

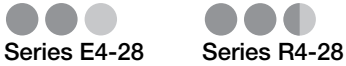
E4-28
R4-28



e-chain system® E4-1 Series E4-28/R4-28



Price Index



Special Options Available

- Low noise version available with special rubber pads
- Cleanroom test upon request
- ESD classification: Electrically conductive ESD/ATEX version upon request

Assembly Tips



Opening e-chains®: Remove crossbars and clips - Insert screwdriver into the slot, push down, release by lever action



Remove lids/bottoms (e-tubes) - Insert screwdriver into the slot, release by lever action

Other Installation Methods

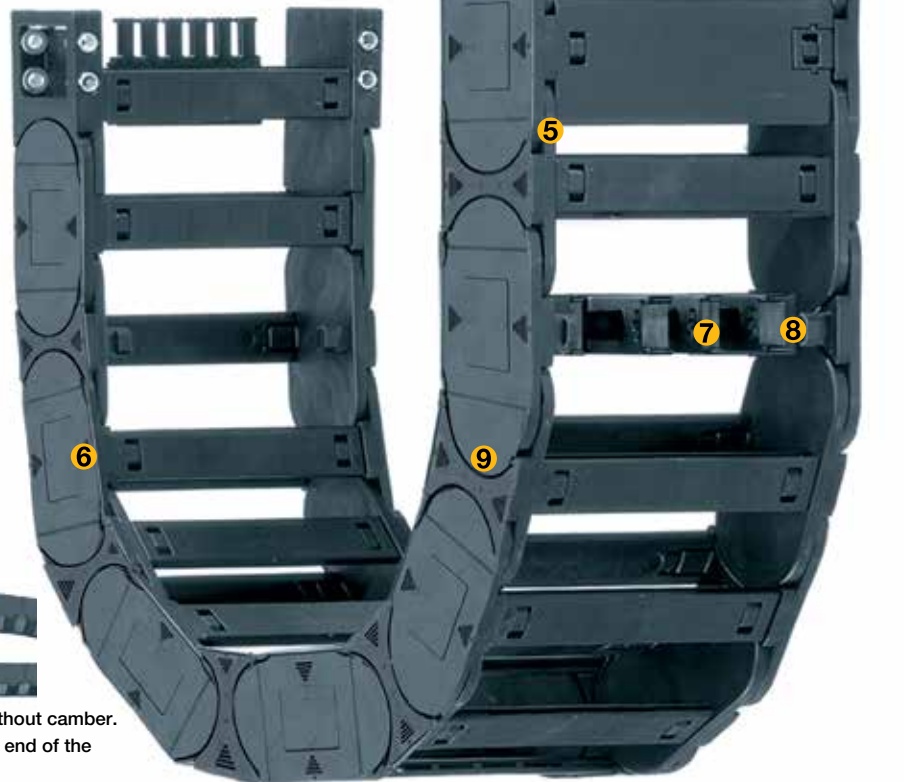
- Vertical, hanging ≤ 262 ft (80 m)
- Vertical, standing ≤ 16.4 ft (5 m)
- Side-mounted, unsupp. ≤ 3.94 ft (1.2 m)
- Rotary requires further calculation

Usage Guidelines

- If quiet operation is required
 - If very high speeds and/or accelerations are required
 - Long travels
 - High fill weights
- When an extremely low vibration e-chain®/e-tube is required
 - Series E6-29
 - Series R6-29
 - When an economic one-sided snap-open e-chain®/e-tube is required
 - Series 2400/2450/2480/2500

Features & Benefits

- 1 Wide, rounded plastic crossbars - cable friendly
- 2 Low-noise operation through integrated brake in the radial stop dog system
- 3 Hinged snap-open removable lids along outer radius of e-tube
- 4 Straight run through inner-/outer-link design
- 5 The tongue and groove design provides greater lateral stability
- 6 15% more tensile strength (compared to the older E4 series), better Optimized glide pads - long service life
- 7 Shelving program with a wide range of options
- 8 Crossbars are removable along both radii
- 9 15% more tensile strength (compared to the best E4 series), better unsupported length through improved stop dog system and vertical radial stops
- 10 Version NCST "without camber" simply by turning outer links without unnecessary rework

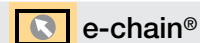


Also available without camber. Add NCST to the end of the part number.
Ex: E4-28-300-250NCST

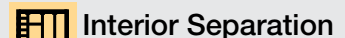
Order Example: Complete e-chain®

Please indicate chain length or number of links. Example:

