

● ● ● 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



To open the e-tube Series R100 lift up the lid and swivel lid to the side



**When to use the Series R157/R158:**

- If snap-open accessibility along inner or outer radius is required
- If a low-cost, lightweight e-tube for many types of applications required
- If flush attachment is required
- If chip-repellent features are required



**When not to use it:**

- For extremely chip repellent e-tubes  
▶ **System RX, Series RX32, page 6.58**
- If snap-open accessibility along both sides is required  
▶ **System E4.1, Series R4.32, page 7.42**
- If very smooth travel due to small pitch is required  
▶ **Type R, Series R58, page 6.34**

- ❶ Snap-open lids along inner or outer radius
- ❷ Snap-open from the side, covered pin/bore connection
- ❸ Effective chip protection, even against hot metal chips
- ❹ Double stop dog for strong unsupported length
- ❺ Lateral glide surfaces for side-mounted operation
- ❻ Universal KMA mounting brackets with attachment capability on all sides
- ❼ Space-efficient with optimized ratio of inner dimension to outer dimension
- ❽ **Strain relief separator** - Separator with integrated strain relief for the use in the first or last chain link ▶ **page 6.18**



**Order example complete e-tube**

Please indicate e-tube-lengths or number of links **Example: 1 m or 22 links**

1 m **157.088.100.0**

e-tube

with 2 separators **1586.01** assembled every 2<sup>nd</sup> link

Interior separation

1 set **15800.088.12**

Mounting bracket

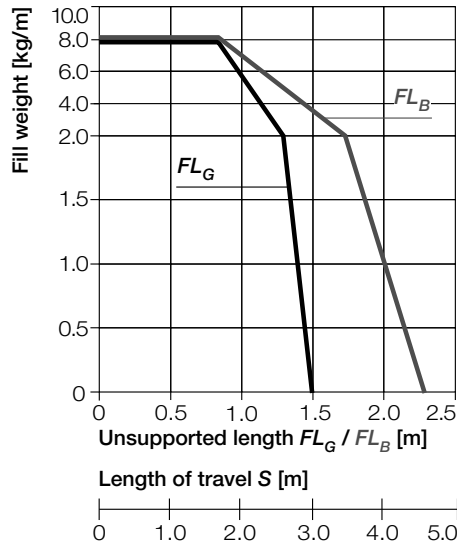
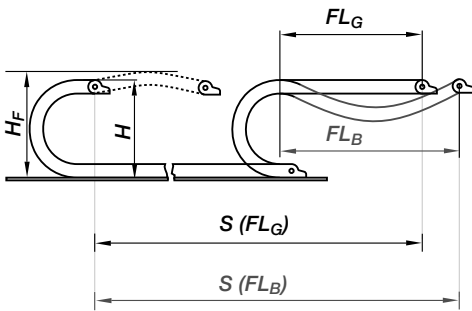


**Unsupported length**

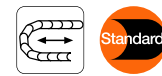
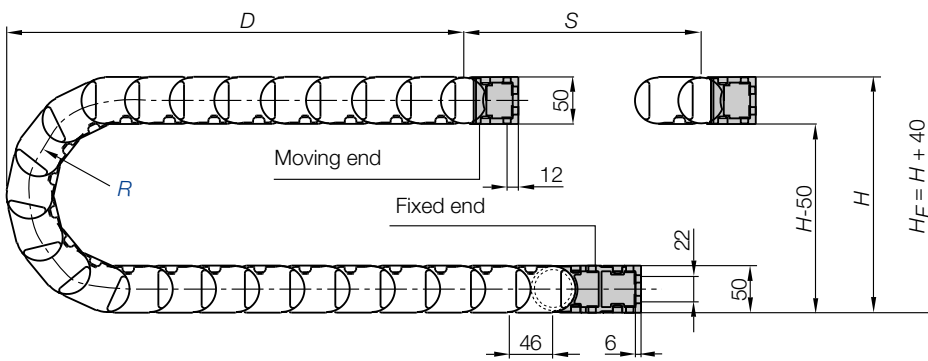
$FL_G$  = with straight upper run

