

● ● ● Price index



UL94-V2 classifications
upon request



ESD classification:
Electrically conductive
ESD/ATEX version upon request



E-Tubes with HT-material
for hot chips up to 850°C
available upon request

- ① Protection for cables and hoses, against hot chips
- ② Large pins for high stability
- ③ Removable lids along outer radius
- ④ Smooth, chip-repellent exterior
- ⑤ Small pitch for low-noise, smooth operation
- ⑥ Fully enclosed
- ⑦ KMA mounting brackets with attachment capability on all sides
- ⑧ Small pitch enables very small radii
- ⑨ Integrated strain relief available especially for E-Tubes ► page 6.40



To open the E-Tube Series R lift up the lid (with a screwdriver) and remove the lid



When to use the Series R58:

- If particularly quiet operation is required
- At very high speed
- If chip protection is subject to stringent requirements



When not to use it:

- If a particularly low-cost solution is the main factor
- Series R157/158, page 6.12



Order example complete E-Tube

Please indicate E-Tube-lengths or number of links Example: 1 m or 56 links

1 m 58.100.100.0



E-Tube

with 2 separators 582 assembled every 2nd link



Interior separation

1 set 580.100.12



Mounting bracket

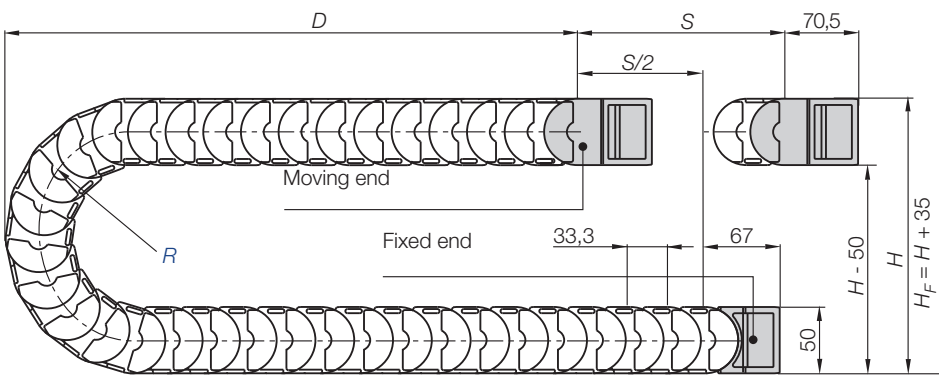
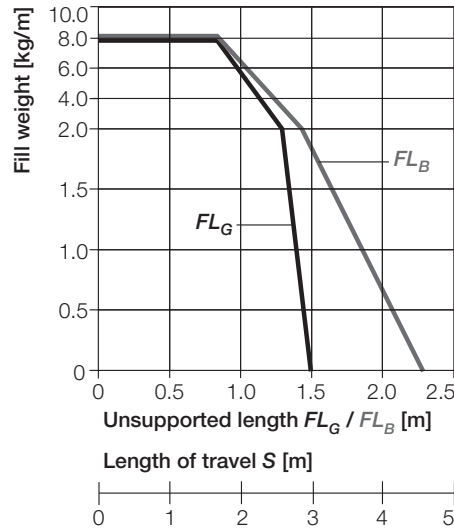
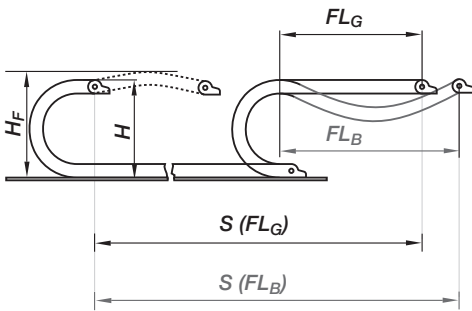


Unsupported length

FL_G = with straight upper run

FL_B = with permitted sag

Further information ► **Design, page 1.12**



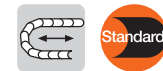
Pitch = 33,3 mm/link Links/m = 30 (999 mm) Chain length = $S/2 + K$

