



Price index



IPA Qualification Certificate:
Air Cleanless Class ISO Class 2
(at v = 1 m/s) upon request



UL94-V2
classifications



Torsional
motion possible



Special equipment:
Electrically conductive ESD/ATEX
version upon request



Just push the cables with your thumb
into the E-Chain® - and it's ready



When to use the Series E045/Z045:

- If filling is required without opening and closing lids
- If a very small pitch is required



When not to use it:

- For applications with very high loads and long unsupported travel lengths
 - ▶ Series 06 E2 micro, page 5.26
- If smooth operation is required
 - ▶ Series 045 E2 micro, page 5.18
- If high stability is required
 - ▶ Series 06 E2 micro, page 5.26

- 1 Very easy to fill
- 2 Small pitch for low-noise, smooth operation
- 3 Limited torsion tolerance
- 4 The patented push-button principle holds the links together
- 5 Cable-friendly interior
- 6 "E" Series features split crossbar along the outer radius
- 7 "Z" Series features split crossbar along the inner radius
- 8 Mounting bracket available
- 9 1-, 2- or 3-chamber system available



Order example complete E-Chain®

Please indicate chain-lengths or number of links Example: 1 m or 77 links

1 m E045.16.038.0



E-Chain®

1 set 0450.16.12



Mounting bracket

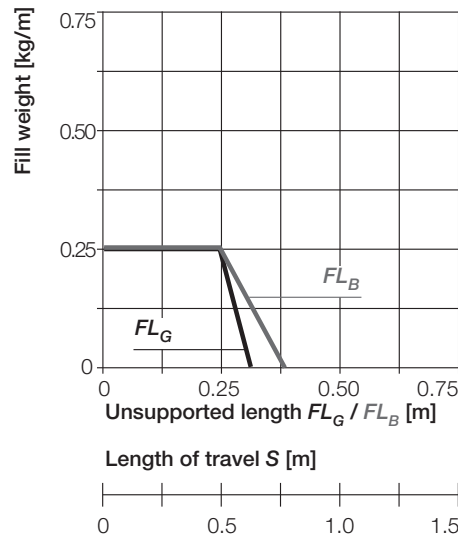
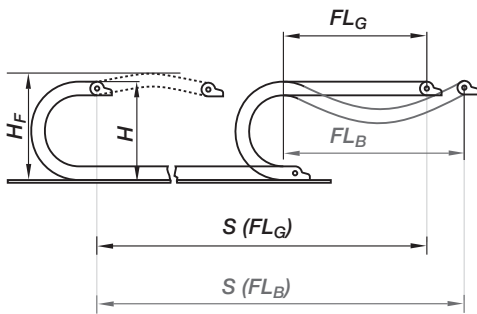


Unsupported length

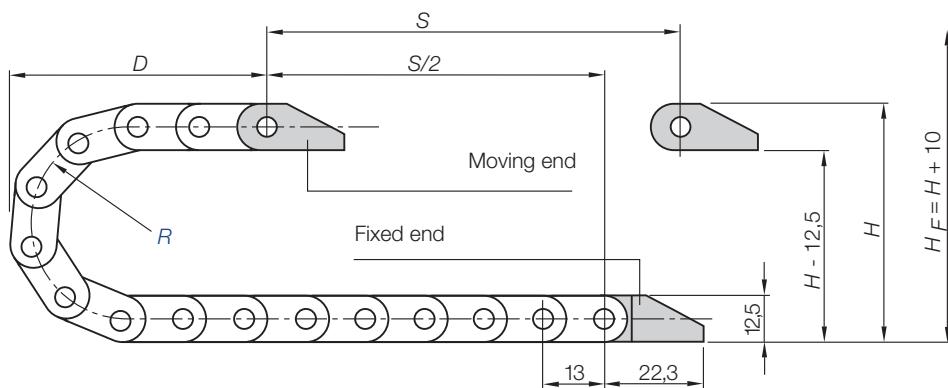
FL_G = with straight upper run

FL_B = with permitted sag

Further information ► Design, page 1.12



- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- H_F = Required clearance height
- D = Overlength E-Chain® radius in final position
- $K = \pi \cdot R + \text{"safety"}$



Short travels - unsupported

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

Pitch = 13 mm/link Links/m = 77 (1.001 mm) Chain length = $S/2 + K$

R	018	028	038
H	50	70	90
D	40	50	60
K	95	120	145

The required clearance height:
 $H_F = H + 10 \text{ mm}$
(with 0,1 kg/m fill weight)

Speed / acceleration FL_G	max. 20 [m/s] / max. 200 [m/s ²]
Speed / acceleration FL_B	max. 3 [m/s] / max. 6 [m/s ²]
Gliding speed / acceleration (maximum)	max. 3 [m/s] / max. 10 [m/s ²]
Material (E-Chain®)- permitted temperature °C	igumid NB / -40° up to +80° C
Material (mounting brackets)* - permitted temperature °C	igumid G / -40° up to +120° C
Flammability class (E-Chain®), igumid NB	VDE 0304 IIC UL94 V2
Flammability class (mounting brackets), igumid G*	VDE 0304 IIC UL94 HB