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

| R | 100 | 125 | 150 | 175 | 200 | 250 |
|---|-----|-----|-----|-----|-----|-----|
| H | 250 | 300 | 350 | 400 | 450 | 550 |
| D | 194 | 219 | 244 | 269 | 294 | 344 |
| K | 410 | 485 | 565 | 645 | 725 | 880 |

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

**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\*: 158.100.100.0.HT**

**Order example - Lids made of HT: 158.100HT.100.0**

\*for long travels upon request

**Delivery time up to 4 weeks!** Further Information: [www.igus.de/en/HT](http://www.igus.de/en/HT)

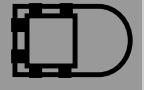


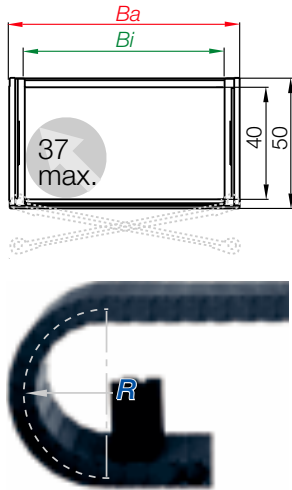
**Technical Data**

|  |  |
|--|--|
| Speed / acceleration $FL_G$            | max. 10 [m/s] / max. 100 [m/s <sup>2</sup> ] |
| Speed / acceleration $FL_B$            | max. 3 [m/s] / max. 6 [m/s <sup>2</sup> ]    |
| Gliding speed / acceleration (maximum) | max. 0,5 [m/s] / max. 5 [m/s <sup>2</sup> ]  |
| 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





Series R157 - hinged, snap-open on both sides of the inner radius

| Part No.      | $B_i$ [mm] | $B_a$ [mm] | $R$ [mm] | Bending radii |     |     |     |     | Weight [kg/m] |
|---------------|------------|------------|----------|---------------|-----|-----|-----|-----|---------------|
| 157.040.□.0*  | 40         | 56         | 100      | 125           | 150 | 175 | 200 | 250 | ≈ 1,21        |
| 157.050.□.0   | 50         | 66         | 100      | 125           | 150 | 175 | 200 | 250 | ≈ 1,30        |
| 157.075.□.0   | 75         | 91         | 100      | 125           | 150 | 175 | 200 | 250 | ≈ 1,50        |
| 157.088.□.0   | 88         | 104        | 100      | 125           | 150 | 175 | 200 | 250 | ≈ 1,57        |
| 157.090.□.0** | 88         | 104        | 100      | 125           | 150 | 175 | 200 | 250 | ≈ 1,63        |
| 157.100.□.0   | 100        | 116        | 100      | 125           | 150 | 175 | 200 | 250 | ≈ 1,71        |
| 157.125.□.0   | 125        | 141        | 100      | 125           | 150 | 175 | 200 | 250 | ≈ 1,92        |
| 157.135.□.0   | 135        | 150        | 100      | 125           | 150 | 175 | 200 | 250 | ≈ 2,10        |
| 157.150.□.0   | 150        | 166        | 100      | 125           | 150 | 175 | 200 | 250 | ≈ 2,13        |
| 157.175.□.0   | 175        | 191        | 100      | 125           | 150 | 175 | 200 | 250 | ≈ 2,34        |
| 157.200.□.0   | 200        | 216        | 100      | 125           | 150 | 175 | 200 | 250 | ≈ 2,55        |

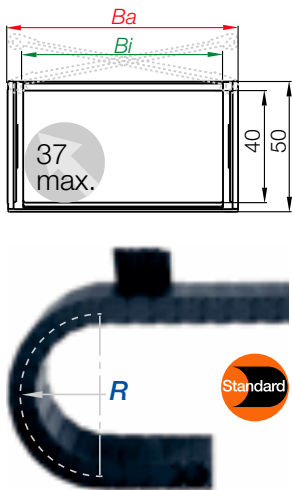
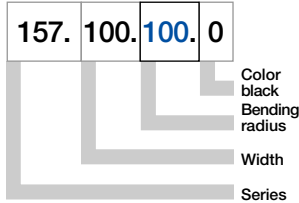
\* Lid removable only, not hinged

