

igus® Energy Chain  
Systems®

Price Index



3 Widths  
7 Bending Radii



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3 options for  
mounting brackets



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When to use the Series E300/Z300:

- If price is an issue
- If fast and easy cable and hose accessibility is required
- If torsional rigidity and torque resistance are required
- If very quiet operation is required



When not to use them:

- If a long unsupported length is required
  - ▶ Series 340/350, Page 5.116
- If single-extrusion crossbars are required
  - ▶ Series 340/350, Page 5.116

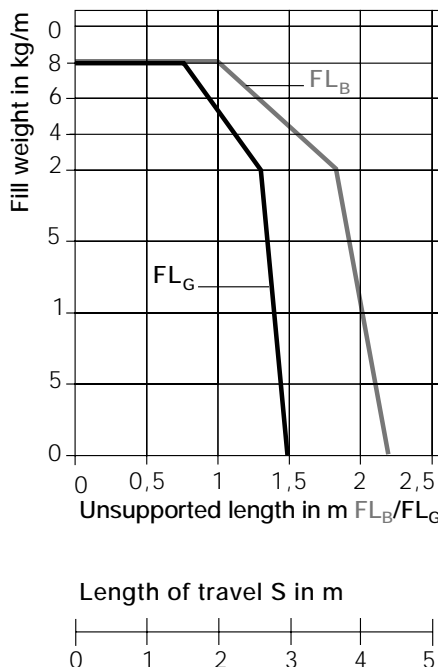
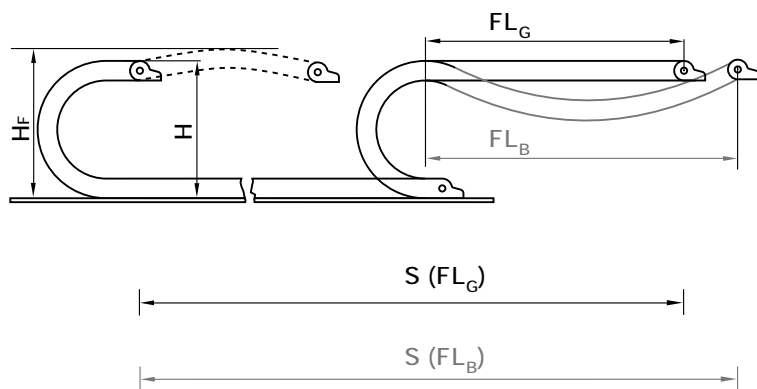
Product Range:

Inner Widths (Bi) in mm:	75, 2 x 48, 3 x 46*
Bending Radii (R) in mm:	075*, 100*, 125*, 150, 200*, 250*, 300*
Pitch:	67 mm/link = 15 links/m (1005 mm)

\*Delivery time upon request

Unsupported length

- $FL_B$  = unsupported with permitted sag
- $FL_G$  = unsupported with straight upper run



Unsupported Energy Chains® ► **Design, Page 1.8**, feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please see **Installation Dimensions** for further details.

If the unsupported length is exceeded the Energy Chain® must glide on itself. This requires a guide trough. ► **Design, Page 1.18**.

"E" Series is conditionally suitable for gliding applications. "Z" Series is not suitable.

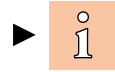
Other installation methods

Vertical, hanging	= max. 10 m
Vertical, standing	= max. 1,5 m
Side-mounted, unsupported	= max. 0,5 m
Rotary	= requires further calculation

- Further information
- Design, Page 1.1



Order Example

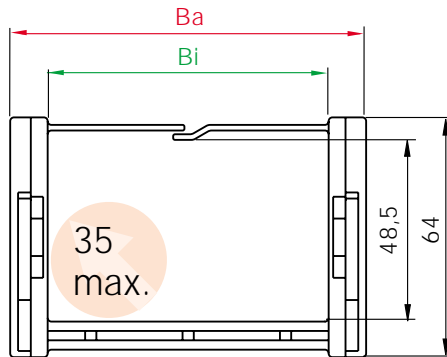


340.075.100.0

Standard color  
0 = Black

Other colors  
Design,  
Page 1.62

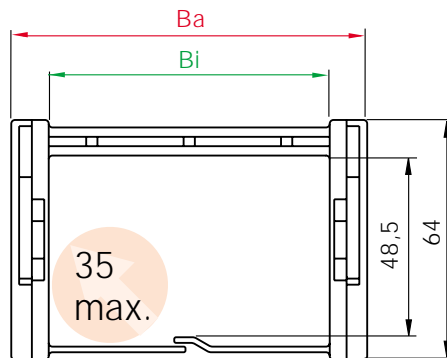
Series E300 (split crossbar along the outer radius)



