kg/m]
E6.35. 090. <i>R.0</i>	90	110	1,01
E6.35. 100. <i>R.0</i>	100	120	1,03
E6.35. 110. <i>R.0</i>	110	130	1,05
E6.35. 120. <i>R.0</i>	120	140	1,07
E6.35. 140. <i>R.0</i>	140	160	1,11

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

Available bending radii *R* [mm] 055 | 075 | 100 | 125* | 150 |

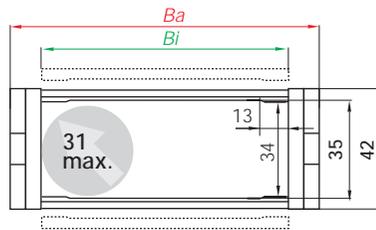
Supplement Part No. with required radius (*R*), example: E6.35.080.100.0

Order key

E6.35.080.100.0 Crossbar every 2nd link



Dimensioning

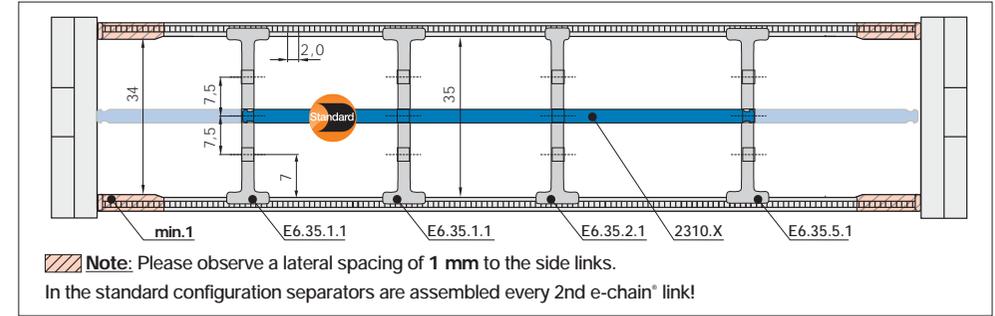


e-chain® links as single parts, overview ► page 925

Configuration options and order keys, overview ► page 926

Available from stock. Delivery time* in 24h or today!

*Delivery time means time until shipping of goods (after technical release)



Standard separator, wide base
unassembled E6.35.1
assembled E6.35.1.1

Standard - for all applications

Separator with a wide base for maximum locking strength and safe standing in e-chains®.

Separator, narrow head
unassembled E6.35.2
assembled E6.35.2.1

For even faster installation

Firm hold to one side with a wide base, narrow on opposed side for easy cable assembly (slight grip).

Notch separator for notch crossbar*
unassembled E6.35.5
assembled E6.35.5.1

Locks safely in 2 mm increments

Notch separator for exact positioning in e-chains®. Recommended for side-mounted applications.

*Available upon request, please consult igus® for delivery time

Full-width shelf, lockable
unassembled 2300.X
assembled 2310.X

Horizontal separation

Shelf locks safely into separators on both ends, fixed width possible. Separators can be moved freely over the shelf in horizontal direction. Can be arranged at 3 different heights.



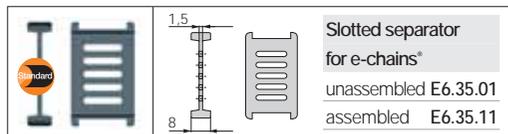
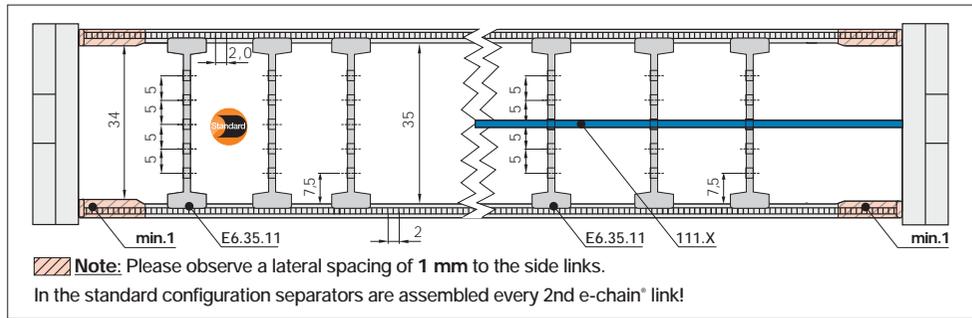
Lockable full-width shelves - for the standard interior separation

Width X [mm]	unassembled	assembled	Width X [mm]	unassembled	assembled	Width X [mm]	unassembled	assembled
015	2300.015	2310.015	060	2300.060	2310.060	087	2300.087	2310.087
025	2300.025	2310.025	062	2300.062	2310.062	090	2300.090	2310.090
030	2300.030	2310.030	065	2300.065	2310.065	100	2300.100	2310.100
038	2300.038	2310.038	070	2300.070	2310.070	103	2300.103	2310.103
040	2300.040	2310.040	075	2300.075	2310.075	110	2300.110	2310.110
050	2300.050	2310.050	077	2300.077	2310.077	120	2300.120	2310.120
057	2300.057	2310.057	080	2300.080	2310.080	125	2300.125	2310.125

Interior separation with single-part order. Delivery time* in 24h or today!

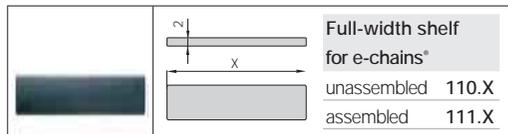
*Delivery time means time until shipping of goods (after technical release)

Previous interior separation - for e-chains®

All elements of the previous interior separation can still be ordered ► www.igus.eu/eu/E6.35

Vertical separator E6.35.01

Vertical separators are used if a vertical subdivision of the e-chain® interior is required. For combinations with full-width shelves.



Full-width shelf 110.X

This option makes sense in applications with many thin cables with similar diameters. Full-width shelves can be arranged at 5 different heights (in 5 mm increments).

Full-width shelves 110.X

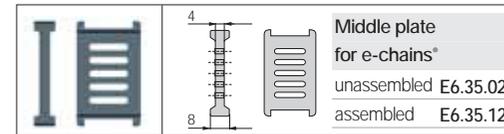
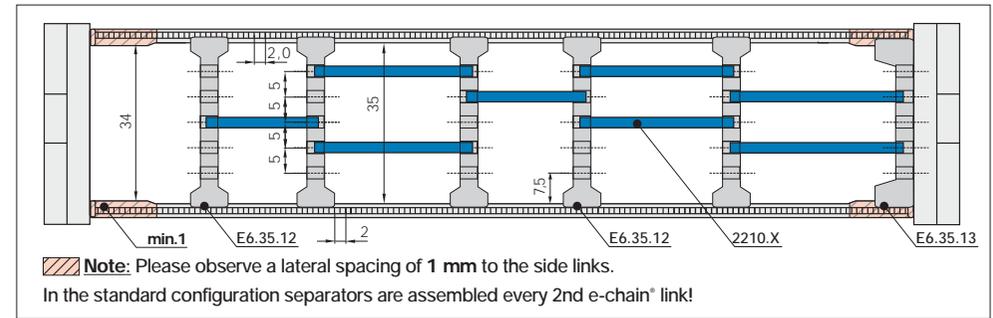
Width X (mm)	unassembled	assembled	Width X (mm)	unassembled	assembled	Width X (mm)	unassembled	assembled
030	110.30	111.30	070	110.70	111.70	110	110.110	111.110
040	110.40	111.40	080	110.80	111.80	120	110.120	111.120
050	110.50	111.50	090	110.90	111.90			
060	110.60	111.60	100	110.100	111.100			

Separator with integrated strain relief

Strain relief separator Part No. E6.35.02.Z can be integrated into the mounting bracket and can be placed there at any point of the e-chain®. It combines strain relief and interior separation ● For the use in the first or last chain link ● Easy to assemble without any screws. **More information** ► from page 1170Interior separation with single-part order. **Delivery time* in 24h or today!**

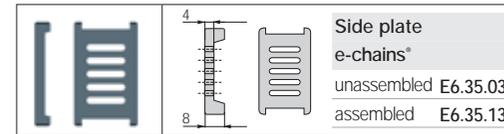
*Delivery time means time until shipping of goods (after technical release)

Previous interior separation - for e-chains®

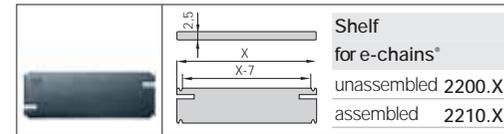
All elements of the previous interior separation can still be ordered ► www.igus.eu/eu/E6.35

Middle plate E6.35.12

To achieve a modular shelving the shelf 2200.X can be arranged at 5 different heights (in 5 mm increments).



Side plate E6.35.03

Works like middle plate. Allows modular shelving close to the side links. No lateral spacing necessary!

Shelf 2200.X

For applications involving many cables with different diameters, shelves can be arranged at alternate heights. They can be arranged at 5 different heights (in 5 mm increments).

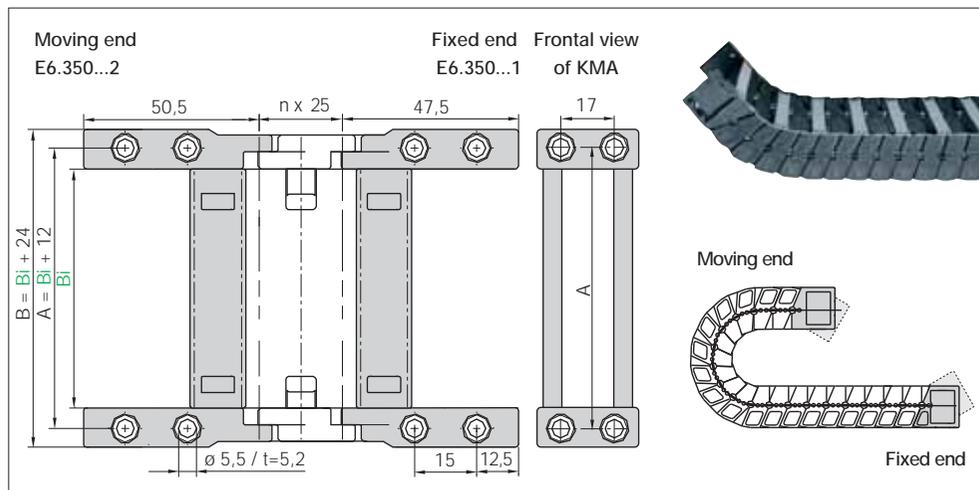
Shelves 2200.X

Width X (mm)	unassembled	assembled	Width X (mm)	unassembled	assembled	Width X (mm)	unassembled	assembled
018	2200.18	2210.18	043	2200.43	2210.43	073	2200.73	2210.73
023	2200.23	2210.23	048	2200.48	2210.48	076	2200.76	2210.76
028	2200.28	2210.28	058	2200.58	2210.58	088	2200.88	2210.88
033	2200.33	2210.33	063	2200.63	2210.63	099	2200.99	2210.99
038	2200.38	2210.38	068	2200.68	2210.68			

Interior separation with single-part order. **Delivery time* in 24h or today!**

*Delivery time means time until shipping of goods (after technical release)

For tight installation conditions, all-sides attachment



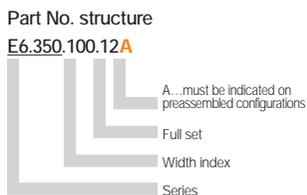
KMA pivoting | All-sides attachment | Recommended for unsupported applications

Width index	Part No. KMA pivoting	Full set	A [mm]	B [mm]	Bi [mm]	Width index	Part No. KMA pivoting	Full set	A [mm]	B [mm]	Bi [mm]
030	E6.350.030.12	030.12	42	54	30	090	E6.350.090.12	090.12	102	114	90
040	E6.350.040.12	040.12	52	64	40	100	E6.350.100.12	100.12	112	124	100
050	E6.350.050.12	050.12	62	74	50	110	E6.350.110.12	110.12	122	134	110
060	E6.350.060.12	060.12	72	84	60	120	E6.350.120.12	120.12	132	144	120
070	E6.350.070.12	070.12	82	94	70	140	E6.350.140.12	140.12	152	164	140
080	E6.350.080.12	080.12	92	104	80						

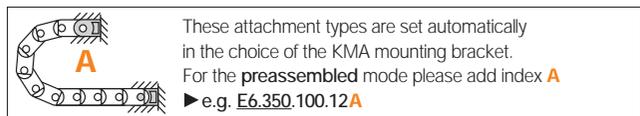
(KMA = Polymer Metal Mounting Bracket)



- Standard
- For tight installation conditions
- Corrosion resistant
- Option: threaded sockets upon request (KMA = Polymer Metal Mounting Bracket)

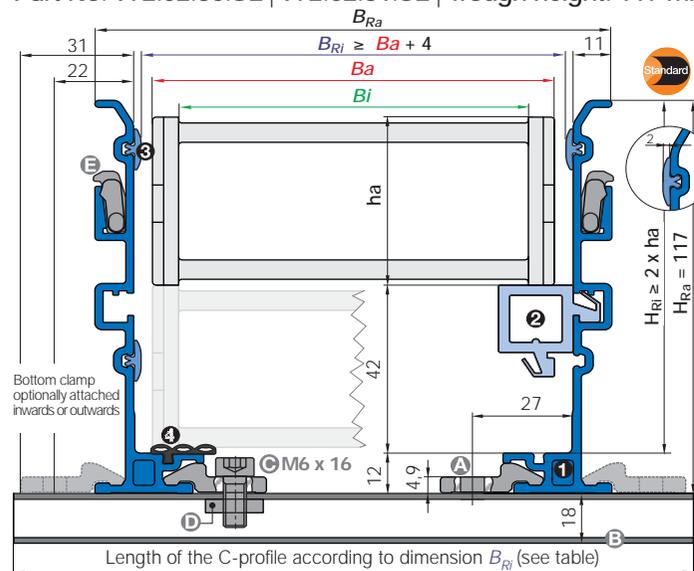


Single-part order:
 Mounting bracket Moving end
E6.350.100.2A
 Mounting bracket Fixed end
E6.350.100.1A



Strain relief, e.g. clamps, tie-wrap plates, nuggets and plug-in clips are available from stock. The complete chainfix range with order options ▶ from page 1148

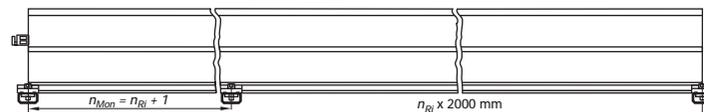
Part No. 972.02.30.SL | 972.02.31.SL | Trough height: 117 mm



- Components, trough "Basic": ① Trough side parts, aluminum, 2 m ② Glide bar, plastic, 2 m ③ Glide strips, plastic, 2 m (without glide strips on request) ④ Optional: Silencer profile, rubber
- Components, installation set "Basic": ① Bottom clamp, aluminum ② C-profile, galvanized steel ▶ table ③ Screw M6 x 16 ④ Sliding nut M6 ⑤ Interface connector, plastic

Order example: Length of travel 30 m - Center mounted for Series E6.29.080.100.0 with $B_{Ri} = 104$

- Guide trough set **without glide bar** (set of 2 trough side parts, incl. glide strips)
Order text: 16 m guide trough without glide bar (8 x 2 m sections) Part No. 972.02.30.SL
- Guide trough set **with glide bar** (set of 2 trough side parts, incl. glide strips)
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 Part No. 960.30.150
- 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

Aluminum SuperTrough "Basic" in detail and the "Heavy-Duty" version for heavy machinery ▶ from page 1198

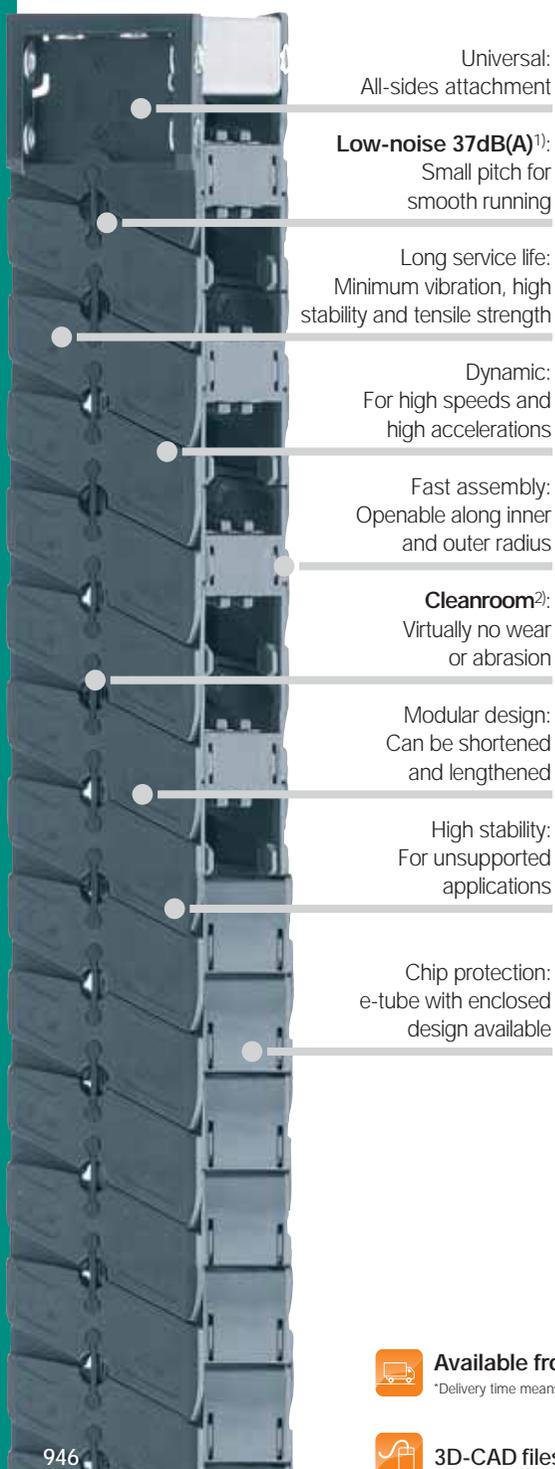
- Trough set
- Installation set
- Glide bar
- C-Profile
- Ba = Outer width e-chains*
- Bi = Inner width e-chains*
- B_{Ri} = Inner trough width
- B_{Ra} = Outer trough width
- H_{Ri} = Inner trough height
- H_{Ra} = Outer trough height
- n_{Mon} = Number of installation sets
- n_{Ri} = Number of trough sets

Installation set "Basic" with C-Profile

Bottom clamp optionally attached inwards or outwards

For Width Index	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards
.030	54	upon request	960.30.150
.040	64	upon request	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"



- Universal:
All-sides attachment
- Low-noise 37dB(A)¹⁾:**
Small pitch for smooth running
- Long service life:
Minimum vibration, high stability and tensile strength
- Dynamic:
For high speeds and high accelerations
- Fast assembly:
Openable along inner and outer radius
- Cleanroom²⁾:**
Virtually no wear or abrasion
- Modular design:
Can be shortened and lengthened
- High stability:
For unsupported applications
- Chip protection:
e-tube with enclosed design available

+ Extremely low-noise, low vibration, high stability

When to use Series E6.40·R6.40:

- If a particularly low noise, low vibration e-chain[®] with an inner height of 40 mm is required
- At very high speeds and/or accelerations
- Inner widths up to 300 mm
- For unsupported lengths up to 2,75 m and fill weights up to 11 kg/m
- For enlarged thrusts and tensile forces
- For small bending radii
- Minimal abrasion (e.g. cleanroom applications)

1) Low-noise - testetd series, more details ▶ page 878
2) Cleanroom - testetd series, more details ▶ page 879

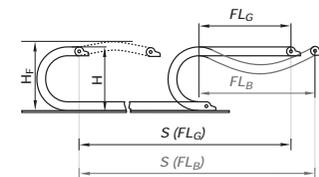
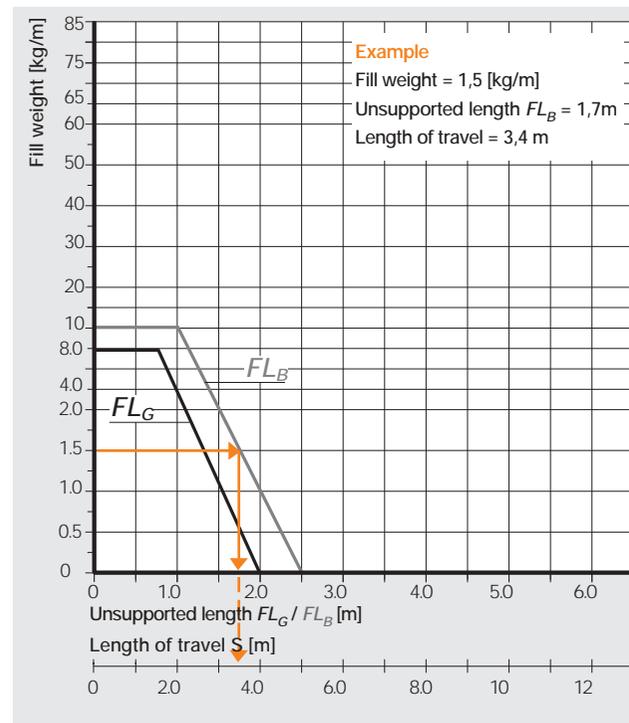


When to use a different igus[®] Series:

- Limited in side-mounted applications
- ▶ Series E4.42 System E4.1, page 662
- No use with RBR (reverse bending radius)
- ▶ Series E4.42 System E4.1, page 662
- No use with high additional fill weights
- ▶ Series E4.42 System E4.1, page 662

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

3D-CAD files, configurators, PDF ▶ www.igus.eu/eu/E6.40

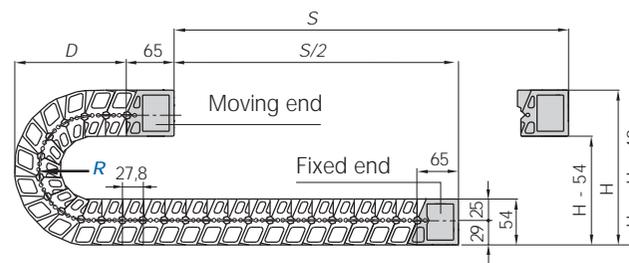


Standard **Unsupported applications**

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. More information ▶ Design, page 95



In special cases, gliding applications are also possible, please consult igus[®].



Technical Data

Speed, material, temperature and flammability class ▶ page 924

- 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	134	146	171	196	221	271
K	255	295	370	450	530	685

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

FL_G = with straight upper run
 FL_B = with permitted sag
 S = Length of travel
 R = Bending radius
 H = Nominal clearance height
 H_F = Required clearance height
 D = Overlength e-chain[®], radius in final position
 $K = \pi \cdot R + \text{“safety”}$



Crossbars every 2nd link

e-chains® | Series E6.40 Crossbars every 2nd link | Removable along both radii

Part No.	<i>Bi</i> [mm]	<i>Ba</i> [mm]	E6.40 [kg/m]
Crossbars every 2 nd link			
E6.40. 040. <i>R.0</i>	40	60	1,29
E6.40. 050. <i>R.0</i>	50	70	1,33
E6.40. 062. <i>R.0</i>	62	82	1,38
E6.40. 070. <i>R.0</i>	70	90	1,41
E6.40. 075. <i>R.0</i>	75	95	1,43
E6.40. 087. <i>R.0</i>	87	107	1,48
E6.40. 100. <i>R.0</i>	100	120	1,53
E6.40. 125. <i>R.0</i>	125	145	1,63

Part No.	<i>Bi</i> [mm]	<i>Ba</i> [mm]	E6.40 [kg/m]
Crossbars every 2 nd link			
E6.40. 150. <i>R.0</i>	150	170	1,73
E6.40. 175. <i>R.0</i>	175	195	1,83
E6.40. 200. <i>R.0</i>	200	220	1,93
E6.40. 225. <i>R.0</i>	225	245	2,02
E6.40. 250. <i>R.0</i>	250	270	2,12
E6.40. 275. <i>R.0</i>	275	295	2,22
E6.40. 300. <i>R.0</i>	300	320	2,32

Available bending radii *R* [mm] 063 | 075 | 100 | 125 | 150 | 200

Supplement Part No. with required radius (*R*), example: E6.40.100.100.0

e-chain® links as single parts, overview ► page 925

Configuration options and order keys, overview ► page 926

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



Fully enclosed

e-tubes | Series R6.40 fully enclosed | Crossbars removable along both radii

Part No.	<i>Bi</i> [mm]	<i>Ba</i> [mm]	R6.40 [kg/m]
fully enclosed			
R6.40.* 040. <i>R.0</i>	40	60	-
R6.40.* 050. <i>R.0</i>	50	70	-
R6.40. 062. <i>R.0</i>	62	82	1,59
R6.40.* 070. <i>R.0</i>	70	90	-
R6.40. 075. <i>R.0</i>	75	95	1,65
R6.40.* 087. <i>R.0</i>	87	107	-
R6.40.* 100. <i>R.0</i>	100	120	-
R6.40.* 125. <i>R.0</i>	125	145	-

Part No.	<i>Bi</i> [mm]	<i>Ba</i> [mm]	R6.40 [kg/m]
fully enclosed			
R6.40.* 150. <i>R.0</i>	150	170	-
R6.40.* 175. <i>R.0</i>	175	195	-
R6.40.* 200. <i>R.0</i>	200	220	-
R6.40.* 225. <i>R.0</i>	225	245	-
R6.40.* 250. <i>R.0</i>	250	270	-
R6.40.* 275. <i>R.0</i>	275	295	-
R6.40.* 300. <i>R.0</i>	300	320	-

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

Available bending radii *R* [mm] 063 | 075 | 100 | 125 | 150 | 200

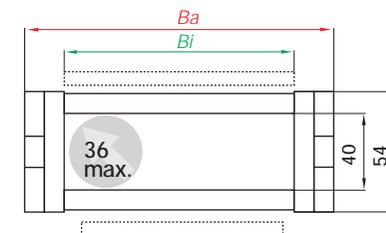
Supplement Part No. with required radius (*R*), example: R6.40.100.100.0

Order key

E6.40.100.100.0 Crossbar every 2nd link
R6.40.100.100.0 Fully enclosed e-tube



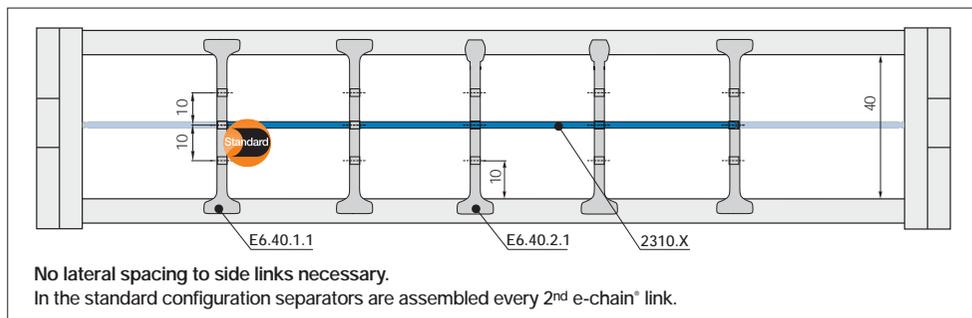
Dimensioning



e-chain® links as single parts, overview ► page 925

Configuration options and order keys, overview ► page 926

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




Standard separator, wide base
unassembled **E6.40.1**
assembled **E6.40.1.1**

Standard - for all applications
Separator with wide base for maximum locking strength and safe standing in e-chains®.



