

igus® Energy Chain
Systems®

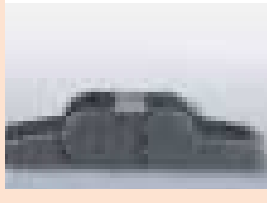
Price Index



3 Widths
5 Bending Radii



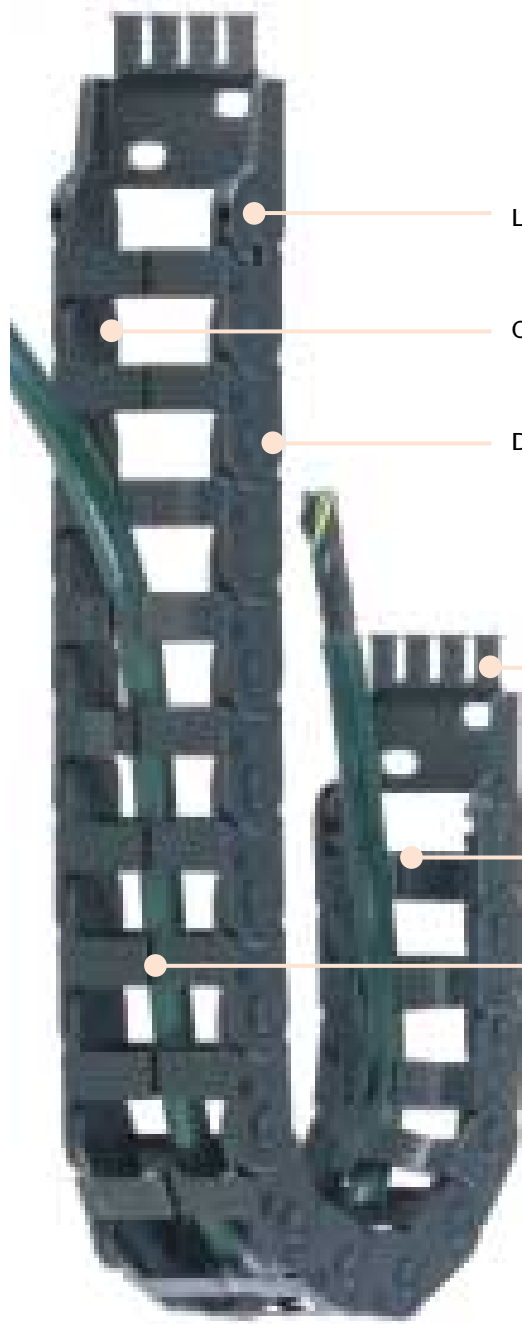
2 options for
mounting brackets



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51127 Cologne

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Large pivot pins for long service life

Cable-friendly, smooth interior

Dirt-repellent, contoured exterior

Integrated
strain-relief option

"Z" Series features
split crossbar along
the inner radius

"E" Series features
split crossbar along
the outer radius



When to use the Series E200/Z200:

- 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 200/240/250, Page 5.74
- If single-extrusion crossbars are required
 - ▶ Series 200/240/250, Page 5.74

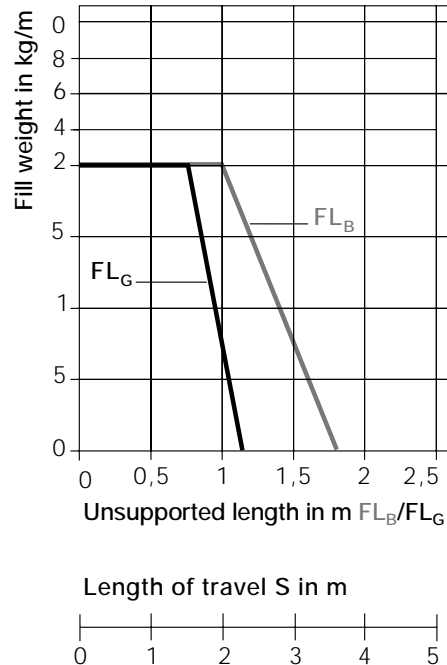
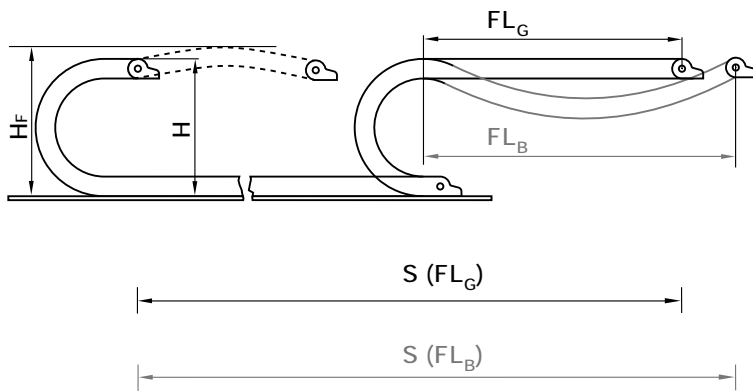
Product Range:

Inner Widths (Bi) in mm:	1 x 57, 2 x 37, 2 x 50
Bending Radii (R) in mm:	55, 75, 100, 150, 200
Pitch:	46 mm/link = 22 links/m (1012 mm)

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Unsupported length

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



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

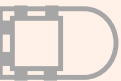
If the unsupported length is exceeded, the Energy Chain® must glide on itself. This requires a guide trough. ► **Design, Page 1.18.**

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

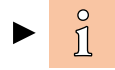
Other installation methods

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

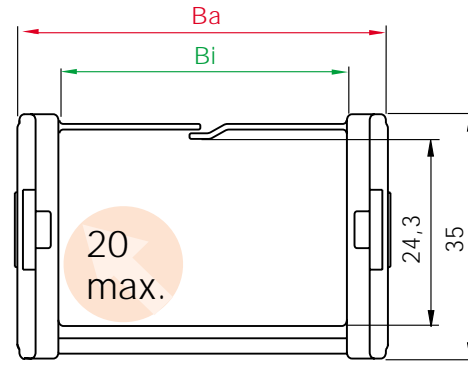


E200.05.100.0

Standard color
0 = Black

● Other colors
▶ Design,
Page 1.62

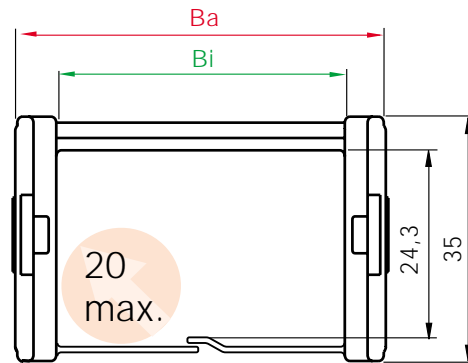
Series E200 (split crossbar along the outer radius)



Part No.		Bi	Ba	Bending Radii
Z200.05	Radius	57	74,4	055 075 100 150 200

Supplement part no. with required radius
for example, Z200.05.100.0

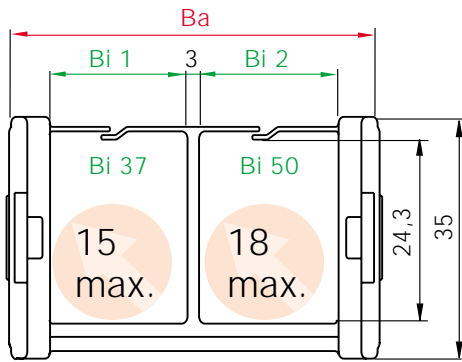
Series Z200 (split crossbar along inner radius)



Part No.		Bi	Ba	Bending Radii
Z200.05	Radius	57	74,4	055 075 100 150 200

Supplement part no. with required radius
for example, Z200.05.100.0

Series E200 with 2-chamber system



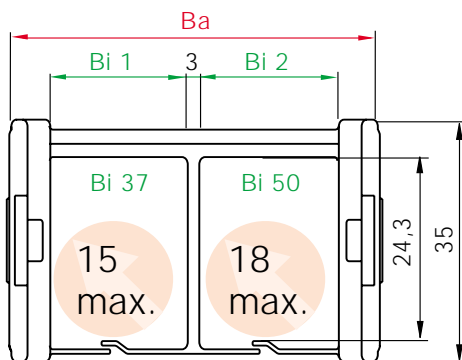
Part No.	Bi1	Bi2	Ba	Bending Radii for All Chain Widths
E200.2/35. Radius	37	37	94,4	055 075 100 150 200
E200.2/50. Radius	50	50	120,4	055 075 100 150 200

Supplement part no. with required radius
for example, E200.2/35.100.0

Inner widths of chambers

Number of chambers

Series Z200 with 2-chamber system



Part No.	Bi1	Bi2	Ba	Bending Radii for All Chain Widths
Z200.2/35. Radius	37	37	94,4	055 075 100 150 200
Z200.2/50. Radius	50	50	120,4	055 075 100 150 200

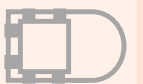
Supplement part no. with required radius
for example, Z200.2/35.100.0