Part No.		Bi	Ba	Bending Radii
E300.075	Radius	75	95	075 100 125 150 200 250 300

Supplement part no. with required radius  
for example, E300.075.150.0

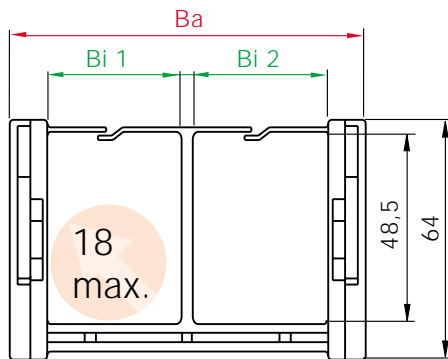
Series Z300 (split crossbar along inner radius)



Part No.		Bi	Ba	Bending Radii
Z300.075	Radius	75	95	075 100 125 150 200 250 300

Supplement part no. with required radius  
for example, Z300.075.150.0

Series E300 with 2-Chamber System



Part No.	Bi 1	Bi 2	Ba	Bending Radii
E300.2/45.Radius*	48	48	120	075 100 125 150 200 250 300

\*Delivery time upon request

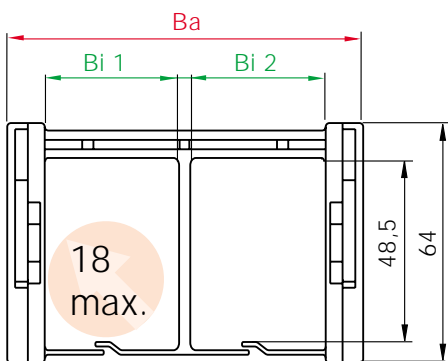
Supplement part no. with required radius  
for example, E300.2/45.150.0

Inner widths of chambers

Number of chambers

\*Delivery time upon request

Series Z300 with 2-Chamber System



Part No.	Bi 1	Bi 2	Ba	Bending Radii
Z300.2/45.Radius*	48	48	120	075 100 125 150 200 250 300

\*Delivery time upon request

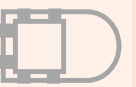
Supplement part no. with required radius  
for example, Z300.2/45.150.0

Inner widths of chambers

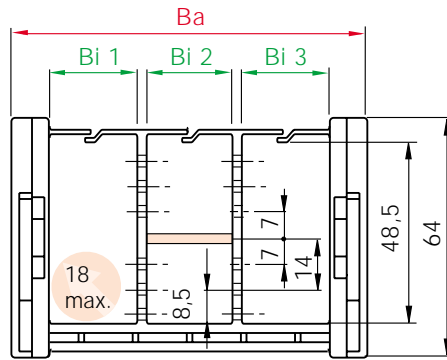
Number of chambers

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### Series E 300 with 3-Chamber System and Optional Interior Separation



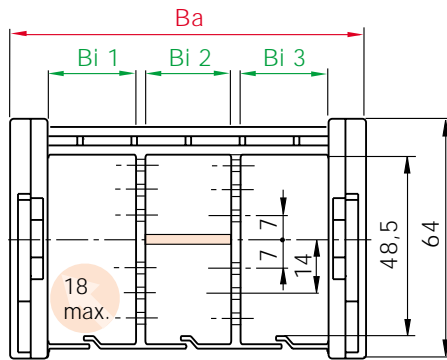
Part No.	Bi 1	Bi 2	Bi 3	Ba	Bending Radii
E300.3/45.Radius*	47	46	47	170	075 100 125 150 200 250 300

