

E3 

High dynamics and cleanroom compatible



Advantages of the E3 system:

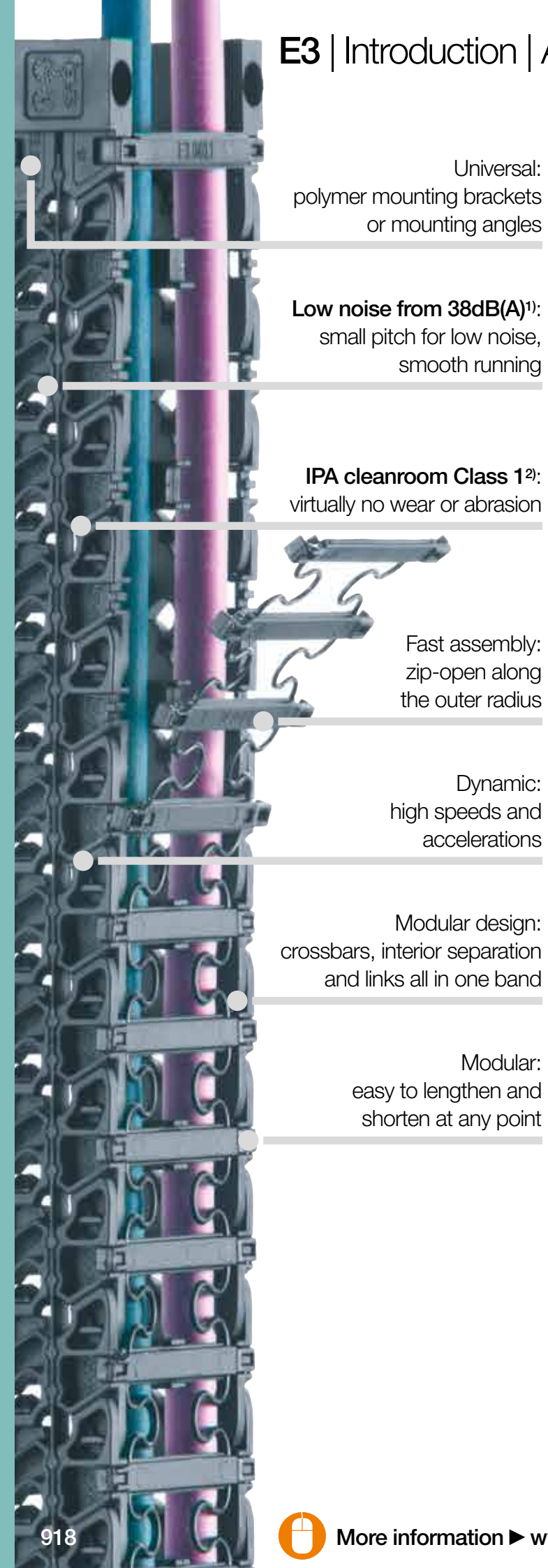
- For high speeds and accelerations
- For extremely fast opening and closing
- **Low noise 38dB(A)¹⁾**- small pitch for low noise, smooth running
- **IPA cleanroom Class 1²⁾**- virtually no wear or abrasion

1) Extremely low-noise - tested at the igus® lab 2) Cleanroom - Series E3.15.040.075.0



When to use another e-chain® series:

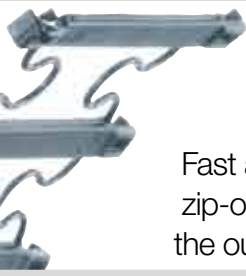
- When a larger e-chain® with IPA cleanroom Class 1 is required
 - ▶ **E6.1, page 832**
- When longer unsupported lengths are required
 - ▶ **E6.1, page 832**
- When an enclosed e-chain® is required
 - ▶ **e-skin® corrugated tube SKS20, page 812**



Universal:
polymer mounting brackets
or mounting angles

Low noise from 38dB(A)¹⁾:
small pitch for low noise,
smooth running

IPA cleanroom Class 1²⁾:
virtually no wear or abrasion



Fast assembly:
zip-open along
the outer radius

Dynamic:
high speeds and
accelerations

Modular design:
crossbars, interior separation
and links all in one band

Modular:
easy to lengthen and
shorten at any point

High dynamics and cleanroom compatible - System E3

E3 combines small pitch, smooth running, low noise, stability, easy assembly and low cost. The spring connector element replaces the pin and bore and avoids relative movement between the joints. This means virtually no wear or abrasion (cleanroom). To reduce production and assembly costs, the spring connector is on a segment of ten e-chain® links.


1) Extremely low-noise - tested at the igus® lab 2) Cleanroom - Series E3.15.040.075.0

Typical industries and applications

- Semi-conductor manufacturing and handling
- Pick and place robots
- Optics
- Material handling technology
- Measuring technology
- Printers and plotters
- Cleanroom environments
- General mechanical engineering



IPA Qualification Certificate²⁾ - Report IG 0704-400:
ISO Class 1, according to DIN EN ISO 14644-1 for system
E3, series E3.15.040.075 at v = 0.5m/s, 1.0m/s, 2.0m/s

 38dB(A)¹⁾ - level determined at the igus® test-lab acc. to DIN 45635, with consideration of background noises, E3.22.060.044.0 at v = 1.8m/s




| Series | Inner height <i>hi</i> [mm] | Inner width <i>Bi</i> [mm] | Outer width <i>Ba</i> [mm] | Outer height <i>ha</i> [mm] | Bend radius <i>R</i> [mm] | Unsupported length ≤ [m] | Page |
|--------|--------------------------------|-------------------------------|-------------------------------|--------------------------------|------------------------------|--------------------------|------|
|--------|--------------------------------|-------------------------------|-------------------------------|--------------------------------|------------------------------|--------------------------|------|



System E3 -
3-piece e-chains®
crossbars on a strip -
zip-open along the outer radius

| | | | | | | | |
|-------|----|---------|---------|----|---------|--------|-----|
| E3.10 | 10 | 20 - 60 | 32 - 72 | 15 | 15 - 48 | ≈ 0.70 | 922 |
| E3.15 | 15 | 20 - 60 | 32 - 72 | 20 | 32 - 75 | ≈ 0.90 | 926 |
| E3.22 | 22 | 20 - 60 | 32 - 72 | 27 | 44 - 75 | ≈ 1.20 | 930 |





 Available from stock. Ready to ship in 72hrs.*
*Average time before the ordered goods are dispatched.

 Further information about igus® cleanroom e-chains® and the new, unique igus® cleanroom laboratory for IPA cleanroom Class 1 components ► From page 144

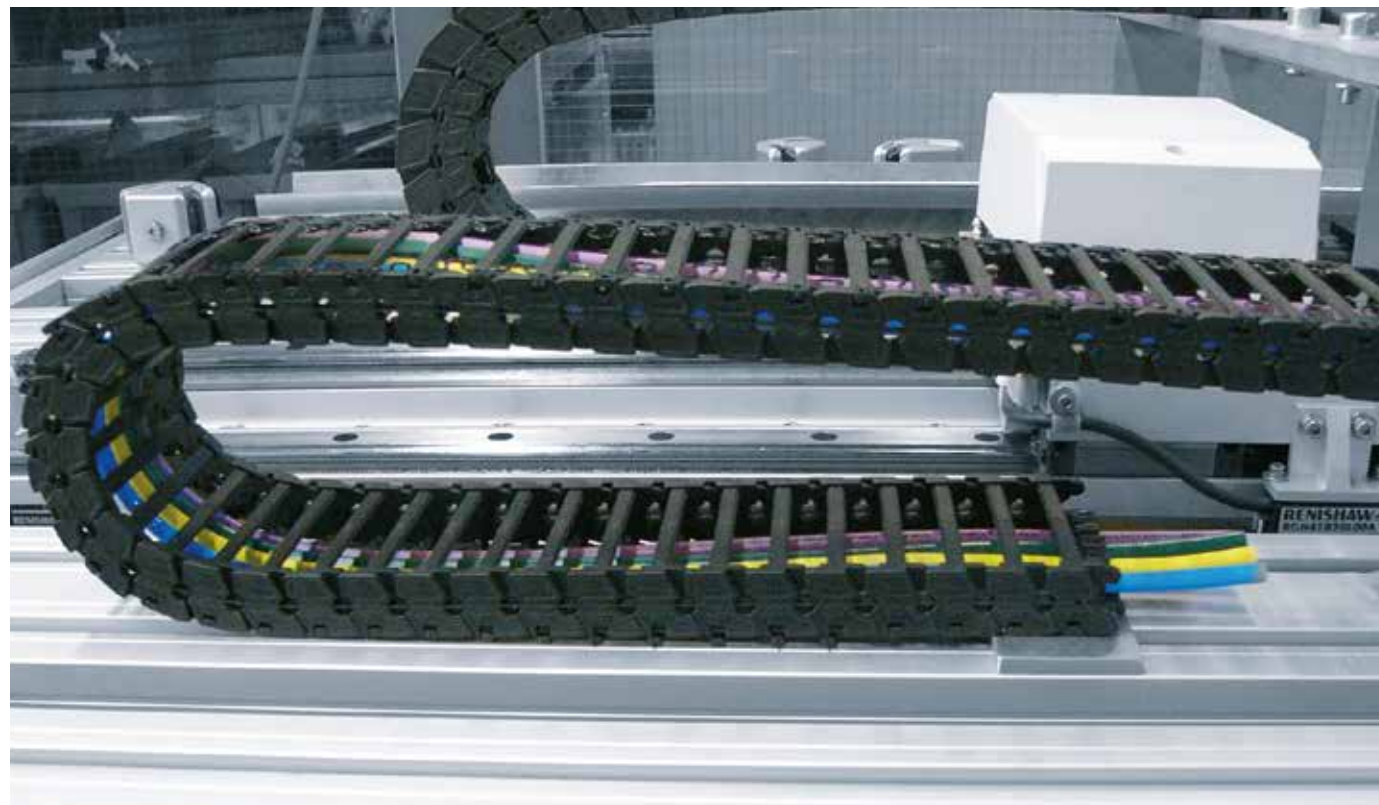


Long-term tests in our acoustics laboratory at a speed of 1.8m/s and an acceleration of 3m/s² showed reductions of 19-20dB(A) compared to conventional e-chains®

Technical data






| | | |
|--|--|--|
|  | Speed FL_G / acceleration FL_G | ≤ 20 [m/s] / ≤ 200 [m/s ²] |
|  | Speed FL_B / acceleration FL_B | ≤ 3 [m/s] / ≤ 6 [m/s ²] |
|  | igumid G material - permitted temperature °C | upon request |
|  | Flammability class | VDE 0304 IIC UL94-HB |