9.84 ft (3 m) **E4-28-300-250-0**



With 2 separators **2211** assembled every 2nd link



1 Set **E4-280-300-12**



e-chain system® E4-1

Series E4-28/R4-28

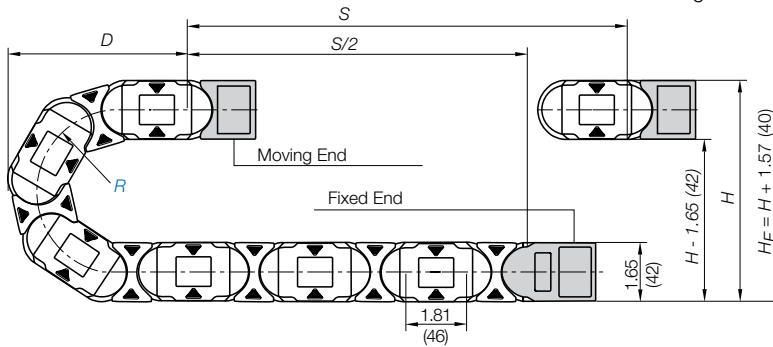
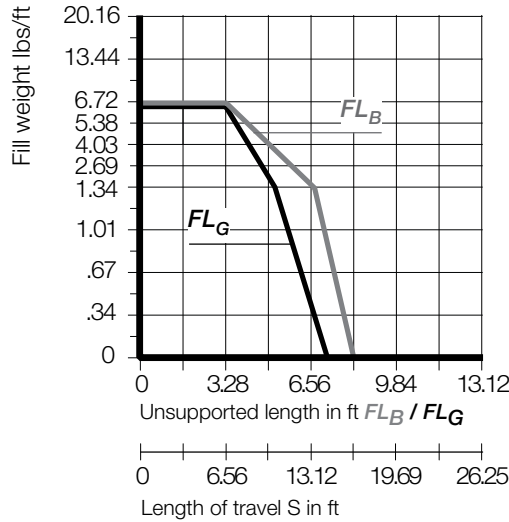
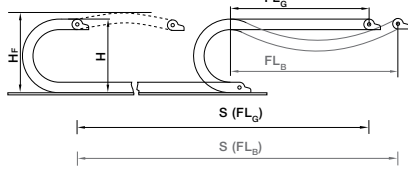
Installation Dimensions



E4-28
R4-28

Short travel, unsupported length

- FL_B = unsupported with permitted sag
 - FL_G = unsupported with straight upper run
- Further information ► Design, Chapter 1



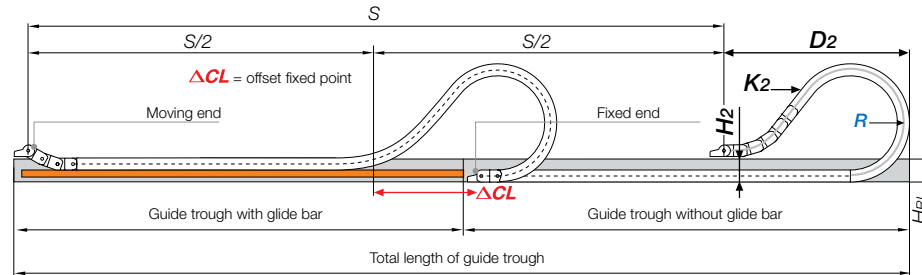
Pitch per link = 1.81" (46 mm)
Links per ft (m) = 6.71 (22)
For center mount applications:
Chain length = $\frac{S}{2} + K$

The required clearance height: $H_F = H +$ (with .67 lbs/ft (1.0 kg/m) fill weight).
Please consult igus® if space is particularly restricted.

| R | 2.17 (055) | 2.48 (063) | 2.95 (075) | 3.94 (100) | 4.92 (125) | 5.91 (150) | 6.89 (175) | 7.87 (200) | 9.84 (250) |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| H | 5.98 (152) | 6.61 (168) | 7.56 (192) | 9.53 (242) | 11.50 (292) | 13.46 (342) | 15.43 (392) | 17.40 (442) | 21.34 (542) |
| D | 5.71 (145) | 6.02 (153) | 6.50 (165) | 7.48 (190) | 8.46 (215) | 9.45 (240) | 10.43 (265) | 11.42 (290) | 13.39 (340) |
| K | 10.43 (265) | 11.42 (290) | 12.99 (330) | 16.14 (410) | 19.09 (485) | 22.24 (565) | 25.39 (645) | 28.54 (725) | 34.65 (880) |

For long travels with lowered mounting height

Long travel lengths from 32.8 ft.(10m) to max. 656 ft. (200m)