\*Delivery time upon request

Supplement part no. with required radius  
for example, E300.3/45.150.0

Inner widths of chambers  
Number of chambers

### Series Z300 with 3-Chamber System and Optional Interior Separation



Part No.	Bi 1	Bi 2	Bi 3	Ba	Bending Radii
Z300.3/45.Radius*	47	46	47	170	075 100 125 150 200 250 300

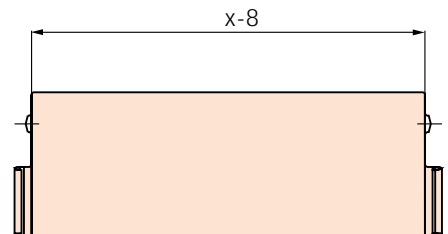
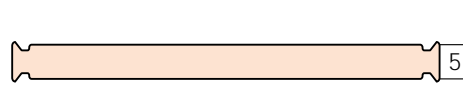
\*Delivery time upon request

Supplement part no. with required radius  
for example, Z300.3/45.150.0

Inner widths of chambers  
Number of chambers

#### Separation

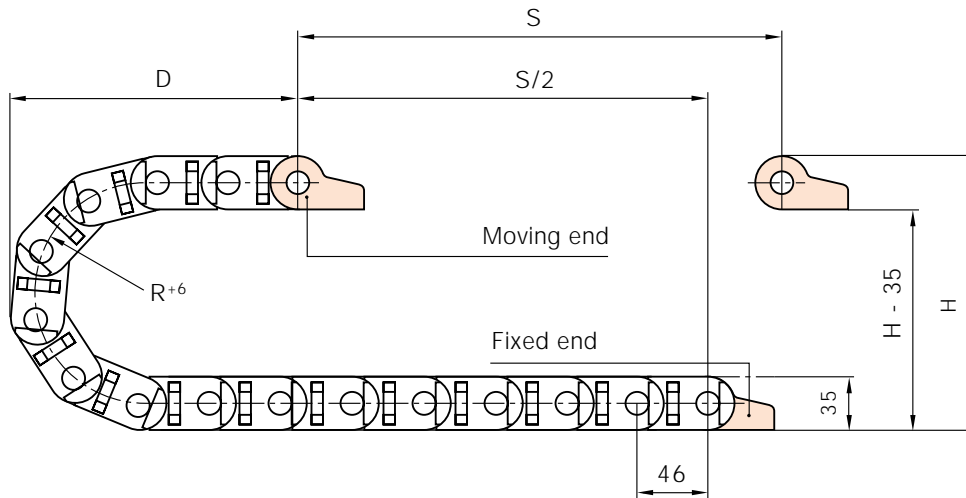
Unassembled	Part number 386.54
Assembled	Part number 387.54



# Installation Dimensions: Series E300/Z300 "Easy Chain"<sup>®</sup>



E300  
Z300

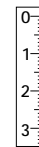


Pitch: = 67 mm per link

Links per m: = 15

Chain length: =  $\frac{S}{2} + K$

R	75	100	125	150	200	250	300
H) <sup>+5</sup> <sub>0</sub>	215	265	315	365	465	565	665
D	150	200	225	250	300	350	400
K	400	500	650	725	875	1050	1225

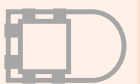


\*The required clearance height is HF = H + 40 mm (with 2,5 kg/m fill weight).

Please consult igus<sup>®</sup> if space is particularly restricted.

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2 options for all applications