Separator, narrow head
unassembled **E6.40.2**
assembled **E6.40.2.1**

For even faster installation
Firm hold to one side with a wide base, narrow on opposed side for easy cable assembly (slight grip).



Full-width shelf, lockable
unassembled **2300.X**
assembled **2310.X**

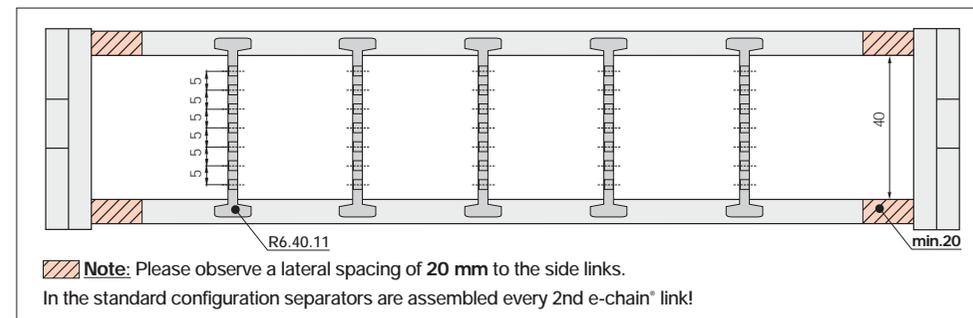
Horizontal separation
Shelf locks safely into separators on both ends, fixed width possible. Separators can be moved freely over the shelf in horizontal direction. Can be arranged at 3 different heights.



Lockable full-width shelves - for the standard interior separation

Width X [mm]	unassembled	assembled	Width X [mm]	unassembled	assembled	Width X [mm]	unassembled	assembled
015	2300.015	2310.015	060	2300.060	2310.060	087	2300.087	2310.087
025	2300.025	2310.025	062	2300.062	2310.062	090	2300.090	2310.090
030	2300.030	2310.030	065	2300.065	2310.065	100	2300.100	2310.100
038	2300.038	2310.038	070	2300.070	2310.070	103	2300.103	2310.103
040	2300.040	2310.040	075	2300.075	2310.075	110	2300.110	2310.110
050	2300.050	2310.050	077	2300.077	2310.077	120	2300.120	2310.120
057	2300.057	2310.057	080	2300.080	2310.080	125	2300.125	2310.125

 Interior separation with single-part order. **Delivery time* in 24h or today!**
*Delivery time means time until shipping of goods (after technical release)




Separator for e-tubes
unassembled **R6.40.01**
assembled **R6.40.11**

Vertical separator R6.40.01
For e-tubes R6.40. The notches on this separator mark the side that fixes to the lid.



Full-width shelf e-tubes
unassembled **110.X**
assembled **111.X**

Full-width shelf 110.X
This option makes sense in applications with many thin cables with similar diameters. Full-width shelves can be arranged at 7 different heights (in 5 mm increments).

Full-width shelves

Width X [mm]	unassembled	assembled
050	110.50	111.50

Separator with integrated strain relief

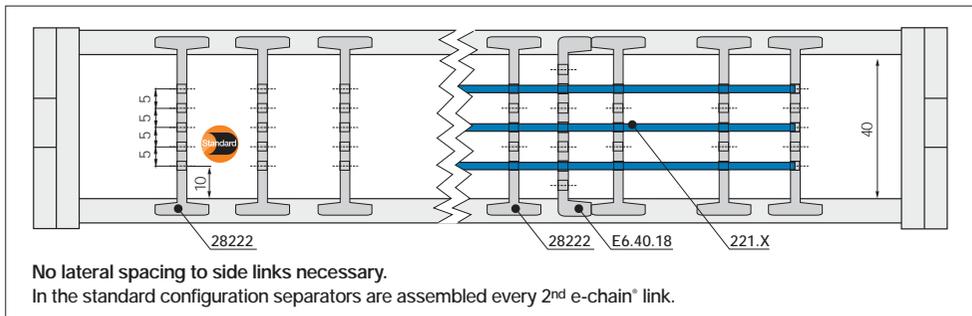
Strain relief separator Part No. E6.40.02.Z can be integrated into the mounting bracket and can be placed there at any point of the e-chain®. It combines strain relief and interior separation ● For the use in the first or last chain link ● Easy to assemble without any screws. **More information ► from page 1170**



 Interior separation with single-part order. **Delivery time* in 24h or today!**
*Delivery time means time until shipping of goods (after technical release)

Previous interior separation - for e-chains®

All elements of the previous interior separation can still be ordered ► www.igus.eu/eu/E6.40



Separator for e-chains®
unassembled **28221**
assembled **28222**

Vertical separator 28221

Vertical separators are used if a vertical subdivision of the e-chain® interior is required. For combinations with full-width shelves.

Separator, asymmetrical
unassembled **E6.40.08**
assembled **E6.40.18**

Separator, asymmetrical E6.40.08

Asymmetrical separator, for defined distance. No additional spacers necessary. For side-mounted applications.

Full-width shelf for e-chains®
unassembled **220.X**
assembled **221.X**

Full-width shelf 220.X

This option makes sense in applications with many thin cables with similar diameters. Full-width shelves can be arranged at 7 different heights (in 5 mm increments).

Full-width shelves 220.X

Width X (mm)	unassembled	assembled	Width X (mm)	unassembled	assembled	Width X (mm)	unassembled	assembled
040	220.40	221.40	075	220.75	221.75	150	220.150	221.150
050	220.50	221.50	087	220.87	221.87	175	220.175	221.175
062	220.62	221.62	100	220.100	221.100	200	220.200	221.200
070	220.70	221.70	125	220.125	221.125			

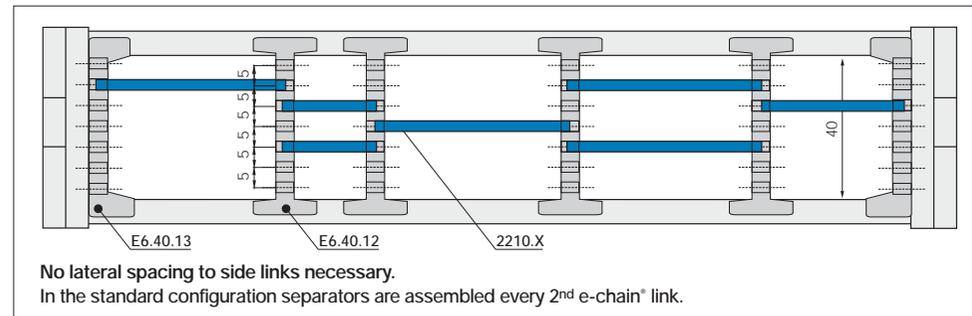


Interior separation with single-part order. **Delivery time* in 24h or today!**

*Delivery time means time until shipping of goods (after technical release)

Previous interior separation - for e-chains®

All elements of the previous interior separation can still be ordered ► www.igus.eu/eu/E6.40



Locking separator for e-chains®
unassembled **E6.40.02**
assembled **E6.40.12**

Locking separator E6.40.02

Locks with extra retention force. Tip: one locking separator per e-chain® link for better mounting.

Side plate e-chains®
unassembled **E6.40.03**
assembled **E6.40.13**

Side plate E6.40.03

Works like middle plate. Allows modular shelving close to the side links. No lateral spacing necessary!

Shelf for e-chains®
unassembled **2200.X**
assembled **2210.X**

Shelf 2200.X

For applications involving many cables with different diameters, shelves can be arranged at alternate heights. They can be arranged at 7 different heights (in 5 mm increments).

Shelves 2200.X

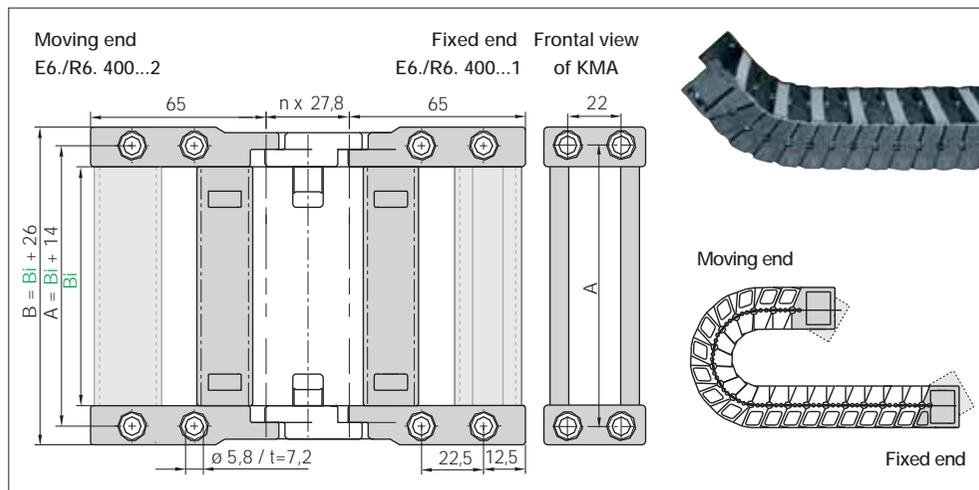
Width X (mm)	unassembled	assembled	Width X (mm)	unassembled	assembled	Width X (mm)	unassembled	assembled
018	2200.18	2210.18	043	2200.43	2210.43	073	2200.73	2210.73
023	2200.23	2210.23	048	2200.48	2210.48	076	2200.76	2210.76
028	2200.28	2210.28	058	2200.58	2210.58	088	2200.88	2210.88
033	2200.33	2210.33	063	2200.65	2210.65	099	2200.99	2210.99
038	2200.38	2210.38	068	2200.68	2210.68			



Interior separation with single-part order. **Delivery time* in 24h or today!**

*Delivery time means time until shipping of goods (after technical release)

For tight installation conditions, all-sides attachment



KMA pivoting | All-sides attachment | Recommended for unsupported applications

Width index	Part No. Full set KMA pivoting	A [mm]	Bi [mm]	Width index	Part No. Full set KMA pivoting	A [mm]	Bi [mm]
040.	E6.400. R6.400.*040.12.C	54	40	150.	E6.400. R6.400.*150.12.C	154	150
050.	E6.400. R6.400.*050.12.C	64	50	175.	E6.400. R6.400.*175.12.C	189	175
062.	E6.400. R6.400. 062.12.C	76	62	200.	E6.400. R6.400.*200.12.C	214	200
070.	E6.400. R6.400.*070.12.C	84	70	225.	E6.400. R6.400.*225.12.C	239	225
075.	E6.400. R6.400. 075.12.C	89	75	250.	E6.400. R6.400.*250.12.C	264	250
087.	E6.400. R6.400.*087.12.C	101	87	275.	E6.400. R6.400.*275.12.C	289	275
100.	E6.400. R6.400.*100.12.C	114	100	300.	E6.400. R6.400.*300.12.C	314	300
125.	E6.400. R6.400.*125.12.C	139	125				

*Width available upon request.

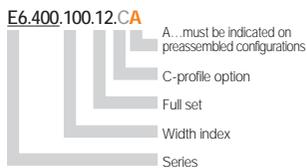
(KMA = Polymer Metal Mounting Bracket)

Please consult igus* for delivery time.



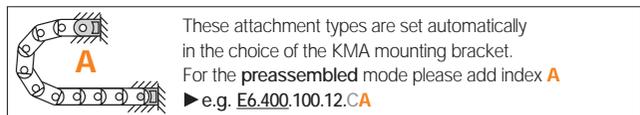
- Standard
- For tight installation conditions
- Option: integrated chainfix strain relief with C-profile
- Corrosion resistant
- Option: threaded sockets upon request (KMA = Polymer Metal Mounting Bracket)

Part No. structure



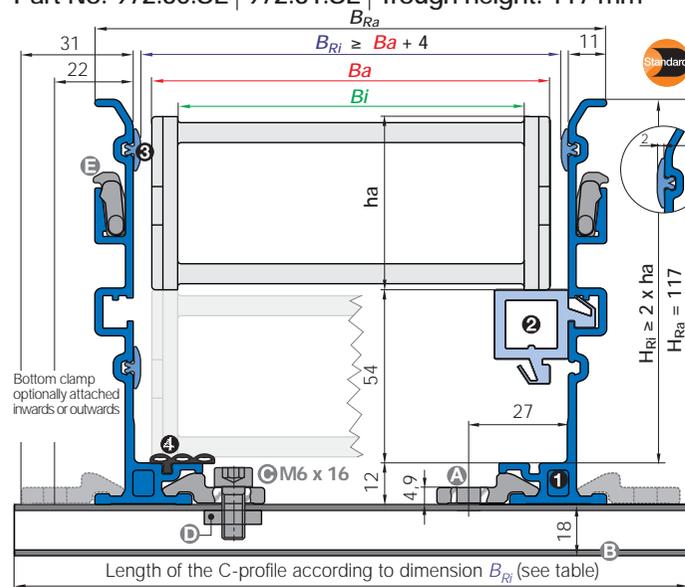
Single-part order:

Mounting bracket Moving end
E6.400.100.2.CA
Mounting bracket Fixed end
E6.400.100.1.CA



Strain relief, e.g. clamps, tiewrap plates, nuggets and plug-in clips are available from stock. The complete chainfix range with order options ▶ from page 1148

Part No. 972.30.SL | 972.31.SL | Trough height: 117 mm



- Components, trough "Basic": ① Trough side parts, aluminum, 2 m ② Glide bar, plastic, 2 m ③ Glide strips, plastic, 2 m (without glide strips on request) ④ Optional: Silencer profile, rubber
- Components, installation set "Basic": A Bottom clamp, aluminum B C-profile, galvanized steel ▶ table ⑤ Screw M6 x 16 ⑥ Sliding nut M6 ⑦ Interface connector, plastic

Order example: Length of travel 30 m - Center mounted for Series E6.40.100.100.0 with $B_{Ri} = 124$

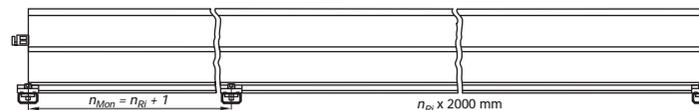
Guide trough set **without glide bar** (set of 2 trough side parts, incl. glide strips)
Order text: 16 m guide trough without glide bar (8 x 2 m sections) **Part No.** 972.30.SL

Guide trough set **with glide bar** (set of 2 trough side parts, incl. glide strips)
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 **Part No.** 960.30.175

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

Aluminum SuperTrough "Basic" in detail and the "Heavy-Duty" version for heavy machinery ▶ from page 1198

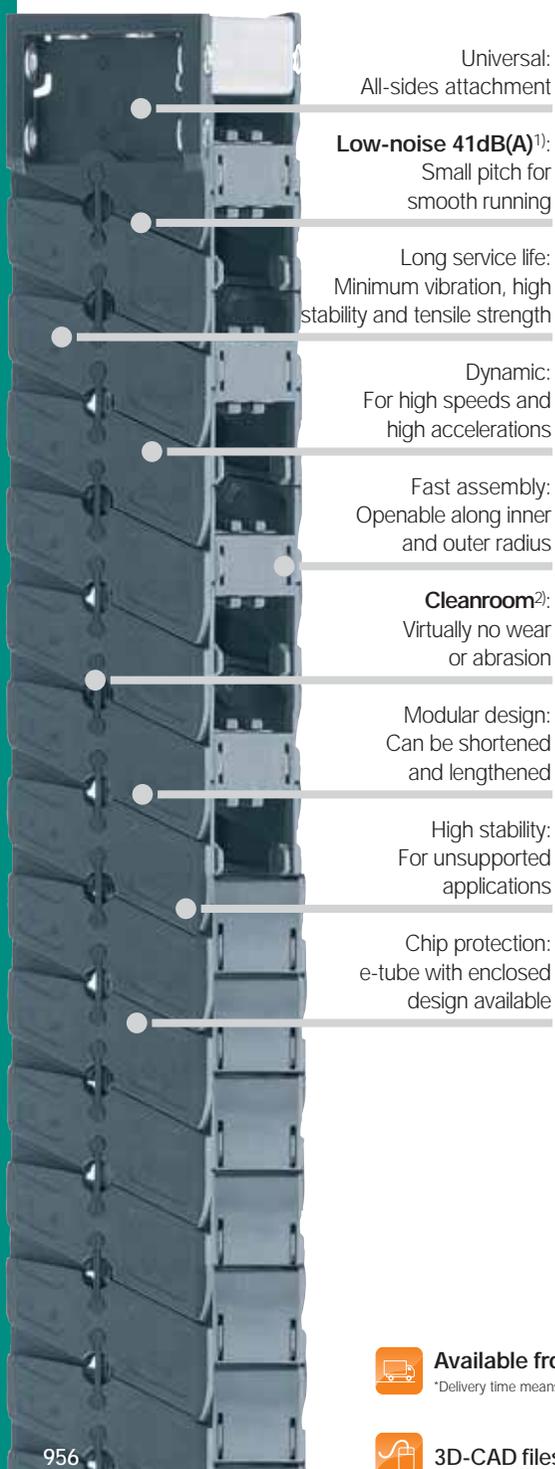
- Trough set
- Installation set
- Glide bar
- C-Profile
- Ba = Outer width e-chains*
- Bi = Inner width e-chains*
- B_{Ri} = Inner trough width
- B_{Ra} = Outer trough width
- H_{Ri} = Inner trough height
- H_{Ra} = Outer trough height
- n_{Mon} = Number of installation sets
- n_{Ri} = Number of trough sets

Installation set "Basic" with C-Profile

Bottom clamp optionally attached inwards or outwards

For Width Index	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards
040	64	upon request	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"



- Universal:
All-sides attachment
- Low-noise 41dB(A)¹⁾:**
Small pitch for smooth running
- Long service life:
Minimum vibration, high stability and tensile strength
- Dynamic:
For high speeds and high accelerations
- Fast assembly:
Openable along inner and outer radius
- Cleanroom²⁾:**
Virtually no wear or abrasion
- Modular design:
Can be shortened and lengthened
- High stability:
For unsupported applications
- Chip protection:
e-tube with enclosed design available

+ Extremely low-noise, low vibration, high stability

When to use Series E6.52·R6.52:

- If a particularly low noise, low vibration e-chain[®] with an inner height of 52 mm is required
- At very high speeds and/or accelerations
- Inner widths up to 300 mm
- For unsupported lengths up to 3,0 m and fill weights up to 15 kg/m
- For enlarged thrusts and tensile forces
- For small bending radii
- Minimal abrasion (e.g. cleanroom applications)

1) Low-noise - testetd series, more details ▶ page 878
2) Cleanroom - testetd series, more details ▶ page 879

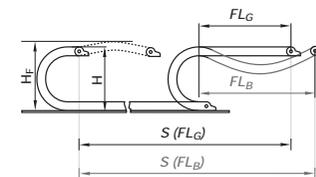
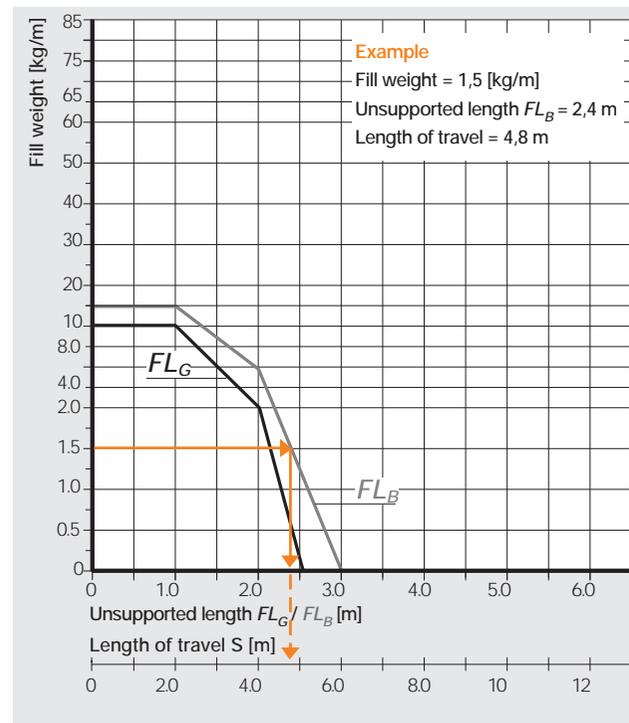


When to use a different igus[®] Series:

- Limited in side-mounted applications
- ▶ **Series E4.56 System E4.1, page 678**
- No use with RBR (reverse bending radius)
- ▶ **Series E4.56 System E4.1, page 678**
- No use with high additional fill weights
- ▶ **Series E4.56 System E4.1, page 678**
- No use in dirty environments
- ▶ **Series E4.56 System E4.1, page 678**
- For still less vibration and noise generation or even higher dynamics
- ▶ **Series E61.52 System E6.1, page 1008**

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

3D-CAD files, configurators, PDF ▶ www.igus.eu/eu/E6.52

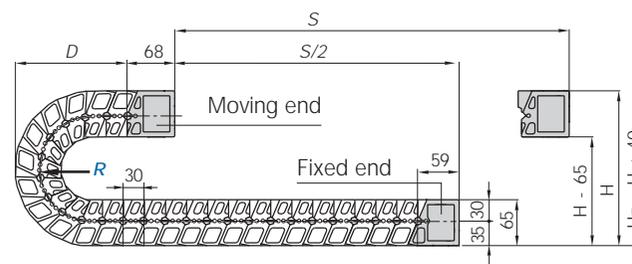


Standard **Unsupported applications**

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. More information ▶ **Design, page 95**



In special cases, gliding applications are also possible, please consult igus[®].



Technical Data

Speed, material, temperature and flammability class ▶ **page 924**

- 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	155	180	230	280	330
K	300	375	535	690	850

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

FL_G = with straight upper run S = Length of travel H = Nominal clearance height D = Overlength e-chain[®], radius in final position
 FL_B = with permitted sag R = Bending radius H_F = Required clearance height $K = \pi \cdot R + \text{“safety”}$

Crossbars every 2nd link

 e-chains® | Series E6.52 Crossbars every 2nd link | Removable along both radii

Part No.	<i>Bi</i> [mm]	<i>Ba</i> [mm]	E6.52 [kg/m]
Crossbars every 2 nd link			
E6.52. 040. R.0	40	64	≈ 1,76
E6.52. 050. R.0	50	74	≈ 1,80
E6.52. 062. R.0	62	86	≈ 1,84
E6.52. 070. R.0	70	94	≈ 1,87
E6.52. 075. R.0	75	99	≈ 1,89
E6.52. 087. R.0	87	111	≈ 1,94
E6.52. 100. R.0	100	124	≈ 1,98
E6.52. 125. R.0	125	149	≈ 2,07

Part No.	<i>Bi</i> [mm]	<i>Ba</i> [mm]	E6.52 [kg/m]
Crossbars every 2 nd link			
E6.52. 150. R.0	150	174	≈ 2,17
E6.52. 175. R.0	175	199	≈ 2,26
E6.52. 200. R.0	200	224	≈ 2,36
E6.52. 225. R.0	225	249	≈ 2,45
E6.52. 250. R.0	250	274	≈ 2,54
E6.52. 275. R.0	275	299	≈ 2,64
E6.52. 300. R.0	300	324	≈ 2,73

Available bending radii *R* [mm] 075 | 100 | 150 | 200 | 250 |

Supplement Part No. with required radius (*R*), example: E6.52.100.100.0

 e-chain® links as single parts, overview ► page 925

 Configuration options and order keys, overview ► page 926

 Available from stock. Delivery time* in 24h or today!