\*\* Same dimensions as 157.088 - less recent design, no hinged option

Supplement Part No. with required radius. Example: 157.100.□100□.0

0 = standard color, other colors ▶ page 1.39 · Pitch = 46 mm/link - Links/m = 22

Part No. structure



Series R158 - hinged, snap-open on both sides of the outer radius

| Part No.      | $B_i$ [mm] | $B_a$ [mm] | $R$ [mm] | Bending radii |     |     |     |     | Weight [kg/m] |
|---------------|------------|------------|----------|---------------|-----|-----|-----|-----|---------------|
| 158.040.□.0*  | 40         | 56         | 100      | 125           | 150 | 175 | 200 | 250 | ≈ 1,21        |
| 158.050.□.0   | 50         | 66         | 100      | 125           | 150 | 175 | 200 | 250 | ≈ 1,30        |
| 158.075.□.0   | 75         | 91         | 100      | 125           | 150 | 175 | 200 | 250 | ≈ 1,50        |
| 158.088.□.0   | 88         | 104        | 100      | 125           | 150 | 175 | 200 | 250 | ≈ 1,57        |
| 158.090.□.0** | 88         | 104        | 100      | 125           | 150 | 175 | 200 | 250 | ≈ 1,63        |
| 158.100.□.0   | 100        | 116        | 100      | 125           | 150 | 175 | 200 | 250 | ≈ 1,71        |
| 158.125.□.0   | 125        | 141        | 100      | 125           | 150 | 175 | 200 | 250 | ≈ 1,92        |
| 158.135.□.0   | 135        | 150        | 100      | 125           | 150 | 175 | 200 | 250 | ≈ 2,10        |
| 158.150.□.0   | 150        | 166        | 100      | 125           | 150 | 175 | 200 | 250 | ≈ 2,13        |
| 158.175.□.0   | 175        | 191        | 100      | 125           | 150 | 175 | 200 | 250 | ≈ 2,34        |
| 158.200.□.0   | 200        | 216        | 100      | 125           | 150 | 175 | 200 | 250 | ≈ 2,55        |

\* Lid removable only, not hinged

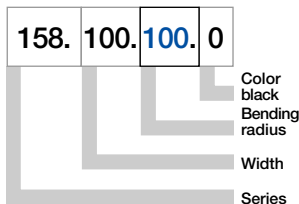
\*\* Same dimensions as 158.088 - less recent design, no hinged option

The size 125 is available upon request. Delivery time: approx. 8-10 weeks after receipt of order

Supplement Part No. with required radius. Example: 158.100.□100□.0

0 = standard color, other colors ▶ page 1.39 · Pitch = 46 mm/link - Links/m = 22

Part No. structure

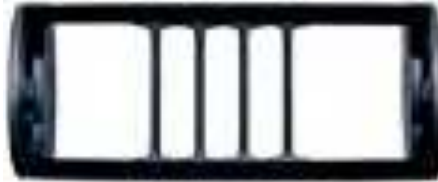
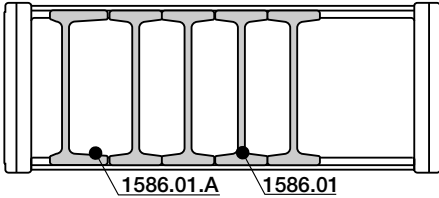


### Option 1: Vertical Separators

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

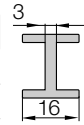
By standard Vertical Separators are assembled every other e-chain® link

- **Standard** subdivision with Vertical Separator 1586.01
- **Asymetrical Separator 1586.01.A** for side-mounted operations
- **Strain Relief Separator 1586.01.Z**, integrable in the mounting bracket, to position at any point - can be combined with **Full-Width Shelf 221.X** and **Shelf 2210.X**



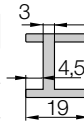
#### Vertical Separator

|             |         |
|-------------|---------|
| unassembled | 1585.01 |
| assembled   | 1586.01 |



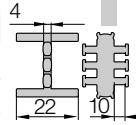
#### Asymetrical Separator

|             |           |
|-------------|-----------|
| unassembled | 1585.01.A |
| assembled   | 1586.01.A |



#### Strain Relief Separator

|             |           |
|-------------|-----------|
| unassembled | 1585.01.Z |
| assembled   | 1586.01.Z |