R	075	100	125	150	200	250
H	200	250	300	350	450	550
D	150	175	200	225	275	325
K	375	475	550	650	825	925
H ₂	200	166	166	166	166	166
D ₂	150	310	380	480	800	1050
K ₂	375	500	699	866	1265	1665

- S = Length of travel
 - R = Bending radius
 - H = Nominal clearance height
 - H_F = Required clearance height
 - H_{RI} = Trough inner height
 - D = Overlength E-Chain® radius in final position
 - K = $\pi \cdot R$ + "safety"
 - D₂ = Over length - long travels, gliding
 - K₂ = *Further add-on
 - H₂ = *Mounting height
- *if the mounting bracket location is set lower

Other installation methods

- Vertical, hanging ≤ 50 m
- Vertical, standing ≤ 4 m
- Side mounted, un supp. ≤ 2m
- Rotary requires further calculation
- Unsupported length of upper run = upon request



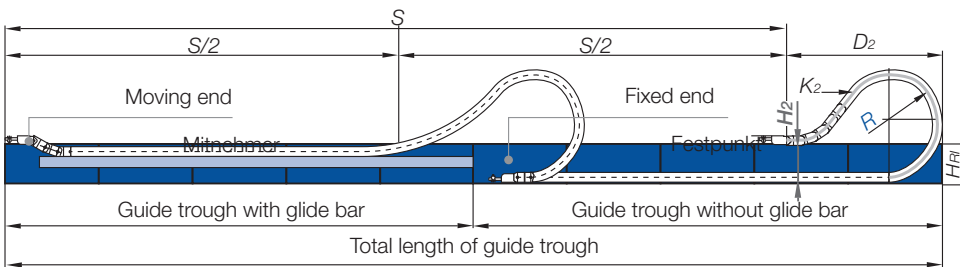
Short travels - unsupported

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

The required clearance height:

H_F = H + 35 mm
(with 0,5 kg/m fill weight)

Long travel lengths from 10 m to max. 75 m Chain length = $S/2 + K_2$



In case of travels between 4 and 10 m we recommend a longer unsupported length.



Gliding, long travel applications (max. 75 m)

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

Technical Data

Speed / acceleration FL_G	max. 10 [m/s] / max. 100 [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 - permitted temperature °C	igumid G / -40° up to +120° C
Flammability class, igumid G	VDE 0304 IIC UL94 HB



Details of material properties
► page 1.38

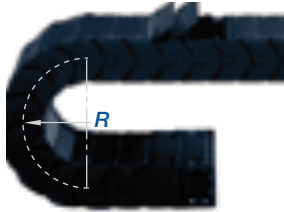
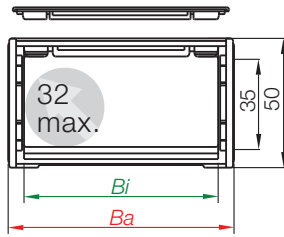


E2 E-Tubes Type R
Inner height: 35 mm

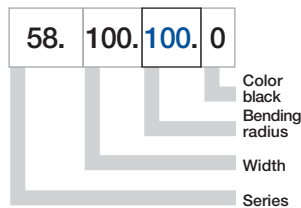
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► page 6.5



Part No. structure



Series R58 - snap-open along outer radius

Part No.	B_i [mm]	B_a [mm]	R [mm]	Bending radii					Weight [kg/m]
58.050.□.0	50	66	075	100	125	150	200	250	≈ 1,50
58.075.□.0	75	91	075	100	125	150	200	250	≈ 1,77
58.100.□.0	100	116	075	100	125	150	200	250	≈ 2,04
58.125.□.0	125	141	075	100	125	150	200	250	≈ 2,31
58.150.□.0	150	166	075	100	125	150	200	250	≈ 2,61
58.175.□.0	175	191	075	100	125	150	200	250	≈ 2,88
58.200.□.0	200	216	075	100	125	150	200	250	≈ 3,15

Supplement Part No. with required radius. Example: 58.100.□100.0

0 = standard color, other colors ► page 1.39 · Pitch = 33,3 mm/link - Links/m = 30



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igus® GmbH
51147 Cologne

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

Hot Chips up to 850°C

E-Tubes that repel hot chips, up to 850 °C. Some applications, depending on amount and size of the chips, can burn or melt the surface. That is no longer the case with the igus® "igumid HT" material.