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




1,125 chainflex® cables are certified according to IPA ISO Class 1 or Class 2. chainflex® cables with tested outer jacket material are available from stock

Options with order keys | Examples based on series E3.10

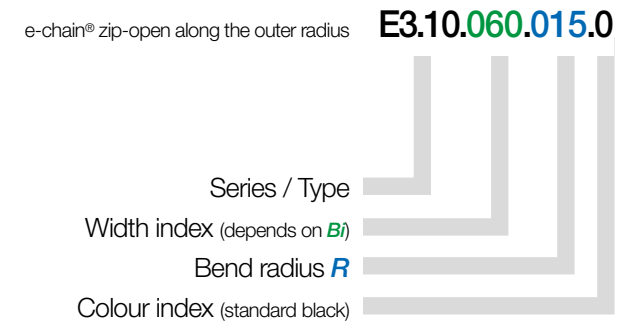
| | |
|---|---|
|  <i>Standard</i> | <i>NC version - (No Camber) without pretension</i> |
| Part No. Standard | Part No. NC version |
|  |  |
|  E3.10.060.R.0 | E3.10.060.R.0.NC |
|  Ready to ship in 72hrs.* | Ready to ship in 12 business days* |
| *Average time before the ordered goods are dispatched. | |

Order example | Order key and colour examples | Examples based on series E3.10








 **Order example for complete e-chain® (1.0m), colour black, with mounting brackets and interior separation:**

| | | |
|---------------------|--|------------------------|
| e-chain® (1.0m) | Please indicate e-chain® length or number of links: 1.0m or 60 links | E3.10.060.015.0 |
| + Mounting angle | 1 set (with tiwrap plates) | E3.100.060.12 |
| Interior separation | with 2 separators assembled every 2 nd link | 2 x E3.10.11 |
| Order text: | 1m E3.10.060.015.0 + E3.100.060.12 + 2 x E3.10.11 | |

 **Order key**



Order index for colour options

| Colour | Order index | Colour | Order index |
|--|--------------------|---|--------------------|
|  Black | Standard .0 |  Orange | Special colour .2 |
|  Silver-grey | Special colour .31 |  Yellow | Special colour .4 |
|  White | Special colour .1 |  Light grey | Special colour .14 |
|  Grey-white | Special colour .1S | | |

Black e-chains® ready to ship in 72hrs.*
Above special colours upon request.

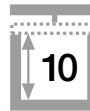


Image with plastic mounting bracket

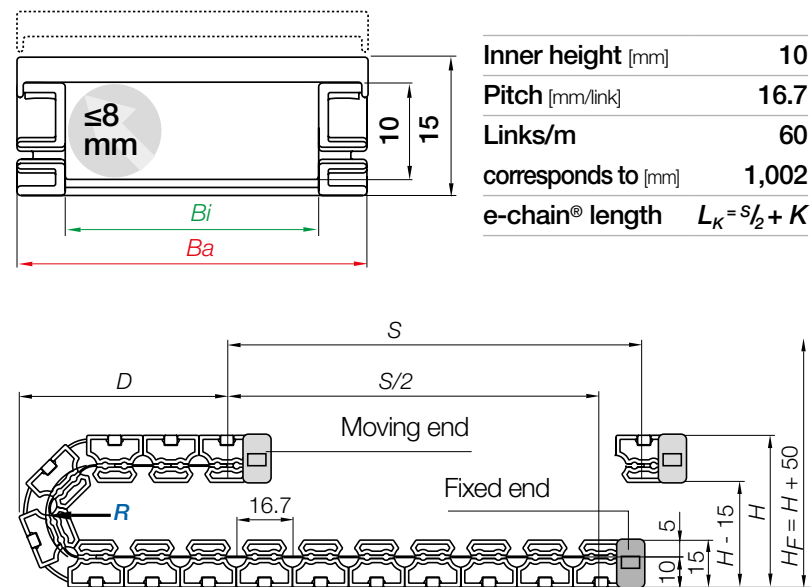
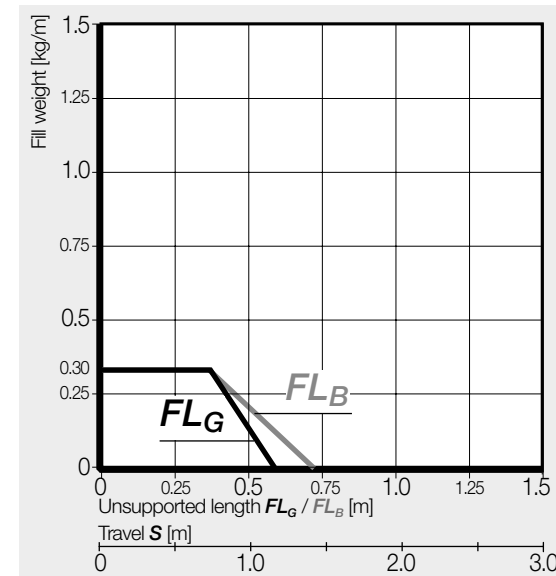
e-chains® | Series E3.10 | Crossbars on a strip - zip-open along the outer radius

| Part No. | Bi | Ba | R Available bend radii | E3.10 |
|----------------|------|------|------------------------|--------|
| e-chains® | [mm] | [mm] | [mm] | [kg/m] |
| E3.10.020 .R.0 | 20 | 32 | 015 028 038* 048* | ≈ 0.12 |
| E3.10.040 .R.0 | 40 | 52 | 015 028* 038 048 | ≈ 0.15 |
| E3.10.060 .R.0 | 60 | 72 | 015 028* 038 048* | ≈ 0.20 |

*Radius available upon request. Please consult igus® for delivery time.

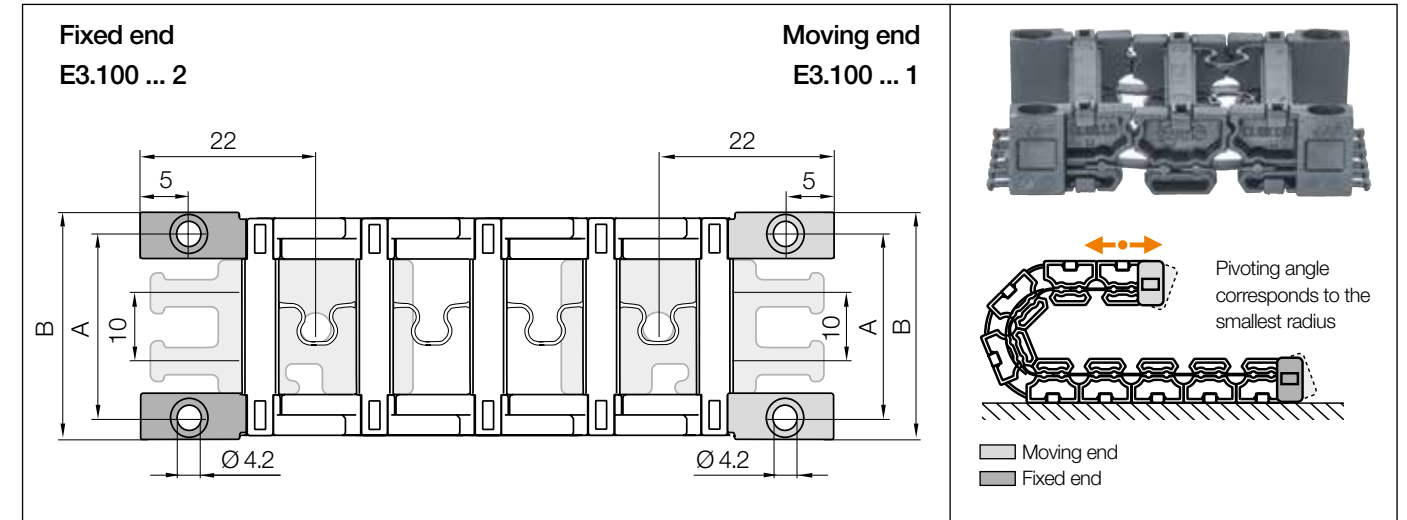
Complete Part No. with required radius (R). Example: E3.10.060.015.0

Installation dimensions



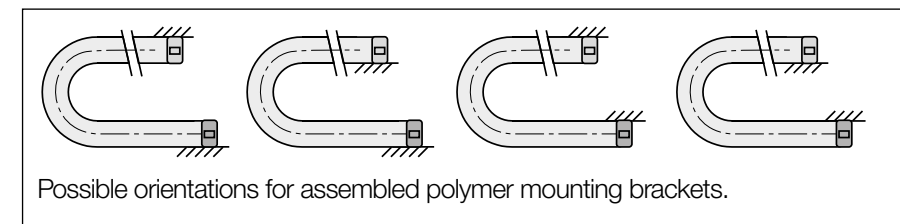
| R | 015 | 028 | 038 | 048 |
|---|-----|-----|-----|-----|
| H | 60 | 86 | 106 | 126 |
| D | 50 | 63 | 73 | 83 |
| K | 85 | 125 | 155 | 185 |

The required clearance height: $H_F = H + 50\text{mm}$ (with 0.1kg/m fill weight)

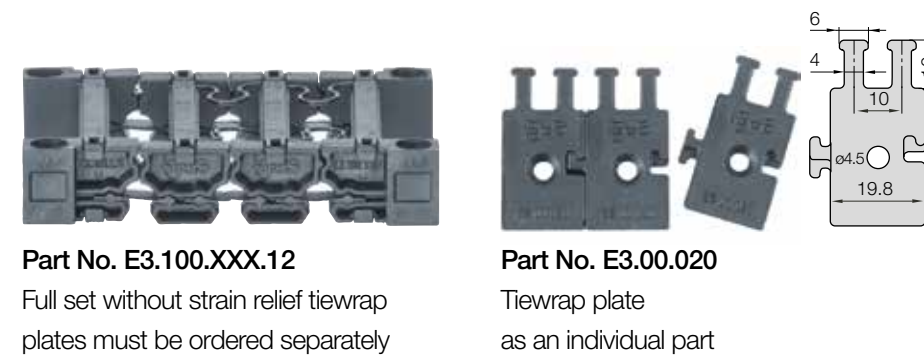
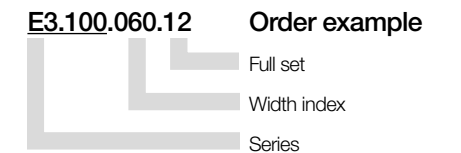


| Width index | Part No. full set without tiewrap plates | A [mm] | B [mm] | Part No. strain relief at both ends* |
|-------------|--|--------|--------|--------------------------------------|
| 020. | E3.100.020.12 | 28 | 36 | E3.020.12 |
| 040. | E3.100.040.12 | 48 | 56 | E3.040.12 |
| 060. | E3.100.060.12 | 68 | 76 | E3.060.12 |

*Tiewrap plates must be ordered separately.