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

Technical Data

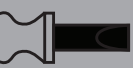


Details of material properties
► page 1.38

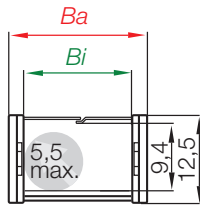


Easy Chain®
Inner height: 9,4 mm

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



► page 3.5



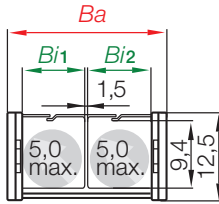
Series E045 - split crossbar along the outer radius

Part No.	B_i [mm]	B_a [mm]	R [mm]	Bending radii	Weight [kg/m]
E045.10. <input type="text"/> .0	10	16	<input type="text" value="018"/> <input type="text" value="028"/> <input type="text" value="038"/>		≈ 0,09
E045.16. <input type="text"/> .0	16	23	<input type="text" value="018"/> <input type="text" value="028"/> <input type="text" value="038"/>		≈ 0,11

B_a : pin dimension approx. 0,1 - 0,3 mm wider!

Supplement Part No. with required radius. Example: E045.16. .0

0 = standard color, other colors ► page 1.39 · Pitch = 13 mm/link - Links/m = 77



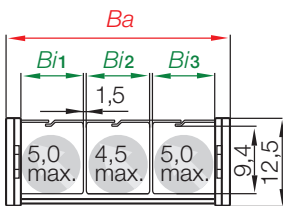
Series E045 - split crossbar along the outer radius with 2-chamber system

Part No.	B_i [mm]	B_a [mm]	R [mm]	Bending radii	Weight [kg/m]
E045.2/7. <input type="text"/> .0	7 / 7	23	<input type="text" value="018"/> <input type="text" value="028"/> <input type="text" value="038"/>		≈ 0,13
E045.2/9. <input type="text"/> .0	9 / 9	27	<input type="text" value="018"/> <input type="text" value="028"/> <input type="text" value="038"/>		≈ 0,14

B_a : pin dimension approx. 0,1 - 0,3 mm wider!

Supplement Part No. with required radius. Example: E045.2/9. .0

0 = standard color, other colors ► page 1.39 · Pitch = 13 mm/link - Links/m = 77



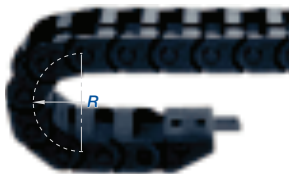
Series E045 - split crossbar along the outer radius with 3-chamber system

Part No.	B_i [mm]	B_a [mm]	R [mm]	Bending radii	Weight [kg/m]
E045.3/9. <input type="text"/> .0	9 / 9 / 9	37	<input type="text" value="018"/> <input type="text" value="028"/> <input type="text" value="038"/>		≈ 0,17

B_a : pin dimension approx. 0,1 - 0,3 mm wider!

Supplement Part No. with required radius. Example: E045.3/9. .0

0 = standard color, other colors ► page 1.39 · Pitch = 13 mm/link - Links/m = 77



Part No. structure

E045.	16.	<input type="text" value="038"/> .	<input type="text" value="0"/> .
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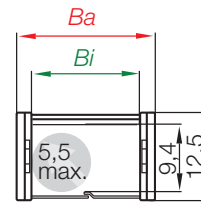
Series Z045 - split crossbar along the inner radius

Part No.	Bi [mm]	Ba [mm]	R [mm] Bending radii	Weight [kg/m]
Z045.16. <input type="text"/> .0	16	23	<input type="text" value="018"/> <input type="text" value="028"/> <input type="text" value="038"/>	≈ 0,11

Ba: pin dimension approx. 0,1 - 0,3 mm wider!

Supplement Part No. with required radius. Example: Z045.16. .0

0 = standard color, other colors ▶ page 1.39 · Pitch = 13 mm/link - Links/m = 77



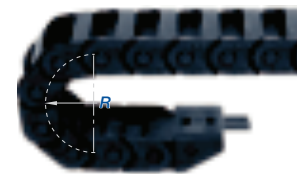
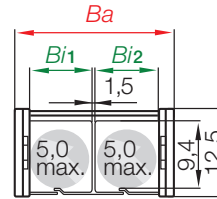
Series Z045 - split crossbar along the inner radius with 2-chamber system

Part No.	Bi [mm]	Ba [mm]	R [mm] Bending radii	Weight [kg/m]
Z045.2/7. <input type="text"/> .0	7 / 7	23	<input type="text" value="018"/> <input type="text" value="028"/> <input type="text" value="038"/>	≈ 0,13

Ba: pin dimension approx. 0,1 - 0,3 mm wider!