For center mount applications:
Chain length = $\frac{S}{2} + K_2$

| R | 2.17 (055) | 2.48 (063) | 2.95 (075) | 3.94 (100) | 4.92 (125) | 5.91 (150) | 6.89 (175) | 7.87 (200) | 9.84 (250) |
|----------------|------------|------------|------------|-------------|-------------|-------------|--------------|--------------|--------------|
| H ₂ | - | - | - | 6.22 (158) | 6.22 (158) | 6.22 (158) | 6.22 (158) | 6.22 (158) | 6.22 (158) |
| D ₂ | - | - | - | 13.78 (350) | 19.29 (490) | 20.87 (530) | 26.18 (665) | 28.74 (730) | 36.81 (935) |
| K ₂ | - | - | - | 23.54 (598) | 30.79 (782) | 36.22 (920) | 43.46 (1104) | 48.89 (1242) | 63.39 (1610) |
| ΔCL | - | - | - | 5.91 (150) | 10.63 (270) | 11.81 (300) | 15.75 (400) | 17.72 (450) | 23.62 (600) |

In case of travels between 13 and 32.8 ft (4 and 10 m) we recommend a longer unsupported length.

Short Travels - Unsupported

Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- H_F = Required clearance height
- H_{in} = Trough inner height
- H₂ = *Mounting height
- D₂ = Overlength - long travels, gliding
- K₂ = *Add-on

*If the mounting bracket location is set lower

Long Travels - Gliding



If the unsupported length is exceeded, the e-chain®/ Tube must glide on itself. This requires a guide trough.

Design, Chapter 1



For support of the lower run, see **Chapter 9** of the main catalog for the **Support Tray** tool kit

Technical Data



Details of material properties

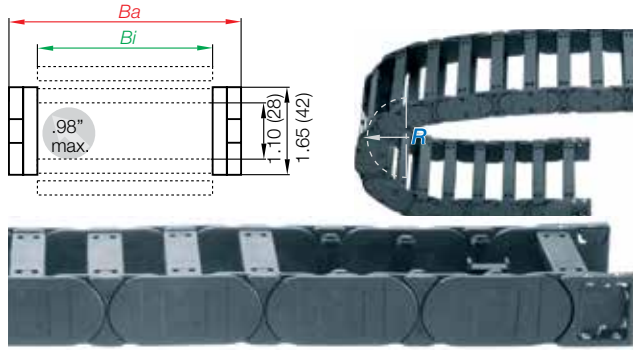
► Chapter 1



PDF: igus.com/e-chain-pdfs
Product information: igus.com/e-chains

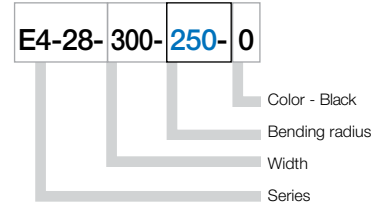


Series E4-28 - e-chain® with crossbars every link

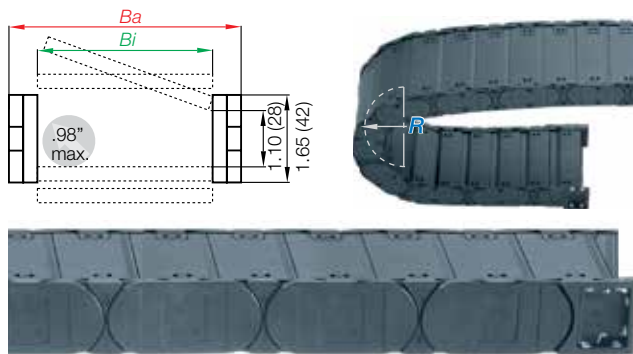


- Robust solution with crossbars every link
- Can be opened from two sides
- Removable crossbars