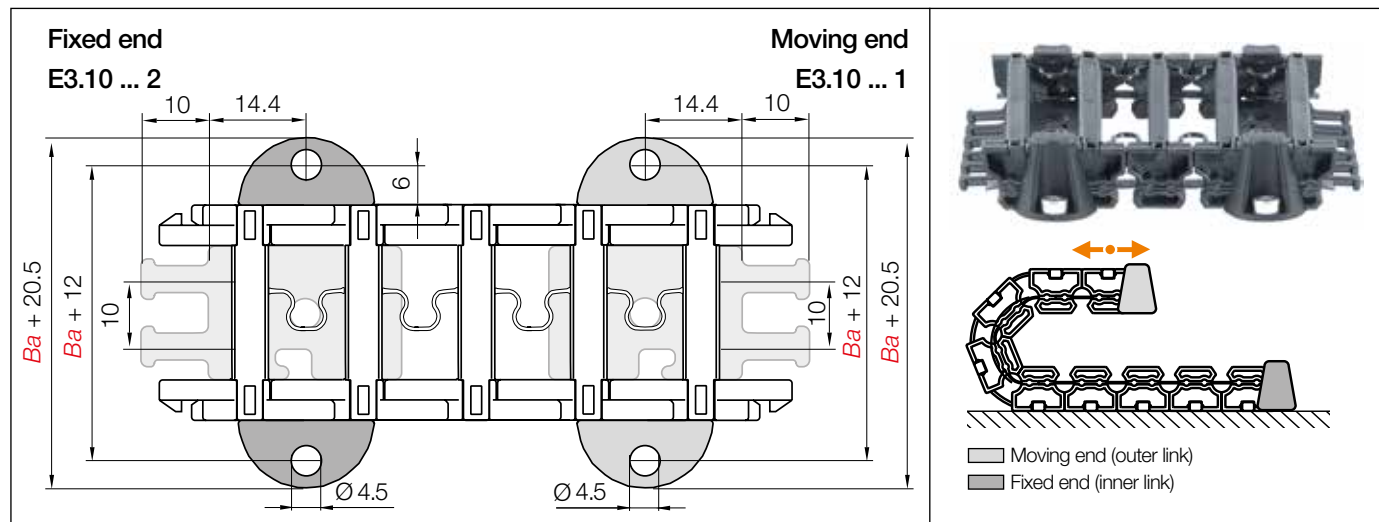


Possible orientations for assembled polymer mounting brackets.



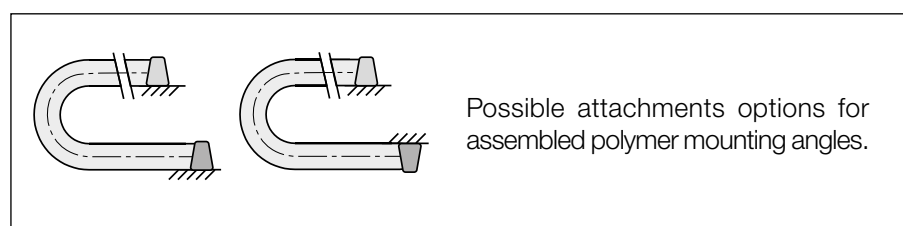
Part No. E3.100.XXX.12
Full set without strain relief tiewrap plates must be ordered separately

Part No. E3.00.020
Tiewrap plate as an individual part

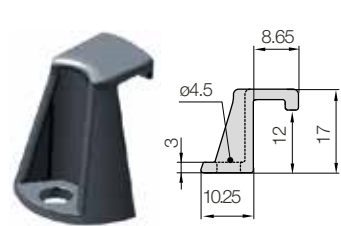


| Width index | Part No. full set Strain relief at both ends + 4 mounting angles* | Part No. Mounting angle* (single part) | Part No. Strain relief at both ends | Ba [mm] |
|-------------|---|---|--|---------|
| 020. | ▶ E3.10.020.12 | E3.10.00 | E3.020.12 | 32 |
| 040. | ▶ E3.10.040.12 | E3.10.00 | E3.040.12 | 52 |
| 060. | ▶ E3.10.060.12 | E3.10.00 | E3.060.12 | 72 |

***Note:** If the mounting brackets are used, two links each end must be added to the calculated e-chain® length, because the first two links are fixed by the mounting brackets.



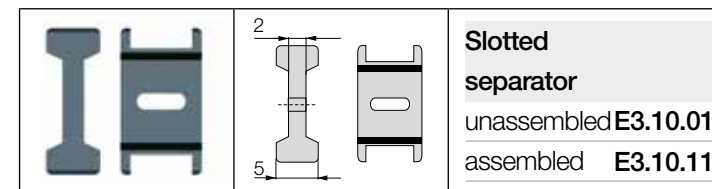
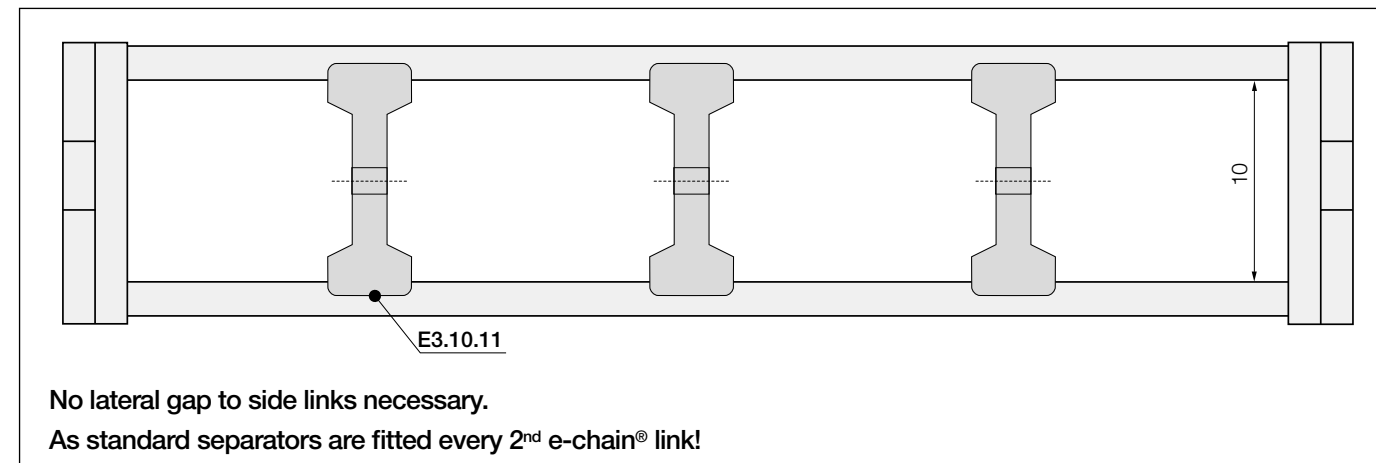
Part No. E3.10.XXX.12
Full set with strain relief at both ends
2 tiwrap plates + 4 mounting angles



Part No. E3.10.00
Mounting angle
as an individual part



Part No. E3.00.020
Tiwrap plate
as an individual part



Slotted separator
Separators can be arranged at any position in the chain cross section to divide the interior of the e-chain®.



E3 e-chains® in optional white colour; ideal for cleanroom and medical applications, available upon request

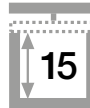


Image with plastic mounting bracket

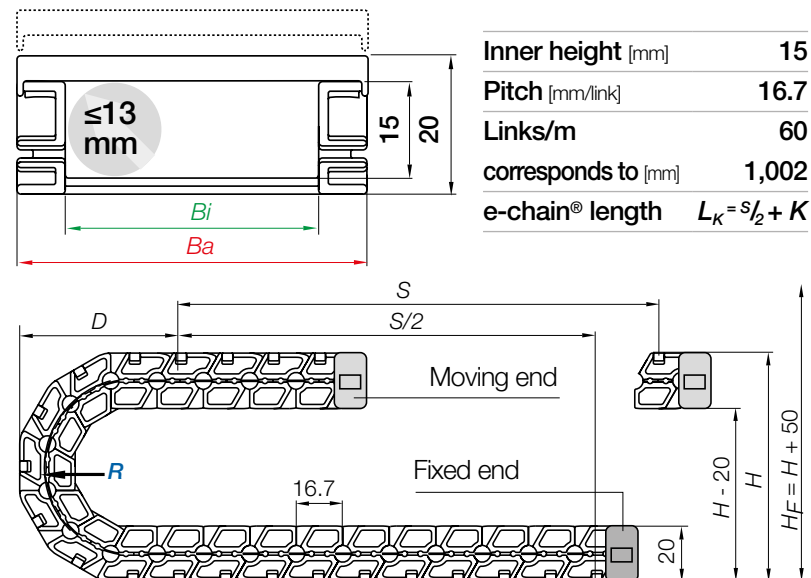
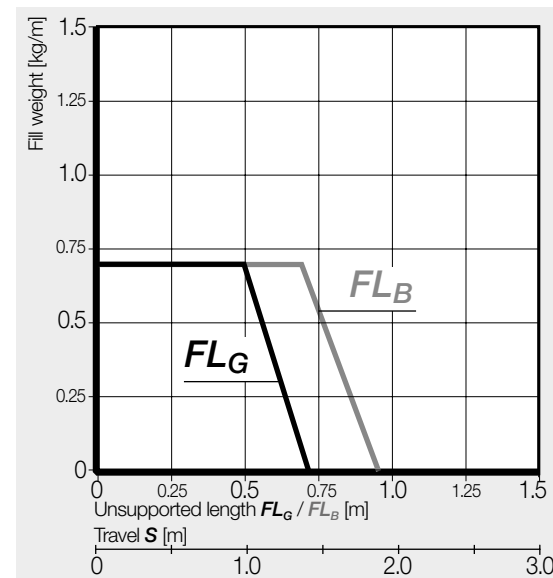
e-chains® | Series E3.15 | Crossbars on a strip - zip-open along the outer radius

| Part No. | Bi | Ba | R Available bend radii | | | | E3.15 |
|----------------|------|------|------------------------|------|------|------|--------|
| e-chains® | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [kg/m] |
| E3.15.020 .R.0 | 20 | 32 | 032 | - | 048* | - | ≈ 0.22 |
| E3.15.040 .R.0 | 40 | 52 | 032 | 038 | 048 | 075 | ≈ 0.25 |
| E3.15.060 .R.0 | 60 | 72 | 032 | 038 | 048 | 075 | ≈ 0.32 |

*Radius available upon request. Please consult igus® for delivery time.