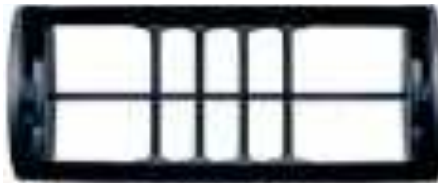
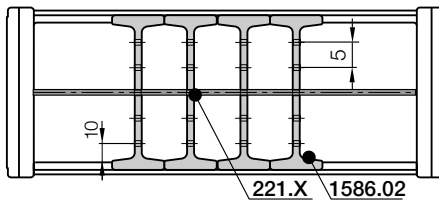


E2 e-tubes Type R  
Inner height: 40 mm

### Option 2: Full-Width Shelves

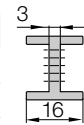
For applications involving many thin cables with similar or identical diameters

- Vertical Separator, slotted 1586.02 for applications with Full-Width Shelf 221.X



#### Vert. Separator, slotted

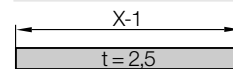
|             |         |
|-------------|---------|
| unassembled | 1585.02 |
| assembled   | 1586.02 |



| Width X [mm] | Part No. unassembled | Part No. assembled |
|--------------|----------------------|--------------------|
| 040          | 220.40               | 221.40             |
| 050          | 220.50               | 221.50             |
| 075          | 220.75               | 221.75             |
| 088          | 220.87               | 221.87             |
| 100          | 220.100              | 221.100            |

| Width X [mm] | Part No. unassembled | Part No. assembled |
|--------------|----------------------|--------------------|
| 125          | 220.125              | 221.125            |
| 135          | 220.135              | 221.135            |
| 150          | 220.150              | 221.150            |
| 175          | 220.175              | 221.175            |
| 200          | 220.200              | 221.200            |

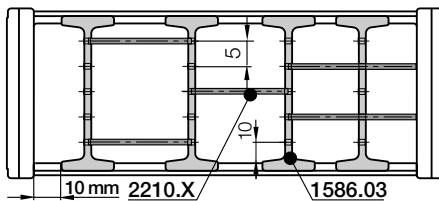
#### Full-Width Shelf



### Option 3: Shelves

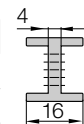
For applications involving many cables with similar or identical diameters. Partial separation into individual chambers can be achieved and the entire width  $B_i-10$  mm can be used

- Shelf 2210.X can be combined with Middle Plate 1586.03



#### Middle Plate

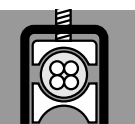
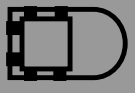
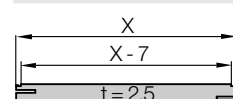
|             |         |
|-------------|---------|
| unassembled | 1585.03 |
| assembled   | 1586.03 |

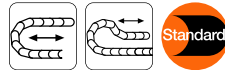


| Width X [mm] | Part No. unassembled | Part No. assembled |
|--------------|----------------------|--------------------|
| 018          | 2200.18              | 2210.18            |
| 023          | 2200.23              | 2210.23            |
| 028          | 2200.28              | 2210.28            |
| 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



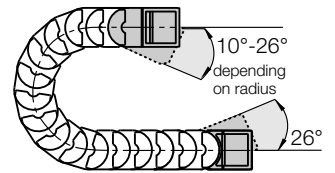


**Option KMA\* - pivoting, extended**

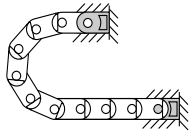
- Recommended for unsupported and gliding applications
- Extended, pivoting
- Easy to install
- Universally mountable with attachment capability on all sides
- Locked connection to e-tube
- Long travels with lowered mounting height possible

\*KMA = Polymer Metal Mounting Bracket

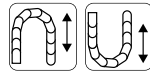
Moving end (outer link)  
15800/15801 ...1



15800/15801...2  
Fixed end (inner link)



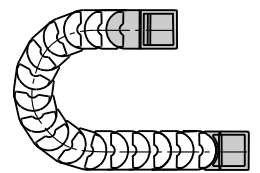
The attachment variants arising automatically by the choice of the KMA mounting bracket