Option 1: Polymer pivoting\*

- Standard



\* Photograph shows chain links of Series 350 with identical mounting brackets

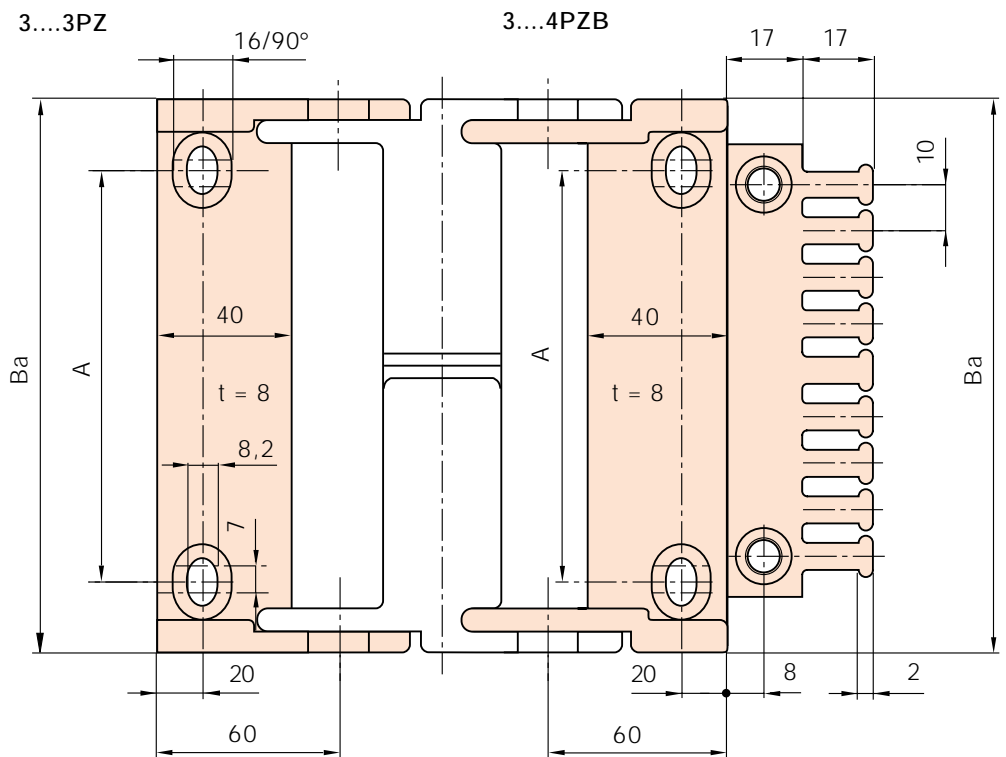
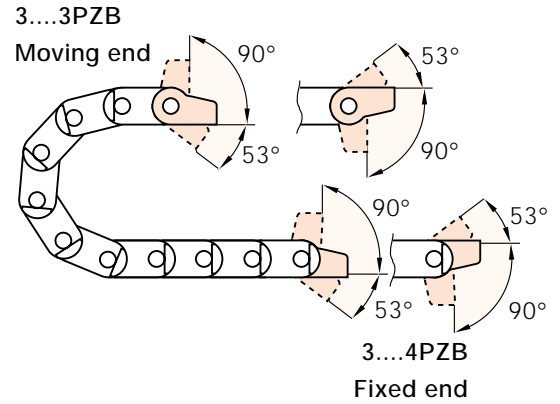
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Option 1: Pivoting

- ⚠ Standard
- ⊕ Pivoting
- ⊕ Short and long travels
- ⊕ Confined installation conditions
- ⊕ Corrosion-resistant
- ⊖ Locked connections
- ⊖ Vertical, hanging / standing unsupported



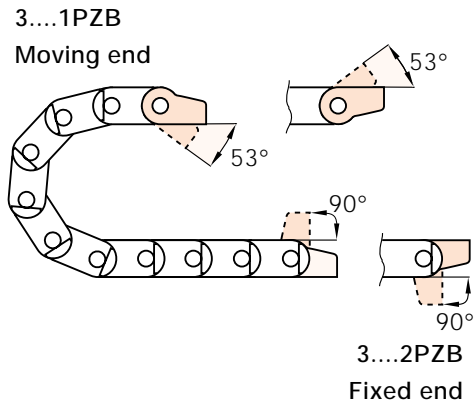
Chain Type	Part No. Full Set with Tiewrap Plates	Part No. with Tiewrap Plates 10 CableTiewraps	Part No. Mounting Bracket Set	Dimension A in mm
E/Z300.075	3075.34PZB	3075.34PZBK1	3075.34PZ	53
E/Z300.2/45	3100.34PZB	3100.34PZBK1	3100.34PZ	78
E/Z300.3/45	3150.34PZB	3150.34PZBK1	3150.34PZ	128