Order example - Full E-Tube made of HT*: **58.100.100.0.HT**

Order example - Lids made of HT: **58.100HT.100.0**

*for long travels upon request

Delivery time up to 4 weeks! Further Information: www.igus.de/en/HT



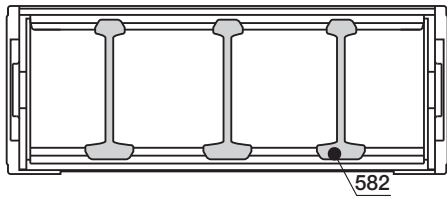
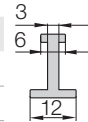
Option 1: Vertical Separators

Vertical Separators are used if a vertical subdivision of the E-Chain® interior is required -

By standard Vertical Separators are assembled every other E-Chain® link

- Standard subdivision with Vertical Separator 582

Vertical Separator	
unassembled	581
assembled	582



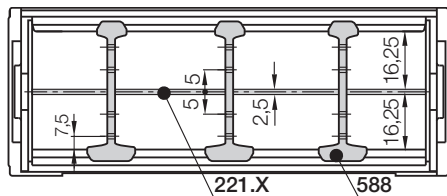
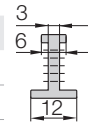
E2 E-Tubes Type R
Inner height: 35 mm

Option 2: Full-Width Shelves

For applications involving many thin cables with similar or identical diameters

- Vertical Separator, slotted 588 can be combined with Full-Width Shelf 221.X

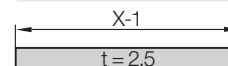
Vert. Separator, slotted	
unassembled	587
assembled	588



Width X [mm]	Part No. unassembled	Part No. assembled
050	220.50	221.50
075	220.75	221.75
100	220.100	221.100
125	220.125	221.125

Width X [mm]	Part No. unassembled	Part No. assembled
150	220.150	221.150
175	220.175	221.175
200	220.200	221.200

Full-Width Shelf

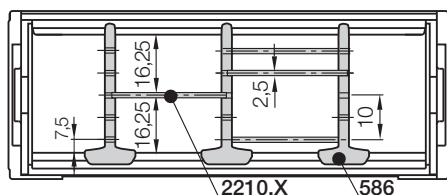
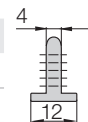


Option 3: Shelves

For applications involving many cables with similar or identical diameters. Partial separation into individual chambers can be achieved and the entire width Bi-10 mm can be used

- Shelf 2210.X can be combined with Middle Plate 586

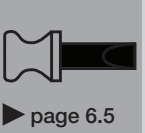
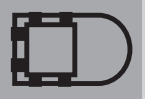
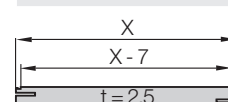
Middle Plate	
unassembled	585
assembled	586



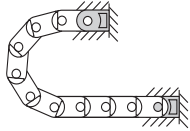
Width X [mm]	Part No. unassembled	Part No. assembled
018	2200.18	2210.18
023	2200.23	2210.23
028	2200.28	2210.28
033	2200.33	2210.33
038	2200.38	2210.38
043	2200.43	2210.43
048	2200.48	2210.48

Width X [mm]	Part No. unassembled	Part No. assembled
058	2200.58	2210.58
068	2200.68	2210.68
073	2200.73	2210.73
088	2200.88	2210.88
099	2200.99	2210.99
124	2200.124	2210.124
149	2200.149	2210.149