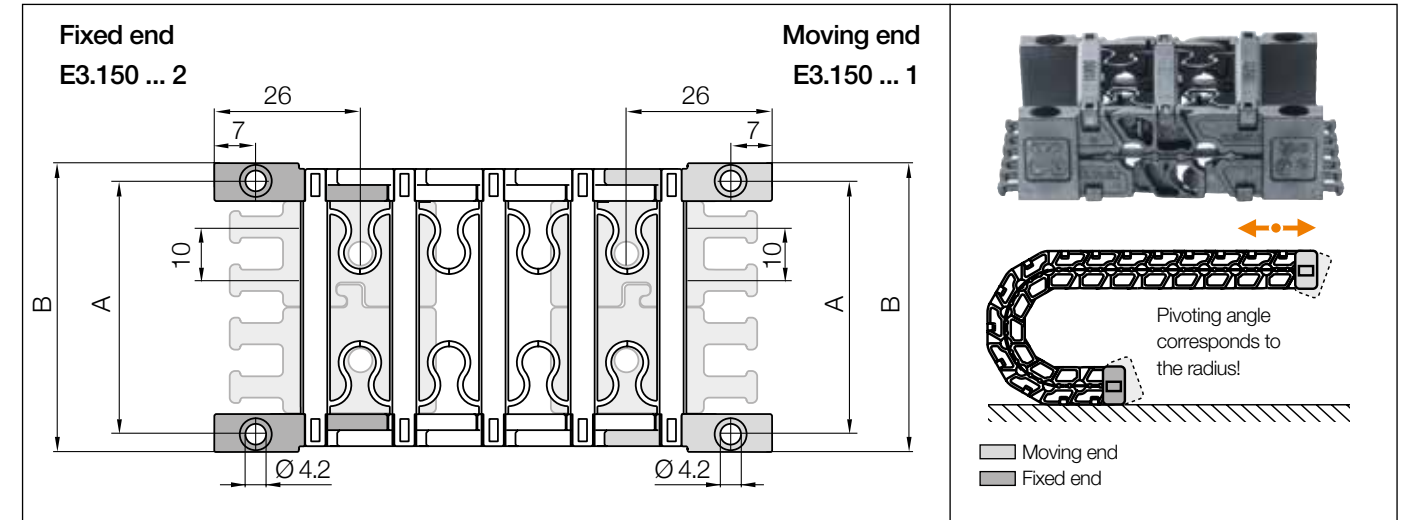
Complete Part No. with required radius (R). Example: E3.15.060.032.0

Installation dimensions

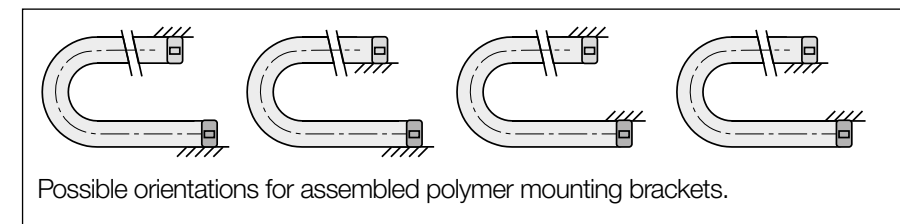


| R | 032 | 038 | 048 | 075 |
|---|-----|-----|-----|-----|
| H | 99 | 111 | 131 | 185 |
| D | 67 | 73 | 83 | 110 |
| K | 135 | 155 | 185 | 270 |

The required clearance height: $H_F = H + 50\text{mm}$ (with 0.2kg/m fill weight)

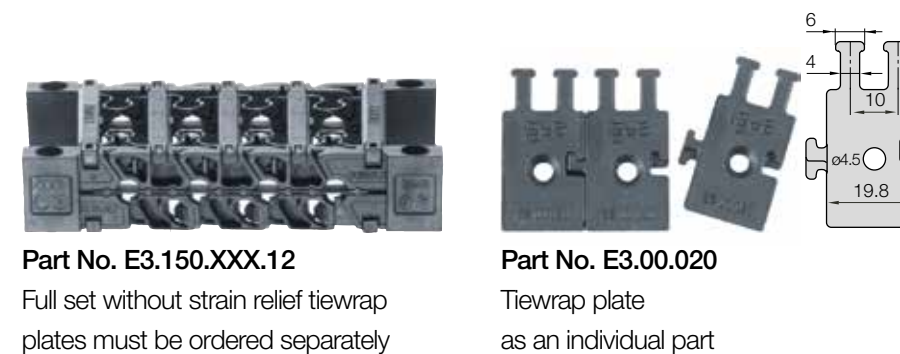


| Width index | Part No. full set without tiewrap plates | A [mm] | B [mm] | Part No. strain relief at both ends |
|-------------|--|--------|--------|-------------------------------------|
| 020. | E3.150.020.12 | 28 | 36 | E3.020.12 |
| 040. | E3.150.040.12 | 48 | 56 | E3.040.12 |
| 060. | E3.150.060.12 | 68 | 76 | E3.060.12 |



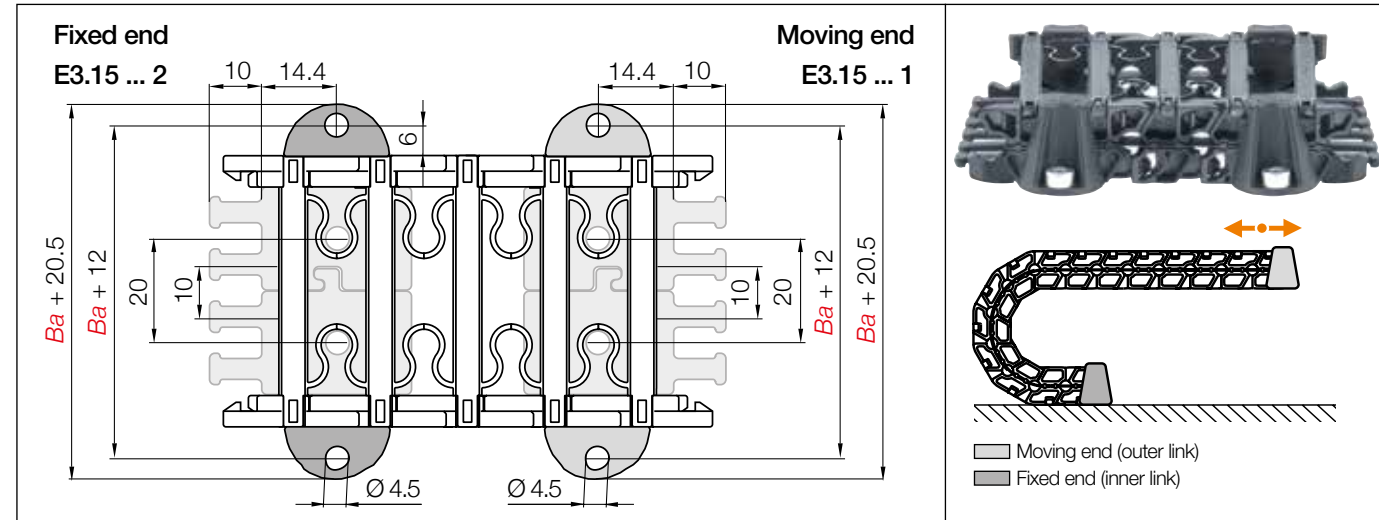
E3.150.060.12 Order example

- Full set
- Width index
- Series



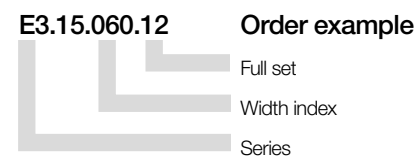
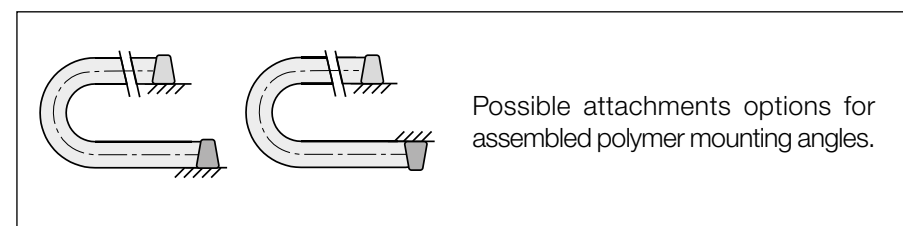
Part No. E3.150.XXX.12
Full set without strain relief tiewrap plates must be ordered separately

Part No. E3.00.020
Tiewrap plate as an individual part



| Width index | Part No. full set Strain relief at both ends + 4 mounting angles* | Part No. Mounting angle* (single part) | Part No. Strain relief at both ends | Ba [mm] |
|-------------|---|---|--|---------|
| 020. | ▶ E3.15.020.12 | E3.15.00 | E3.020.12 | 32 |
| 040. | ▶ E3.15.040.12 | E3.15.00 | E3.040.12 | 52 |
| 060. | ▶ E3.15.060.12 | E3.15.00 | E3.060.12 | 72 |

***Note:** If the mounting brackets are used, two links each end must be added to the calculated e-chain® length, because the first two links are fixed by the mounting brackets.