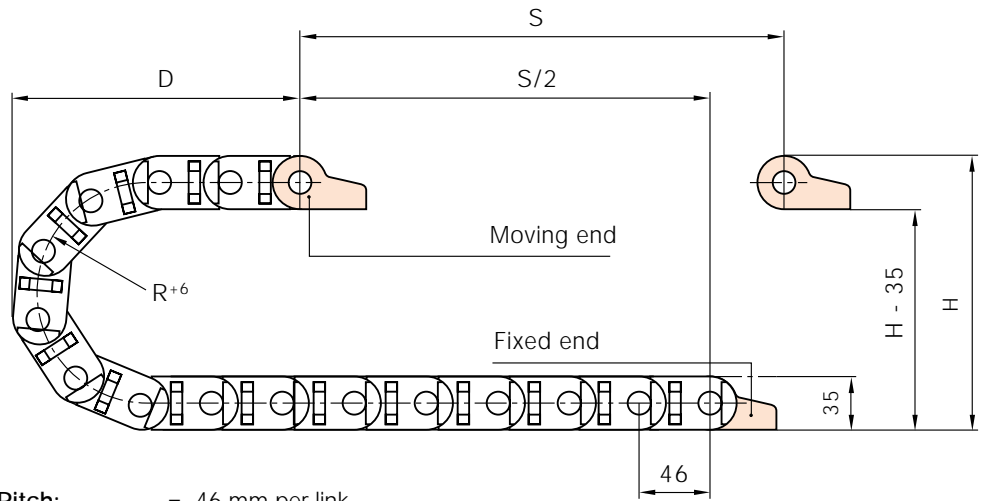
Inner widths of chambers

Number of chambers

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Pitch: = 46 mm per link
 Links per m: = 22
 Chain length: = $\frac{S}{2} + K$

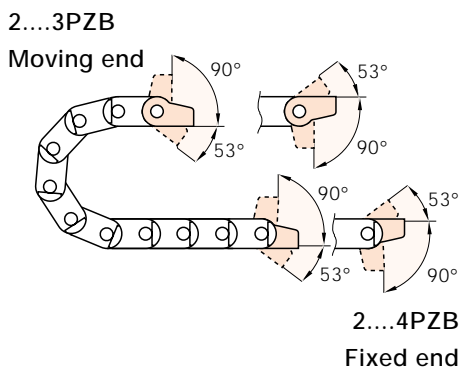


R	55	75	100	150	200
$H^*)_{0}^{+4}$	145	185	235	335	435
D	125	150	170	220	270
K	276	346	414	578	742

*The required clearance height is HF = H + 40 mm (with 2,5 kg/m fill weight).
 Please consult igus® if space is particularly restricted.

Option 1: Pivoting

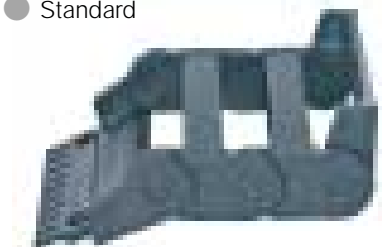
- Standard
- Pivoting
- Short and long travels
- Confined installation conditions
- Corrosion-resistant
- Locked connections
- Vertical, hanging, unsupported