- 3...34 PZB = Full set, 1 part each with pin, including tiewrap plate / bore including tiewrap plate
- 3...3 PZB = Mounting bracket with bore, including tiewrap plate
- 3...4 PZB = Mounting bracket with pin, including tiewrap plate

# Mounting Brackets

## Option 2: Locking

- Locked connections
- Vertical, hanging/vertical, standing travels
- High accelerations
- Corrosion-resistant
- If the 1st chain link must pivot
- Gliding applications

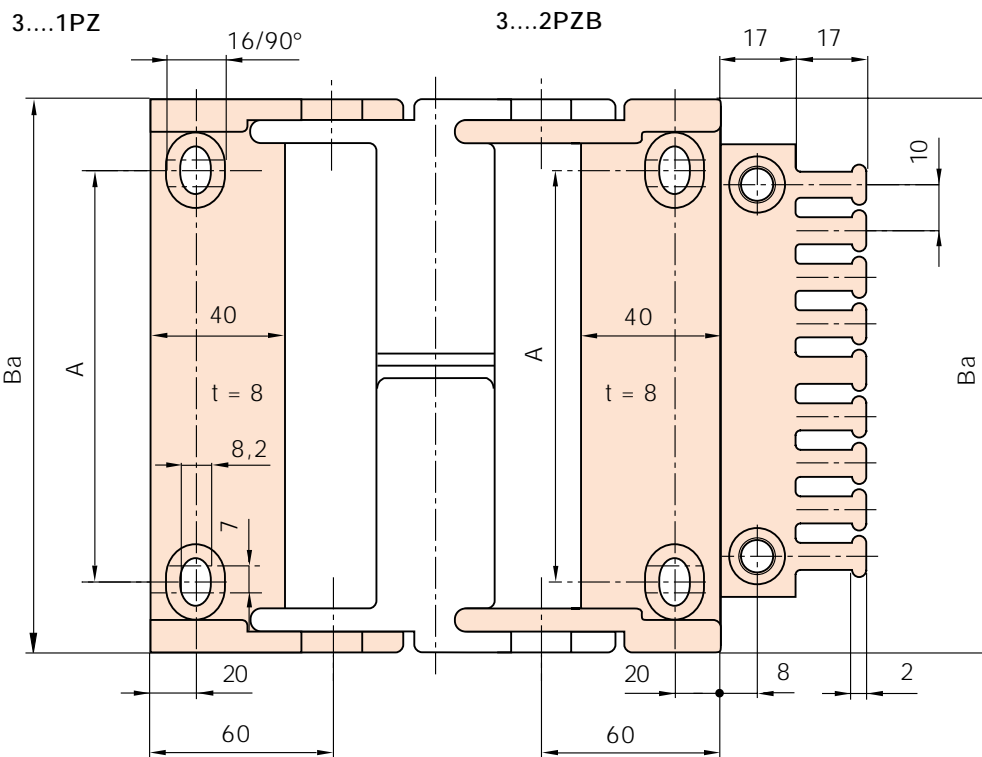


### Option 2: Polymer locking\*

- Locked connection



\* Photograph shows chain links of Series 350 with identical mounting brackets



Chain Type	Part No. Full Set with Tiewrap Plates	Part No. with Tiewrap Plates 10 Cable Tiewraps	Part No. Mounting Bracket Set	Dimension A in mm
E/Z300.075	3075.12PZB	3075.12PZBK1	3075.12PZ	53
E/Z300.2/45	3100.12PZB	3100.12PZBK1	3100.12PZ	78
E/Z300.3/45	3150.12PZB	3150.12PZBK1	3150.12PZ	128

- 3...12 PZB = Full set, 1 part each with pin, including tiewrap plate / bore including tiewrap plate
- 3...1 PZB = Mounting bracket with bore. including tiewrap plate
- 3...2 PZB = Mounting bracket with pin, including tiewrap plate

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- Other strain relief elements
- ▶ Strain Relief Page 9.97