Part Number Structure

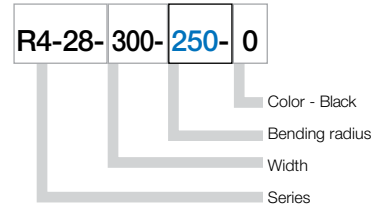


Series R4-28 - fully enclosed e-tube

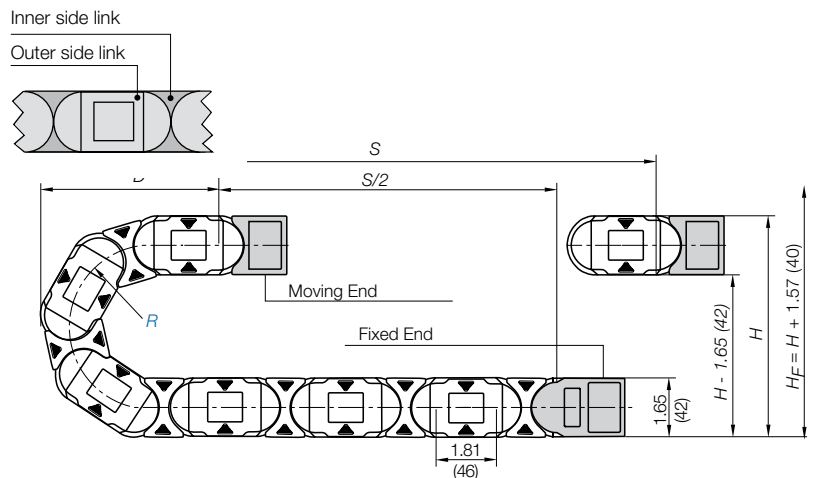
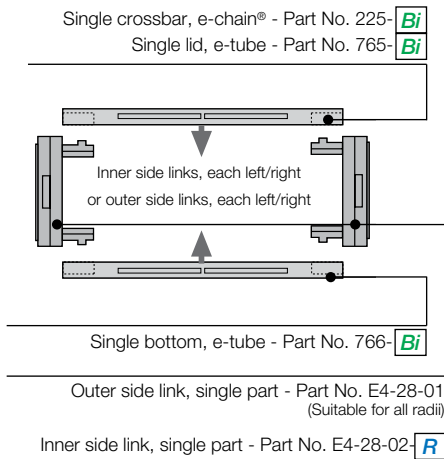


- Fully enclosed
- Excellent cable and hose protection against dirt
- Protection against hot chips
- Lids along inner radius are completely removable
- Lids along the outer radius are single-sided, snap open, hinged on one side as well as completely removable

Part Number Structure



e-chain® as separate parts, links and side plates



e-chain system® E4-1

Series E4-28/R4-28

Product Range



E4-28
R4-28

Supplement part number with required radius. Example: E4-28-300--0
Pitch: 1.81 in. (46mm) per link links/ft (m) = 6.71 (22)

| Part Number. | | | | <i>Bi</i> | <i>Ba</i> | E4-28 | R4-28 |
|--------------|------------|-------------------------------|----|-------------|-------------|---------------|---------------|
| Crossbars | Tube | | | in. (mm) | in. (mm) | lbs/ft (kg/m) | lbs/ft (kg/m) |
| Every link | Version | | | | | | |
| E4-28-040- | | <input type="text" value=""/> | -0 | 1.57 (40) | 2.36 (60) | ≈ 0.71 (1.06) | – |
| E4-28-050- | R4-28-050- | <input type="text" value=""/> | -0 | 1.97 (50) | 2.76 (70) | ≈ 0.75 (1.11) | ≈ 1.48 (2.20) |
| E4-28-052 | | <input type="text" value=""/> | -0 | 2.05 (52) | 2.83 (72) | ≈ 0.76 (1.13) | – |
| E4-28-062- | | <input type="text" value=""/> | -0 | 2.44 (62) | 3.23 (82) | ≈ 0.79 (1.17) | – |
| E4-28-070- | | <input type="text" value=""/> | -0 | 2.76 (70) | 3.54 (90) | ≈ 0.81 (1.20) | – |
| E4-28-075- | R4-28-075 | <input type="text" value=""/> | -0 | 2.95 (75) | 3.74 (95) | ≈ 0.83 (1.23) | ≈ 1.56 (2.32) |
| E4-28-087- | | <input type="text" value=""/> | -0 | 3.43 (87) | 4.21 (107) | ≈ 0.86 (1.28) | – |
| E4-28-100- | R4-28-100- | <input type="text" value=""/> | -0 | 3.94 (100) | 4.72 (120) | ≈ 0.92 (1.37) | ≈ 1.71 (2.54) |
| E4-28-125- | R4-28-125- | <input type="text" value=""/> | -0 | 4.92 (125) | 5.71 (145) | ≈ 1.01 (1.51) | ≈ 1.87 (2.78) |
| E4-28-150- | R4-28-150- | <input type="text" value=""/> | -0 | 5.91 (150) | 6.69 (170) | ≈ 1.08 (1.61) | ≈ 2.03 (3.02) |
| E4-28-175- | R4-28-175- | <input type="text" value=""/> | -0 | 6.89 (175) | 7.68 (195) | ≈ 1.15 (1.71) | ≈ 2.19 (3.26) |
| E4-28-200- | R4-28-200- | <input type="text" value=""/> | -0 | 7.87 (200) | 8.66 (220) | ≈ 1.24 (1.84) | ≈ 2.35 (3.50) |
| E4-28-225- | R4-28-225- | <input type="text" value=""/> | -0 | 8.86 (225) | 9.65 (245) | ≈ 1.34 (1.99) | ≈ 2.57 (3.82) |
| E4-28-250- | R4-28-250- | <input type="text" value=""/> | -0 | 9.84 (250) | 10.63 (270) | ≈ 1.44 (2.14) | ≈ 2.67 (3.98) |
| E4-28-275- | | <input type="text" value=""/> | -0 | 10.83 (275) | 11.61 (295) | ≈ 1.53 (2.27) | – |
| E4-28-300- | R4-28-300- | <input type="text" value=""/> | -0 | 11.81 (300) | 12.60 (320) | ≈ 1.61 (2.39) | ≈ 3.00 (4.46) |