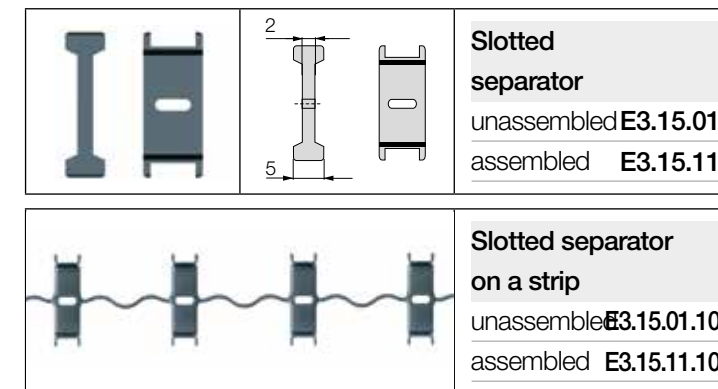
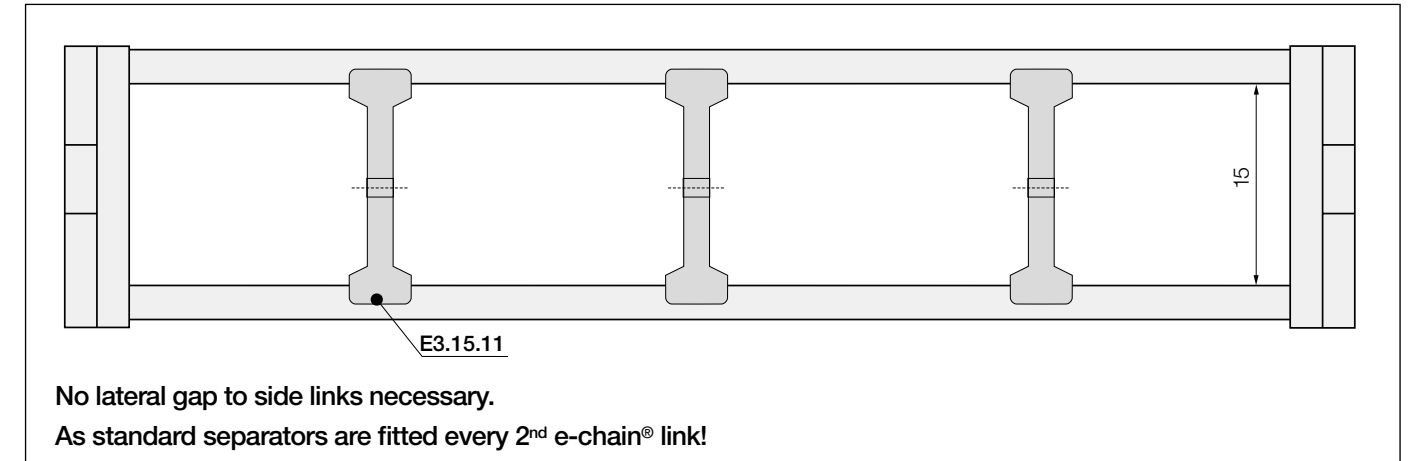
Part No. E3.15.XXX.12
Full set with strain relief at both ends
2 tiwrap plates + 4 mounting angles



Part No. E3.15.00
Mounting angle
as an individual part



Part No. E3.00.020
Tiwrap plate
as an individual part



Slotted separator
Separators can be arranged at any position in the chain cross section to divide the interior of the e-chain®.

Slotted separator on a strip
Five vertical separators altogether on one strip over ten e-chain® links are mounted on the openable crossbars. In this way separate chambers are formed, protecting the cables. Dimensions same as E3.15.01.



igus® E3 system, ideal for very small installation spaces as well as very low-noise operation

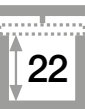


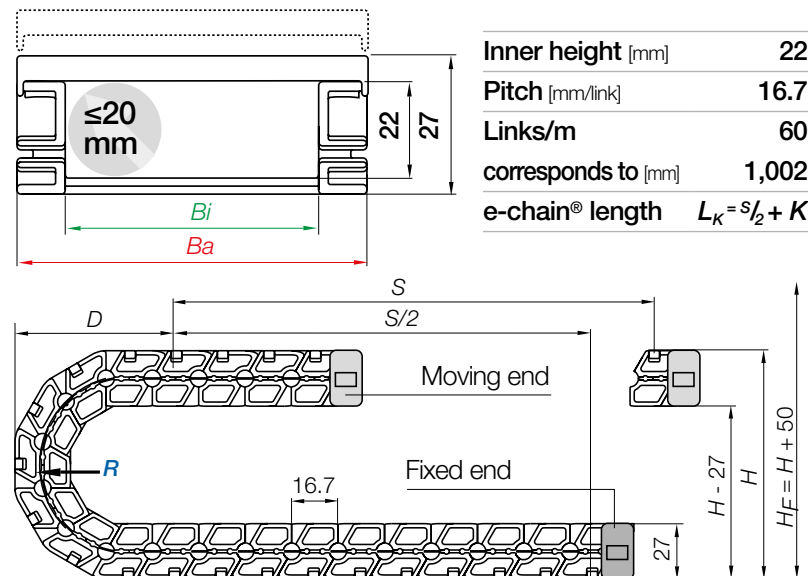
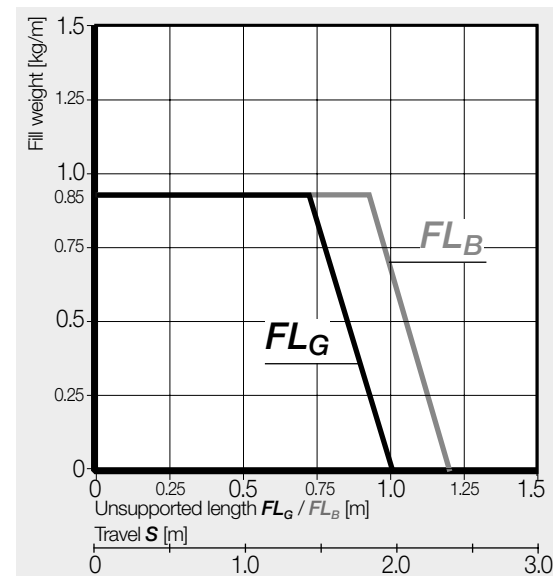
Image with plastic mounting bracket

e-chains® | Series E3.22 | Crossbars on a strip - zip-open along the outer radius

| Part No. | Bi | Ba | R Available bend radii | E3.22 |
|----------------|------|------|------------------------|--------|
| e-chains® | [mm] | [mm] | [mm] | [kg/m] |
| E3.22.020 .R.0 | 20 | 32 | 044 050 075 | ≈ 0.30 |
| E3.22.040 .R.0 | 40 | 52 | 044 050 075 | ≈ 0.32 |
| E3.22.060 .R.0 | 60 | 72 | 044 - 075 | ≈ 0.41 |

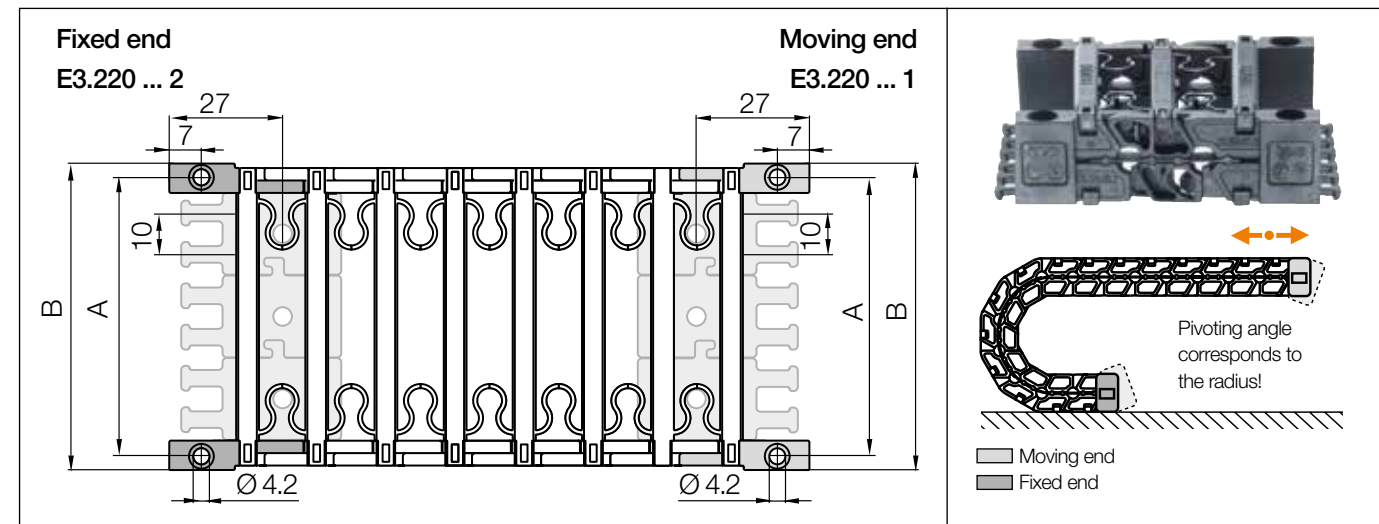
Complete Part No. with required radius (R). Example: E3.22.060.044.0

Installation dimensions

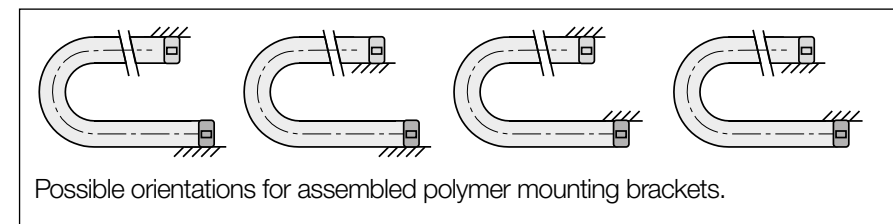


| R | 044 | 050 | 075 |
|---|-----|-----|-----|
| H | 134 | 146 | 196 |
| D | 82 | 88 | 113 |
| K | 175 | 195 | 270 |

The required clearance height: $H_F = H + 50\text{mm}$ (with 0.3kg/m fill weight)



| Width index | Part No. full set without tiewrap plates | A [mm] | B [mm] | Part No. strain relief at both ends |
|-------------|--|--------|--------|-------------------------------------|
| 020. | E3.220.020.12 | 28 | 36 | E3.020.12 |
| 040. | E3.220.040.12 | 48 | 56 | E3.040.12 |
| 060. | E3.220.060.12 | 68 | 76 | E3.060.12 |



Possible orientations for assembled polymer mounting brackets.