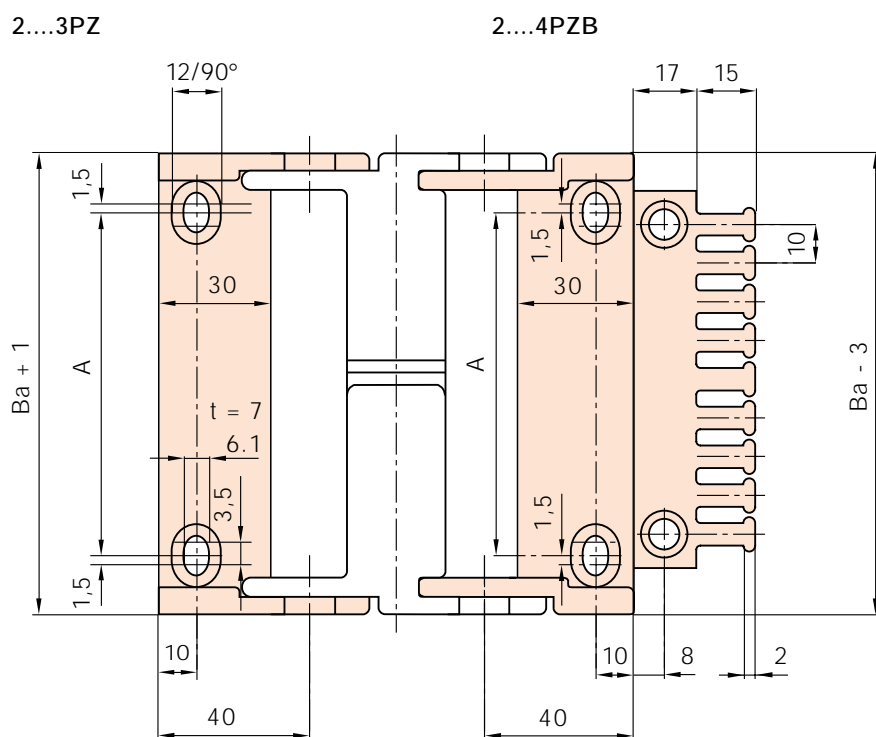
2 options for all applications

Option 1: Polymer pivoting*

- Standard



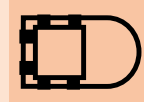
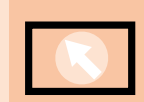
* Photograph shows chain links of Series 250 with identical mounting brackets



Chain Type	Part No. Full Set with Tiewrap Plate Strain Relief	Part No. with Tiewrap Plate and 10 Cable Tiewraps	Part No. Mounting Bracket	Dimension A in mm
E/Z200.05	2050.34PZB	2050.34PZBK1	2050.34PZ	44
E/Z200.2/35	2070.34PZB	2070.34PZBK1	2070.34PZ	64
E/Z200.2/50	2100.34PZB	2100.34PZBK1	2100.34PZ	90

- 2...34 PZB = Full set, each part with pin, including tiwrap plate / bore, including tiwrap plate
- 2...3 PZB = Mounting bracket with bore, including tiwrap plate
- 2...4 PZB = Mounting bracket with pin, including tiwrap plate

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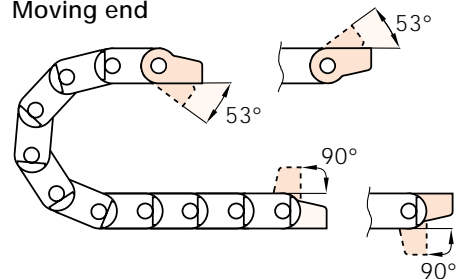


Option 2: Locking

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

2....1PZB

Moving end



2....2PZB

Fixed end

Option 2: Polymer locking*

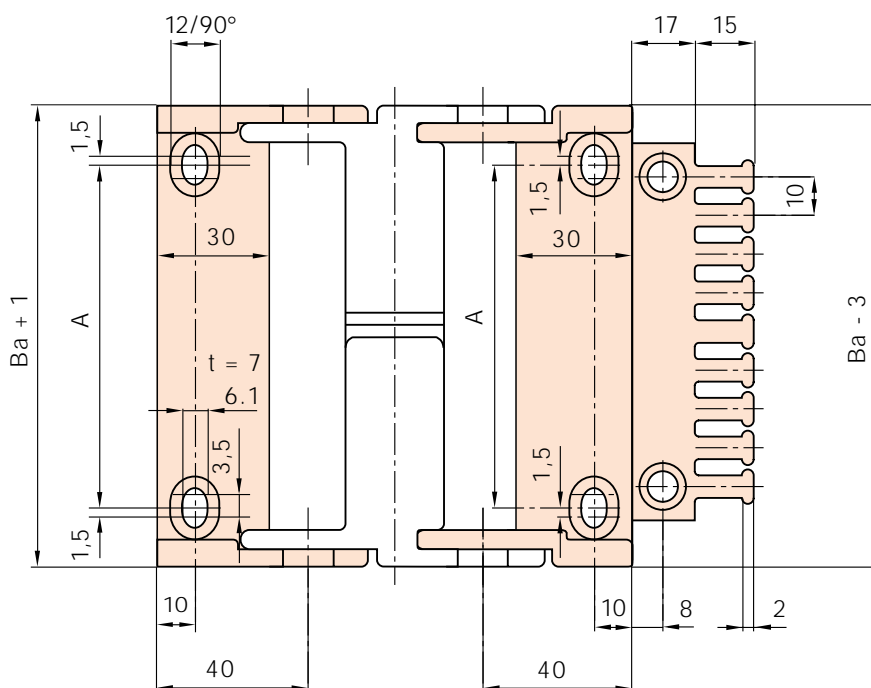
- Locked connection



* Photograph shows chain links of Series 250 with identical mounting brackets

2....1PZ

2....2PZB



Chain Type	Part No. Full Set with Tiewrap Plate	Part No. with Tiewrap Plate and 10 Cable Tiewraps	Part No. Set Mounting Bracket	Dimension A in mm
E/Z200.05	2050.12PZB	2050.12PZBK1	2050.12PZ	44
E/Z200.2/35	2070.12PZB	2070.12PZBK1	2070.12PZ	64
E/Z200.2/50	2100.12PZB	2100.12PZBK1	2100.12PZ	90