Choose from the radii below for all of the above sizes
Radius (mm) Example: E4-28-300--0

| | 055* | 063* | 075 | 100 | 125 | 150 | 175 | 200 | 250 |
|----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <i>R</i> | 2.17 (055*) | 2.48 (063*) | 2.95 (075) | 3.94 (100) | 4.92 (125) | 5.91 (150) | 6.89 (175) | 7.87 (200) | 9.84 (250) |
| <i>H</i> | 5.98 (152) | 6.61 (168) | 7.56 (192) | 9.53 (242) | 11.50 (292) | 13.46 (342) | 15.43 (392) | 17.40 (442) | 21.34 (542) |
| <i>D</i> | 5.71 (145) | 6.02 (153) | 6.50 (165) | 7.48 (190) | 8.46 (215) | 9.45 (240) | 10.43 (265) | 11.42 (290) | 13.39 (340) |
| <i>K</i> | 10.43 (265) | 11.42 (290) | 12.99 (330) | 16.14 (410) | 19.09 (485) | 22.24 (565) | 25.39 (645) | 28.54 (725) | 34.65 (880) |

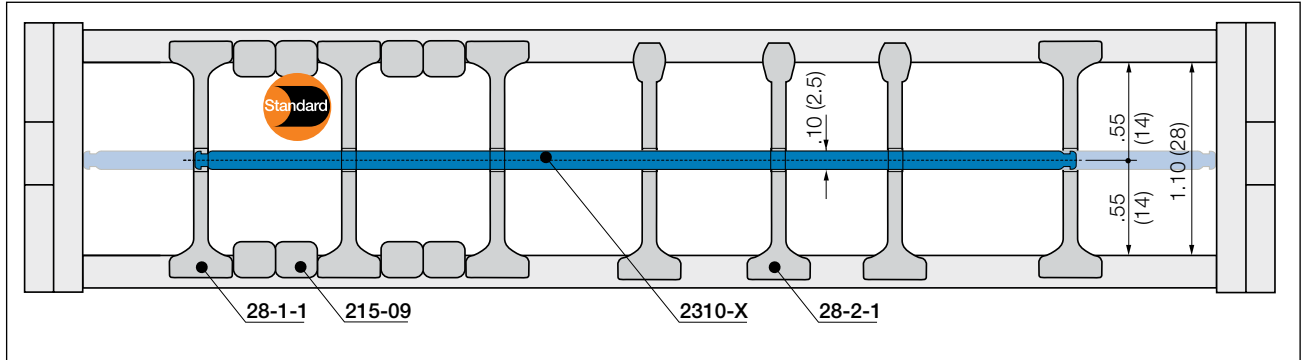
* This radius is not available for the R4-28 Series

0 = Standard color black.

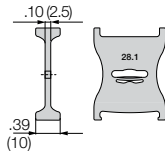
For other colors see Chapter 1

PDF: igus.com/e-chain-pdfs
Product information: igus.com/e-chains





In the standard configuration separators are assembled every 2nd e-chain® link

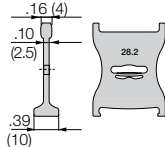


Separator, wide base

| | |
|-------------|------------------------|
| Unassembled | Part No. 28-1 |
| Assembled | Part No. 28-1-1 |

- **Standard separator 28-1 for all applications**

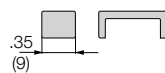
Separator with wide base for maximum locking strength and safe standing in e-chains®.



Separator, narrow head

| | |
|-------------|------------------------|
| Unassembled | Part No. 28-2 |
| Assembled | Part No. 28-2-1 |

- **Separator 28-2 For even faster installation**
is used when vertical and horizontal separation is required. Due to its slot, it allows basic vertical/horizontal shelving arrangements.