*Delivery time means time until shipping of goods (after technical release)



Fully enclosed

e-tubes | Series R6.52 fully enclosed | Crossbars removable along both radii

Part No.	<i>Bi</i> [mm]	<i>Ba</i> [mm]	R6.52 [kg/m]
fully enclosed			
R6.52.* 040. R.0	40	64	≈ 1,78
R6.52. 050. R.0	50	74	≈ 1,89
R6.52.* 062. R.0	62	86	≈ 1,97
R6.52.* 070. R.0	70	94	≈ 2,07
R6.52. 075. R.0	75	99	≈ 2,12
R6.52.* 087. R.0	87	111	≈ 2,21
R6.52. 100. R.0	100	124	≈ 2,35
R6.52. 125. R.0	125	149	≈ 2,57

Part No.	<i>Bi</i> [mm]	<i>Ba</i> [mm]	R6.52 [kg/m]
fully enclosed			
R6.52. 150. R.0	150	174	≈ 2,80
R6.52. 175. R.0	175	199	≈ 3,03
R6.52.* 200. R.0	200	224	≈ 3,25
R6.52.* 225. R.0	225	249	≈ 3,46
R6.52.* 250. R.0	250	274	≈ 3,68
R6.52.* 275. R.0	275	299	≈ 3,92
R6.52.* 300. R.0	300	324	≈ 4,15

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

Available bending radii *R* [mm] 075 | 100 | 150 | 200 | 250 |

Supplement Part No. with required radius (*R*), example: R6.52.100.100.0

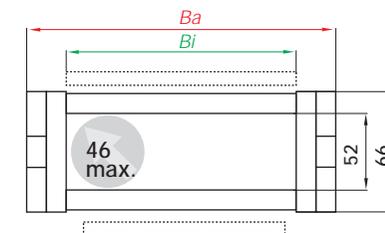
 Order key

E6.52.100.100.0 Crossbar every 2nd link

R6.52.100.100.0 Fully enclosed e-tube



Dimensioning

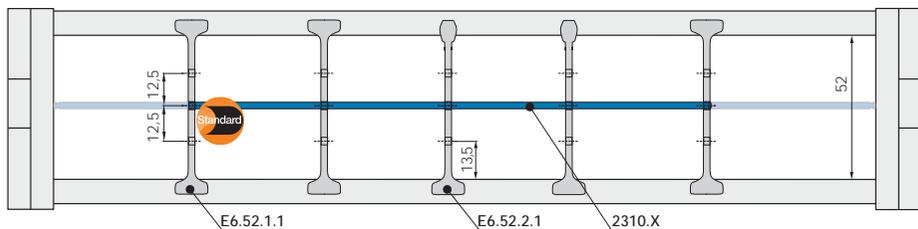


 e-chain® links as single parts, overview ► page 925

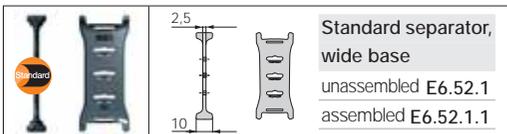
 Configuration options and order keys, overview ► page 926

 Available from stock. Delivery time* in 24h or today!

*Delivery time means time until shipping of goods (after technical release)



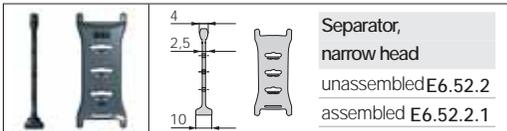
No lateral spacing to side links necessary.
In the standard configuration separators are assembled every 2nd e-chain® link.



Standard separator, wide base
unassembled **E6.52.1**
assembled **E6.52.1.1**

Standard - for all applications

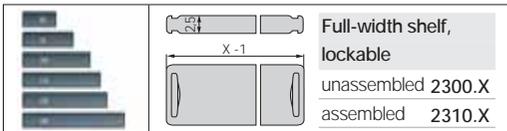
Separator with wide base for maximum locking strength and safe standing in e-chains®.



Separator, narrow head
unassembled **E6.52.2**
assembled **E6.52.2.1**

For even faster installation

Firm hold to one side with a wide base, narrow on opposed side for easy cable assembly (slight grip).



Full-width shelf, lockable
unassembled **2300.X**
assembled **2310.X**

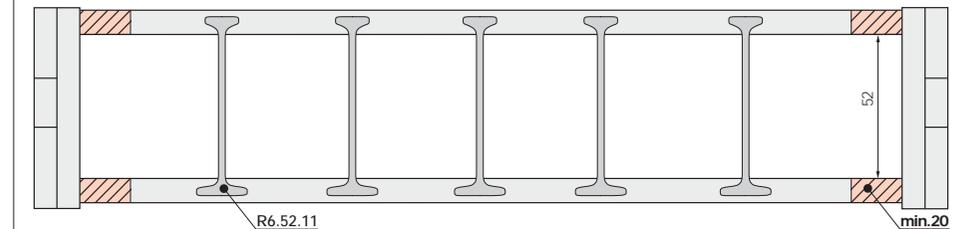
Horizontal separation

Shelf locks safely into separators on both ends, fixed width possible. Separators can be moved freely over the shelf in horizontal direction. Can be arranged at 3 different heights.

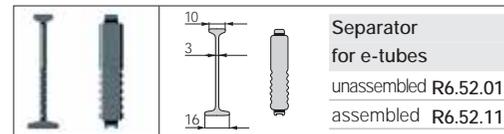


Lockable full-width shelves - for the standard interior separation

Width X [mm]	unassembled	assembled	Width X [mm]	unassembled	assembled	Width X [mm]	unassembled	assembled
015	2300.015	2310.015	060	2300.060	2310.060	087	2300.087	2310.087
025	2300.025	2310.025	062	2300.062	2310.062	090	2300.090	2310.090
030	2300.030	2310.030	065	2300.065	2310.065	100	2300.100	2310.100
038	2300.038	2310.038	070	2300.070	2310.070	103	2300.103	2310.103
040	2300.040	2310.040	075	2300.075	2310.075	110	2300.110	2310.110
050	2300.050	2310.050	077	2300.077	2310.077	120	2300.120	2310.120
057	2300.057	2310.057	080	2300.080	2310.080	125	2300.125	2310.125



Note: Please observe a lateral spacing of 20 mm to the side links.
In the standard configuration separators are assembled every 2nd e-chain® link!



Separator for e-tubes
unassembled **R6.52.01**
assembled **R6.52.11**

Vertical separator R6.52.01

For e-tubes R6.52. The notches on this separator mark the side that fixes to the lid.



Interior separation with single-part order. **Delivery time* in 24h or today!**

*Delivery time means time until shipping of goods (after technical release)

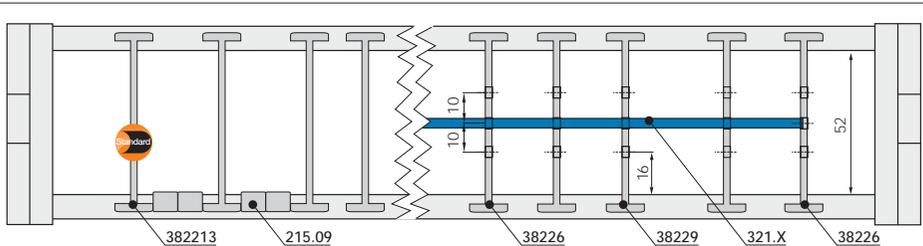


Interior separation with single-part order. **Delivery time* in 24h or today!**

*Delivery time means time until shipping of goods (after technical release)

Previous interior separation - for e-chains®

All elements of the previous interior separation can still be ordered ► www.igus.eu/eu/E6.52



No lateral spacing to side links necessary.
In the standard configuration separators are assembled every 2nd e-chain® link.

Separator for e-chains®

unassembled **382212**

assembled **382213**

Spacer for e-chains®

unassembled **205.09**

assembled **215.09**

Vertical separator 382212

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

Spacer 205.09

Separators can be fixed in position by spacers. The available interior height is reduced by 2 mm per spacer (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. (not for long travel applications).

Slotted separator, e-chains®

unassembled **38225**

assembled **38226**

Slotted separator 38225

is used when vertical and horizontal separation is required. Due to its slot, it allows basic vertical/horizontal shelving arrangements.

Locking separator for e-chains®

unassembled **38228**

assembled **38229**

Locking separator 38228

Locks with extra retention force. Tip: one locking separator per e-chain® link for better mounting.

Full-width shelf for e-chains®

unassembled **320.X**

assembled **321.X**

Full-width shelf 320.X

This option makes sense in applications with many thin cables with similar diameters. Full-width shelves can be arranged at 3 different heights (in 10 mm increments).

Full-width shelves 320.X

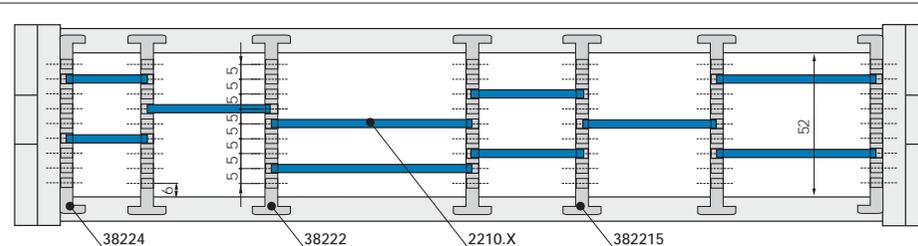
Width X (mm)	unassembled	assembled	Width X (mm)	unassembled	assembled	Width X (mm)	unassembled	assembled
040	320.040	321.040	075	320.075	321.075	175	320.175	321.175
050	320.050	321.050	087	320.087	321.087	200	320.200	321.200
062	320.062	321.062	125	320.125	321.125			
070	320.070	321.070	150	320.150	321.150			

Interior separation with single-part order. **Delivery time* in 24h or today!**

*Delivery time means time until shipping of goods (after technical release)

Previous interior separation - for e-chains®

All elements of the previous interior separation can still be ordered ► www.igus.eu/eu/E6.52



No lateral spacing to side links necessary.
In the standard configuration separators are assembled every 2nd e-chain® link.

Middle plate for e-chains®

unassembled **38221**

assembled **38222**

Middle plate 38221

To achieve a modular shelving the shelf 2200.X can be arranged at 9 different heights (in 5 mm increments).

Locking separator for e-chains®

unassembled **382214**

assembled **382215**

Locking separator 382214

Locks with extra retention force. Tip: one locking separator per e-chain® link for better mounting.

Side plate e-chains®

unassembled **38223**

assembled **38224**

Side plate 38223

Works like middle plate. Allows modular shelving close to the side links. No lateral spacing necessary!

Shelf for e-chains®

unassembled **2200.X**

assembled **2210.X**

Shelf 2200.X

For applications involving many cables with different diameters, shelves can be arranged at alternate heights. They can be arranged at 9 different heights (in 5 mm increments).

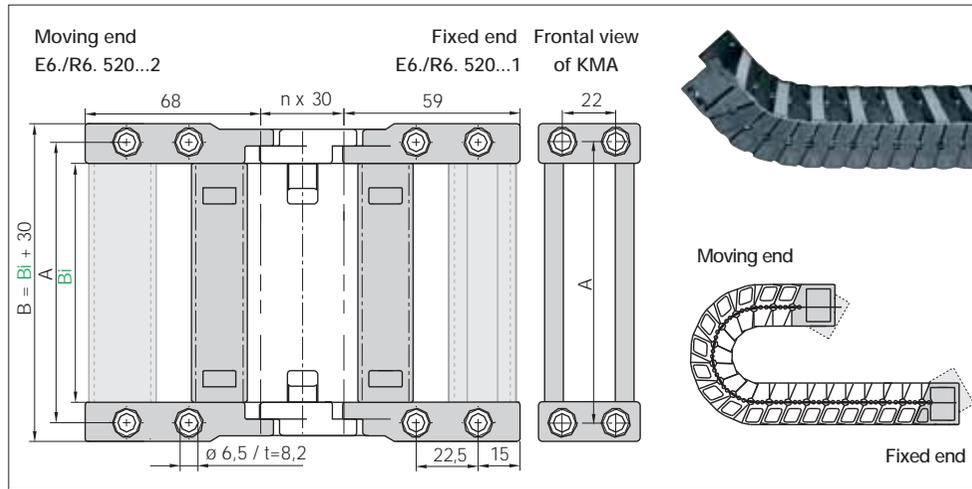
Shelves 2200.X

Width X (mm)	unassembled	assembled	Width X (mm)	unassembled	assembled	Width X (mm)	unassembled	assembled
018	2200.18	2210.18	043	2200.43	2210.43	073	2200.73	2210.73
023	2200.23	2210.23	048	2200.48	2210.48	076	2200.76	2210.76
028	2200.28	2210.28	058	2200.58	2210.58	088	2200.88	2210.88
033	2200.33	2210.33	063	2200.65	2210.65	099	2200.99	2210.99
038	2200.38	2210.38	068	2200.68	2210.68			

Interior separation with single-part order. **Delivery time* in 24h or today!**

*Delivery time means time until shipping of goods (after technical release)

E6 | Series E6.52·R6.52 | KMA mounting brackets **pivoting**
For tight installation conditions, all-sides attachment



KMA pivoting | All-sides attachment | Recommended for unsupported applications

Width index	Part No. Full set KMA pivoting	A	Bi	Width index	Part No. Full set KMA pivoting	A	Bi
		[mm]	[mm]			[mm]	[mm]
040	▶ E6.520. R6.520.*040.12.C	56	40	150	▶ E6.520. R6.520. 150.12.C	166	150
050	▶ E6.520. R6.520. 050.12.C	66	50	175	▶ E6.520. R6.520. 175.12.C	191	175
062	▶ E6.520. R6.520.*062.12.C	78	62	200	▶ E6.520. R6.520.*200.12.C	216	200
070	▶ E6.520. R6.520.*070.12.C	86	70	225	▶ E6.520. R6.520.*225.12.C	241	225
075	▶ E6.520. R6.520. 075.12.C	91	75	250	▶ E6.520. R6.520.*250.12.C	266	250
087	▶ E6.520. R6.520.*087.12.C	103	87	275	▶ E6.520. R6.520.*275.12.C	291	275
100	▶ E6.520. R6.520. 100.12.C	116	100	300	▶ E6.520. R6.520.*300.12.C	316	300
125	▶ E6.520. R6.520. 125.12.C	141	125				

*Width available upon request.

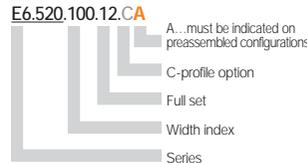
(KMA = Polymer Metal Mounting Bracket)

Please consult igus® for delivery time.



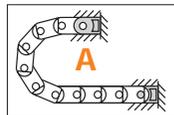
- Standard
- For tight installation conditions
- Option: integrated chainfix strain relief with C-profile
- Corrosion resistant
- Option: threaded sockets upon request (KMA = Polymer Metal Mounting Bracket)

Part No. structure



Single-part order:

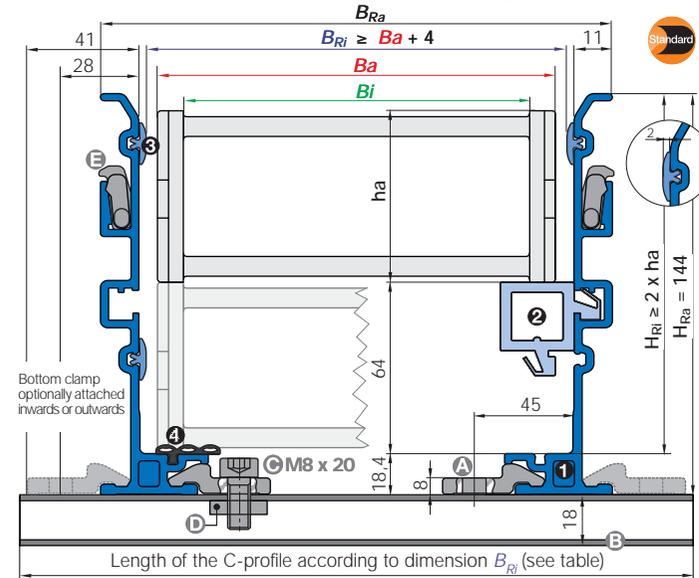
Mounting bracket Moving end
E6.520.100.2.CA
 Mounting bracket Fixed end
E6.520.100.1.CA



These attachment types are set automatically in the choice of the KMA mounting bracket. For the preassembled mode please add index **A**
 ▶ e.g. E6.520.100.12.CA

Strain relief, e.g. clamps, tiewrap plates, nuggets and plug-in clips are available from stock. The complete chainfix range with order options ▶ from page 1148

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



● Components, trough "Basic": ① Trough side parts, aluminum, 2 m ② Glide bar, plastic, 2 m ③ Glide strips, plastic, 2 m (without glide strips on request) ④ Optional: Silencer profile, rubber ● Components, installation set "Basic": A Bottom clamp, aluminum B C-profile, galvanized steel ▶ table C Screw M8 x 20 D Sliding nut M8 E Interface connector, plastic

Order example: Length of travel 30 m - Center mounted for Series E6.52.100.300.0 with $B_{Ri} = 128$

Guide trough set **without glide bar** (set of 2 trough side parts, incl. glide strips)

Order text: 16 m guide trough without glide bar (8 x 2 m sections) Part No. 973.30.SL

Guide trough set **with glide bar** (set of 2 trough side parts, incl. glide strips)

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)

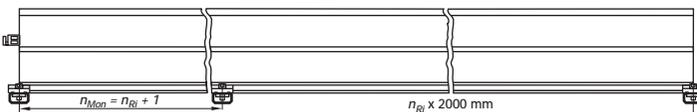
Order text: 17 installation sets Part No. 960.40.175

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

Aluminum SuperTrough "Basic" in detail and the "Heavy-Duty" version for heavy machinery ▶ from page 1202

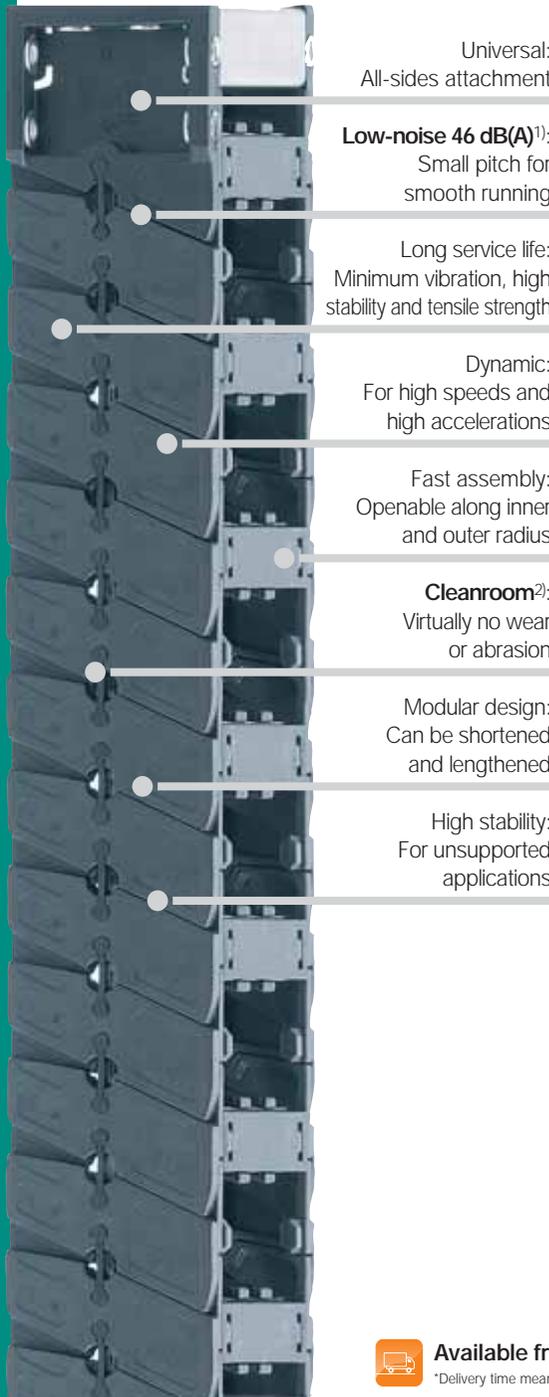
- Trough set
- Installation set
- Glide bar
- C-Profile
- Ba = Outer width e-chains
- Bi = Inner width e-chains
- B_{Ri} = Inner trough width
- B_{Ra} = Outer trough width
- H_{Ri} = Inner trough height
- H_{Ra} = Outer trough height
- n_{Mon} = Number of installation sets
- n_{Ri} = Number of trough sets

Installation set "Basic" with C-Profile

Bottom clamp optionally attached inwards or outwards

For Width Index	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards
040	68	upon request	960.40.200
050	78	upon request	960.40.200
062	90	upon request	960.40.225
070	98	upon request	960.40.225
075	103	upon request	960.40.225
087	115	upon request	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"



- Universal:
All-sides attachment
- Low-noise 46 dB(A)¹⁾:**
Small pitch for smooth running
- Long service life:
Minimum vibration, high stability and tensile strength
- Dynamic:
For high speeds and high accelerations
- Fast assembly:
Openable along inner and outer radius
- Cleanroom²⁾:**
Virtually no wear or abrasion
- Modular design:
Can be shortened and lengthened
- High stability:
For unsupported applications

+ **Extremely low-noise, low vibration, high stability**

When to use Series E6.62:

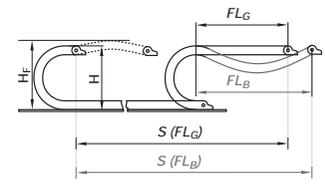
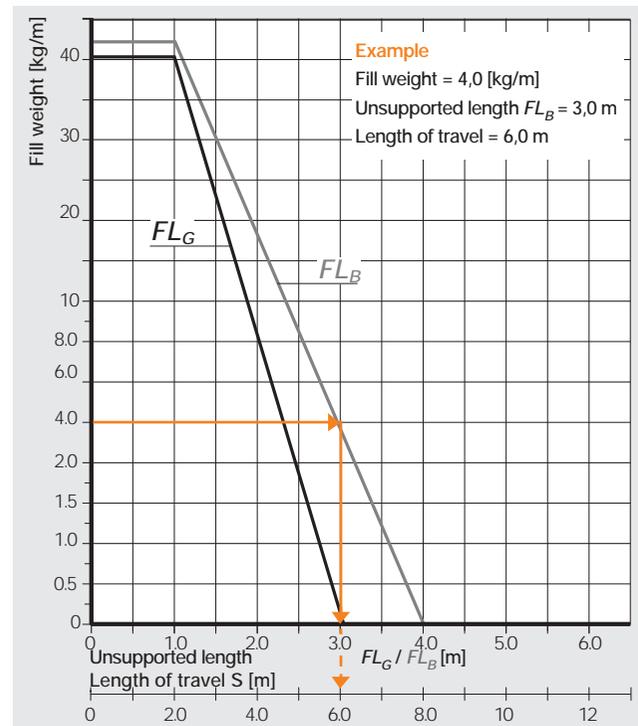
- If a particularly low noise, low vibration e-chain[®] with an inner height of 62 mm is required
- At very high speeds and/or accelerations
- Inner widths up to 400 mm
- For unsupported lengths up to 4,0 m and fill weights up to 45 kg/m
- For enlarged thrusts and tensile forces
- For small bending radii
- Minimal abrasion (e.g. cleanroom applications)

1) Low-noise - testetd series, more details ▶ page 878
2) Cleanroom - testetd series, more details ▶ page 879

-

When to use a different igus[®] Series:

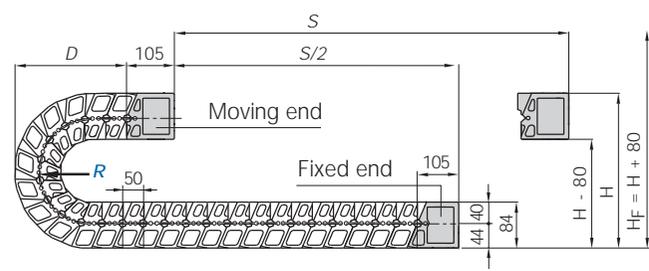
- Limited in side-mounted applications
- ▶ **Series E4.56 System E4.1, page 678**
- No use with RBR (reverse bending radius)
- ▶ **Series E4.56 System E4.1, page 678**
- No use with high additional fill weights
- ▶ **Series E4.56 System E4.1, page 678**
- No use in dirty environments
- ▶ **Series R4.56 System E4.1, page 678**



Standard **Unsupported applications**

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. More information ▶ **Design, page 95**

i In special cases, gliding applications are also possible, please consult igus[®].