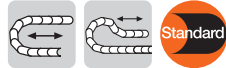
Shelf



▶ page 6.5



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

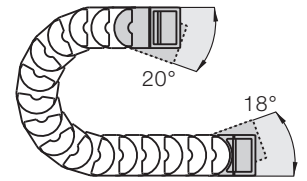


Option KMA* - pivoting

- Option - KMA with Quickflange for short and long travels
- Recommended for unsupported and gliding applications
- Space-restricted
- Universal mountable with attachment capability on all sides

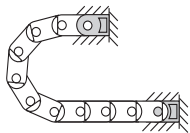
*KMA = Polymer Metal Mounting Bracket

Moving end (outer link)
580...1

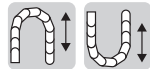


580...2

Fixed end (inner link)



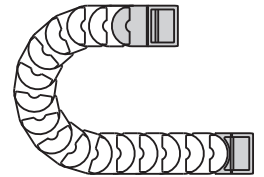
The attachment variants arising automatically by the choice of the KMA mounting bracket



Option KMA - locking

- Option - KMA with Quickflange
- Recommended for vertical hanging / standing applications
- At very high speed and acceleration
- Universal mountable with attachment capability on all sides
- Flush mounting at both ends of the E-Tube

Moving end (outer link)
580...3



580...4

Fixed end (inner link)

Dimensions and order configurations



Quickflange upon request

Part No. structure (pivoting)

580.050.	12	A
----------	----	---



A... must be indicated on preassembled configurations
Full set pivoting = 12
Width
KMA for selected chain type

Full set, for both ends:

580.050. 12

Single-part order:

580.050. 1

Mounting bracket with bore

580.050. 2

Mounting bracket with pin

Part No. structure (locking)

580.050.	34	A
----------	----	---

A... must be indicated on preassembled configurations
Full set locking = 34
Width
KMA for selected chain type

Full set, for both ends:

580.050. 34

Single-part order:

580.050. 3

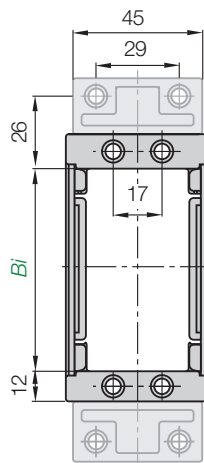
Mounting bracket with bore

580.050. 4

Mounting bracket with pin

Quickflange

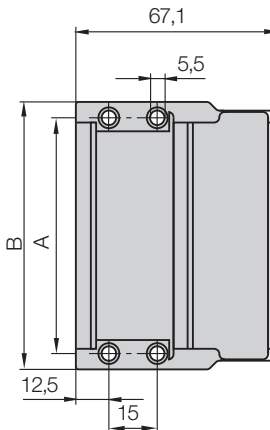
Part No. 16800.QF, unassembled



580...2 Standard! (pivoting)

580...4 (locking)

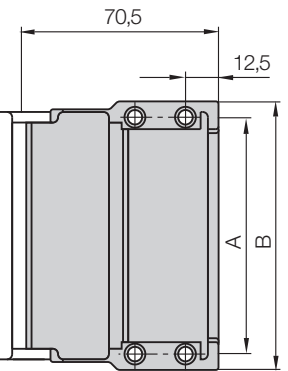
Fixed end



Standard! (pivoting) 580...1

(locking) 580...3

Moving end



For Series	Part No. Full set	Part No. Full set with Quickflange	Dim. A [mm]	Dim. B [mm]
58.050. ▶	580.050. <input type="text"/>	580.050. <input type="text"/> QF	62	74
58.075. ▶	580.075. <input type="text"/>	580.075. <input type="text"/> QF	87	99
58.100. ▶	580.100. <input type="text"/>	580.100. <input type="text"/> QF	112	124
58.125. ▶	580.125. <input type="text"/>	580.125. <input type="text"/> QF	137	149
58.150. ▶	580.150. <input type="text"/>	580.150. <input type="text"/> QF	162	174
58.175. ▶	580.175. <input type="text"/>	580.175. <input type="text"/> QF	187	199
58.200. ▶	580.200. <input type="text"/>	580.200. <input type="text"/> QF	212	224