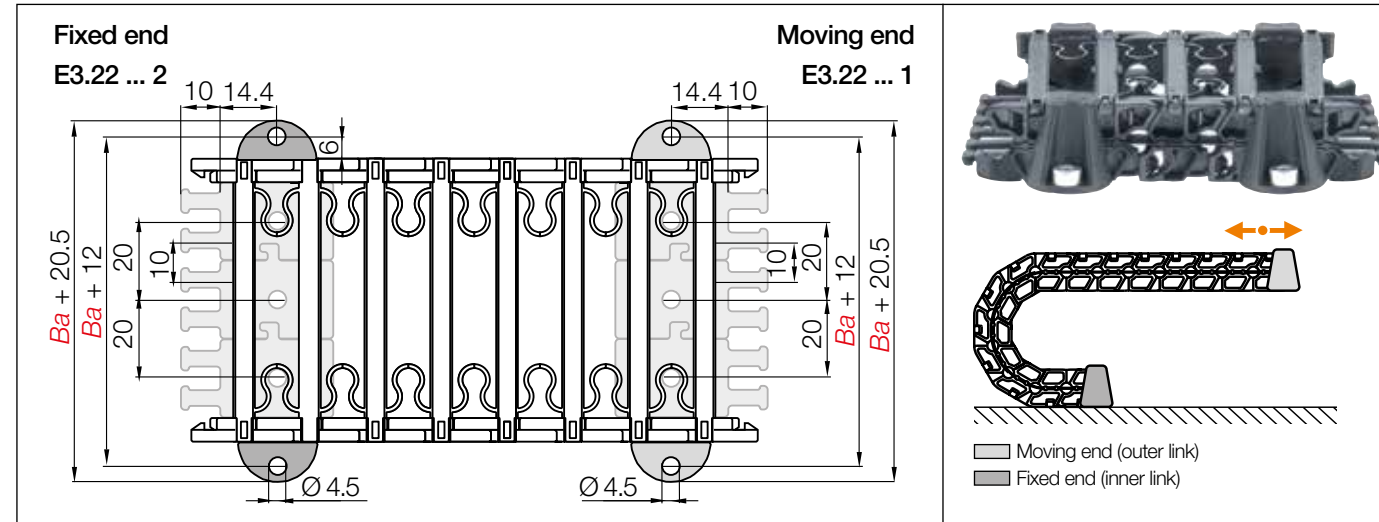
E3.220.060.12 Order example

- Full set
- Width index
- Series



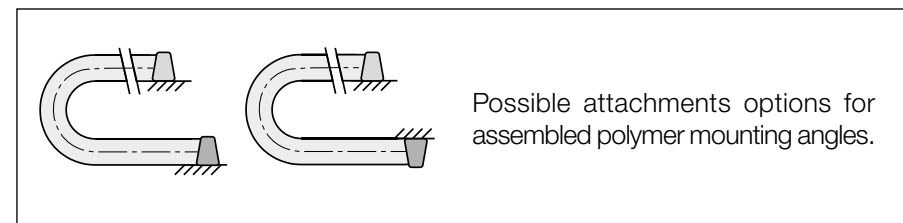
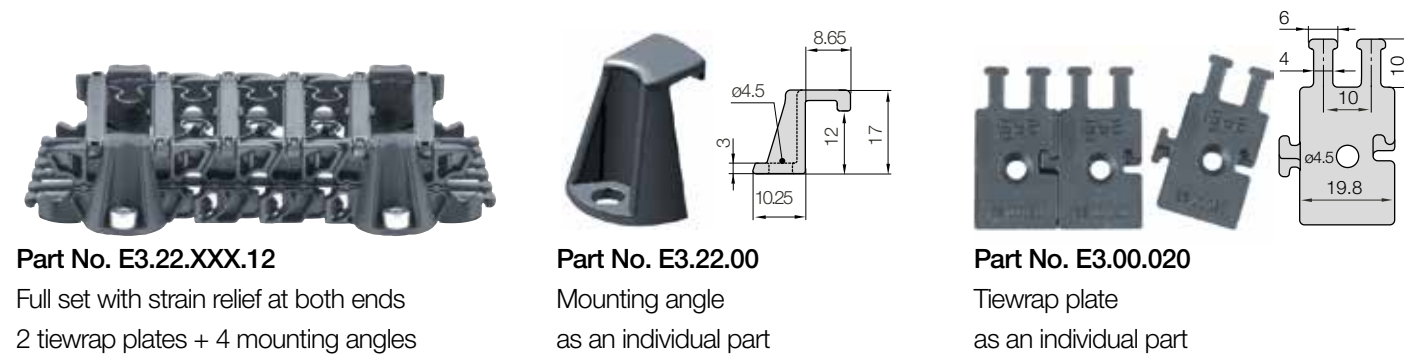
Part No. E3.220.XXX.12
Full set without strain relief tiewrap plates must be ordered separately

Part No. E3.00.020
Tiewrap plate as an individual part

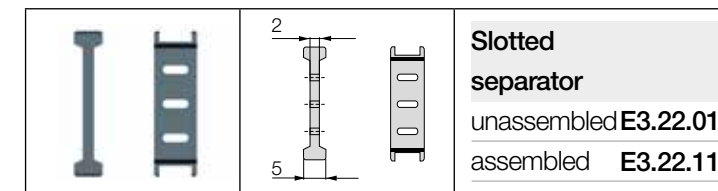
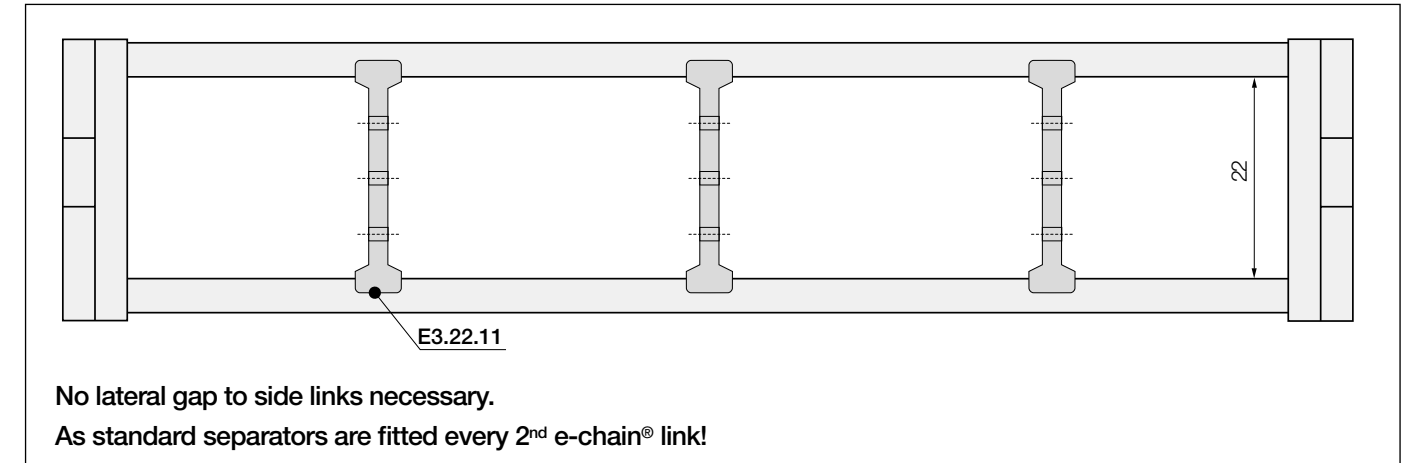


| Width index | Part No. full set Strain relief at both ends + 4 mounting angles* | Part No. Mounting angle* (single part) | Part No. Strain relief at both ends | Ba [mm] |
|-------------|---|---|--|---------|
| 020. | ▶ E3.22.020.12 | E3.22.00 | E3.020.12 | 32 |
| 040. | ▶ E3.22.040.12 | E3.22.00 | E3.040.12 | 52 |
| 060. | ▶ E3.22.060.12 | E3.22.00 | E3.060.12 | 72 |

***Note:** If the mounting brackets are used, two links each end must be added to the calculated e-chain® length, because the first two links are fixed by the mounting brackets.



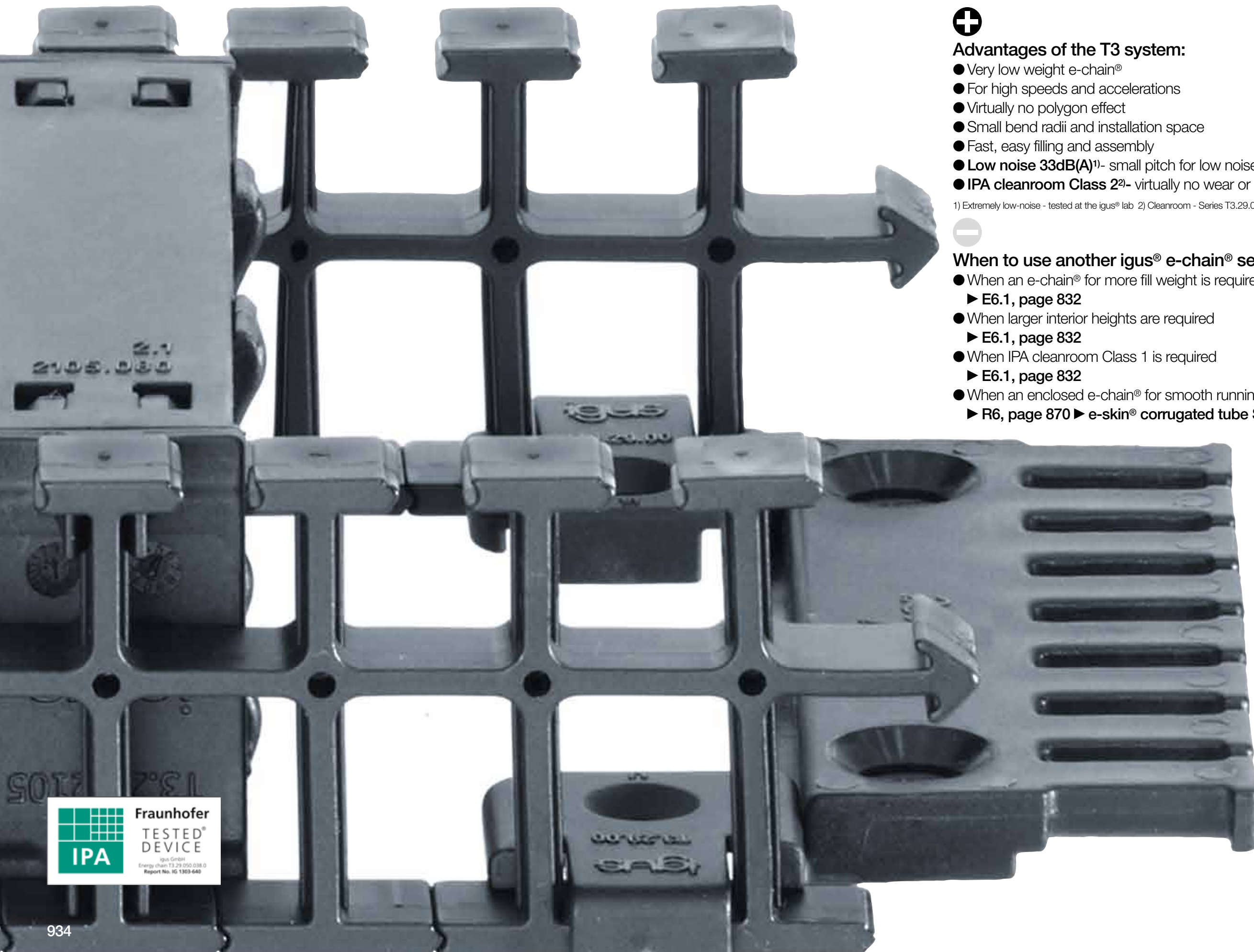
E3.22.060.12 Order example
 Full set
 Width index
 Series



Slotted separator
 Separators can be arranged at any position in the chain cross section to divide the interior of the e-chain®.



igus® series E3.15 side mounted as a low-abrasion guide for cables in a scanner system