Technical Data

Speed, material, temperature and flammability class ▶ **page 924**

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	234	269	319	369	419	469
K	465	575	730	890	1045	1200

The required clearance height: $H_F = H + 80$ mm (with 2,0 kg/m fill weight)

i FL_G = with straight upper run S = Length of travel H = Nominal clearance height D = Overlength e-chain, radius in final position
 FL_B = with permitted sag R = Bending radius H_F = Required clearance height $K = \pi \cdot R + \text{"safety"}$

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

3D-CAD files, configurators, PDF ▶ www.igus.eu/eu/E6.62

Crossbars every 2nd link

 e-chains® | Series E6.62 Crossbars every 2nd link | Removable along both radii

Part No.		<i>Bi</i>	<i>Ba</i>	E6.62	Part No.		<i>Bi</i>	<i>Ba</i>	E6.62
Crossbars every 2 nd link		[mm]	[mm]	[kg/m]	Crossbars every 2 nd link		[mm]	[mm]	[kg/m]
E6.62. 05.	R.0	50	86	3,22	E6.62. 212.	R.0	212	248	3,78
E6.62. 06.	R.0	68	104	3,28	E6.62. 23.	R.0	225	261	3,83
E6.62. 07.	R.0	75	111	3,31	E6.62. 237.	R.0	237	273	3,87
E6.62. 087.	R.0	87	123	3,35	E6.62. 25.	R.0	250	286	3,91
E6.62. 097.	R.0	97	133	3,38	E6.62. 262.	R.0	262	298	3,95
E6.62. 10.	R.0	100	136	3,39	E6.62. 28.	R.0	275	311	4,00
E6.62. 11.	R.0	108	144	3,42	E6.62. 29.	R.0	287	323	4,04
E6.62. 112.	R.0	112	148	3,43	E6.62. 30.	R.0	300	336	4,09
E6.62. 12.	R.0	125	161	3,48	E6.62. 312.	R.0	312	348	4,13
E6.62. 137.	R.0	137	173	3,52	E6.62. 325.	R.0	325	361	4,17
E6.62. 15.	R.0	150	186	3,57	E6.62. 337.	R.0	337	373	4,21
E6.62. 162.	R.0	162	198	3,61	E6.62. 350.	R.0	350	386	4,26
E6.62. 17.	R.0	168	204	3,63	E6.62. 362.	R.0	362	398	4,30
E6.62. 18.	R.0	175	211	3,65	E6.62. 375.	R.0	375	411	4,35
E6.62. 187.	R.0	187	223	3,69	E6.62. 387.	R.0	387	423	4,39
E6.62. 20.	R.0	200	236	3,74	E6.62. 400.	R.0	400	436	4,43

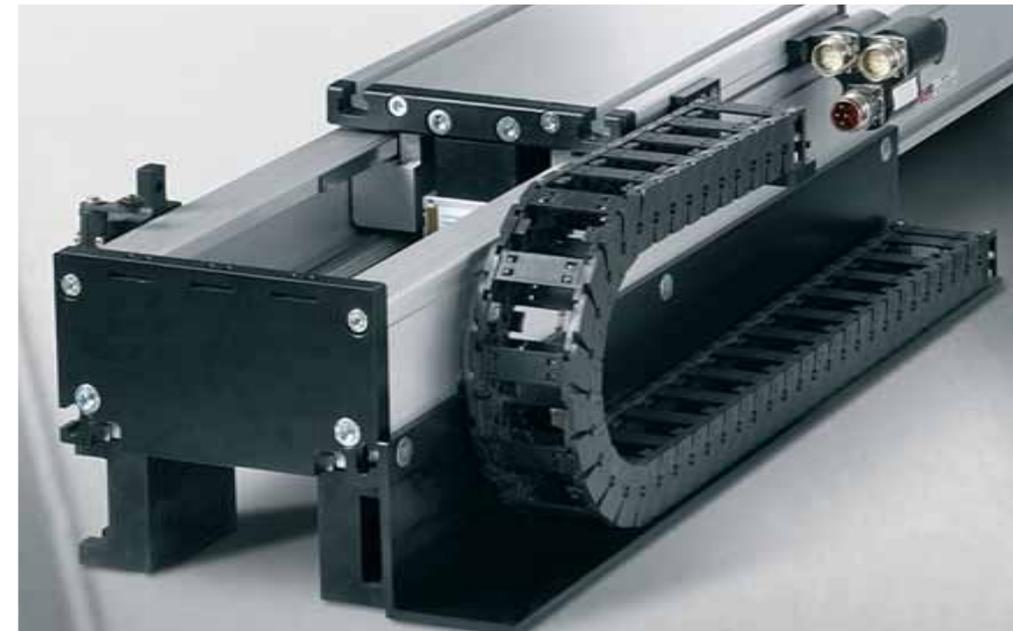
Available bending radii *R* [mm] 115 | 150 | 200 | 250 | 300 | 350

Supplement Part No. with required radius (*R*), example: E6.62.10.250.0

 e-chain® links as single parts, overview ► page 925

 Configuration options and order keys, overview ► page 926

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



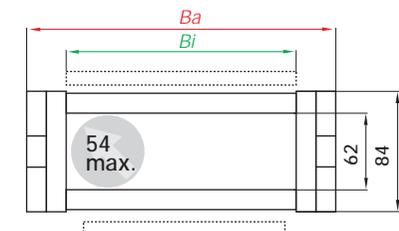
igus® System E6 on a linear drive for high speeds

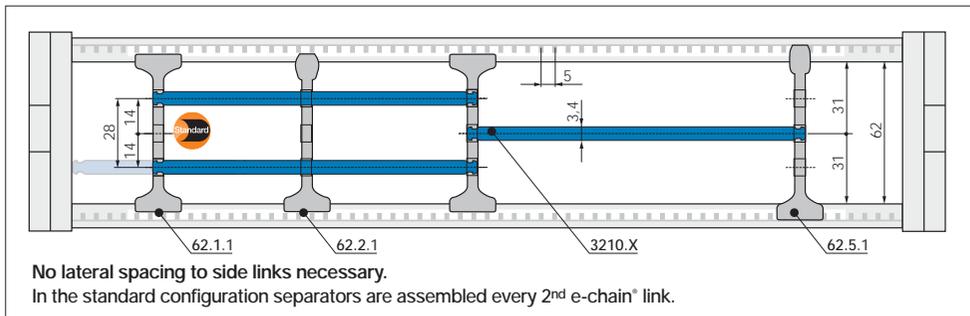
 Order key

E6.62.10.250.0 Crossbar every 2nd link

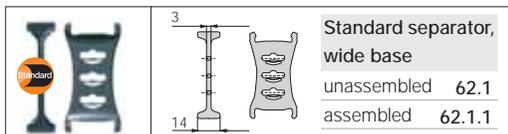


Dimensioning





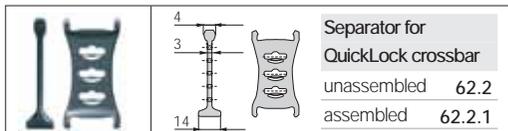
No lateral spacing to side links necessary.
 In the standard configuration separators are assembled every 2nd e-chain® link.



Standard separator, wide base
 unassembled 62.1
 assembled 62.1.1

Standard - for all applications

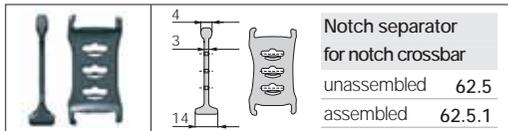
Separator with wide base for maximum locking strength and safe standing in e-chains®.



Separator for QuickLock crossbar
 unassembled 62.2
 assembled 62.2.1

For even faster installation

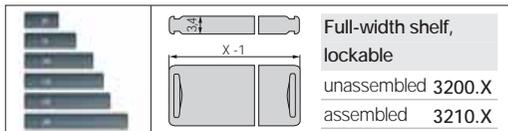
Separator for igus® QuickLock crossbar 385.X.Q. Firm hold to one side with a wide base, narrow on opposed side for easy cable assembly (slight grip).



Notch separator for notch crossbar
 unassembled 62.5
 assembled 62.5.1

Locks safely in 5 mm increments

Notch separator for exact positioning in e-chains®. Recommended for side-mounted applications.



Full-width shelf, lockable
 unassembled 3200.X
 assembled 3210.X

Horizontal separation

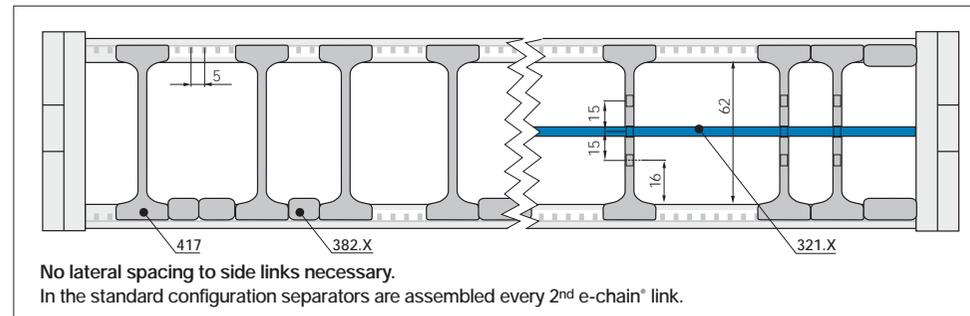
Shelf locks safely into separators on both ends, fixed width possible. Separators can be moved freely over the shelf in horizontal direction. Can be arranged at 3 different heights.

Lockable full-width shelves	Width X (mm)		unassembled		assembled				
	unassembled	assembled	unassembled	assembled	unassembled	assembled			
	050	3200.050	3210.050	125	3200.125	3210.125	225	3200.225	3210.225
	075	3200.075	3210.075	150	3200.150	3210.150			
	100	3200.100	3210.100	175	3200.175	3210.175			
	115	3200.115	3210.115	200	3200.200	3210.200			

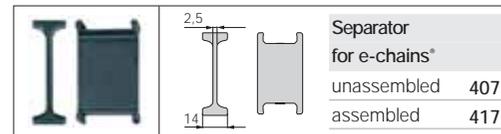


Previous interior separation - for e-chains®

All elements of the previous interior separation can still be ordered ► www.igus.eu/eu/E6.62



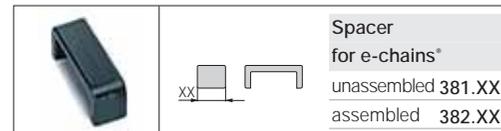
No lateral spacing to side links necessary.
 In the standard configuration separators are assembled every 2nd e-chain® link.



Separator for e-chains®
 unassembled 407
 assembled 417

Vertical separator 407

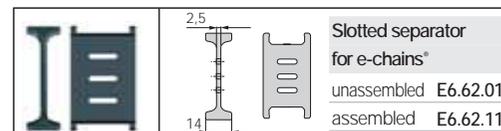
For a vertical subdividing. Offers safe stability due to its wide base design, also when used with thick cables or hoses.



Spacer for e-chains®
 unassembled 381.XX
 assembled 382.XX

Spacer 381.XX

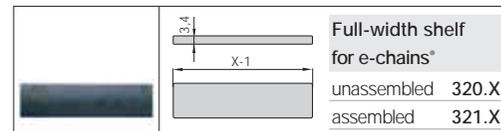
Separators can be fixed in position by spacers. The available interior height is reduced by 2 mm per spacer (4 mm when spacers are fitted on both sides). To avoid this, the parts can also be installed from the outside on the opening crossbar. (not for long travel applications). XX = width of the spacer (please choose between 10, 15, 20 mm).



Slotted separator for e-chains®
 unassembled E6.62.01
 assembled E6.62.11

Slotted separator E6.62.01

is used when vertical and horizontal separation is required. Due to its slot, it allows basic vertical/horizontal shelving arrangements.



Full-width shelf for e-chains®
 unassembled 320.X
 assembled 321.X

Full-width shelf 320.X

This option makes sense in applications with many thin cables with similar diameters. Full-width shelves can be arranged at 3 different heights (in 15 mm increments).

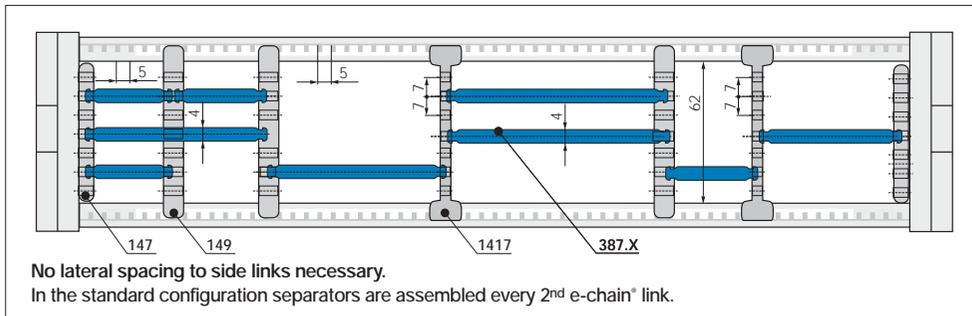
Full-width shelves 320.X

Width X (mm)			Width X (mm)			Width X (mm)		
unassembled	assembled		unassembled	assembled		unassembled	assembled	
050	320.50	321.50	125	320.125	321.125	187	320.187	321.187
068	320.68	321.68	137	320.137	321.137	200	320.200	321.200
075	320.75	321.75	150	320.150	321.150	212	320.212	321.212
087	320.87	321.87	162	320.162	321.162	225	320.225	321.225
108	320.108	321.108	168	320.168	321.168	237	320.237	321.237
112	320.112	321.112	175	320.175	321.175	250	320.250	321.250

Interior separation with single-part order. **Delivery time* in 24h or today!**
*Delivery time means time until shipping of goods (after technical release)

Previous interior separation - for e-chains®

All elements of the previous interior separation can still be ordered ▶ www.igus.eu/eu/E6.62



Middle plate for e-chains®

unassembled	148
assembled	149

Middle plate 148

To achieve a modular shelving the shelf 386.X (table left page) can be arranged at 7 different heights (in 7 mm increments).

Slotted separator for e-chains®

unassembled	1407
assembled	1417

Slotted separator 1407

For very fine subdivisions. However, they cannot be retro-fitted into an existing separation system without dismantling the interior separators first.

Side plate e-chains®

unassembled	146
assembled	147

Side plate 146

Works like middle plate. Allows modular shelving close to the side links.

Shelf e-chains®

unassembled	386.X
assembled	387.X

Shelf 386.X

For applications involving many cables with different diameters, shelves can be arranged at alternate heights. They can be arranged at 7 different heights (in 7 mm increments).

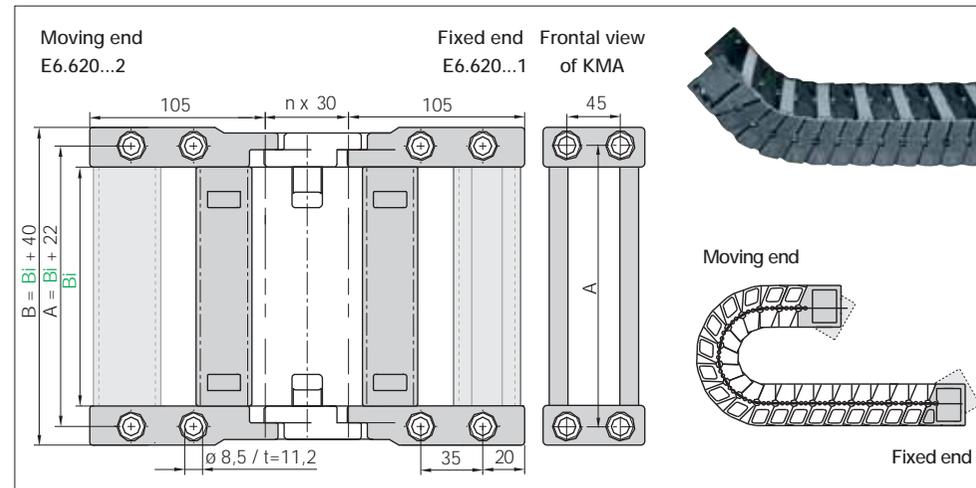
Shelves

Width X [mm]	unassembled	assembled	Width X [mm]	unassembled	assembled	Width X [mm]	unassembled	assembled
018	386.18	387.18	050	386.50	387.50	108	386.108	387.108
023	386.23	387.23	054	386.54	387.54	125	386.125	387.125
025	386.25	387.25	062	386.62	387.62	150	386.150	387.150
028	386.28	387.28	075	386.75	387.75	175	386.175	387.175
033	386.33	387.33	087	386.87	387.87	200	386.200	387.200
043	386.43	387.43	100	386.100	387.100	208	386.208	387.208

Interior separation with single-part order. Delivery time* in 24h or today!

*Delivery time means time until shipping of goods (after technical release)

For tight installation conditions, all-sides attachment



KMA pivoting | All-sides attachment | Recommended for unsupported applications

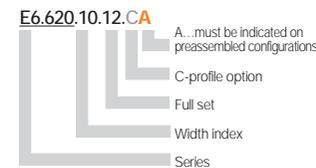
Width index	Part No.	Full set	A [mm]	Bi [mm]	Width index	Part No.	Full set	A [mm]	Bi [mm]
05.	▶ E6.620.05.	12.C	72	50	212.	▶ E6.620.212.	12.C	234	212
06.	▶ E6.620.06.	12.C	90	68	23.	▶ E6.620.23.	12.C	247	225
07.	▶ E6.620.07.	12.C	97	75	237.	▶ E6.620.237.	12.C	259	237
087.	▶ E6.620.087.	12.C	109	87	25.	▶ E6.620.25.	12.C	272	250
097.	▶ E6.620.097.	12.C	119	97	262.	▶ E6.620.262.	12.C	284	262
10.	▶ E6.620.10.	12.C	122	100	28.	▶ E6.620.28.	12.C	297	275
11.	▶ E6.620.11.	12.C	130	108	29.	▶ E6.620.29.	12.C	309	287
112.	▶ E6.620.112.	12.C	134	112	30.	▶ E6.620.30.	12.C	322	300
12.	▶ E6.620.12.	12.C	147	125	312.	▶ E6.620.312.	12.C	334	312
137.	▶ E6.620.137.	12.C	159	137	325.	▶ E6.620.325.	12.C	347	325
15.	▶ E6.620.15.	12.C	172	150	337.	▶ E6.620.337.	12.C	359	337
162.	▶ E6.620.162.	12.C	184	162	350.	▶ E6.620.350.	12.C	372	350
17.	▶ E6.620.17.	12.C	190	168	362.	▶ E6.620.362.	12.C	384	362
18.	▶ E6.620.18.	12.C	197	175	375.	▶ E6.620.375.	12.C	397	375
187.	▶ E6.620.187.	12.C	209	187	387.	▶ E6.620.387.	12.C	409	387
20.	▶ E6.620.20.	12.C	222	200	400.	▶ E6.620.400.	12.C	422	400

(KMA = Polymer Metal Mounting Bracket)



- Standard
- For tight installation conditions
- Option: integrated chainfix strain relief with C-profile
- Corrosion resistant
- Option: threaded sockets upon request (KMA = Polymer Metal Mounting Bracket)

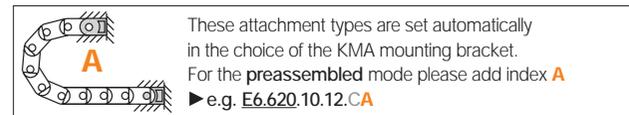
Part No. structure



Single-part order:

Mounting bracket Moving end **E6.620.10.2.CA**

Mounting bracket Fixed end **E6.620.10.1.CA**



Strain relief, e.g. clamps, tiwrap plates, nuggets and plug-in clips are available from stock. The complete chainfix range with order options ▶ from page 1148

Aluminum SuperTrough | Basic Version

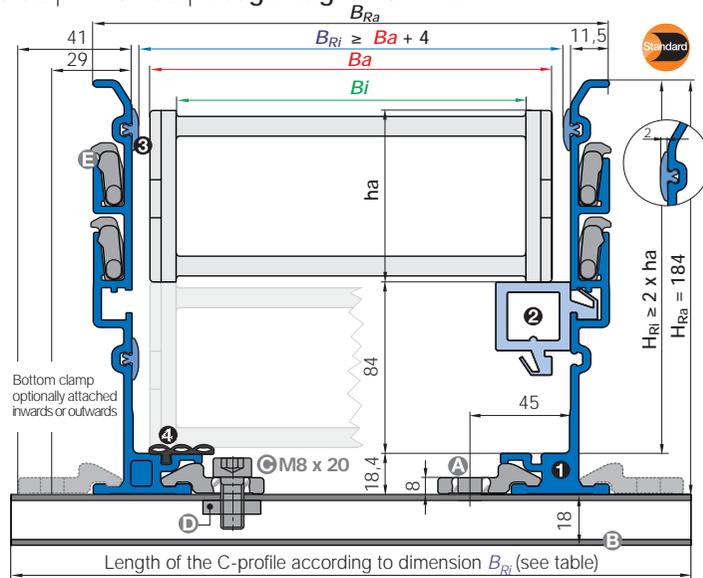
Part No. 974.30.SL | 974.31.SL | Trough height: 184 mm

Installation set "Basic" with C-Profile

Bottom clamp optionally attached inwards or outwards

For Width Index	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards
.05	90	upon request	960.50.225
.06	108	upon request	960.50.225
.07	115	upon request	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"

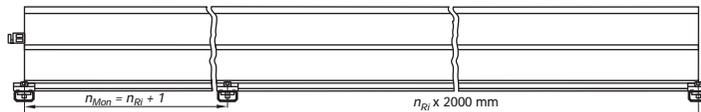


● Components, trough "Basic": ① Trough side parts, aluminum, 2 m ② Glide bar, plastic, 2 m ③ Glide strips, plastic, 2 m (without glide strips on request) ④ Optional: Silencer profile, rubber ● Components, installation set "Basic": A Bottom clamp, aluminum B C-profile, galvanized steel ► table C Screw M8 x 20 D Sliding nut M8 E Interface connector, plastic

Order example: Length of travel 30 m - Center mounted for Series E6.62.10.250.0 with $B_{Ri} = 140$

Guide trough set **without** glide bar (set of 2 trough side parts, incl. glide strips)
 Order text: 16 m guide trough without glide bar (8 x 2 m sections) Part No. 974.30.SL
 Guide trough set **with** glide bar (set of 2 trough side parts, incl. glide strips)
 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 Part No. 960.50.200
 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



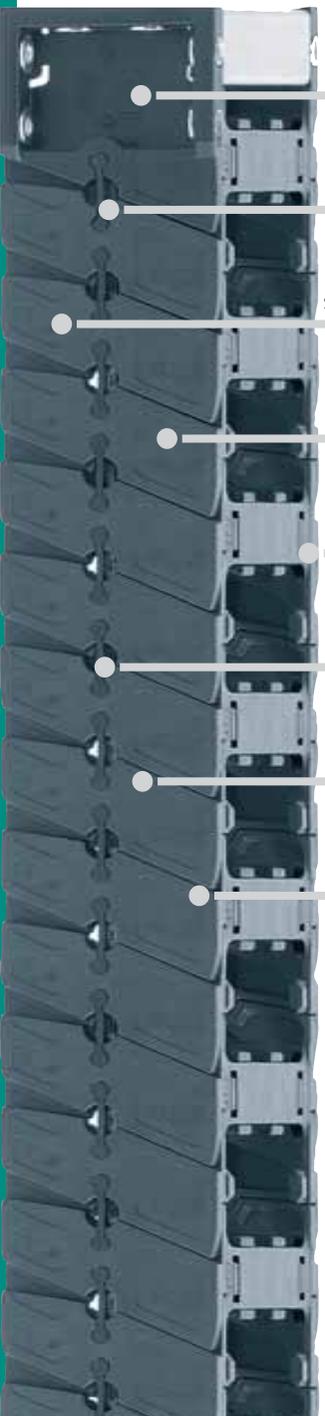
Principle sketch: Number of installation sets to be installed = Number of trough sections + 1

Aluminum SuperTrough "Basic" in detail and the "Heavy-Duty" version for heavy machinery ► from page 1202

- Trough set
- Installation set
- Glide bar
- C-Profile
- Ba = Outer width e-chains*
- Bi = Inner width e-chains*
- B_{Ri} = Inner trough width
- B_{Ra} = Outer trough width
- H_{Ri} = Inner trough height
- H_{Ra} = Outer trough height
- n_{Min} = Number of installation sets
- n_{Ri} = Number of trough sets



Preassembled energy supply systems reduce throughput and assembly times significantly. Because in this positioning system, cleanroom compatibility is required, each preassembled e-chainsystem is attached with a cleaning protocol.