Please add the Part No. with the requested index - 12 for the pivoting configuration

e.g. 580.100. 12 or 34 for the locking configuration e.g. 580.100. 34

For the preassembled mode please add the index A e.g. 580.100. 34 A

Quickflange unassembled: Part No. 16800.QF

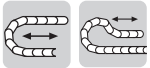
The following parts are required for attachment of the mounting brackets:

- Socket head cap bolt M5 DIN 912-8.8 Length depends on the thickness of the attachment base
- Washer 5,3 DIN 125-ST ● Hexagon nut M5 DIN 934-8

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51147 Cologne

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E-mail: info@igus.de

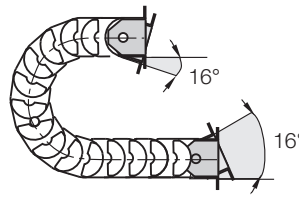




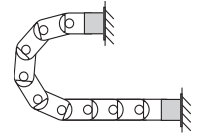
Flange mounting brackets made of steel

- Metallic flange brackets with popular hole patterns, easily be replaced by their modern successors, without having to alter the hole pattern
- Bolted connection outside of chain cross-section possible
- Universal mountable with attachment capability on all sides
- Steel, galvanized
- One-piece mounting bracket
- High stability

Moving end (outer link)
906.463.X.1

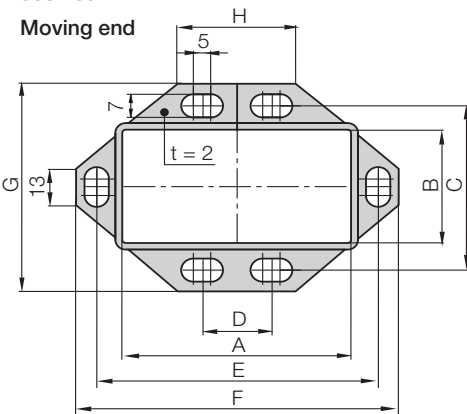


906.463.X.2
Fixed end (inner link)



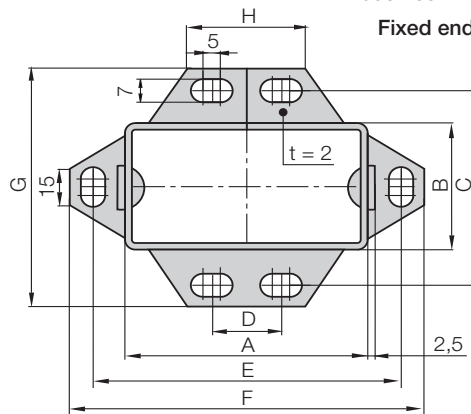
Flush mounting possibilities at both ends of the E-Tube

906.463.X.1
Moving end



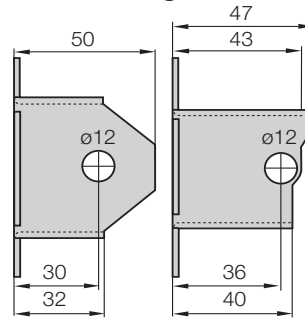
Hole pattern metallic flange
Moving end 906.463.X.1