T3 Light, highly flexible and low-vibration

clean-room



Advantages of the T3 system:

- Very low weight e-chain®
- For high speeds and accelerations
- Virtually no polygon effect
- Small bend radii and installation space
- Fast, easy filling and assembly
- **Low noise 33dB(A)¹⁾**- small pitch for low noise, smooth running
- **IPA cleanroom Class 2²⁾**- virtually no wear or abrasion

1) Extremely low-noise - tested at the igus® lab 2) Cleanroom - Series T3.29.050.038.0



When to use another igus® e-chain® series:

- When an e-chain® for more fill weight is required
 - ▶ E6.1, page 832
- When larger interior heights are required
 - ▶ E6.1, page 832
- When IPA cleanroom Class 1 is required
 - ▶ E6.1, page 832
- When an enclosed e-chain® for smooth running is required
 - ▶ R6, page 870 ▶ e-skin® corrugated tube SK / SKS / SKY, page 812



Universal:
mounting plates and
strain relief option

Low noise 33dB(A)¹⁾:
small pitch for low noise,
smooth running

Modular design:
t-band in one
segment of 8 links

Modular:
easy to lengthen and
shorten at any point

Easy to use:
clip-on interior
separation clips

IPA cleanroom Class 2²⁾:
virtually no wear or abrasion

Dynamic:
high speeds and
accelerations

Efficient:
lightweight

Smooth running "T-band", quiet, cost-effective T3 system

The T3 system combines low noise operation, simple assembly and economy. The side bands, which snap together, replace a conventional pin and bore connection and prevent relative movements between the joints giving extremely low wear. This means virtually no wear or abrasion (cleanroom). The geometrical shape of the t-band, means that hardly any polygon effect is generated in operation. The t-band therefore rolls in a very smooth arc, giving extremely low vibration and noise. In order to reduce the manufacturing and installation costs, the t-band is made in a segment of 8 links. Due to its low mass, the igus® t-band, is suitable for applications with low fill weights and short strokes, combined with high speeds and accelerations.

1) Extremely low-noise - tested at the igus® lab 2) Cleanroom - Series T3.29.050.038.0

Typical industries and applications

- Printer and plotter ● Cleanroom applications ● Production and processing of semiconductors ● Optics ● Pick and place machines ● Measuring technology



IPA Qualification Certificate²⁾ - Report IG 1303-640-1:
ISO Class 2, according to DIN EN ISO 14644-1 for system T3, series T3.29.050.038 at v = 0.5m/s, 1.0m/s, 2.0m/s

igus® tests at 1m measuring distance:
= 33dB(A)¹⁾ for T3.29.050.038.0 at v = 1m/s and 26.5dB(A) basic sound level

| Series | Inner height <i>hi</i> [mm] | Inner width <i>Bi</i> [mm] | Outer width <i>Ba</i> [mm] | Outer height <i>ha</i> [mm] | Bend radius <i>R</i> [mm] | Unsupported length ≤ [m] | Page |
|--------|--------------------------------|-------------------------------|-------------------------------|--------------------------------|------------------------------|--------------------------|------|
|--------|--------------------------------|-------------------------------|-------------------------------|--------------------------------|------------------------------|--------------------------|------|



System T3 -
t-shaped band e-chains®
crossbars removable along
the inner and outer radius

| | | | | | | | |
|--------|----|----------|----------|----|-----|--------|-----|
| T3.29. | 29 | 30 - 140 | 55 - 165 | 35 | 038 | ≈ 1.45 | 940 |
|--------|----|----------|----------|----|-----|--------|-----|



Available from stock. Ready to ship in 72hrs.*

*Average time before the ordered goods are dispatched.







Further information about igus® cleanroom e-chains® and the new, unique igus® cleanroom laboratory for IPA cleanroom Class 1 components ► From page 144



T3 system on the Z-axis of a positioning system. It has very low noise and vibration

Technical data

| | | |
|--|---|--|
|  | Speed FL_G / acceleration FL_G | ≤ 20 [m/s] / ≤ 200 [m/s ²] |
|  | Speed FL_B / acceleration FL_B | ≤ 3 [m/s] / ≤ 6 [m/s ²] |
|  | igumid TE material - permitted temperature °C | upon request |
|  | Flammability class | VDE 0304 IIC UL94-HB |

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

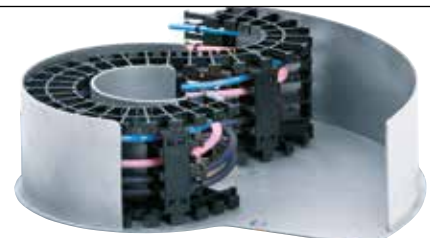
T3 e-chains® and modules for circular movement

- T3 e-chains® with Reverse Bend Radii **RBR**
 - Several radii available: 55, 75, 100, 150
 - Wide range of interior separation layouts
 - Quiet operation
 - Low wear.
- Delivery time upon request - more information
 ► www.igus.eu/circularmovement









T3 RBR module for Reverse Bend Radii

- Consists of 4 elements: T3 **RBR** e-chain®, guiding system, chainflex® cables, iglidur® PRT slewing ring bearing
 - Compact guide trough
 - Inner or outer radius rotation
 - For high speeds
 - Quiet
 - Several mounting options.
- Delivery time upon request - more information ► www.igus.eu/circularmovement




Options with order keys | Examples based on series T3.29

| | | |
|---|---|---|
|  Standard | <i>NC version - (No Camber) without pretension</i> | <i>Reverse Bend Radius (RBR) for circular movements</i> |
| Part No. Standard | Part No. NC version | Part No. RBR |
|  |  |  |
|  T3.29.050.R.0 | T3.29.050.R.0.NC | T3.29.050.038/R2.0 |
|  Ready to ship in 72hrs.* | Ready for delivery in 12 business days* | Ready for delivery in 12 business days* |

*Average time before the ordered goods are dispatched.





Order example | Order key and colour examples | Examples based on series T3.29

 **Order example for complete e-chain® (1.0m), colour black, with mounting brackets and interior separation:**








| | | |
|----------------------------|--|------------------------|
| e-chain® (1.0m) | Please indicate e-chain® length or number of links: 1.0m or 67 links | T3.29.050.038.0 |
| + Mounting brackets | 1 set (with tiwrap plates) | T3.29.050.12PZ |
| Interior separation | with 2 separators assembled every 2 nd link | 2 x .29.1.1 |
| Order text: | 1m T3.29.050.038.0 + T3.050.12 + 2 x 29.1.1 | |

 **Order key**

t-shaped band e-chains® **T3.29.050.038.0**

| | |
|------------------------------------|---|
| Series / Type |  |
| Width index (depends on <i>B</i>) |  |
| Bend radius <i>R</i> |  |
| Colour index (standard black) |  |

Order index for colour options

| Colour | Order index | Colour | Order index |
|--|----------------|---|----------------|
|  Black | Standard |  Orange | Special colour |
|  Silver-grey | Special colour |  Yellow | Special colour |
|  White | Special colour |  Light grey | Special colour |
|  Grey-white | Special colour | | |

Black e-chains® ready to ship in 72hrs.*
 Above special colours upon request.

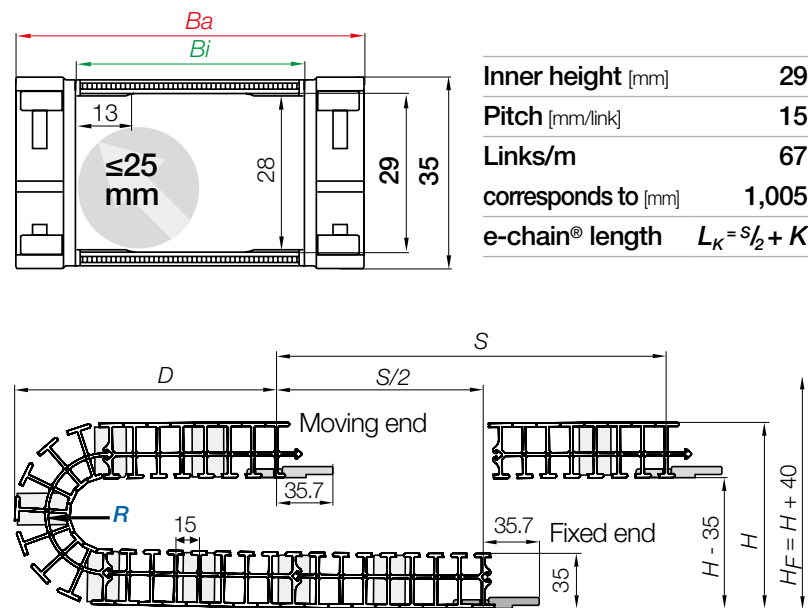
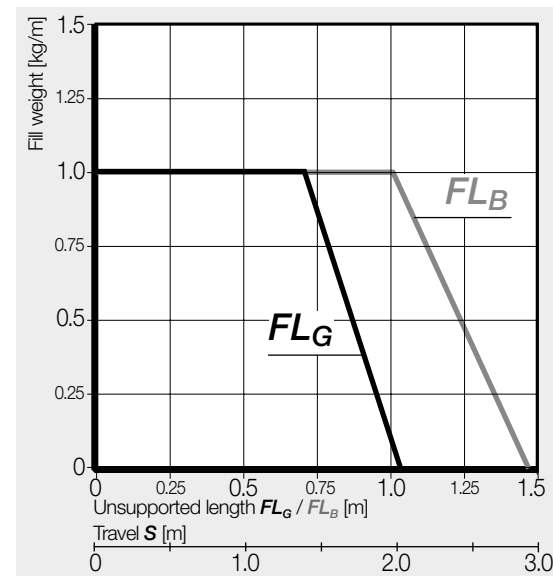


e-chains® | Series T3.29 | Crossbars removably along the inner and outer radius

| Part No. | <i>Bi</i> | <i>Ba</i> | <i>R</i> Available bend radii | T3.29 |
|---------------|-----------|-----------|-------------------------------|--------|
| e-chains® | [mm] | [mm] | [mm] | [kg/m] |
| T3.29.030.R.0 | 30 | 55 | 038 | ≈ 0.40 |
| T3.29.040.R.0 | 40 | 65 | 038 | ≈ 0.42 |
| T3.29.050.R.0 | 50 | 75 | 038 | ≈ 0.44 |
| T3.29.060.R.0 | 60 | 85 | 038 | ≈ 0.46 |
| T3.29.070.R.0 | 70 | 95 | 038 | ≈ 0.48 |
| T3.29.080.R.0 | 80 | 105 | 038 | ≈ 0.50 |
| T3.29.090.R.0 | 90 | 115 | 038 | ≈ 0.51 |
| T3.29.100.R.0 | 100 | 125 | 038 | ≈ 0.53 |
| T3.29.110.R.0 | 110 | 135 | 038 | ≈ 0.55 |
| T3.29.120.R.0 | 120 | 145 | 038 | ≈ 0.57 |
| T3.29.140.R.0 | 140 | 165 | 038 | ≈ 0.59 |