- Universal:
All-sides attachment
- Low-noise 46dB(A)¹⁾:**
Small pitch for smooth running
- Long service life:
Minimum vibration, high stability and tensile strength
- Dynamic:
For high speeds and high accelerations
- Fast assembly:
Openable along inner and outer radius
- Cleanroom²⁾:**
Virtually no wear or abrasion
- Modular design:
Can be shortened and lengthened
- High stability:
For unsupported applications

+ Extremely low-noise, low vibration, high stability

When to use Series E6.80L:

- If a particularly low noise, low vibration e-chain[®] with an inner height of 80 mm is required
- At very high speeds and/or accelerations
- Inner widths up to 550 mm
- For unsupported lengths up to 2,5 m and fill weights up to 26 kg/m
- For enlarged thrusts and tensile forces
- For small bending radii
- Minimal abrasion (e.g. cleanroom applications)

1) Low-noise - testetd series, more details ▶ page 878
2) Cleanroom - testetd series, more details ▶ page 879

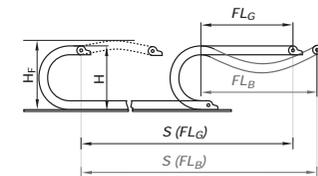
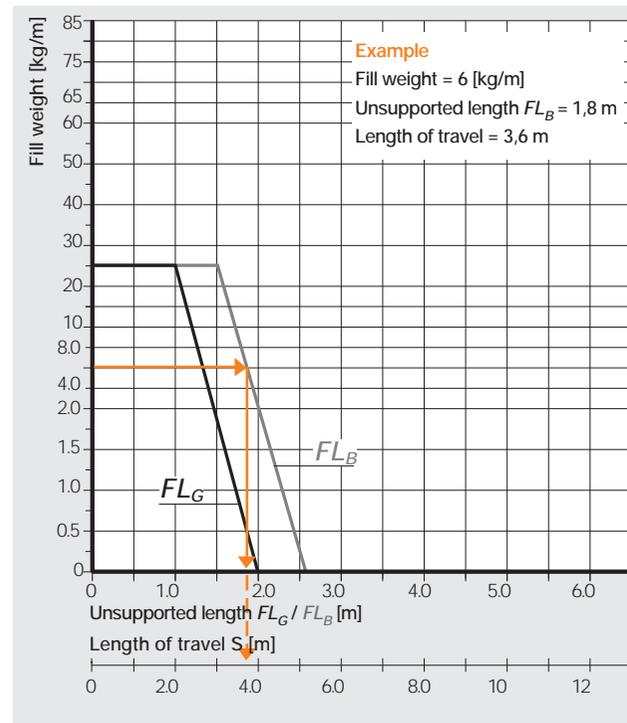


When to use a different igus[®] Series:

- Limited in side-mounted applications
- ▶ Series 15050 System E4/light, page 830
- No use with RBR (reverse bending radius)
- ▶ Series 15050 System E4/light, page 830
- No use with high additional fill weights
- ▶ Series 15050 System E4/light, page 830
- No use in dirty environments
- ▶ Series 19850 System E4/light, page 830

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

3D-CAD files, configurators, PDF ▶ www.igus.eu/eu/E6.80L

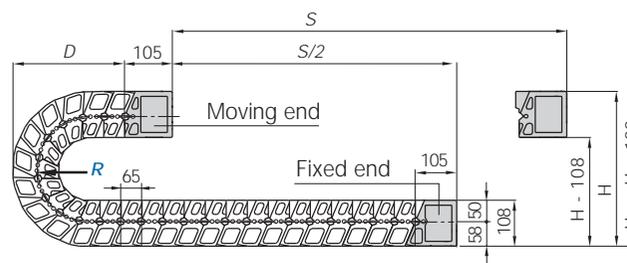


Standard **Unsupported applications**

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. More information ▶ Design, page 95



In special cases, gliding applications are also possible, please consult igus[®].



Technical Data

Speed, material, temperature and flammability class ▶ page 924

- Pitch = 65 mm/link
- Links/m = 16 (1040 mm)
- Chain length = $\frac{S}{2} + K$

R	100*	150*	175	200*	250*	300*
H	416	516	566	616	716	816
D	256	306	331	356	406	456
K	445	605	680	760	915	1075

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

*Radius available upon request, please consult igus[®] for delivery time

- FL_G = with straight upper run
 FL_B = with permitted sag
- S = Length of travel
 R = Bending radius
- H = Nominal clearance height
 H_F = Required clearance height
- D = Overlength e-chain[®], radius in final position
 $K = \pi \cdot R + \text{"safety"}$

Crossbars every 2nd link

 e-chains® | Series E6.80L Crossbars every 2nd link | Removable along both radii

Part No.	<i>Bi</i>	<i>Ba</i>	E6.80L	Part No.	<i>Bi</i>	<i>Ba</i>	E6.80L
Crossbars every 2 nd link	[mm]	[mm]	[kg/m]	Crossbars every 2 nd link	[mm]	[mm]	[kg/m]
E6.80L.08. <i>R.0</i>	87	101	3,28	E6.80L.32. <i>R.0</i>	325	339	4,38
E6.80L.10. <i>R.0</i>	100	114	3,33	E6.80L.33. <i>R.0</i>	337	351	4,44
E6.80L.11. <i>R.0</i>	112	126	3,38	E6.80L.35. <i>R.0</i>	350	364	4,50
E6.80L.12. <i>R.0</i>	125	139	3,43	E6.80L.36. <i>R.0</i>	362	376	4,56
E6.80L.13. <i>R.0</i>	137	151	3,49	E6.80L.37. <i>R.0</i>	375	389	4,62
E6.80L.15. <i>R.0</i>	150	164	3,55	E6.80L.38. <i>R.0</i>	387	401	4,68
E6.80L.16. <i>R.0</i>	162	176	3,61	E6.80L.40. <i>R.0</i>	400	414	4,74
E6.80L.17. <i>R.0</i>	175	189	3,67	E6.80L.41. <i>R.0</i>	412	426	4,80
E6.80L.18. <i>R.0</i>	187	201	3,73	E6.80L.42. <i>R.0</i>	425	439	4,85
E6.80L.20. <i>R.0</i>	200	214	3,79	E6.80L.43. <i>R.0</i>	437	451	4,92
E6.80L.21. <i>R.0</i>	212	226	3,85	E6.80L.45. <i>R.0</i>	450	464	5,03
E6.80L.22. <i>R.0</i>	225	239	3,91	E6.80L.46. <i>R.0</i>	462	476	5,09
E6.80L.23. <i>R.0</i>	237	251	3,97	E6.80L.47. <i>R.0</i>	475	489	5,15
E6.80L.25. <i>R.0</i>	250	264	4,02	E6.80L.48. <i>R.0</i>	487	501	5,21
E6.80L.26. <i>R.0</i>	262	276	4,09	E6.80L.50. <i>R.0</i>	500	514	5,27
E6.80L.27. <i>R.0</i>	275	289	4,14	E6.80L.51. <i>R.0</i>	512	526	5,33
E6.80L.28. <i>R.0</i>	287	301	4,20	E6.80L.52. <i>R.0</i>	525	539	5,39
E6.80L.30. <i>R.0</i>	300	314	4,26	E6.80L.53. <i>R.0</i>	537	551	5,45
E6.80L.31. <i>R.0</i>	312	326	4,32	E6.80L.55. <i>R.0</i>	550	564	5,51

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

Available bending radii *R* [mm] 100* | 150* | 175 | 200* | 250* | 300*

Supplement Part No. with required radius (*R*), example: E6.80L.10.175.0

 e-chain® links as single parts, overview ► page 925

 Configuration options and order keys, overview ► page 926

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



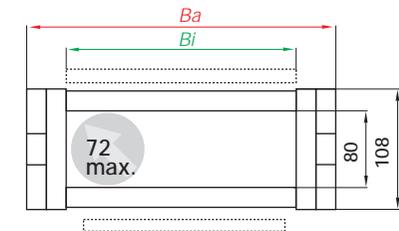
igus® System E6, pick and place robot - speed 8 m/s, acceleration 78,5 m/s²

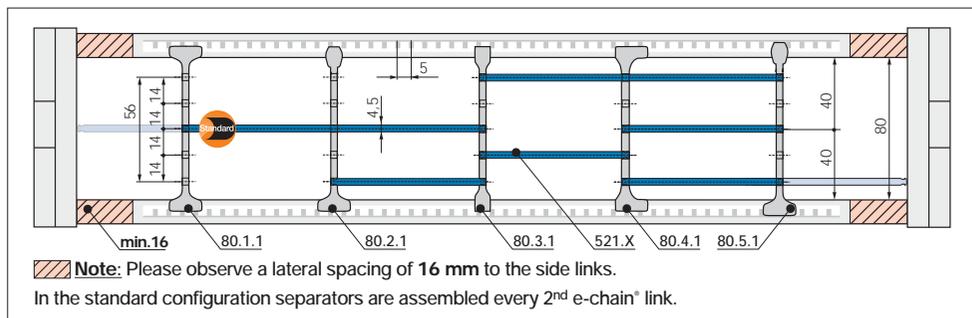
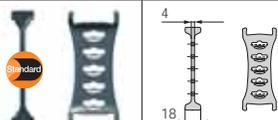
 Order key

E6.80L.10.175.0 Crossbar every 2nd link



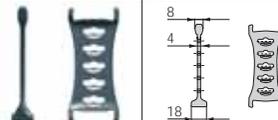
Dimensioning



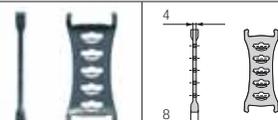
Standard separator, wide base
 unassembled 80.1
 assembled 80.1.1

Standard - for all applications
 Separator with wide base for maximum locking strength and safe standing in e-chains®.



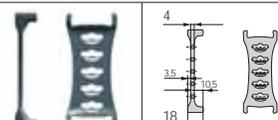
Separator for QuickLock crossbar
 unassembled 80.2
 assembled 80.2.1

For even faster installation
 Separator for igus® QuickLock crossbar 450.X.Q. Firm hold to one side with a wide base, narrow on opposed side for easy cable assembly (slight grip).



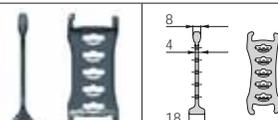
Separator, narrow base
 unassembled 80.3
 assembled 80.3.1

For many thin cables
 Separator with a narrow base for a large number of thin cables side by side. Saves space in e-chains®.



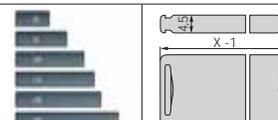
Separator, asymmetrical
 unassembled 80.4
 assembled 80.4.1

For side-mounted applications
 Asymmetrical separator, for defined distance. No additional spacers necessary.



Notch separator for notch crossbar*
 unassembled 80.5
 assembled 80.5.1

Locks safely in 5 mm increments
 Notch separator for exact positioning in e-chains®. Recommended for side-mounted applications.

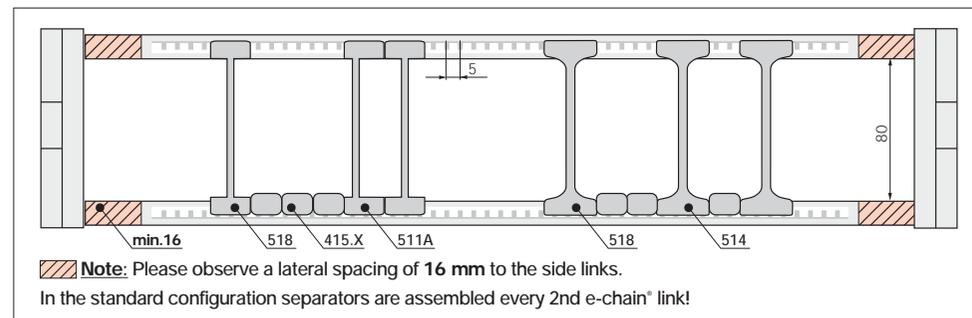
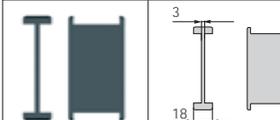


Full-width shelf, lockable
 unassembled 520.X
 assembled 521.X

Horizontal separation
 Full-width shelf locks safely into separators on both ends, fixed width possible. Separators can be moved freely over the shelf in horizontal direction. Can be arranged at 5 different heights.

Rastbare Full-width shelves	Width X (mm)			Width X (mm)			Width X (mm)		
	unassembled	assembled		unassembled	assembled		unassembled	assembled	
	050	520.050	521.050	150	520.150	521.150	300	520.300	521.300
	065	520.065	521.065	175	520.175	521.175	350	520.350	521.350
	075	520.075	521.075	200	520.200	521.200	375	520.375	520.375
	100	520.100	521.100	225	520.225	521.225	387	520.387	520.387
	125	520.125	521.125	250	520.250	521.250	450	520.450	521.450

All elements of the previous interior separation can still be ordered ► www.igus.eu/eu/E6.80L

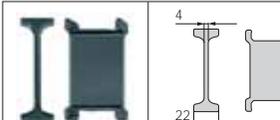
Separator for e-chains®
 unassembled 501
 assembled 511

Vertical separator 501
 Offers safe stability, also when used with thick cables or hoses.



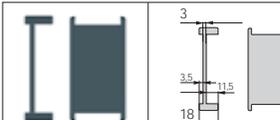
Locking separator for e-chains®
 unassembled 504
 assembled 514

Locking separator 504
 Locks with extra retention force. Tip: one locking separator per e-chain® link for better mounting.



Locking separator for e-chains®
 unassembled 508
 assembled 518

Locking separator 508
 For applications exposed to very high humidity (> 85%). Extra retention force by asymmetric claws. Ensure proper alignment. Tip: one locking vertical separator per e-chain® link for better mounting.



Separator, asymmetrical
 unassembled 501A
 assembled 511A

Separator, asymmetrical 501A
 With 18 mm base, for the combination of spacers and separators with different widths, e.g. for side-mounted applications.



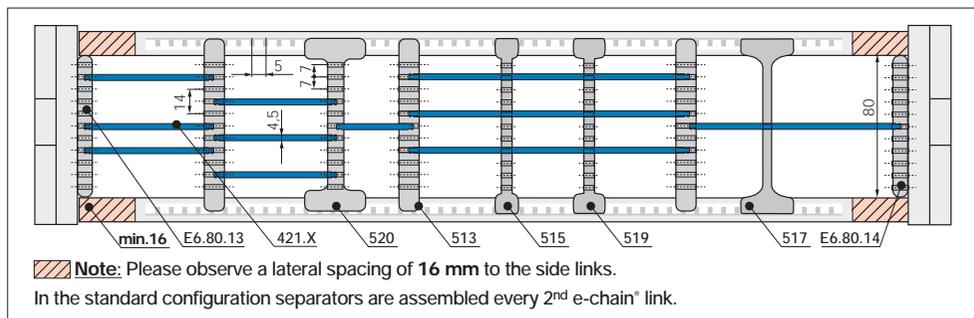
Spacer e-chains®
 unassembled 405.XX
 assembled 415.XX

Spacer 405.XX
 Separators can be fixed in position by spacers. The available interior height is reduced by 2 mm per spacer (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. (not for long travel applications). XX = width of the spacer (please choose between 10, 15, 20, 30, 40 mm).

Shelves - for interior separation options

Width X (mm)	unassembled	assembled	Width X (mm)	unassembled	assembled	Width X (mm)	unassembled	assembled
018	420.18	421.18	050	420.50	421.50	150	420.150	421.150
023	420.23	421.23	062	420.62	421.62	175	420.175	421.175
025	420.25	421.25	075	420.75	421.75	187	420.187	421.187
028	420.28	421.28	088	420.88	421.88	200	420.200	421.200
033	420.33	421.33	100	420.100	421.100			
043	420.43	421.43	125	420.125	421.125			

All elements of the previous interior separation can still be ordered ► www.igus.eu/eu/E6.80L



Locking vertical separator 510 (e-chains® only)
Works like middle plate, for applications exposed to very high humidity (> 85%).

unassembled	510
assembled	520

Locking separator 507
Extra retention force by asymmetric claws. Ensure proper alignment. Tip: one locking vertical separator per e-chain® link for better mounting.

unassembled	507
assembled	517

Middle plate 503 for e-chains® / e-tubes
To achieve a modular shelving the shelf 420.X (table left page) can be arranged at 11 different heights (in 7 mm increments).

unassembled	503
assembled	513

Slotted separator 505 for e-chains® / e-tubes
For very fine subdivisions. However, they cannot be retrofitted into an existing separation system without dismantling the interior separators first.

unassembled	505
assembled	515

Open slotted separator 509 (unilateral open) for e-chains® / e-tubes
Fast assembly - can be retrofitted into an existing interior separation system without a need for dismantling the interior separators. During an installation of open slotted separators, the top and bottom notches cannot be occupied by shelves.

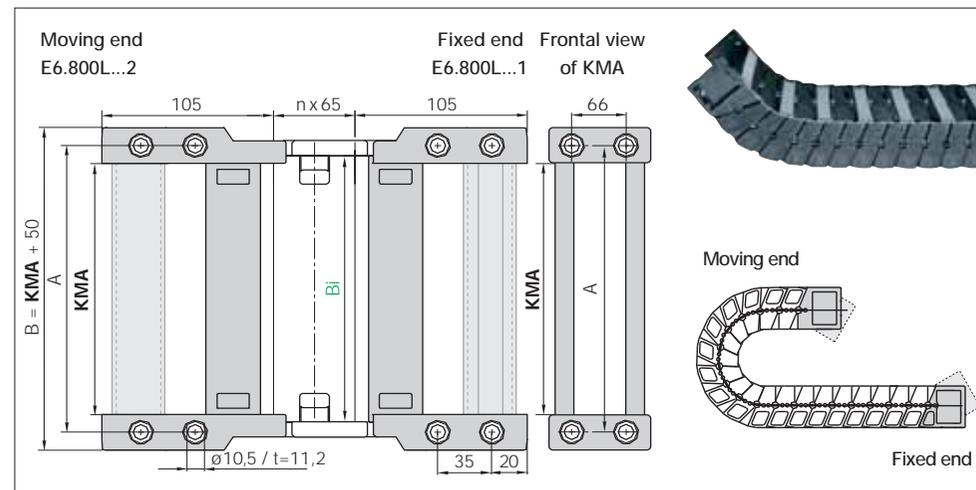
unassembled	509
assembled	519

Side plate 421.X left / right

unassembled	E6.80.03
assembled	E6.80.13
unassembled	E6.80.04
assembled	E6.80.14

Shelf 420.X
For applications involving many cables with different diameters, shelves can be arranged at alternate heights. They can be arranged at 11 different heights (in 7 mm increments). (not for 504, 508).

unassembled	420.X
assembled	421.X



KMA pivoting | All-sides attachment | Recommended for unsupported applications

Width index	Part No.	Full set	A [mm]	KMA [mm]	Width index	Part No.	Full set	A [mm]	KMA [mm]
08.	► E6.800L.08.	12.C	103	75	32.	► E6.800L.32.	12.C	340	312
10.	► E6.800L.10.	12.C	115	87	33.	► E6.800L.33.	12.C	353	325
11.	► E6.800L.11.	12.C	128	100	35.	► E6.800L.35.	12.C	365	337
12.	► E6.800L.12.	12.C	140	112	36.	► E6.800L.36.	12.C	378	350
13.	► E6.800L.13.	12.C	153	125	37.	► E6.800L.37.	12.C	390	362
15.	► E6.800L.15.	12.C	165	137	38.	► E6.800L.38.	12.C	403	375
16.	► E6.800L.16.	12.C	178	150	40.	► E6.800L.40.	12.C	415	387
17.	► E6.800L.17.	12.C	190	162	41.	► E6.800L.41.	12.C	428	400
18.	► E6.800L.18.	12.C	203	175	42.	► E6.800L.42.	12.C	440	412
20.	► E6.800L.20.	12.C	215	187	43.	► E6.800L.43.	12.C	453	425
21.	► E6.800L.21.	12.C	228	200	45.	► E6.800L.45.	12.C	465	437
22.	► E6.800L.22.	12.C	240	212	46.	► E6.800L.46.	12.C	478	450
23.	► E6.800L.23.	12.C	253	225	47.	► E6.800L.47.	12.C	490	462
25.	► E6.800L.25.	12.C	265	237	48.	► E6.800L.48.	12.C	503	475
26.	► E6.800L.26.	12.C	278	250	50.	► E6.800L.50.	12.C	515	487
27.	► E6.800L.27.	12.C	290	262	51.	► E6.800L.51.	12.C	528	500
28.	► E6.800L.28.	12.C	303	275	52.	► E6.800L.52.	12.C	540	512
30.	► E6.800L.30.	12.C	315	287	53.	► E6.800L.53.	12.C	553	525
31.	► E6.800L.31.	12.C	328	300	55.	► E6.800L.55.	12.C	565	537

(KMA = Polymer Metal Mounting Bracket)

These attachment types are set automatically in the choice of the KMA mounting bracket. For the preassembled mode please add index **A** ► e.g. E6.800L.10.12.CA

- Standard
- For tight installation conditions
- Option: integrated chainfix strain relief with C-profile
- Corrosion resistant
- Option: threaded sockets upon request (KMA = Polymer Metal Mounting Bracket)

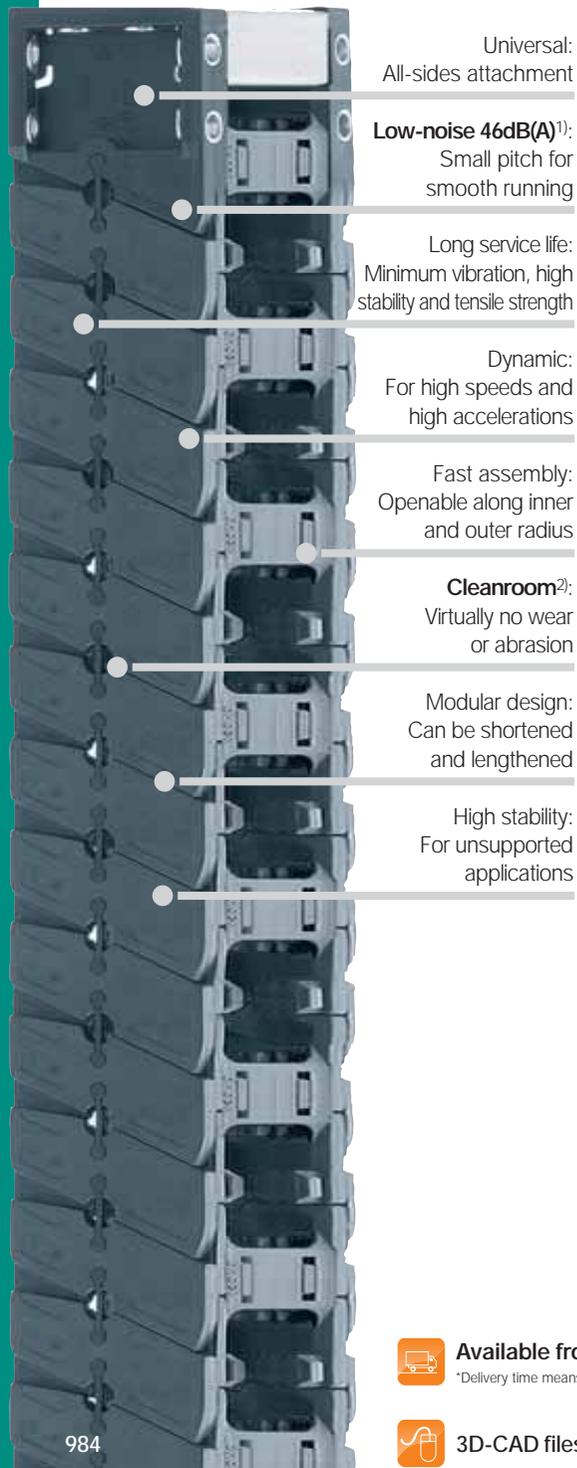
Part No. structure

E6.800L.10.12.CA

- A... must be indicated on preassembled configurations
- C-profile option
- Full set
- Width index
- Series

Single-part order:
Mounting bracket Moving end **E6.800L.10.2.CA**
Mounting bracket Fixed end **E6.800L.10.1.CA**

Strain relief, e.g. clamps, tiewrap plates, nuggets and plug-in clips are available from stock. The complete chainfix range with order options ► from page 1148



Universal:
All-sides attachment

Low-noise 46dB(A)¹⁾:
Small pitch for smooth running

Long service life:
Minimum vibration, high stability and tensile strength

Dynamic:
For high speeds and high accelerations

Fast assembly:
Openable along inner and outer radius

Cleanroom²⁾:
Virtually no wear or abrasion

Modular design:
Can be shortened and lengthened

High stability:
For unsupported applications

+ Extremely low-noise, low vibration, high stability

When to use Series E6.80:

- If a particularly low noise, low vibration e-chain® with an inner height of 80 mm is required
- At very high speeds and/or accelerations
- Inner widths up to 600 mm
- For unsupported lengths up to 5,25 m and fill weights up to 56 kg/m
- For enlarged thrusts and tensile forces
- For small bending radii
- Minimal abrasion (e.g. cleanroom applications)

1) Low-noise - testetd series, more details ▶ page 878
2) Cleanroom - testetd series, more details ▶ page 879

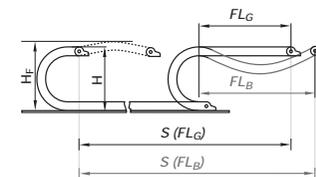
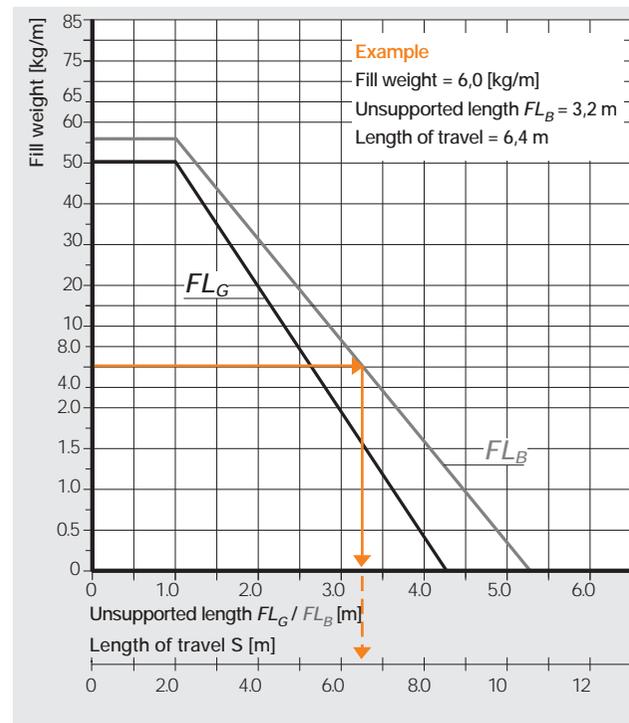


When to use a different igus® Series:

- Limited in side-mounted applications
- ▶ **Series E4.80 System E4.1, page 694**
- No use with RBR (reverse bending radius)
- ▶ **Series E4.80 System E4.1, page 694**
- No use with high additional fill weights
- ▶ **Series E4.80 System E4.1, page 694**
- No use in dirty environments
- ▶ **Series R4.80 System E4.1, page 694**

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

3D-CAD files, configurators, PDF ▶ www.igus.eu/eu/E6.80

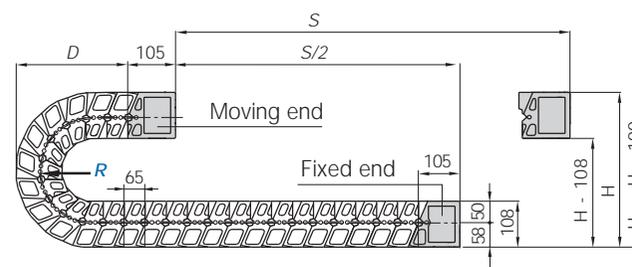


Standard **Unsupported applications**

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. More information ▶ **Design, page 95**



In special cases, gliding applications are also possible, please consult igus®.