906.463.X.2
Fixed end

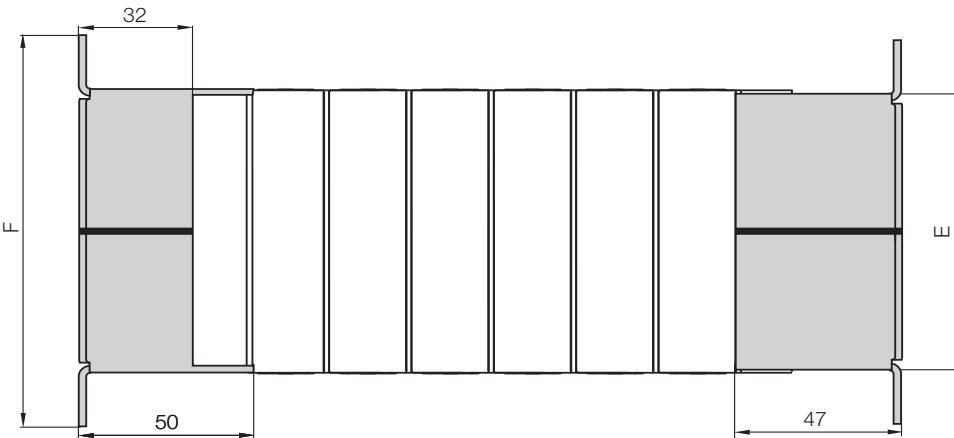


Hole pattern metallic flange
Fixed end 906.463.X.2

Dimensions and order configurations



Moving end 906.463.X.1 Fixed end 906.463.X.2



Full set, for both ends:

906. 463. X. 12.

Single-part order:

906. 463. X. 1

Mounting bracket with bore

906. 463. X. 2.

Mounting bracket with pin

For Series	Hole pattern	Part No. Moving end	Part No. Fixed end	Bi [mm]	Ba [mm]	Dim. A [mm]	Dim. B [mm]	Dim. C [mm]	Dim. D [mm]	Dim. E [mm]	Dim. F [mm]	Dim. G [mm]	Dim. H [mm]
58.050	58.05	906.463.05.1	906.463.05.2	50	66	58,3	48	68	20	78,5	90,5	82	24,5
58.075	58.1	906.463.1.1	906.463.1.2	75	91	83,3	48	68	30	104	116	82	50

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



**Integrated strain relief for E2 E-Tubes - Series R**

Characteristic features: ● Strain relief disappears completely in the E-Tube ● Easy to assemble without any screws ● **Use:** Individual part for the manufacturing of switchgear cabinets or for the assembly of machines ● Accessory for igus® E-ChainSystems®

Part. No.	Width [mm]	Number of teeth	For Series
5850.Z	46	4	R58

Number of tiewrap plates 5850.Z for selected inner width B_i

B_i [mm]	Width tiewrap plate [mm]	Number of tiewrap plate n	Total number of teeth
50	–	–	–
75	46	1	4
100	46	1	4
125	46	2	8
150	46	2	8
175	46	3	12
200	46	3	12

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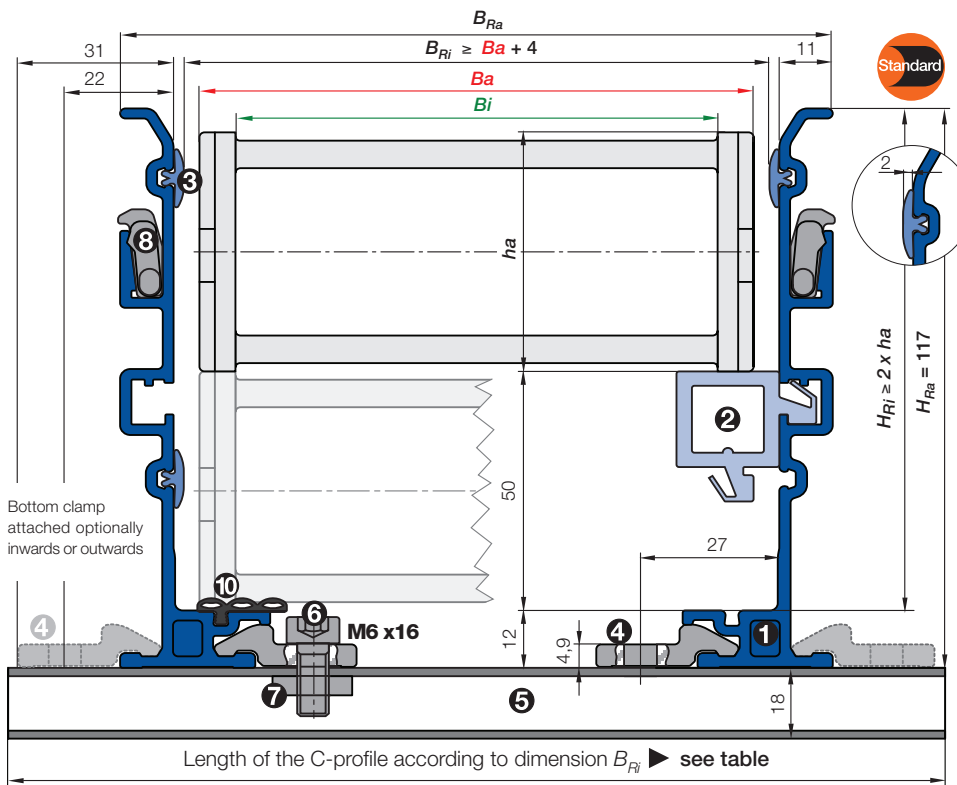
igus® GmbH
51147 Cologne