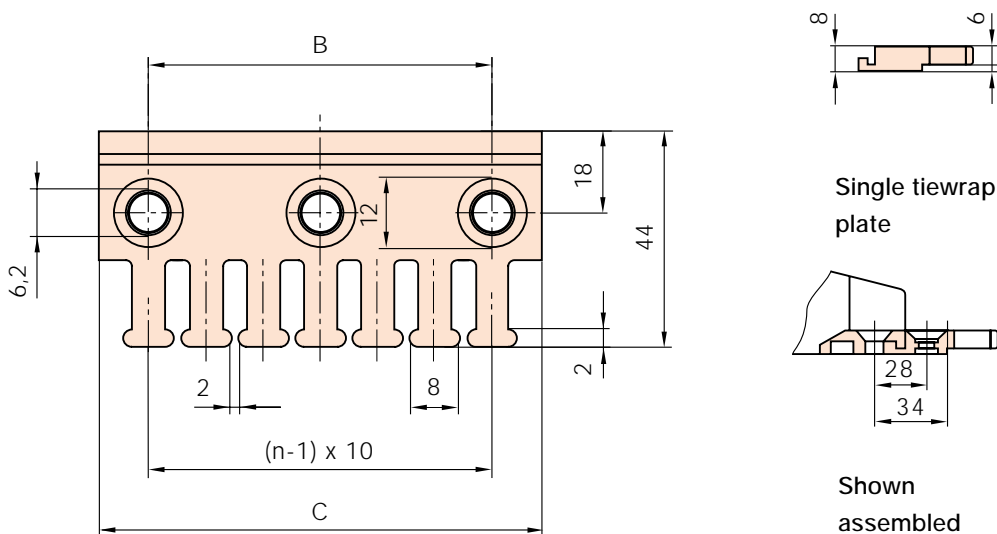
### Strain Relief for Polymer Mounting Brackets

(pivoting or locking)

The strain relief tiewrap plates can be directly snapped onto the mounting bracket. After bolting the mounting brackets to the machine, the strain relief tiewrap plates are also firmly connected to the base. They do not need to be bolted on separately. Cable tiewraps secured the tiewrap plate "teeth" and the cable provide proper strain relief and save time.



### Tiewrap Plate as Individual Part



Tiewrap Plate	n Number of Teeth	C Total Width	B Hole Spacing	Center Bore
3075.ZB	7	75 mm	55 mm	no
3100.ZB	10	100 mm	80 mm	no
3150.ZB	15	150 mm	130 mm	no

### Cable Tiewraps as Individual Part

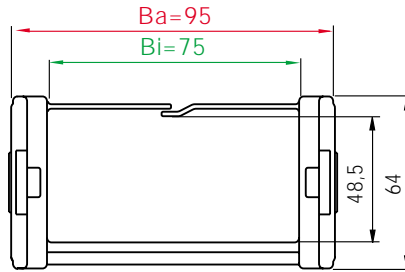
Cable Tiewraps 100 Pieces/Bag	Width x Length	Max. Ø	Tensile Strength
CFB.001	4,8 x 150 mm	36 mm	222 N

## Order Example

### 1. Chain selection:

E300.075.100.0

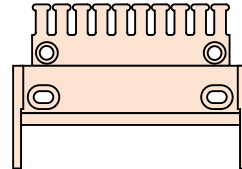
- Color black
- Radius
- Width
- Chain type
- Split crossbar along the outer radius



### 2. Mounting brackets

3075.34.PZB

- With tiwrap plates
- Full set, pivoting
- Chain width



For 2 m chain, color black,  
with pivoting mounting brackets:

2 m E300.075.100.0 and 3075.34PZ

- 30 links (15 links/m)



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## Technical Data

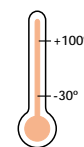
Chain Type	Weight Per Link (kg)	Weight Per Meter (kg)
E/Z300.075	0,107	1,603
E/Z300.2/45	0,119	1,778
E/Z300.3/45	0,128	1,925



The following applies to all series listed here:

Material (chain)	igumid NB
Material (mounting brackets)*	igumid G
Permitted temperature °C	-30/+100
Gliding speed (maximum) m/s	Conditionally suitable
Unsupported v (maximum) m/s	10
Flammability class (chain)	VDE 0304 IIC UL94 V2
Flammability class (mounting brackets)*	VDE 0304 IIC UL94 HB

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



- Details of material properties,
- Design, Page 1.61