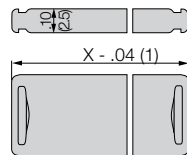


Spacer for e-chains®

| | |
|-------------|------------------------|
| Unassembled | Part No. 205-09 |
| Assembled | Part No. 215-09 |

- **Spacer 205-09**
Separators can be fixed in position by spacers. The available interior height is reduced by .08 (2 mm) per spacer (.16 (4 mm) when spacers are fitted on both sides. To avoid this, the parts can also be installed from the outside on the opening crossbar. (Not for long travel applications.)

Lockable full-width shelves - for the standard interior separation



Full width shelf, lockable

| | |
|-------------|------------------------|
| Unassembled | Part No. 2300-X |
| Assembled | Part No. 2310-X |

- **Full width shelf, lockable**
is used when vertical and horizontal separation is required. Due to its slot, it allows basic vertical/horizontal shelving arrangements.

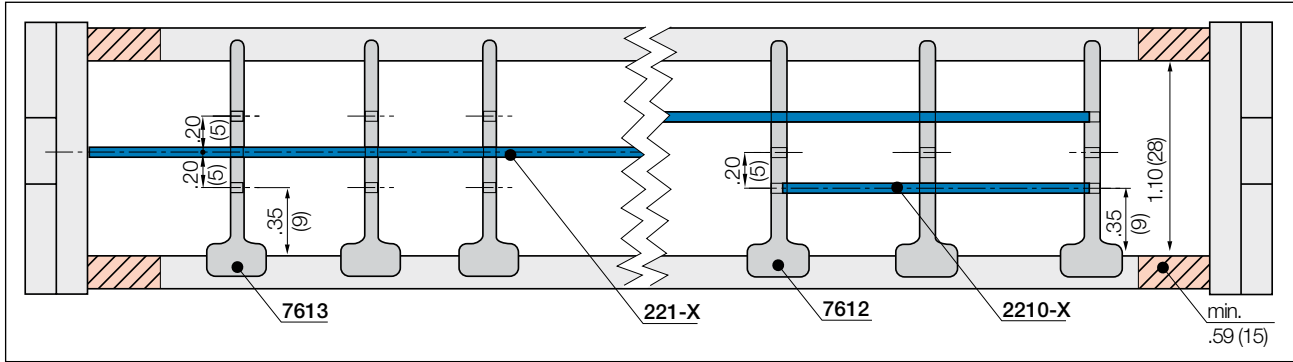
| Width X in. (mm) | Part No. Unassembled | Part No. Assembled | Width X in. (mm) | Part No. Unassembled | Part No. Assembled | Width X in. (mm) | Part No. Unassembled | Part No. Assembled |
|---------------------|-------------------------|-----------------------|---------------------|-------------------------|-----------------------|---------------------|-------------------------|-----------------------|
| 015 | 2300-15 | 2310-15 | 060 | 2300-60 | 2310-60 | 087 | 2300-87 | 2310-87 |
| 025 | 2300-25 | 2310-25 | 062 | 2300-62 | 2310-62 | 090 | 2300-90 | 2310-90 |
| 030 | 2300-30 | 2310-30 | 065 | 2300-65 | 2310-65 | 100 | 2300-100 | 2310-100 |
| 038 | 2300-38 | 2310-38 | 070 | 2300-70 | 2310-70 | 103 | 2300-103 | 2310-103 |
| 040 | 2300-40 | 2310-40 | 075 | 2300-75 | 2310-75 | 110 | 2300-110 | 2310-110 |
| 050 | 2300-50 | 2310-50 | 077 | 2300-77 | 2310-77 | 120 | 2300-120 | 2310-120 |
| 057 | 2300-57 | 2310-57 | 080 | 2300-80 | 2310-80 | 125 | 2300-125 | 2310-125 |

Separator with integrated strain relief teeth

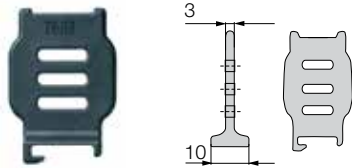
- Can be integrated into the mounting bracket or placed at any point in the e-chain®
- Combines strain relief and interior separation, for restricted space conditions
- Strain relief separator is easy to assemble without any screws

Part No. T2103.Z. More information ► Chapter 10





Note e-tube: Please maintain a lateral spacing of .59" (15 mm) between the separators and the side links. In the standard configuration separators are assembled every 2nd e-chain® link

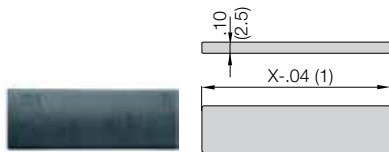


Separator, e-tubes only

| | |
|-------------|---------------|
| Unassembled | Part No. 7603 |
| Assembled | Part No. 7613 |

- **Slotted separator for full-width shelves** is used when vertical separation is required. Due to its slot, it allows basic vertical/horizontal shelving arrangements.