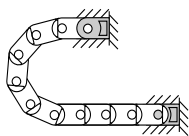
**Option KMA - locking, extended**

- Recommended for vertical hanging / standing applications
- Extended, locking
- Easy to install
- Flush mounting at both ends of the e-tube
- Universally mountable with attachment capability on all sides
- Corrosion-resistant

Moving end (outer link)  
15800/15801 ...3



15800/15801...4  
Fixed end (inner link)



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

**Dimensions and order configurations**



Quickflange upon request

**Part No. structure (pivoting)**

15800.100.12.A



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

Full set, for both ends:

15800.100.12

Single-part order:

15800.100.1

Mounting bracket with bore

15800.100.2

Mounting bracket with pin

**Part No. structure (locking)**

15800.100.34.A

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

Full set, for both ends:

15800.100.34

Single-part order:

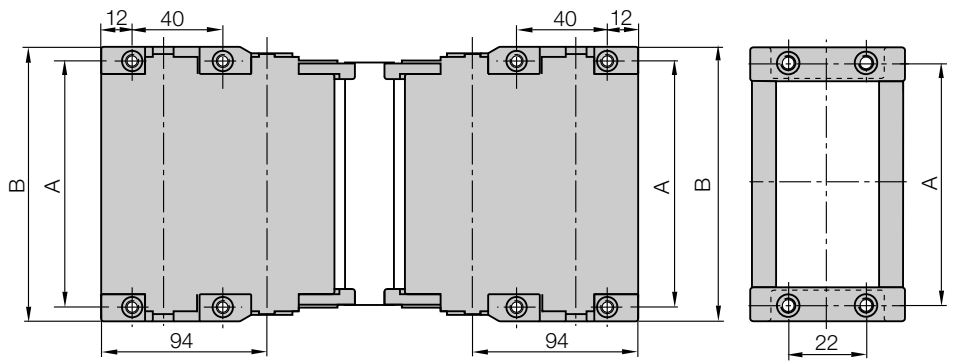
15800.100.3

Mounting bracket with bore

15800.100.4

Mounting bracket with pin

15800/15801...1 Standard! (pivoting)      Standard! (pivoting) 15800/15801...2      Quickflange available upon request  
15800/15801...3 (locking)      (locking) 15800/15801...4



| For Series  | Part No. full set | Dim. A [mm] | Dim. B [mm] |
|-------------|-------------------|-------------|-------------|
| 157-158.040 | 15801.040.        | 50          | 61          |
| 157-158.050 | 15800.050.        | 60          | 71          |
| 157-158.075 | 15800.075.        | 85          | 96          |
| 157-158.088 | 15800.088.        | 98          | 109         |
| 157-158.090 | 15801.090.        | 98          | 109         |
| 157-158.100 | 15800.100.        | 110         | 121         |
| 157-158.125 | 15800.125.        | 135         | 146         |
| 157-158.135 | 15800.135.        | 145         | 156         |
| 157-158.150 | 15800.150.        | 160         | 171         |
| 157-158.175 | 15800.175.        | 185         | 196         |
| 157-158.200 | 15800.200.        | 210         | 221         |

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

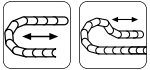
e.g. 15800.100.12 or 34 for the locking configuration e.g. 15800.100.34

For the preassembled mode please add the index A e.g. 15800.100.12 A

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





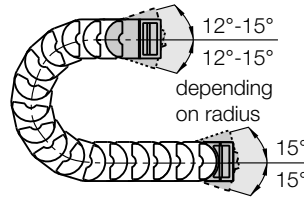
**Option KMA\* - pivoting, abbreviated**

- Recommended for unsupported and gliding applications
- Abbreviated, pivoting
- Universally mountable with attachment capability on all sides
- Locked connection to e-tube
- Corrosion-resistant
- Space-restricted
- Long travels with lowered mounting height possible

\*KMA = Polymer Metal Mounting Bracket

Moving end (outer link)

1580...1

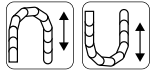
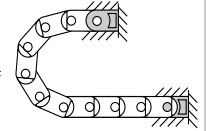


1580...2

Fixed end (inner link)



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

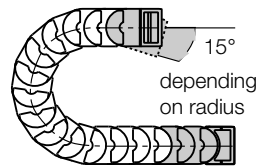


**Option KMA - locking, abbreviated**

- Recommended for vertical hanging / standing applications
- Abbreviated, locking
- Flush mounting at both ends of the e-tube
- Corrosion-resistant
- Flush mounting, turned 90° at fixed end option