Supplement Part No. with required radius. Example: Z045.2/7. .0

0 = standard color, other colors ▶ page 1.39 · Pitch = 13 mm/link - Links/m = 77



Part No. structure

Z045.	16.	<input type="text" value="038"/> .	<input type="text" value="0"/>
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- Color black
- Bending radius
- Width
- Series

Easy Chain®
Inner height: 9,4 mm

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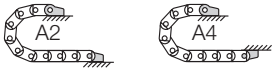
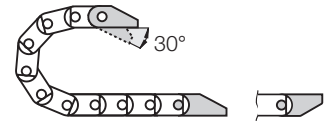




Polymer, one-piece

- One-piece mounting bracket
- Corrosion-resistant
- Available preassembled

Moving end with bore
(outer link) 045...1



Possible installation conditions for assembled mounting brackets ► Order example "preassembled" below

045...2 E03...2Z Fixed end
with pin (inner link)

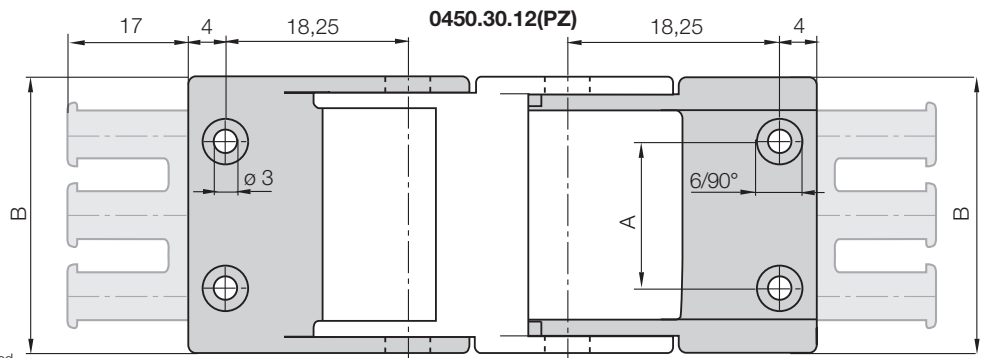
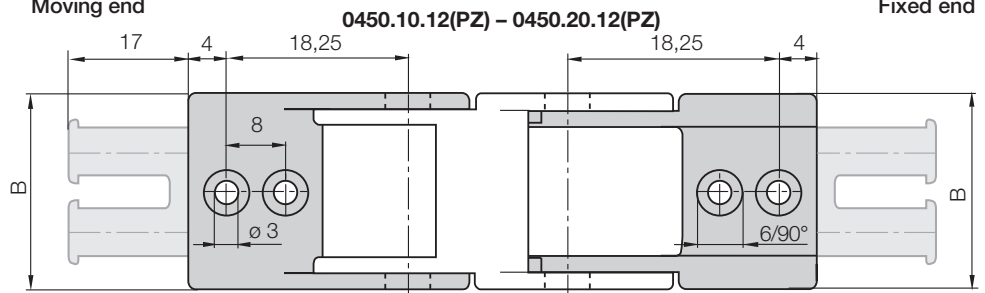
Dimensions and order configurations

045...1

Moving end

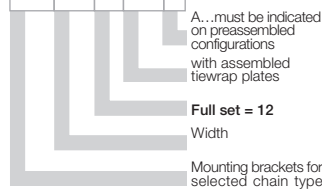
045...2

Fixed end



Part No. structure

0450. 10. 12 PZ A2



A...must be indicated on preassembled configurations with assembled tie-wrap plates

Full set = 12 Width

Mounting brackets for selected chain type

Full set, for both ends:

0450. 10. 12 PZ +tie-wrap plate

Single-part order:

0450. 10. 1 PZ +tie-wrap plate

Mounting bracket with bore

0450. 10. 2 PZ +tie-wrap plate

Mounting bracket with pin

For E-Chain®	Part No. full set with tie-wrap plate	Part No. full set without tie-wrap plate	Number of teeth	Dim. A [mm]	Dim. B [mm]
E045.10.	► 0450.10. 12 PZ	0450.10. 12	1	-	16
E/Z045.16.	► 0450.16. 12 PZ	0450.16. 12	2	-	22
E/Z045.2/7.	► 0450.16. 12 PZ	0450.16. 12	2	-	22
E045.2/9.	► 0450.20. 12 PZ	0450.20. 12	2	-	26
E045.3/9.	► 0450.30. 12 PZ	0450.30. 12	3	22	36

For the **preassembled** mode please add the index **A2** or **A4** e.g. 0450.20. 12 PZ **A2**

Mounting brackets with **tie-wrap plate** are available upon request. Time of delivery approx. 6-8 weeks after order. Mounting brackets without **tie-wrap plate** are available from stock.

Additional Features



Quicksnap - the complete, detachable mounting unit, available upon request



Quickfix - mounting bracket with dowel, available upon request