Full-width shelves - for the standard interior separation

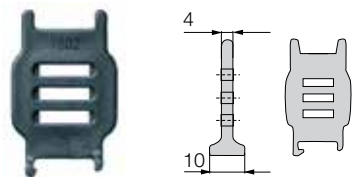


Full width shelf

| | |
|-------------|----------------|
| Unassembled | Part No. 220-X |
| Assembled | Part No. 221-X |

- **Full width shelf 220-X** is used in applications with many thin cables with similar diameters. Full width shelves can be arranged at 3 different heights in .20" (5 mm) increments.

| Width X in. (mm) | Part No. Unassembled | Part No. Assembled | Width X in. (mm) | Part No. Unassembled | Part No. Assembled | Width X in. (mm) | Part No. Unassembled | Part No. Assembled |
|---------------------|-------------------------|-----------------------|---------------------|-------------------------|-----------------------|---------------------|-------------------------|-----------------------|
| 1.57 (40) | 220-40 | 221-40 | 2.95 (75) | 220-75 | 221-75 | 5.91 (150) | 220-150 | 221-150 |
| 1.97 (50) | 220-50 | 221-50 | 3.43 (87) | 220-87 | 221-87 | 6.89 (175) | 220-175 | 221-175 |
| 2.44 (62) | 220-62 | 221-62 | 3.94 (100) | 220-100 | 221-100 | 7.87 (200) | 220-200 | 221-200 |
| 2.76 (70) | 220-70 | 221-70 | 1.92 (125) | 220-125 | 221-125 | | | |

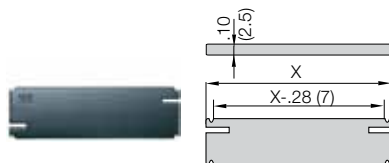


Slotted separator

| | |
|-------------|---------------|
| Unassembled | Part No. 7602 |
| Assembled | Part No. 7612 |

- **Slotted separator for partial shelves 7602** Can be locked in .08 (2mm) increments due to notches on the crossbars of the e-chain®. The separator cannot slide sideways during operation.

Shelves - for the standard interior separation



Shelf for e-tubes

| | |
|-------------|-----------------|
| Unassembled | Part No. 2200-X |
| Assembled | Part No. 2210-X |

- **Shelves 2200-X** is used in applications with many cables with different diameters. Shelves can be fitted at different heights.

| Width X | Part No. Unassembled | Part No. Assembled | Width X | Part No. Unassembled | Part No. Assembled | Width X | Part No. Unassembled | Part No. Assembled |
|---------|-------------------------|-----------------------|---------|-------------------------|-----------------------|---------|-------------------------|-----------------------|
| 018 | 2200-18 | 2210-40 | 043 | 2200-43 | 2210-87 | 088 | 2200-88 | 2210-200 |
| 023 | 2200-23 | 2210-50 | 048 | 2200-48 | 221-100 | 099 | 2200-99 | 2210-200 |
| 028 | 2200-28 | 2210-62 | 058 | 2200-58 | 2210-125 | 124 | 2200-124 | 2210-200 |
| 033 | 2200-33 | 2210-70 | 068 | 2200-68 | 2210-150 | 149 | 2200-149 | 2210-200 |
| 038 | 2200-38 | 2210-75 | 073 | 2200-73 | 2210-175 | | | |

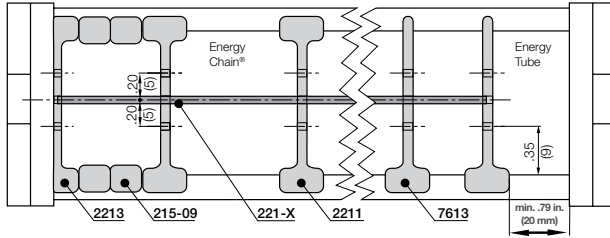




Option 1: Vertical separators and spacers

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.

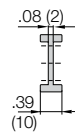
NOTE: Observe a lateral spacing of at least .79 in. (20mm) for e-tubes and



STANDARD



Vertical separator 2201



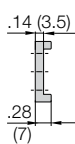
Vertical separator (Chain only)

| | |
|-------------|----------------------|
| Unassembled | Part No. 2201 |
| Assembled | Part No. 2211 |

- **Vertical separator 2201 for e-chains®**
This separator is used for vertical subdivision. Because they are slotted, separators can also be used horizontally to form simple compartments.