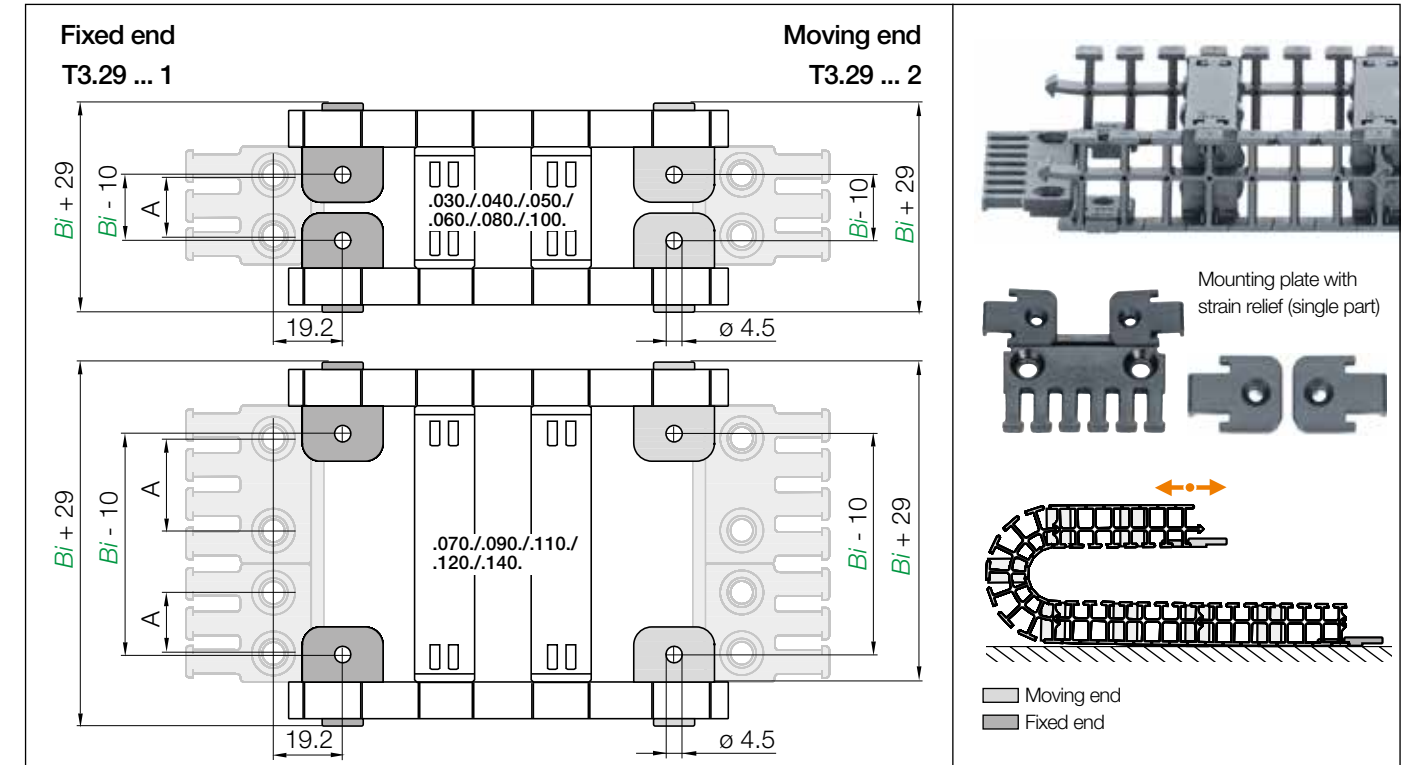
Complete Part No. with required radius (*R*). Example: T3.29.100.038.0

Installation dimensions



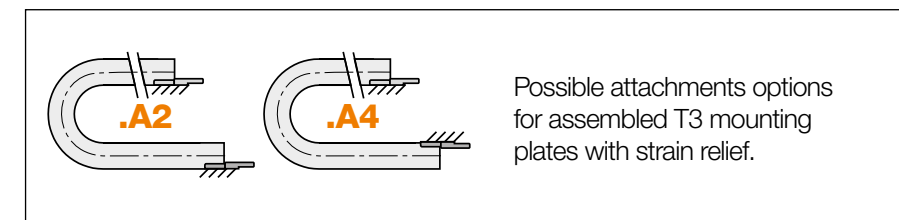
| | |
|------------|-----|
| <i>R</i> ≥ | 038 |
| <i>H</i> ≥ | 216 |
| <i>D</i> | 111 |
| <i>K</i> | 210 |

The required clearance height: $H_F = H + 40\text{mm}$ (with 1.0kg/m fill weight)



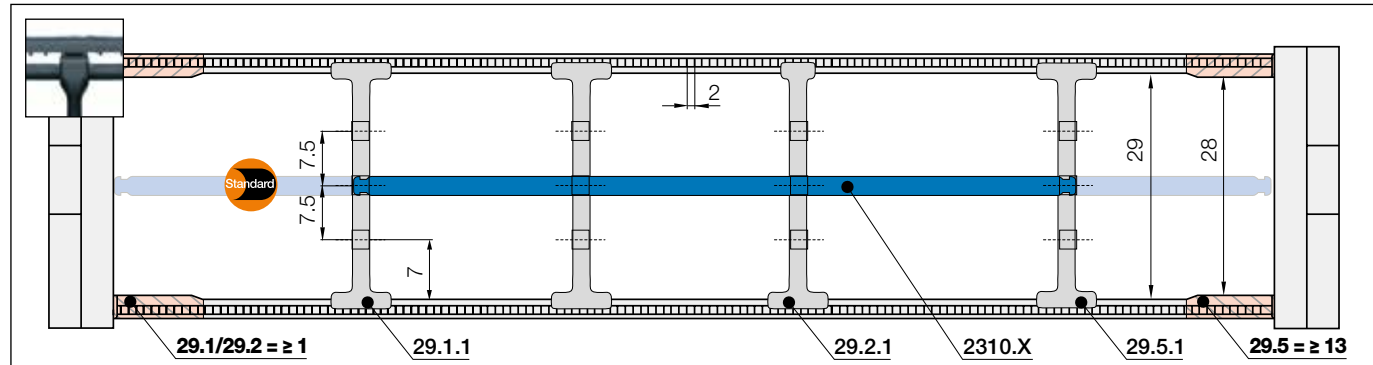
| Width index | Part No. full set with tiewrap plates | Part No. full set without tiewrap plates | A [mm] | <i>Bi</i> [mm] | Number of teeth |
|-------------|---------------------------------------|--|----------|----------------|-----------------|
| 030. ► | T3.29.030.12PZ | T3.29.030.12 | 15 | 30 | 3 |
| 040. ► | T3.29.040.12PZ | T3.29.040.12 | 20 | 40 | 4 |
| 050. ► | T3.29.050.12PZ | T3.29.050.12 | 30 | 50 | 5 |
| 060. ► | T3.29.060.12PZ | T3.29.060.12 | 40 | 60 | 6 |
| 070. ► | T3.29.070.12PZ | T3.29.070.12 | 15 + 20* | 70 | 7 |
| 080. ► | T3.29.080.12PZ | T3.29.080.12 | 60 | 80 | 8 |
| 090. ► | T3.29.090.12PZ | T3.29.090.12 | 20 + 30* | 90 | 9 |
| 100. ► | T3.29.100.12PZ | T3.29.100.12 | 80 | 100 | 10 |
| 110. ► | T3.29.110.12PZ | T3.29.110.12 | 30 + 40* | 110 | 11 |
| 120. ► | T3.29.120.12PZ | T3.29.120.12 | 40 + 40* | 120 | 12 |
| 140. ► | T3.29.140.12PZ | T3.29.140.12 | 60 + 40* | 140 | 14 |

*Strain relief consisting of 2 tiewrap plates



T3.29.100.12PZ Order example
With integrated strain relief tiewrap plates
Full set
Width index
Series

Strain relief e.g. clamps, tiewrap plates, nuggets and clips are available from stock. The complete chainfix range with ordering options ► From page 1392



Note: Please be aware of the minimum lateral gap to the side links! $29.1/29.2 = 1\text{mm}$ | $29.5 = 13\text{mm}$
As standard separators are fitted every 4th e-chain® link!

Standard separator, wide base

| | |
|-------------|--------|
| unassembled | 29.1 |
| assembled | 29.1.1 |

Standard - for any application
Separator with a wide base for maximum holding force.

Separator, narrow top

| | |
|-------------|--------|
| unassembled | 29.2 |
| assembled | 29.2.1 |

For even faster installation
Wide on one side for high holding force, narrow on opposite side for easy cable fitting.

Notch separator for notched crossbar

| | |
|-------------|--------|
| unassembled | 29.5 |
| assembled | 29.5.1 |

Locks securely in preset increments
Notch separator for exact positioning. Recommended for side-mounted applications.

Shelf, lockable

| | |
|-------------|--------|
| unassembled | 2300.X |
| assembled | 2310.X |

Horizontal separation
Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or partial shelf.

| Shelves Width = X [mm] | X [mm] | | X [mm] | | X [mm] | |
|---------------------------|-------------|-----------|-------------|-----------|-------------|-----------|
| | unassembled | assembled | unassembled | assembled | unassembled | assembled |
| | 015 | 2300.015 | 060 | 2300.060 | 087 | 2300.087 |
| | 025 | 2300.025 | 062 | 2300.062 | 090 | 2300.090 |
| | 030 | 2300.030 | 065 | 2300.065 | 100 | 2300.100 |
| | 038 | 2300.038 | 070 | 2300.070 | 103 | 2300.103 |
| | 040 | 2300.040 | 075 | 2300.075 | 110 | 2300.110 |
| | 050 | 2300.050 | 077 | 2300.077 | 120 | 2300.120 |
| | 057 | 2300.057 | 080 | 2300.080 | 125 | 2300.125 |

Separator with integrated strain relief teeth

- Can be integrated into the mounting bracket or placed at any point
 - Combines strain relief and interior separation, for restricted space conditions
 - Strain relief separator is easy to assemble without any screws
- Part No. E6.29.02.Z - more information ► From page 1424



Perfect match. Cleanroom-suitable igus® chainflex® cables are safely guided in a T3 e-chain®. 1,125 IPA certified chainflex® cables according to ISO Class 1 or Class 2 are available from stock