Technical Data

Speed, material, temperature and flammability class ▶ **page 924**

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	306	356	406	456	506	556	606
K	605	760	920	1075	1230	1390	1545

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

FL_G = with straight upper run FL_B = with permitted sag S = Length of travel R = Bending radius H = Nominal clearance height H_F = Required clearance height D = Overlength e-chain®, radius in final position $K = \pi \cdot R + \text{“safety”}$

Crossbars every 2nd link

 e-chains® | Series E6.80 Crossbars every 2nd link | Removable along both radii

Part No.	<i>Bi</i> [mm]	<i>Ba</i> [mm]	E6.80 [kg/m]	Part No.	<i>Bi</i> [mm]	<i>Ba</i> [mm]	E6.80 [kg/m]
Crossbars every 2 nd link							
E6.80.05. R.0	50	100	5,21	E6.80.31. R.0	312	362	6,45
E6.80.06. R.0	65	115	5,28	E6.80.32. R.0	325	375	6,51
E6.80.07. R.0	75	125	5,33	E6.80.33. R.0	337	387	6,57
E6.80.08. R.0	87	137	5,38	E6.80.35. R.0	350	400	6,63
E6.80.10. R.0	100	150	5,45	E6.80.36. R.0	362	412	6,69
E6.80.11. R.0	112	162	5,50	E6.80.37. R.0	375	425	6,75
E6.80.12. R.0	125	175	5,57	E6.80.38. R.0	387	437	6,80
E6.80.13. R.0	137	187	5,62	E6.80.40. R.0	400	450	6,88
E6.80.15. R.0	150	200	5,68	E6.80.41. R.0	412	462	6,92
E6.80.16. R.0	162	212	5,74	E6.80.42. R.0	425	475	6,99
E6.80.17. R.0	175	225	5,80	E6.80.43. R.0	437	487	7,04
E6.80.18. R.0	187	237	5,86	E6.80.45. R.0	450	500	7,10
E6.80.20. R.0	200	250	5,92	E6.80.46. R.0	462	512	7,16
E6.80.21. R.0	212	262	5,98	E6.80.47. R.0	475	525	7,22
E6.80.22. R.0	225	275	6,04	E6.80.48. R.0	487	537	7,28
E6.80.23. R.0	237	287	6,10	E6.80.50. R.0	500	550	7,34
E6.80.25. R.0	250	300	6,16	E6.80.51. R.0	512	562	7,40
E6.80.26. R.0	262	312	6,21	E6.80.52. R.0	525	575	7,46
E6.80.27. R.0	275	325	6,28	E6.80.53. R.0	537	587	7,52
E6.80.28. R.0	287	337	6,33	E6.80.55. R.0	550	600	7,58
E6.80.30. R.0	300	350	6,39	E6.80.60. R.0	600	650	7,81

Available bending radii *R* [mm] 150 | 200 | 250 | 300 | 350 | 400 | 450

Supplement Part No. with required radius (*R*), example: E6.80.10.300.0

 e-chain® links as single parts, overview ► page 925

 Configuration options and order keys, overview ► page 926

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

986 3D-CAD files, configurators, PDF, applications ► www.igus.eu/eu/E6.80



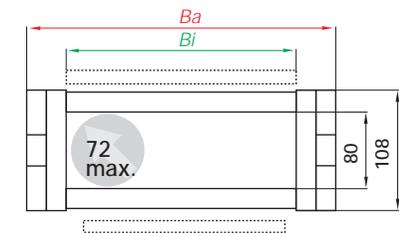
Long travel and side mounted installation with the vibration-free and low noise Series E6.29 in this camera application

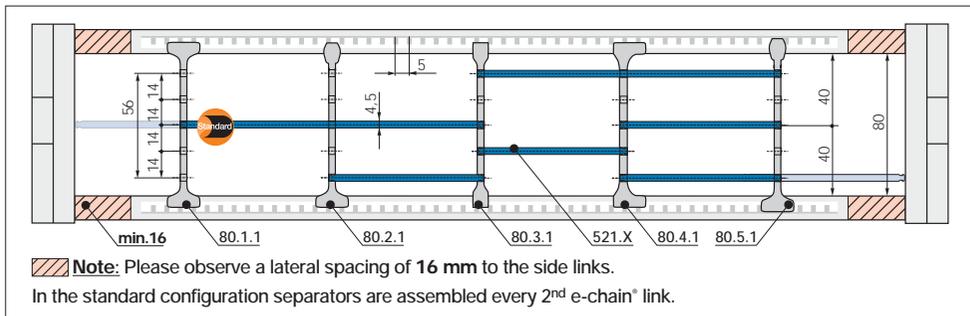
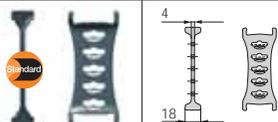
 Order key

E6.80.10.300.0 Crossbar every 2nd link



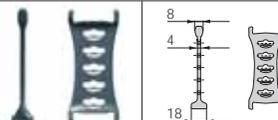
Dimensioning



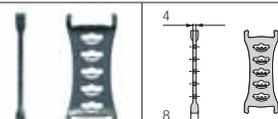
Standard separator, wide base
unassembled 80.1
assembled 80.1.1

Standard - for all applications
Separator with wide base for maximum locking strength and safe standing in e-chains®.



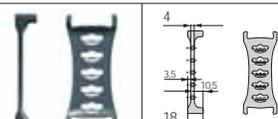
Separator for QuickLock crossbar
unassembled 80.2
assembled 80.2.1

For even faster installation
Separator for igus® QuickLock crossbar 450.X.Q. Firm hold to one side with a wide base, narrow on opposed side for easy cable assembly (slight grip).



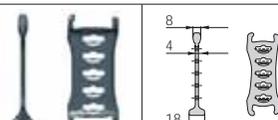
Separator, narrow base
unassembled 80.3
assembled 80.3.1

For many thin cables
Separator with a narrow base for a large number of thin cables side by side. Saves space in e-chains®.



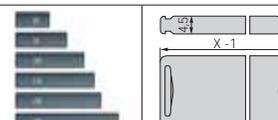
Separator, asymmetrical
unassembled 80.4
assembled 80.4.1

For side-mounted applications
Asymmetrical separator, for defined distance. No additional spacers necessary.



Notch separator for notch crossbar
unassembled 80.5
assembled 80.5.1

Locks safely in 5 mm increments
Notch separator for exact positioning in e-chains®. Recommended for side-mounted applications.

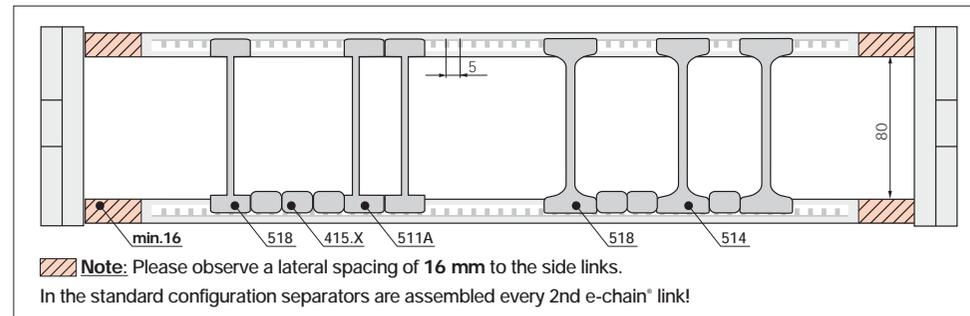
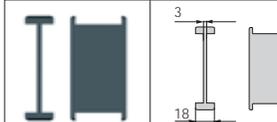


Full-width shelf, lockable
unassembled 520.X
assembled 521.X

Horizontal separation
Full-width shelf locks safely into separators on both ends, fixed width possible. Separators can be moved freely over the shelf in horizontal direction. Can be arranged at 5 different heights.

Rastbare Full-width shelves	Width X (mm)			Width X (mm)			Width X (mm)		
	unassembled	assembled		unassembled	assembled		unassembled	assembled	
	050	520.050	521.050	150	520.150	521.150	300	520.300	521.300
	065	520.065	521.065	175	520.175	521.175	350	520.350	521.350
	075	520.075	521.075	200	520.200	521.200	375	520.375	520.375
	100	520.100	521.100	225	520.225	521.225	387	520.387	520.387
	125	520.125	521.125	250	520.250	521.250	450	520.450	521.450

All elements of the previous interior separation can still be ordered ► www.igus.eu/eu/E6.80

Separator for e-chains®
unassembled 501
assembled 511

Vertical separator 501
Offers safe stability, also when used with thick cables or hoses.



Locking separator for e-chains®
unassembled 504
assembled 514

Locking separator 504
Locks with extra retention force. Tip: one locking separator per e-chain® link for better mounting.



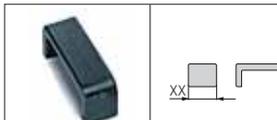
Locking separator for e-chains®
unassembled 508
assembled 518

Locking separator 508
Extra retention force by asymmetric claws. Ensure proper alignment. Tip: one locking vertical separator per e-chain® link for better mounting.



Separator, asymmetrical
unassembled 501A
assembled 511A

Separator, asymmetrical 501A
With 18 mm base, for the combination of spacers and separators with different widths, e.g. for side-mounted applications



Spacer for e-chains®
unassembled 405.XX
assembled 415.XX

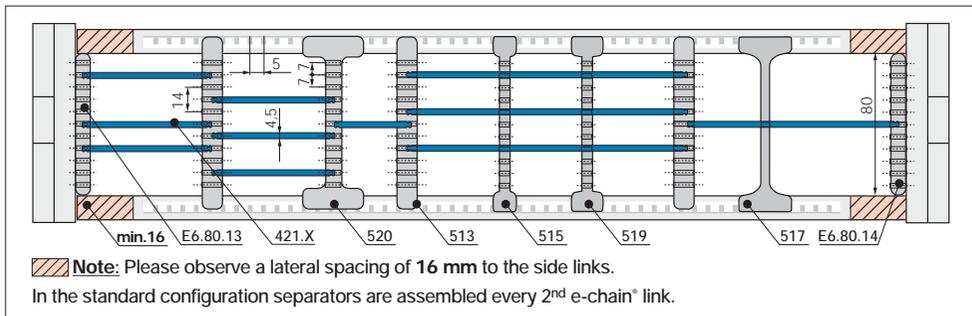
Spacer 405.XX
Separators can be fixed in position by spacers. The available interior height is reduced by 2 mm per spacer (4 mm when spacers are fitted on both sides). To avoid this, the parts can also be installed from the outside on the opening crossbar. (not for long travel applications). XX = width of the spacer (please choose between 10, 15, 20, 30, 40 mm).

Shelves - for interior separation options

Width X (mm)	unassembled	assembled	Width X (mm)	unassembled	assembled	Width X (mm)	unassembled	assembled
018	420.18	421.18	050	420.50	421.50	150	420.150	421.150
023	420.23	421.23	062	420.62	421.62	175	420.175	421.175
025	420.25	421.25	075	420.75	421.75	187	420.187	421.187
028	420.28	421.28	088	420.88	421.88	200	420.200	421.200
033	420.33	421.33	100	420.100	421.100			
043	420.43	421.43	125	420.125	421.125			

Previous interior separation - for e-chains®

All elements of the previous interior separation can still be ordered ▶ www.igus.eu/eu/E6.80



Locking vertical separator for e-chains®
Works like middle plate, for applications exposed to very high humidity (> 85%).

unassembled	510
assembled	520

Locking separator for e-chains®
Extra retention force by asymmetric claws. Ensure proper alignment. Tip: one locking vertical separator per e-chain® link for better mounting.

unassembled	507
assembled	517

Middle plate for e-chains®
To achieve a modular shelving the shelf 420.X (table on previous page) can be arranged at 11 different heights (in 7 mm increments).

unassembled	503
assembled	513

Slotted separator for e-chains®
For very fine subdivisions. However, they cannot be retrofitted into an existing separation system without dismantling the interior separators first.

unassembled	505
assembled	515

Open slotted separator for e-chains®
Fast assembly - can be retrofitted into an existing interior separation system without a need for dismantling the interior separators. During an installation of open slotted separators, the top and bottom notches cannot be occupied by shelves.

unassembled	509
assembled	519

Side plate left / right
Note on side plates: For the side part E6.80.01.XX of the e-chain®, please use the side plate E6.80.13, and for the side part E6.80.02.XX, the side plate E6.80.14! Allows a rack-like division up to the side links. **No lateral spacing necessary!**

unassembled	E6.80.03
assembled	E6.80.13
unassembled	E6.80.04
assembled	E6.80.14

Shelf 420.X
For applications involving many cables with different diameters, shelves can be arranged at alternate heights. They can be arranged at 11 different heights (in 7 mm increments). (not for 504, 508).

unassembled	420.X
assembled	421.X

Locking vertical separator 510

Works like middle plate, for applications exposed to very high humidity (> 85%).

Locking separator 507

Extra retention force by asymmetric claws. Ensure proper alignment. Tip: one locking vertical separator per e-chain® link for better mounting.

Middle plate 503

To achieve a modular shelving the shelf 420.X (table on previous page) can be arranged at 11 different heights (in 7 mm increments).

Slotted separator 505

For very fine subdivisions. However, they cannot be retrofitted into an existing separation system without dismantling the interior separators first.

Open, slotted separator 509 (unilateral open)

Fast assembly - can be retrofitted into an existing interior separation system without a need for dismantling the interior separators. During an installation of open slotted separators, the top and bottom notches cannot be occupied by shelves.

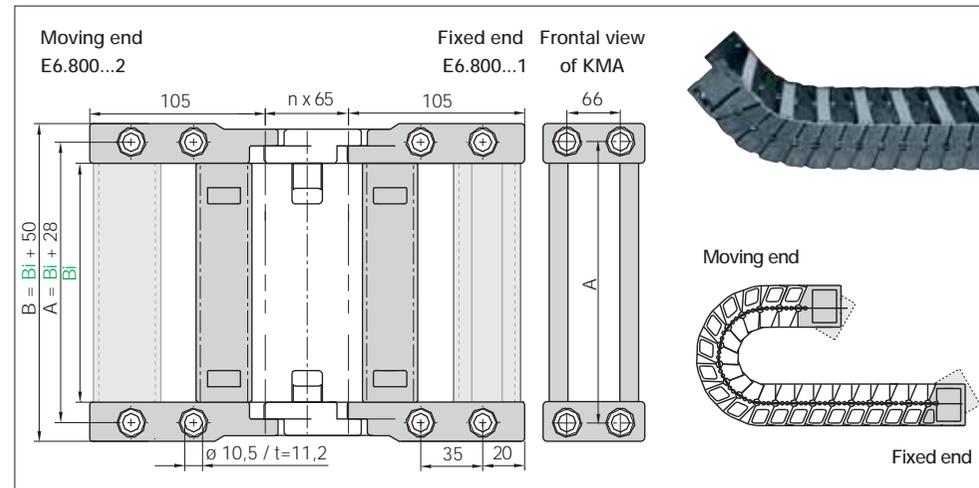
Side plate E6.80.13 and E6.80.14

Note on side plates: For the side part E6.80.01.XX of the e-chain®, please use the side plate E6.80.13, and for the side part E6.80.02.XX, the side plate E6.80.14! Allows a rack-like division up to the side links. **No lateral spacing necessary!**

Shelf 420.X

For applications involving many cables with different diameters, shelves can be arranged at alternate heights. They can be arranged at 11 different heights (in 7 mm increments). (not for 504, 508).

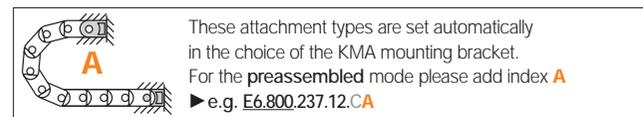
For tight installation conditions, all-sides attachment



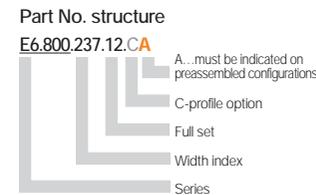
KMA pivoting | All-sides attachment | Recommended for unsupported applications

Width index	Part No.	Full set	A [mm]	Bi [mm]	Width index	Part No.	Full set	A [mm]	Bi [mm]
05.	▶ E6.800.	05. 12.C	78	50	31.	▶ E6.800.	31. 12.C	340	312
06.	▶ E6.800.	06. 12.C	93	65	32.	▶ E6.800.	32. 12.C	353	325
07.	▶ E6.800.	07. 12.C	103	75	33.	▶ E6.800.	33. 12.C	365	337
08.	▶ E6.800.	08. 12.C	115	87	35.	▶ E6.800.	35. 12.C	378	350
10.	▶ E6.800.	10. 12.C	128	100	36.	▶ E6.800.	36. 12.C	390	362
11.	▶ E6.800.	11. 12.C	140	112	37.	▶ E6.800.	37. 12.C	403	375
12.	▶ E6.800.	12. 12.C	153	125	38.	▶ E6.800.	38. 12.C	415	387
13.	▶ E6.800.	13. 12.C	165	137	40.	▶ E6.800.	40. 12.C	428	400
15.	▶ E6.800.	15. 12.C	178	150	41.	▶ E6.800.	41. 12.C	440	412
16.	▶ E6.800.	16. 12.C	190	162	42.	▶ E6.800.	42. 12.C	453	425
17.	▶ E6.800.	17. 12.C	203	175	43.	▶ E6.800.	43. 12.C	465	437
18.	▶ E6.800.	18. 12.C	215	187	45.	▶ E6.800.	45. 12.C	478	450
20.	▶ E6.800.	20. 12.C	228	200	46.	▶ E6.800.	46. 12.C	490	462
21.	▶ E6.800.	21. 12.C	240	212	47.	▶ E6.800.	47. 12.C	503	475
22.	▶ E6.800.	22. 12.C	253	225	48.	▶ E6.800.	48. 12.C	515	487
23.	▶ E6.800.	23. 12.C	265	237	50.	▶ E6.800.	50. 12.C	528	500
25.	▶ E6.800.	25. 12.C	278	250	51.	▶ E6.800.	51. 12.C	540	512
26.	▶ E6.800.	26. 12.C	290	262	52.	▶ E6.800.	52. 12.C	553	525
27.	▶ E6.800.	27. 12.C	303	275	53.	▶ E6.800.	53. 12.C	565	537
28.	▶ E6.800.	28. 12.C	315	287	55.	▶ E6.800.	55. 12.C	578	550
30.	▶ E6.800.	30. 12.C	328	300	60.	▶ E6.800.	60. 12.C	628	600

(KMA = Polymer Metal Mounting Bracket)



- Standard
- For tight installation conditions
- Option: integrated chainfix strain relief with C-profile
- Corrosion resistant
- Option: threaded sockets upon request (KMA = Polymer Metal Mounting Bracket)



Single-part order:
Mounting bracket Moving end E6.800.237.2.CA
Mounting bracket Fixed end E6.800.237.1.CA

Strain relief, e.g. clamps, tiewrap plates, nuggets and plug-in clips are available from stock. The complete chainfix range with order options ▶ from page 1148

Aluminum SuperTrough | Basic Version

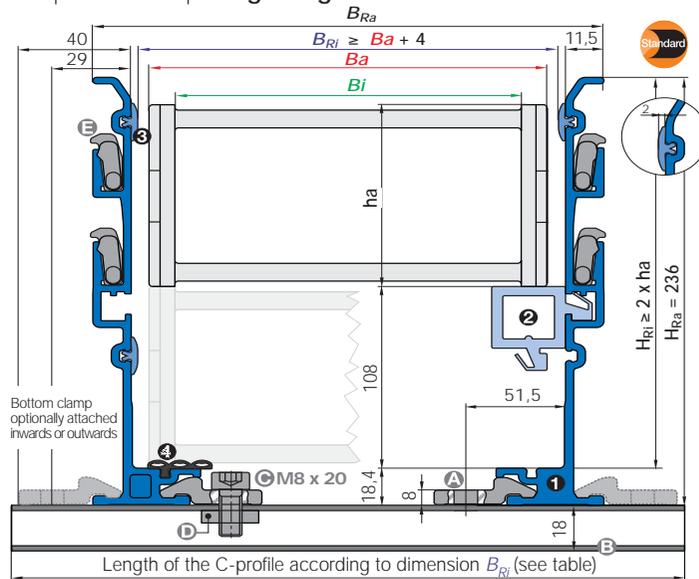
Part No. 975.30.SL | 975.31.SL | Trough height: 236 mm

Installation set "Basic" with C-Profile

Bottom clamp optionally attached inwards or outwards

For Width Index	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards
.05	104	upon request	960.50.225
.06	119	upon request	960.50.250
.07	129	upon request	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": **975.50.XXX** instead of **960.50.XXX** on the right column "attached outwards"



● Components, trough "Basic": ① Trough side parts, aluminum, 2 m ② Glide bar, plastic, 2 m ③ Glide strips, plastic, 2 m (without glide strips on request) ④ Optional: Silencer profile, rubber ● Components, installation set "Basic": A Bottom clamp, aluminum B C-profile, galvanized steel ► table C Screw M8 x 20 D Sliding nut M8 E Interface connector, plastic

Order example: Length of travel 30 m - Center mounted for Series E6.80.10.300.0 with $B_{Ri} = 154$

Guide trough set **without** glide bar (set of 2 trough side parts, incl. glide strips)

Order text: 16 m guide trough without glide bar (8 x 2 m sections) Part No. 975.30.SL

Guide trough set **with** glide bar (set of 2 trough side parts, incl. glide strips)

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)

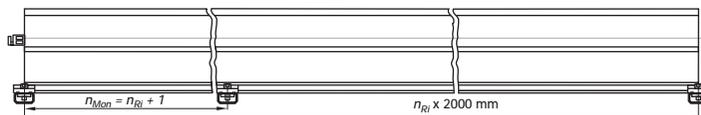
Order text: 17 installation sets Part No. 960.50.225

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

Aluminum SuperTrough "Basic" in detail and the "Heavy-Duty" version for heavy machinery ► from page 1206

● Trough set ● C-Profile ● Installation set ● B-a = Outer width e-chains" ● B_Ra = Outer trough width ● B_i = Inner width e-chains" ● H_Ri = Inner trough height ● H_Ra = Outer trough height ● n_Min = Number of installation sets ● n_Ri = Number of trough sets



igus[®] E6.1

New Generation.
less weight,
smoother operation
more dynamics

New in this catalog

More dynamics, smoother running, easier to open, 2th generation - E6.1

The E6.1 series is an advancement of the E6 series. While having all its advantages, like the stability and cleanroom suitability, it is even lighter, faster and quieter. In addition, its accessibility to the interior and the assembly and handling have been improved.