Moving end (outer link)

1585...1

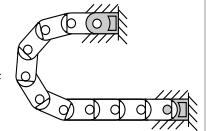


1585...2

Fixed end (inner link)



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



1580...1 (pivoting)

(pivoting) 1580...2

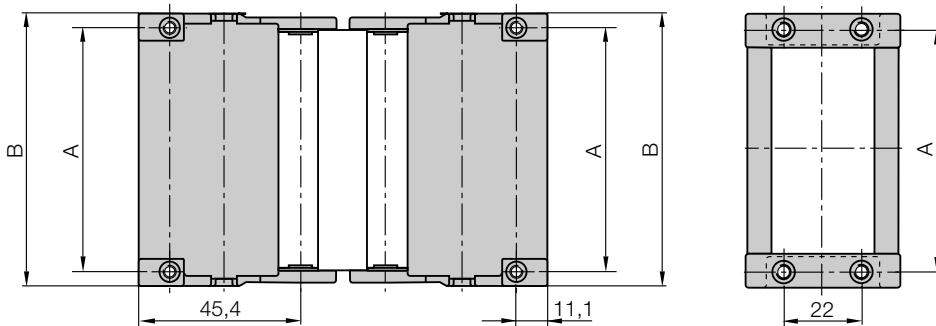
Quickflange available upon request

1585...1 (locking)

(locking) 1585...2

Moving end

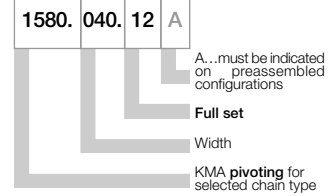
Fixed end



**Dimensions and order configurations**



**Part No. structure (pivoting)**



Full set, for both ends:

1580.040.12

Single-part order:

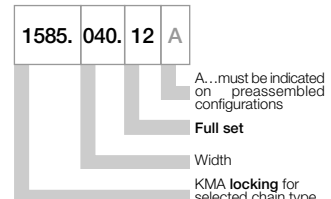
1580.040.1

Mounting bracket with bore

1580.040.2

Mounting bracket with pin

**Part No. structure (locking)**



Full set, for both ends:

1585.040.12

Single-part order:

1585.040.1

Mounting bracket with bore

1585.040.2

Mounting bracket with pin

| For Series    | Part No. full set | Dim. A [mm] | Dim. B [mm] |
|---------------|-------------------|-------------|-------------|
| 157-158.040 ▶ | .040.12           | 50          | 61          |
| 157-158.050 ▶ | .050.12           | 60          | 71          |
| 157-158.075 ▶ | .075.12           | 85          | 96          |
| 157-158.088 ▶ | .088.12           | 98          | 109         |
| 157-158.090 ▶ | .090.12           | 98          | 109         |
| 157-158.100 ▶ | .100.12           | 110         | 121         |
| 157-158.125 ▶ | .125.12           | 135         | 146         |
| 157-158.135 ▶ | .135.12           | 145         | 156         |
| 157-158.150 ▶ | .150.12           | 160         | 171         |
| 157-158.175 ▶ | .175.12           | 185         | 196         |
| 157-158.200 ▶ | .200.12           | 210         | 221         |

Please add the Part No. with the requested index - 1580 for the pivoting configuration

e.g. 1580.100.12 or 1585 for the locking configuration e.g. 1585.100.12

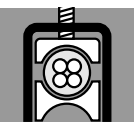
For the preassembled mode please add the index [A] e.g. 1580.100.12 [A]

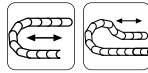
The following parts are required for attachment of the mounting brackets:

- 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



Strain relief separator for the use in the first or last chain link ▶ page 6.18

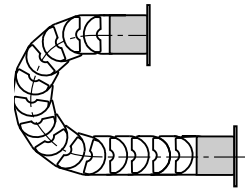




### Flange mounting brackets made of steel

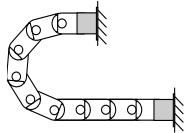
- Metallic flange brackets with popular hole patterns, easily be replaced by their modern successors, without having to alter the hole pattern
- Bolted connection outside of chain cross-section possible
- Universally mountable with attachment capability on all sides
- Steel, galvanized
- One-piece mounting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