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

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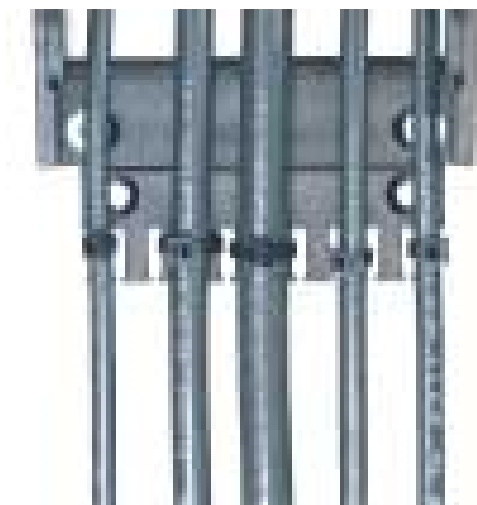
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Strain Relief for Polymer Mounting Brackets

(pivoting or locking)

The strain relief tiewrap plates can be directly snapped on to 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 around the tiewrap plate "teeth" and the cable provide proper strain relief and save time.



- Other Strain Relief elements
- ▶ Strain Relief Page 9.97

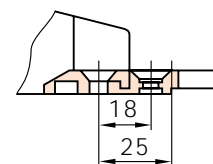
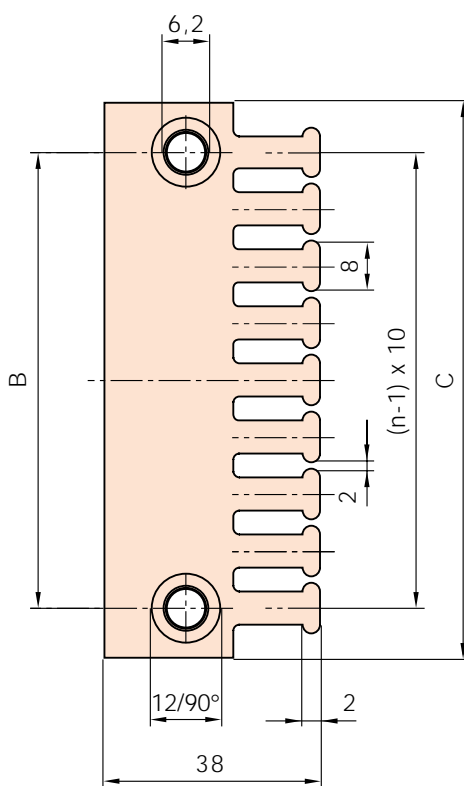
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Tiewrap Plate as a Separate Part

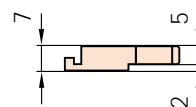
Tiewrap Plate	n Number of Teeth	C Total Width	B Hole Spacing
2020.ZB	3	30 mm	15 mm
2030.ZB	4	40 mm	20 mm
2040.ZB	5	50 mm	30 mm
2050.ZB	6	60 mm	40 mm
2070.ZB	8	80 mm	60 mm
2090.ZB	9	90 mm	70 mm
2100.ZB	10	100 mm	80 mm
2120.ZB	12	120 mm	100 mm

Cable Tiewraps as Individual Parts

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



Single tiewrap plate



Shown assembled

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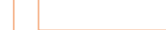



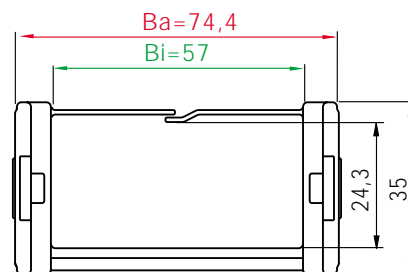
Order Example

E200.05...

1. Chain selection:


E200.05.100.0

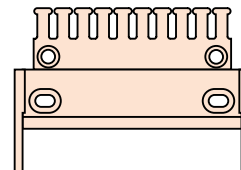
-  Color black
-  Radius
-  Width
-  Chain type
-  Split crossbar along the outer radius




2. Mounting brackets

2050.34.PZB

-  With tiewrap plate
-  Full set, pivoting
-  Chain width



For 2 m chain, color black,
with pivoting mounting brackets:
2 m E200.050.100.0 and 2050.34PZ
 44 links (22 links/m)

Technical Data

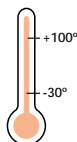


Please consult igus® for weight information

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