- Crossbars are openable on both sides (Series E61.29) and removable in the inner and outer radius
- Option without camber NC by turning the inner link
- Extremely quiet through small pitch and brake in the stop-dog system
- Extremely low vibration
- Low-abrasion link system (no pin/hole connection)
- Virtually no polygon effect, thereby "smooth rolling" operation
- Faster lengthening and shortening through optimized connection design
- Smooth and obstacle free interior design for a long lifetime for cables and hoses
- Weight savings approx. 30% compared to the System E6
- Cost-effective

Typical industries and applications

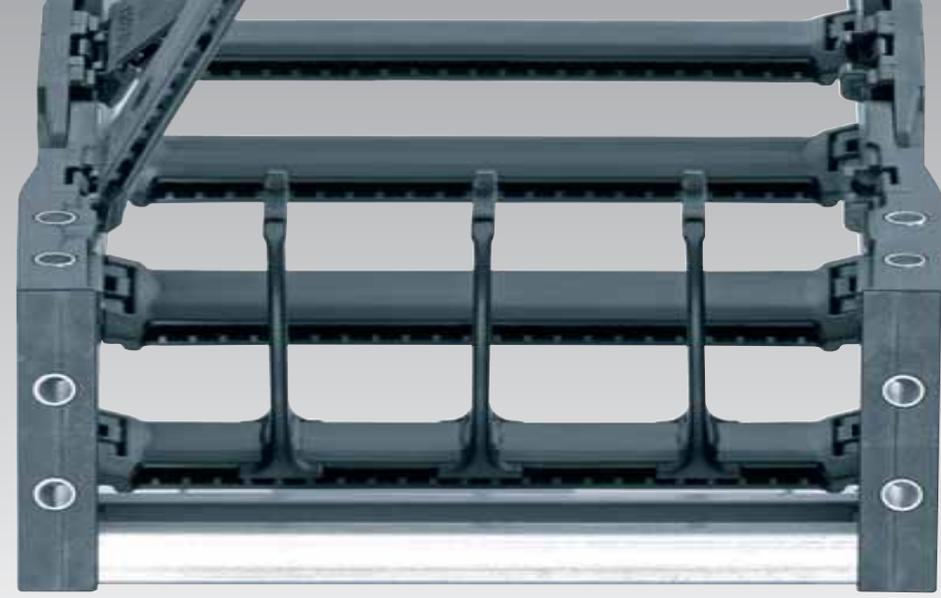
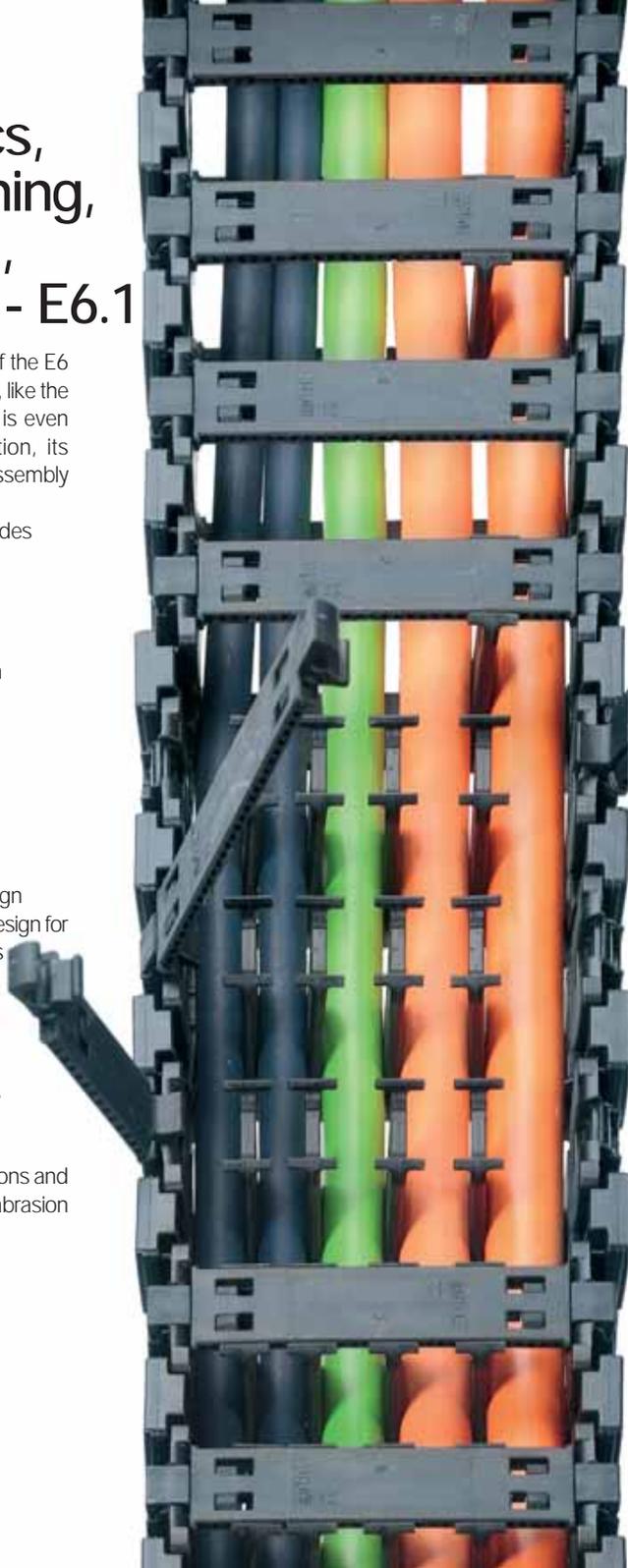
- Semiconductor industry
- Printer industry
- Applications with highest accelerations and where noise minimization and low abrasion are important



Extremely low noise

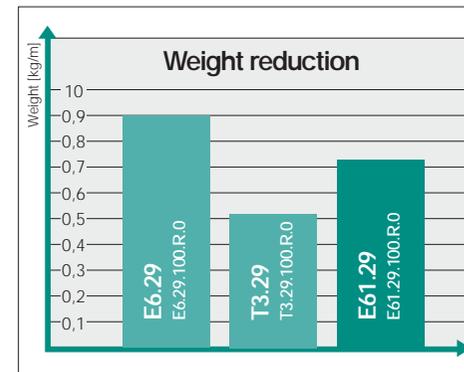


System E6.1 - 6-piece e-chain®-links

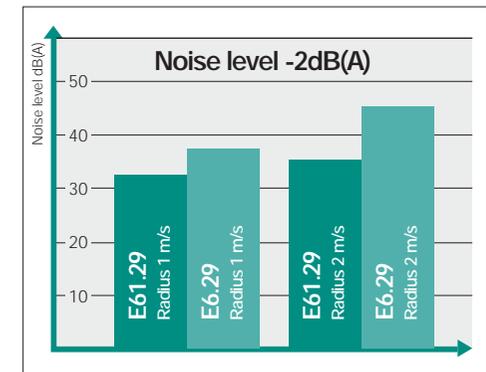


To underline the suitability for cleanrooms and increase the service life of cables and hoses further, the interior of the new E6.1 has been designed extremely "cable friendly". Crossbars are very smooth and rounded, as is the transition from chain link to crossbar, moreover all the moulding and marker points have been placed outside the chain cross-section.

System E6.1 internal tests in the igus® lab



The new E6.1 generation can take up higher accelerations, due to a weight reduction, making it a highly dynamic yet still extremely quiet e-chain*



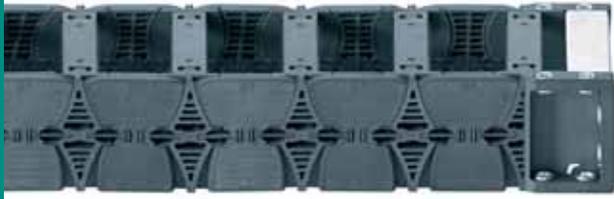
Series E61.29 tests in the igus® test lab show noise levels, which are 2 dB(A) below the already class-leading noise-levels of the igus® E6.29 series



IPA Qualification Certificate - Report IG 1303-640-1:
ISO Class 1, according to DIN EN ISO 14644-1
for System E6.1, Series E61.29.50.075.0 and
E61.29.50.075.0.CR at v = 0,5 m/s, 1 m/s, 2 m/s

Series	Inner height <i>hi</i> [mm]	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Outer height <i>ha</i> [mm]	Bending radius <i>R</i> [mm]	Unsupported length max. [m]	page
E61.29 New*	29	30 - 140	44 - 144	35	55 - 150	≈ 1,5	1002
E61.52 New*	52	40 - 300	64 - 324	65	75 - 200	≈ 1,7	1008

*New in this catalog



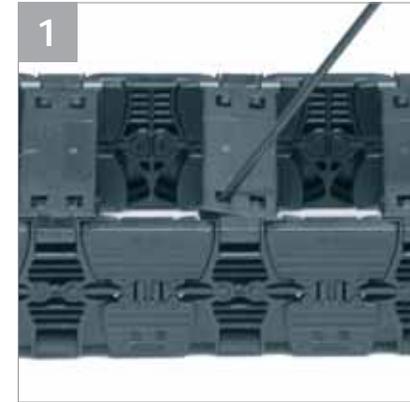
System E6.1
Openable along inner and outer radius



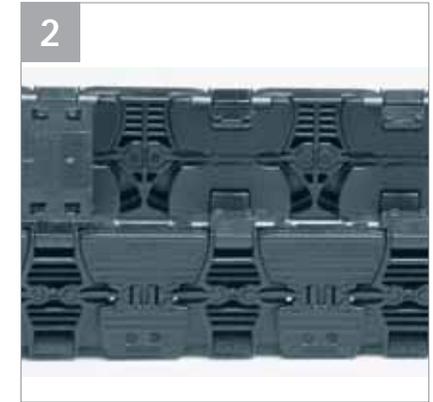
Cleanroom qualification of E6.1 e-chains®
In many applications where cumbersome special solutions are used, a simple standard e-chain® can be used instead. A comprehensive test program was devised and performed for both gliding use and unsupported use. For many applications, the e-chains® in special materials are practically abrasion-free. Detailed test results are available upon request. IPA tests confirm that standard igus® e-chains® meet cleanroom requirements. "Tested and certified as very good!" e-chains® for cleanroom applications in the test stand Cleanroom environments demand very high wear resistance of moving parts. e-chains®, for example, must be very wear resistant, in order to meet normal requirements for such a sensitive environment.



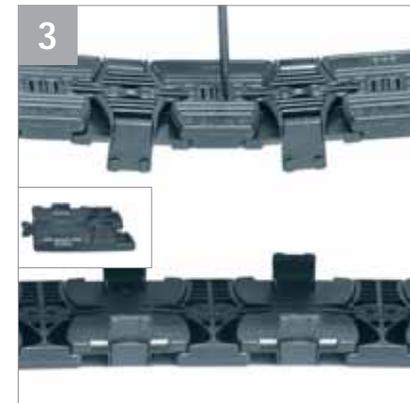
IPA Qualification Certificate - Report IG 1303-640-1:
ISO Class 1, according to DIN EN ISO 14644-1 for System E6.1, Series E61.29.50.075.0 and E61.29.50.075.0.CR at v = 0,5 m/s, 1 m/s, 2 m/s



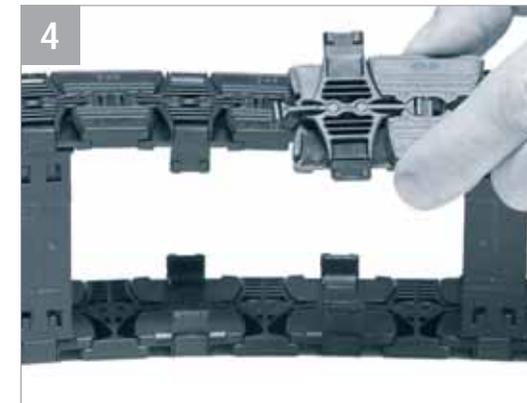
Remove crossbar by hand or screwdriver. Repeat the procedure on the underside



To disconnect remove a total of 2 crossbars on each side



Force out connector with a screwdriver. Repeat the procedure on the opposite side



Turn e-chains® apart until the interlocking of the chain links detaches. Repeat the procedure on the opposite side

-  [Technical Data, overview ▶ page 1000](#)
-  [e-chain® links as single parts, overview ▶ page 1000](#)
-  [Configuration options and order keys, overview ▶ page 1001](#)

E6.1 | Technical Data | e-chain® links as single parts | Overview

Technical Data - E6.1

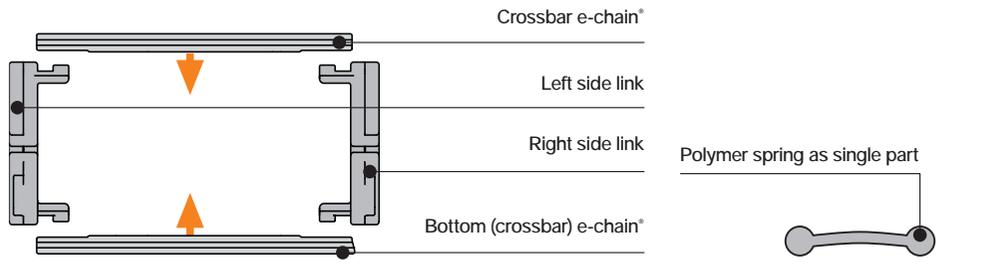
	Speed / acceleration FL_G max.	max. 20 [m/s] / max. 200 [m/s ²]
	Speed / acceleration FL_B max.	max. 3 [m/s] / max. 6 [m/s ²]
	Material - permitted temperature °C	-40° up to +70° C
	Flammability class	VDE 0304 IIC UL94-HB

■ FL_G = with straight upper run ■ FL_B = with permitted sag

Installation methods overview, maximum travels - E6.1

e-chain® Series	Unsupported application	Vertical hanging	Vertical standing
E61.29	≤ 1,5 m	≤ 25 m	≤ 2,0 m
E61.52	≤ 2,5 m	≤ 40 m	≤ 2,0 m

Part No. 6-piece e-chain® links as single parts - E6.1



Series	Crossbar ¹⁾ e-chain®	Inner side link	Outer side link ²⁾	Polymer spring e-chain®
E61.29	2105. <i>Bi</i>	E61.29.01	E61.29.02. <i>R.0</i>	E61.29.155
E61.52	225. <i>Bi</i>	E61.52.01	E61.52.02. <i>R.0</i>	E61.52.205

1) Crossbar / lid / bottom - supplement Part No. with required width index (*Bi*), example: 2105.030
 2) Outer side link - supplement Part No. with required radius (*R*), example: E61.29.02.100.0

E6.1 | Configuration options and order key (based on Series E61.52)

Standard

Part No. **Standard**

E61.52.100.R.0

Delivery time* 24h or today!

*Delivery time means time until shipping of goods (after technical release)

NC-Version - (no camber) without pretension

Part No. **NC-Version**

E61.52.100.R.0.NC

Delivery time* 24h or today!

Order example | Order key and color options

Order example for complete e-chain® Series E61.52 (1,0 m, with crossbars every link), color black, mounting brackets and interior separation

e-chain® (1,0 m)	Please indicate e-chain® length or number of links: 1,0 m or 34 links	E61.52.100.075.0
+ Mounting brackets	1 set	E61.520.100.12
+ Interior separation	with 2 separators assembled every 2 nd link	2 x 52.1.1

Order text: 1,0 m E61.52.100.075.0 + E61.520.100.12 + 2 x 52.1.1

Order key
E61.52.100.075.0

Standard color black

Bending radius *R*

Width index

Inner height

Series / Type

Color options for e-chains® and e-tubes

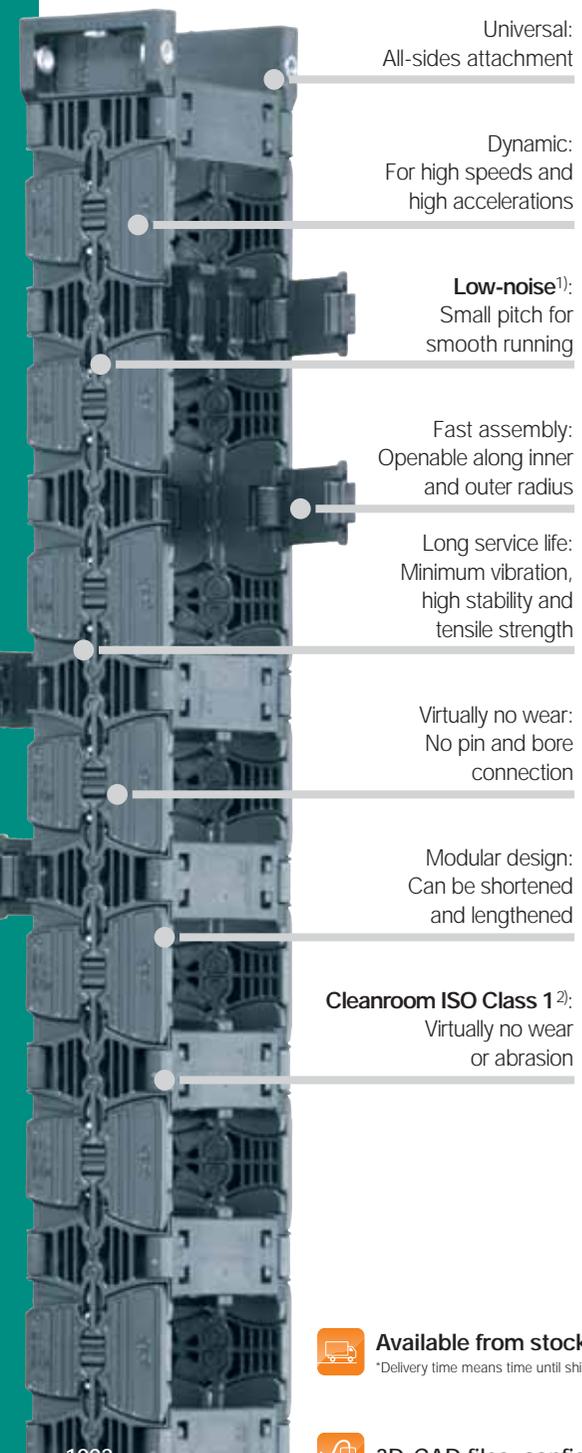
Color	Order index	Color	Order index
■ Black Standard, from stock!	.0	□ White special color	.1
■ Slate grey only ESD material	.ESD	□ Gray white special color	.1S
■ Gray brown only HT material	.HT	□ Orange special color	.2
■ Gray special color only e-chains®	.3	□ Yellow special color	.4
■ Dusty grey special color only e-tubes.	.31	□ Light grey special color	.14

Black e-chains® available from stock!
Delivery time* for special colors: from 5 work days

Available from stock. Delivery time* in 24h or today!

*Delivery time means time until shipping of goods (after technical release)

New in this catalog



Universal:
All-sides attachment

Dynamic:
For high speeds and high accelerations

Low-noise¹⁾:
Small pitch for smooth running

Fast assembly:
Openable along inner and outer radius

Long service life:
Minimum vibration, high stability and tensile strength

Virtually no wear:
No pin and bore connection

Modular design:
Can be shortened and lengthened

Cleanroom ISO Class 1²⁾:
Virtually no wear or abrasion

+ Extremely low-noise, low vibration, small size

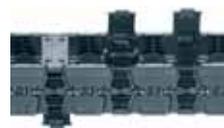
When to use Series E61.29:

- If a particularly low noise, low vibration e-chain* with an inner height of 29 mm is required
- At very high speeds and/or accelerations
- Inner widths up to 140 mm
- For unsupported lengths up to 1,5 m and fill weights up to 3,5 kg/m
- Optimized interior-exterior dimensions ratio due to narrow outer links
- For enlarged thrusts and tensile forces
- For small bending radii
- Minimal abrasion (e.g. cleanroom applications)

1) Low-noise - testetd series, more details ▶ page 878
2) Cleanroom - Series E61.29.50.075.0, more details ▶ page 879

- When to use a different igus® Series:

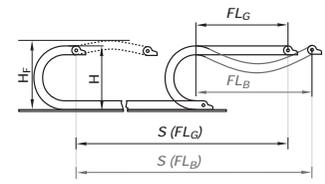
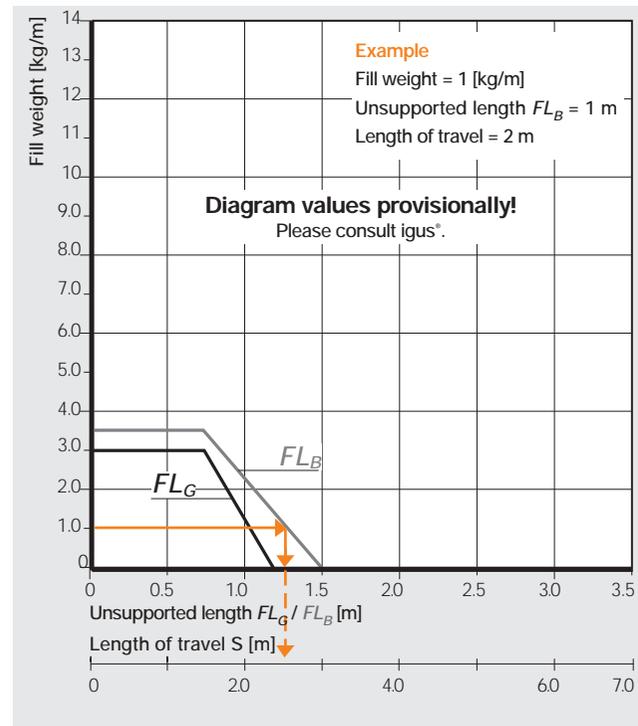
- Limited in side-mounted applications
- ▶ Series 2400/2500 E2/000, page 426
- No use with RBR (reverse bending radius)
- ▶ Series 2400/2500 E2/000, page 426
- No use with high additional fill weights
- ▶ Series 2400/2500 E2/000, page 426
- No use in dirty environments
- ▶ Series 2480 E2/000, page 426
- No use in case of enlarged unsupported travels
- ▶ Series E6.29 System E6, page 928



Speciality E61.29:
Pivotable crossbars left and right

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

3D-CAD files, configurators, PDF ▶ www.igus.eu/eu/E61.29



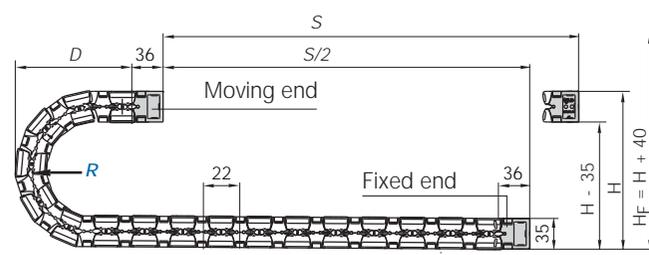
Unsupported applications

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. More information ▶ Design, page 95

Technical Data

Speed, material, temperature and flammability class ▶ page 1001

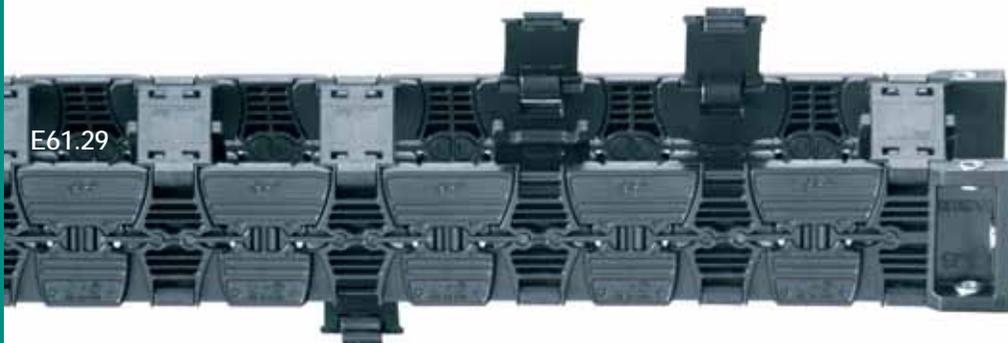
Pitch = 22 mm/link
Links/m = 46 (1012 mm)
Chain length = $S/2 + K$



R	55	75	100	125	150
H	175	215	265	315	365
D	105,5	125,5	150,5	175,5	200,5
K	220	280	360	440	520

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

FL_G = with straight upper run
 FL_B = with permitted sag
 S = Length of travel
 R = Bending radius
 H = Nominal clearance height
 H_f = Required clearance height
 D = Overlength e-chain, radius in final position
 $K = \pi \cdot R + \text{"safety"}$



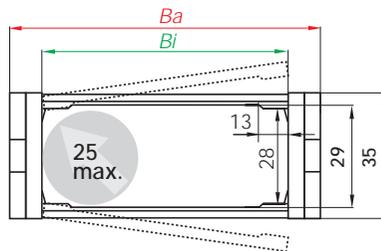
e-chains® | Series E61.29 | Openable along inner and outer radius

Part No. e-chain*	Bi [mm]	Ba [mm]	Weight [kg/m]	Part No. e-chain*	Bi [mm]	Ba [mm]	Weight [kg/m]
E61.29.030 R.0	30	44	0,558	E61.29.090 R.0	90	104	0,707
E61.29.040 R.0	40	54	0,583	E61.29.100 R.0	100	114	0,732
E61.29.050 R.0	50	64	0,608	E61.29.110 R.0	110	124	0,757
E61.29.060 R.0	60	74	0,633	E61.29.120 R.0	120	134	0,782
E61.29.070 R.0	70	84	0,657	E61.29.140 R.0	140	144	0,807
E61.29.080 R.0	80	94	0,682				

Available bending radii *R* [mm] **055** | **075** | **100** | **150** |
 Supplement Part No. with required radius (*R*), example: **E61.29.050.100.0**

Order key
E61.29.050.100.0

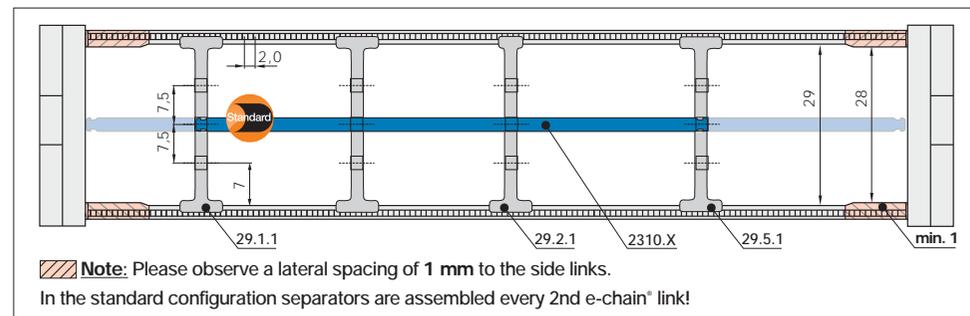
- Standard color black
- Bending radius *R*
- Width index (depends on *B*)
- Series / Type



e-chain® links as single parts, overview ▶ page 1000

Configuration options and order keys, overview ▶ page 1001

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



Standard separator, wide base
 unassembled **29.1**
 assembled **29.1.1**

Standard - for all applications
 Separator with wide base for maximum locking strength and safe standing in e-chains®.