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



Other strain relief elements

► chapter 10



- B_a = Outer width E-Chains® / E-Tube
- B_i = Inner width E-Chains® / E-Tube
- h_a = Outer height E-Chains® / E-Tube
- H_{Ri} = Inner trough height
- H_{Ra} = Outer trough height
- B_{Ri} = Inner trough width ▶ depends on dim. B_a
- B_{Ra} = Outer trough width
- n_{Mon} = Number of installation sets (left/right)
- n_{Ri} = Number of troughs sets (left/right)
- ! $H_{Ri} \geq 2 \cdot h_a$
- ! $B_{Ri} \geq B_a + 4$
- = Guide trough set ● = Glide bar
- = Installation set "Basic" ● = C-profile

Installation set "Basic" with C-profile

Bottom Clamp attached optionally inwards or outwards

58.075.200.0 ▶ Order example

B_{Ri} [mm]	Part No.	
	attached inwards	attached outwards
.050 70	-	960.30.175
.075 95	960.30.150	960.30.200
.100 120	960.30.175	960.30.225
.125 145	960.30.200	960.30.250
.150 170	960.30.225	960.30.275
.175 195	960.30.250	960.30.300
.200 220	960.30.275	960.30.325



- **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) ⑩ Optional: Silencer profile, rubber
- **Components, installation set "Basic":** ④ Bottom clamp, aluminum ⑤ C-profile, steel galvanized ⑥ Screw M6 x16 ⑦ Sliding nut M6 ⑧ Interface connector, plastic

Order example: Length of travel 30 m - Center mounted for Series 58.075.200.0 with $B_{Ri} = 95$

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

Order text: 16 m guide trough without glide bar (8 x 2 m sections) Part No. 972.30.SL

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

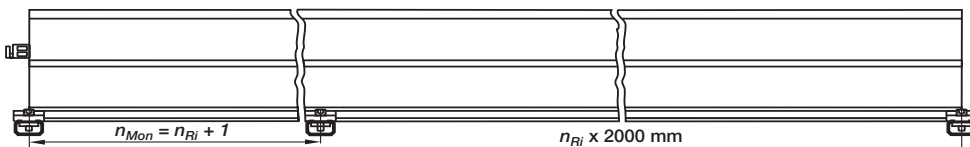
Order text: 16 m guide trough with glide bar (8 x 2 m sections) Part No. 972.32.SL

Installation set "Basic" complete (guide trough-sets + 1)

Order text: 17 installation sets "Basic" Part No. 960.30.150

Option: For an additional noise dampening with silencer profile, please add Index A - Example:

Part No. 972.30.SLA



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

Other guide trough systems



"Heavy Duty" for the fastidiously construction with glide bar and silencer profiles

▶ chapter 9



"Steel trough" very stable and robust guide trough out of steel, 2 pieces, adjustable on chain width

▶ chapter 9

Insert for the installation set

"Heavy Duty": **972.50.XXX**

instead of (960.30.XXX) on the right column "attached outwards"

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▶ chapter 10



▶ chapter 9



▶ page 6.75