Moving end (outer link)  
906.461.X



906.461.X

Fixed end (inner link)



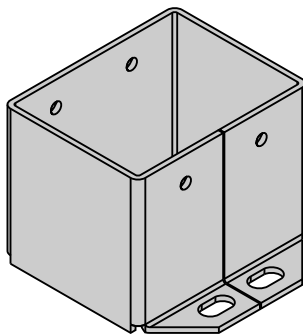
Flush mounting possibilities at both ends of the e-tube

### Dimensions and order configurations

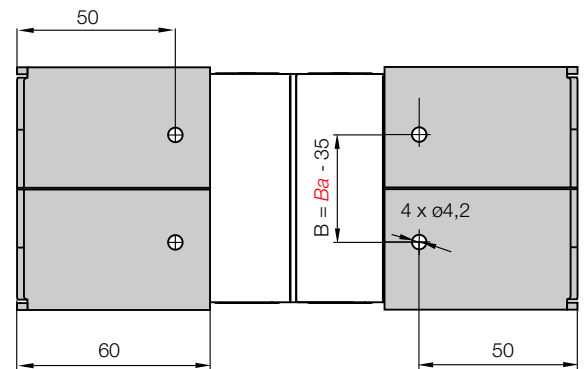
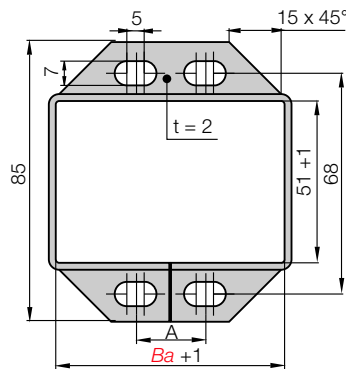
Hole patterns flange steel mounting brackets 906.461.X

906.461.X  
Moving end

906.461.X  
Fixed end



Principle sketch flange steel mounting brackets



Mounting only with hexagon socket DIN 912 M6 and washer DIN 125, 6,3 mm

| For Series  | Hole pattern | Part No. full set | Bi [mm] | Ba [mm] | Dim. A [mm] | Dim. B [mm] |
|-------------|--------------|-------------------|---------|---------|-------------|-------------|
| 157-158.050 | ▶ 58.05      | 906.461.1         | 50      | 66      | 20          | 31          |
| 157-158.075 | ▶ 58.1       | 906.461.2         | 75      | 91      | 30          | 57          |

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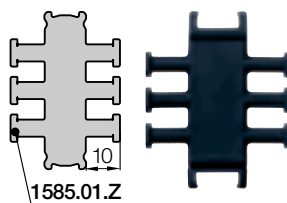
igus® GmbH  
51147 Cologne

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

## R100 | Series R157·R158 | Accessories | Strain Relief

### Strain relief separator

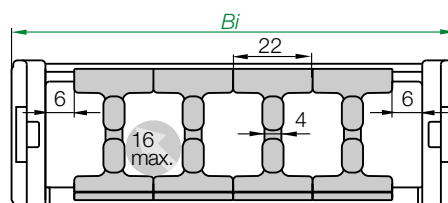
Separator with integrated strain relief, for use in the first or last chain link. For manufacturing of switchgear cabinets or for the assembly of machines. Easy to assemble without any fastening device. Separator base 1585.01.Z is 22 mm wide. The possible number of separators per e-chain® is defined by its inner width  $B_i$  and by the cable-diameter. **Details ▶ chapter 10**



| Part No.  | Number of teeth | For Series      |
|-----------|-----------------|-----------------|
| 1585.01.Z | 3 both sides    | R157/158 e-tube |



Other strain relief elements  
▶ chapter 10



**Strain Relief Separator** - The number of separators is depending on the cables and the available inner space. Example: e-chain® inner width  $B_i$  100 mm: 4 Strain Relief Separator, max. cable diameter 16 mm.

**Details ▶ chapter 10**



E2 e-tubes Type R  
Inner height: 40 mm



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▶ chapter 10

igus® e-tubes Series R100  
in a medical application



▶ page 6.5