Separator, narrow head
 unassembled **29.2**
 assembled **29.2.1**

For even faster installation
 Firm hold on one side with a wide base, narrow on the opposite side for easy cable assembly (light grip).

Notch separator for notch crossbar*
 unassembled **29.5**
 assembled **29.5.1**

Locks safely in 2,0 mm increments
 Notch separator for exact positioning in e-chains®. Recommended for side-mounted applications.

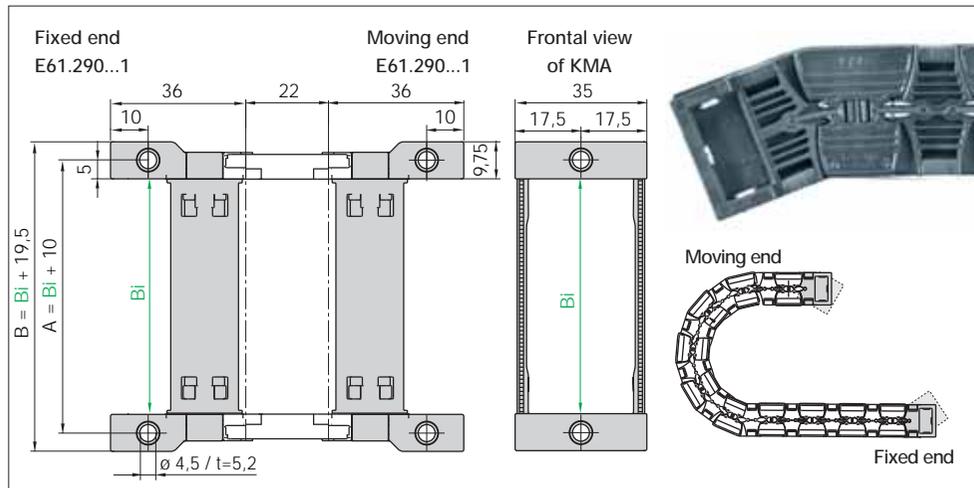
Full-width shelf, lockable
 unassembled **2300.X**
 assembled **2310.X**

Horizontal separation
 Shelf locks safely into separators on both ends, fixed width possible. Separators can be moved freely over the shelf in horizontal direction. Can be arranged at 3 different heights.

Lockable full-width shelves - for the standard interior separation

Width X [mm]	unassembled	assembled	Width X [mm]	unassembled	assembled	Width X [mm]	unassembled	assembled
015	2300.015	2310.015	060	2300.060	2310.060	087	2300.087	2310.087
025	2300.025	2310.025	062	2300.062	2310.062	090	2300.090	2310.090
030	2300.030	2310.030	065	2300.065	2310.065	100	2300.100	2310.100
038	2300.038	2310.038	070	2300.070	2310.070	103	2300.103	2310.103
040	2300.040	2310.040	075	2300.075	2310.075	110	2300.110	2310.110
050	2300.050	2310.050	077	2300.077	2310.077	120	2300.120	2310.120
057	2300.057	2310.057	080	2300.080	2310.080	125	2300.125	2310.125

Interior separation with single-part order. Delivery time* in 24h or today!
 *Delivery time means time until shipping of goods (after technical release)



KMA pivoting | All-sides attachment | Recommended for unsupported applications

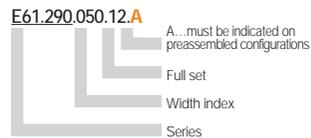
Width index	Part No. Full set KMA pivoting	A [mm]	Bi [mm]	Width index	Part No. Full set KMA pivoting	A [mm]	Bi [mm]
030	▶ E61.290.030.12	40	30	090	▶ E61.290.090.12	100	90
040	▶ E61.290.040.12	50	40	100	▶ E61.290.100.12	110	100
050	▶ E61.290.050.12	60	50	110	▶ E61.290.110.12	120	110
060	▶ E61.290.060.12	70	60	120	▶ E61.290.120.12	130	120
070	▶ E61.290.070.12	80	70	140	▶ E61.290.140.12	140	140
080	▶ E61.290.080.12	90	80				

(KMA = Polymer Metal Mounting Bracket)



- Standard
- For tight installation conditions
- Corrosion resistant
- Option: threaded sockets upon request (KMA = Polymer Metal Mounting Bracket)

Part No. structure



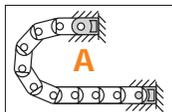
Single-part order:

Mounting bracket Moving end

E61.290.050.1.A

Mounting bracket Fixed end

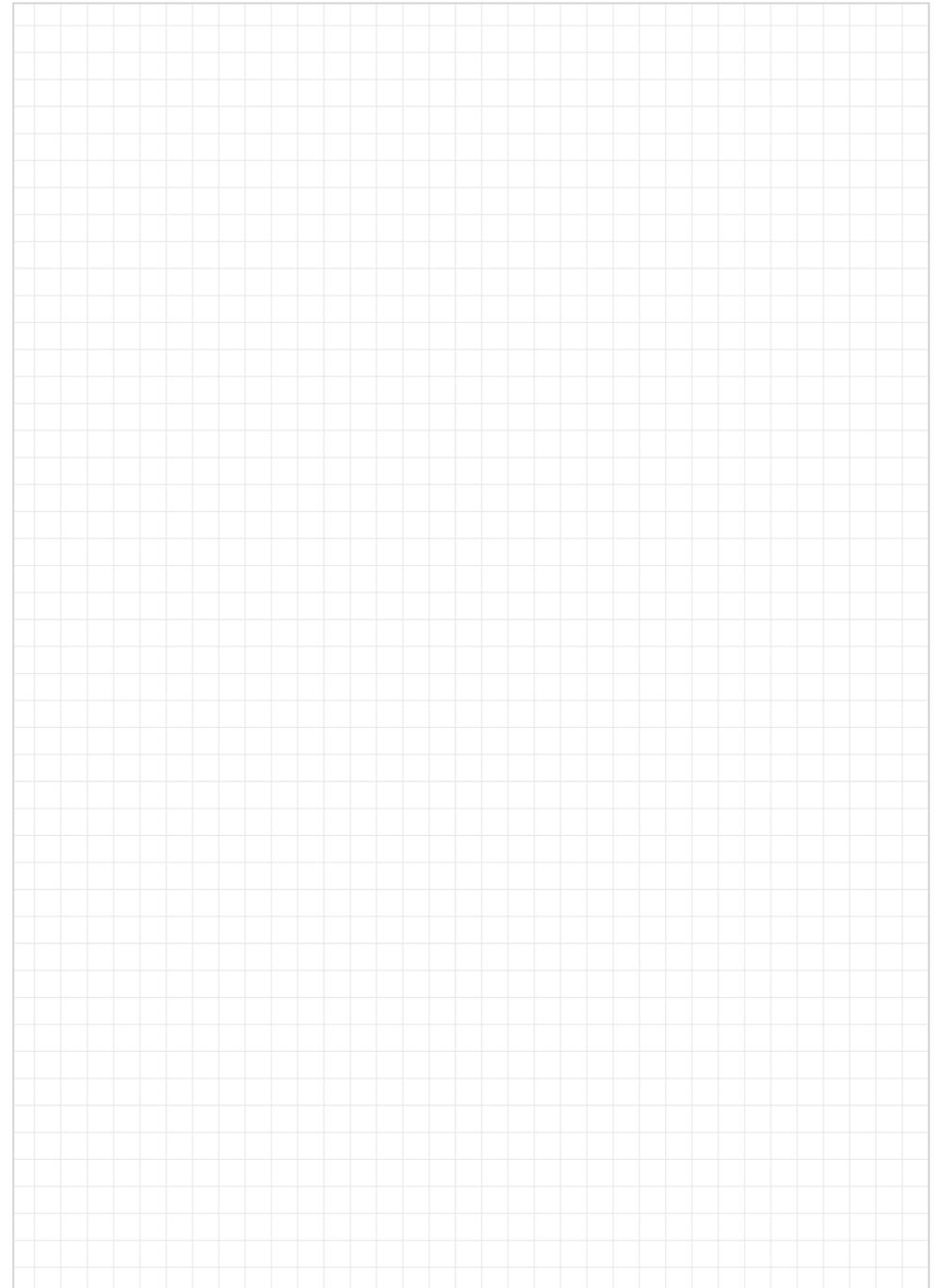
E61.290.050.1.A



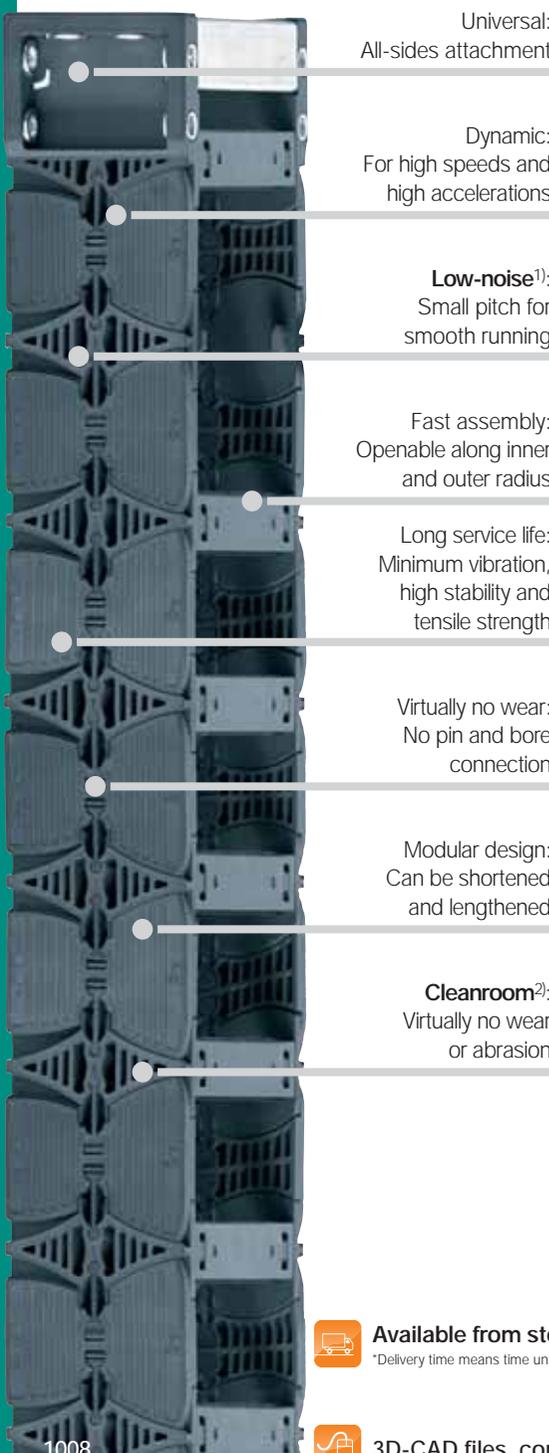
These attachment types are set automatically in the choice of the KMA mounting bracket. For the **preassembled** mode please add index **A**
▶ e.g. **E61.290.050.12.A**



Strain relief, e.g. clamps, tie-wrap plates, nuggets and plug-in clips are available from stock. The complete chainfix range with order options ▶ from page 1148



New in this catalog



Universal:
All-sides attachment

Dynamic:
For high speeds and high accelerations

Low-noise¹⁾:
Small pitch for smooth running

Fast assembly:
Openable along inner and outer radius

Long service life:
Minimum vibration, high stability and tensile strength

Virtually no wear:
No pin and bore connection

Modular design:
Can be shortened and lengthened

Cleanroom²⁾:
Virtually no wear or abrasion

+ Extremely low-noise, low vibration, medium size

When to use Series E61.52:

- If a particularly low noise, low vibration e-chain* with an inner height of 52 mm is required
- At very high speeds and/or accelerations
- Inner widths up to 300 mm
- For unsupported lengths up to 1,75 m and fill weights up to 11 kg/m
- Optimized interior-exterior dimensions ratio due to narrow outer links
- For enlarged thrusts and tensile forces
- For small bending radii
- Minimal abrasion (e.g. cleanroom applications)

1) Low-noise - testetd series, more details ▶ page 878
2) Cleanroom - testetd series, more details ▶ page 879

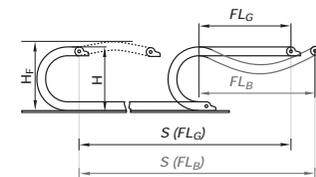
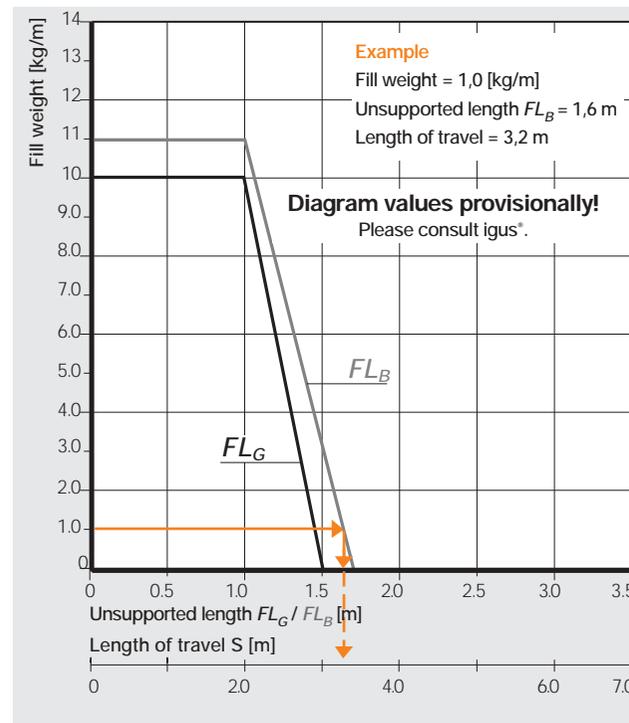
- When to use a different igus® Series:

- Limited in side-mounted applications
- ▶ Series E4.56 System E4.1, page 678
- No use with RBR (reverse bending radius)
- ▶ Series E4.56 System E4.1, page 678
- No use with high additional fill weights
- ▶ Series E4.56 System E4.1, page 678
- No use in dirty environments
- ▶ Series E4.56 System E4.1, page 678
- No use in case of enlarged unsupported travels
- ▶ Series E6.52 System E6.1, page 956

Available from stock. Delivery time* in 24h or today!

*Delivery time means time until shipping of goods (after technical release)

3D-CAD files, configurators, PDF ▶ www.igus.eu/eu/E61.52



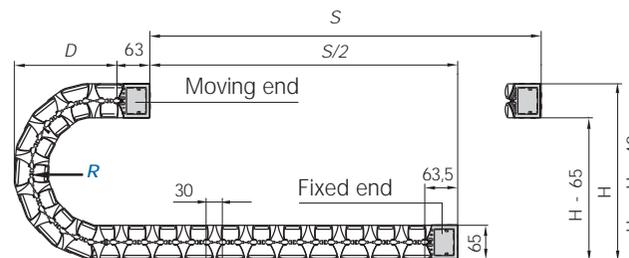
Unsupported applications

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. More information ▶ Design, page 95

Technical Data

Speed, material, temperature and flammability class ▶ page 1001

Pitch = 30 mm/link
Links/m = 34 (1020 mm)
Chain length = $S/2 + K$



R	075	100*	125	150*	175*	200*
H	265	315	365	415	465	515
D	152,5	177,5	202,5	227,5	252,5	277,5
K	300	375	455	535	610	690

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

Radius available upon request, please consult igus for delivery time

FL_G = with straight upper run FL_B = with permitted sag S = Length of travel R = Bending radius H = Nominal clearance height H_F = Required clearance height D = Overlength e-chain, radius in final position $K = \pi \cdot R + \text{"safety"}$



e-chains® | Series E61.52 | Openable along inner and outer radius

Part No. e-chain*	<i>Bi</i> (mm)	<i>Ba</i> (mm)	Weight (kg/m)	Part No. e-chain*	<i>Bi</i> (mm)	<i>Ba</i> (mm)	Weight (kg/m)
E61.52. 040 R.0	40	64	≈ 1,68	E61.52. 150 R.0	150	174	≈ 2,17
E61.52. 050 R.0	50	74	≈ 1,72	E61.52. 175 R.0	175	199	≈ 2,28
E61.52. 052 R.0	52	76	≈ 1,73	E61.52. 200 R.0	200	224	≈ 2,40
E61.52. 062 R.0	62,5	86,5	≈ 1,78	E61.52. 225 R.0	225	249	≈ 2,50
E61.52. 070 R.0	70	94	≈ 1,81	E61.52. 250 R.0	250	274	≈ 2,62
E61.52. 075 R.0	75	99	≈ 1,84	E61.52. 262 R.0	262,5	286,5	≈ 2,68
E61.52. 087 R.0	87,5	111,5	≈ 1,89	E61.52. 275 R.0	275	299	≈ 2,73
E61.52. 100 R.0	100	124	≈ 1,95	E61.52. 300 R.0	300	324	≈ 2,84
E61.52. 125 R.0	125	149	≈ 2,06				

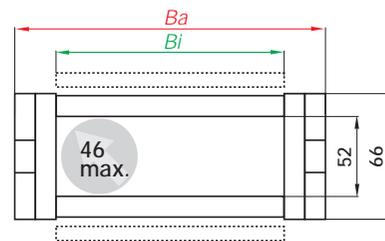
*Radius available upon request, please consult igus® for delivery time

Available bending radii *R* [mm] 075 | 100* | 125 | 150* | 175* | 200* |

Supplement Part No. with required radius (*R*), example: E61.52.100.075.0



Order key
E61.52.100.075.0



e-chain® links as single parts, overview ► page 1000

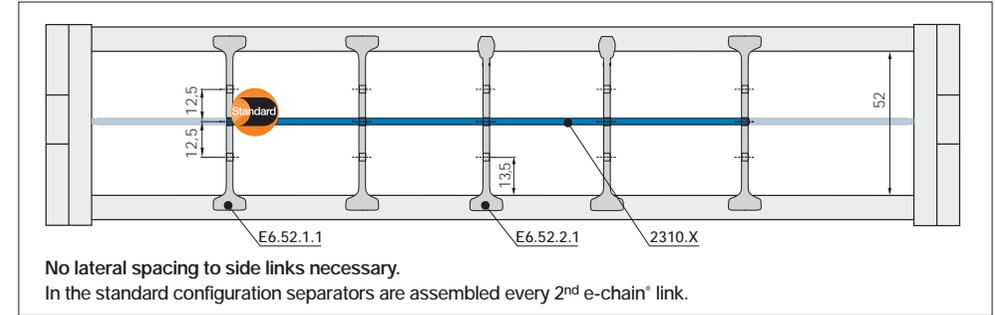


Configuration options and order keys, overview ► page 1001



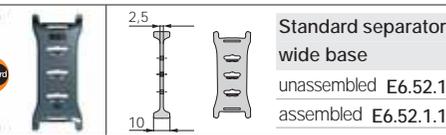
Available from stock. Delivery time* in 24h or today!

*Delivery time means time until shipping of goods (after technical release)



No lateral spacing to side links necessary.

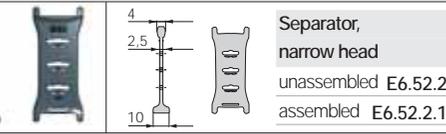
In the standard configuration separators are assembled every 2nd e-chain® link.



Standard separator,
wide base
unassembled E6.52.1
assembled E6.52.1.1

Standard - for all applications

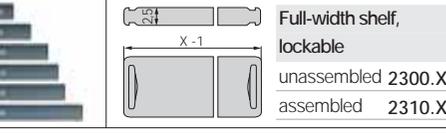
Separator with wide base for maximum locking strength and safe standing in e-chains®.



Separator,
narrow head
unassembled E6.52.2
assembled E6.52.2.1

For even faster installation

Firm hold to one side with a wide base, narrow on opposed side for easy cable assembly (slight grip).



Full-width shelf,
lockable
unassembled 2300.X
assembled 2310.X

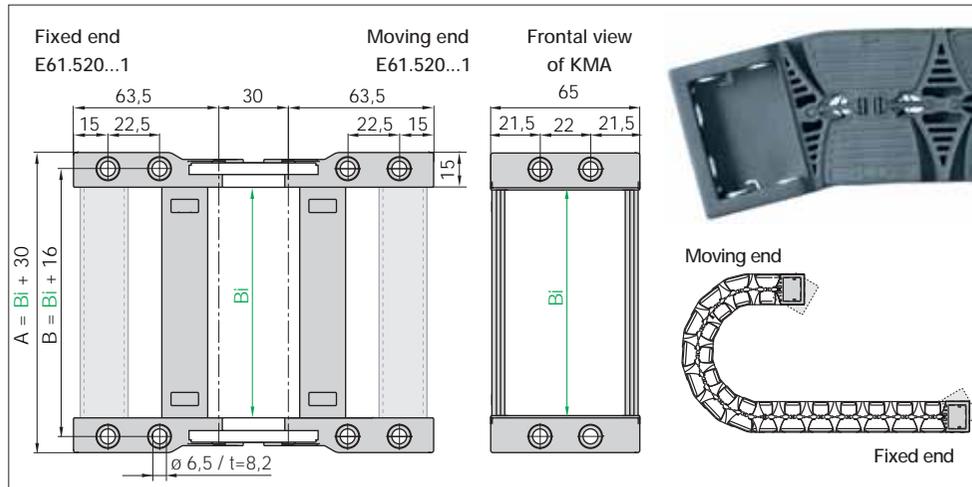
Horizontal separation

Shelf locks safely into separators on both ends, fixed width possible. Separators can be moved freely over the shelf in horizontal direction. Can be arranged at 3 different heights.



Lockable full-width shelves - for the standard interior separation

Width X [mm]	unassembled	assembled	Width X [mm]	unassembled	assembled	Width X [mm]	unassembled	assembled
015	2300.015	2310.015	060	2300.060	2310.060	087	2300.087	2310.087
025	2300.025	2310.025	062	2300.062	2310.062	090	2300.090	2310.090
030	2300.030	2310.030	065	2300.065	2310.065	100	2300.100	2310.100
038	2300.038	2310.038	070	2300.070	2310.070	103	2300.103	2310.103
040	2300.040	2310.040	075	2300.075	2310.075	110	2300.110	2310.110
050	2300.050	2310.050	077	2300.077	2310.077	120	2300.120	2310.120
057	2300.057	2310.057	080	2300.080	2310.080	125	2300.125	2310.125



KMA pivoting | All-sides attachment | Recommended for unsupported applications

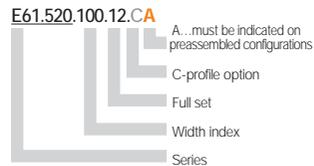
Width index	Part No. Full set KMA pivoting	A [mm]	Bi [mm]	Width index	Part No. Full set KMA pivoting	A [mm]	Bi [mm]
040.	▶ E61.520.040.12.C	70	40	150.	▶ E61.520.150.12.C	180	150
050.	▶ E61.520.050.12.C	80	50	175.	▶ E61.520.175.12.C	205	175
052.	▶ E61.520.052.12.C	82	52	200.	▶ E61.520.200.12.C	230	200
062.	▶ E61.520.062.12.C	92,5	62,5	225.	▶ E61.520.225.12.C	255	225
070.	▶ E61.520.070.12.C	100	70	250.	▶ E61.520.250.12.C	280	250
075.	▶ E61.520.075.12.C	105	75	262.	▶ E61.520.262.12.C	292,5	262,5
087.	▶ E61.520.087.12.C	117,5	87,5	275.	▶ E61.520.275.12.C	305	275
100.	▶ E61.520.100.12.C	130	100	300.	▶ E61.520.300.12.C	330	300
125.	▶ E61.520.125.12.C	155	125				

(KMA = Polymer Metal Mounting Bracket)



- Standard
- For tight installation conditions
- Option: integrated chainfix strain relief with C-profile
- Corrosion resistant
- Option: threaded sockets upon request (KMA = Polymer Metal Mounting Bracket)

Part No. structure



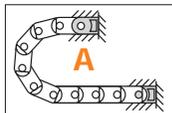
Single-part order:

Mounting bracket **Moving end**

E61.520.100.1.A

Mounting bracket **Fixed end**

E61.520.100.1.A



These attachment types are set automatically in the choice of the KMA mounting bracket. For the **preassembled mode** please add index **A**
▶ e.g. **E6.520.100.12.A**



Strain relief, e.g. clamps, tiewrap plates, nuggets and plug-in clips are available from stock. The complete chainfix range with order options ▶ from page 1148