Side plate 2203



Side plate (chain only)

| | |
|-------------|----------------------|
| Unassembled | Part No. 2203 |
| Assembled | Part No. 2213 |

- **Side plate 2203 for e-chains®**
Used in conjunction with full-width shelf 220-X, this option is used for applications involving many thin cables with similar diameters.



Spacers 205-09

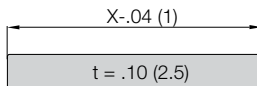


Spacer (chain only)

| | |
|-------------|------------------------|
| Unassembled | Part No. 205-09 |
| Assembled | Part No. 215-09 |

- **NOTE ON SPACERS**
Vertical separators are adjustable, but can be fixed in position by means of a spacer. Spacers are most often necessary for side mounted applications. The available inner height is reduced by .08" (2mm) **per spacer** (for example if one spacer is placed on either side of the separator, the overall inner height is reduced by .16" (4mm)). To avoid this, place the spacers on the **outside** of the opening crossbar (**not for long travels**).

Full-width shelf 220-XX



| Width X in. (mm) | Part No. Unassembled | Part No. Assembled | Width X in. (mm) | Part No. Unassembled | Part No. Assembled |
|---------------------|-------------------------|-----------------------|---------------------|-------------------------|-----------------------|
| 1.57 (040) | 220-40 | 221-40 | 3.94 (100) | 220-100 | 221-100 |
| 1.97 (050) | 220-50 | 221-50 | 4.92 (125) | 220-125 | 221-125 |
| 2.44 (062) | 220-62 | 221-62 | 5.91 (150) | 220-150 | 221-150 |
| 2.76 (070) | 220-70 | 221-70 | 6.89 (175) | 220-175 | 221-175 |
| 2.95 (075) | 220-75 | 221-75 | 7.87 (200) | 220-200 | 221-200 |
| 3.43 (087) | 220-87 | 221-87 | | | |

e-chain system® E4-1

Series R4-28

Interior Separation - Previous Generation



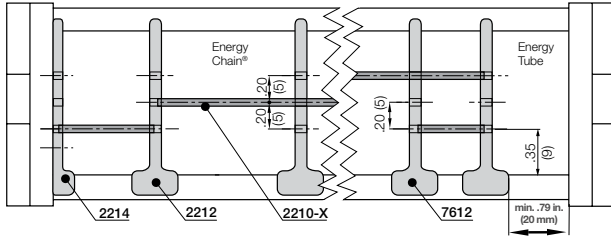
E4-28
R4-28



Option 2: Shelves

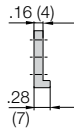
e-chains® and e-tubes can be subdivided both vertically and horizontally using the various interior separation elements.

► **Design, Chapter 1**, for layout recommendations.



- **Side plates 2204**

This component is used to form the basic pattern of a shelf system.



Side plate

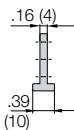
| | |
|-------------|---------------|
| Unassembled | Part No. 2204 |
| Assembled | Part No. 2214 |

Side plate
2204



- **Vertical separator 2202 for e-chain®**

This component is used to form the basic pattern of a shelf system.



Vertical separator (chain only)

| | |
|-------------|---------------|
| Unassembled | Part No. 2202 |
| Assembled | Part No. 2212 |

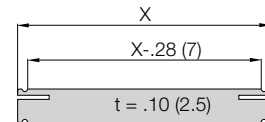
Vertical separator
2202



Shelves 420-XX

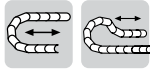
These components form the basic pattern of a shelf system. Shelves of various widths can be arranged at 3 different heights in .20" (5mm) increments

| Width X in. (mm) | Part No. Unassembled | Part No. Assembled | Width X in. (mm) | Part No. Unassembled | Part No. Assembled |
|---------------------|-------------------------|-----------------------|---------------------|-------------------------|-----------------------|
| .71 (18) | 2200-18 | 2210-18 | 2.28 (58) | 2200-58 | 2210-58 |
| .91 (23) | 2200-23 | 2210-23 | 2.68 (68) | 2200-68 | 2210-68 |
| 1.10 (28) | 2200-28 | 2210-28 | 2.87 (73) | 2200-73 | 2210-73 |
| 1.30 (33) | 2200-33 | 2210-33 | 3.46 (88) | 2200-88 | 2210-88 |
| 1.50 (38) | 2200-38 | 2210-38 | 3.90 (99) | 2200-99 | 2210-99 |
| 1.69 (43) | 2200-43 | 2210-43 | 4.88 (124) | 2200-124 | 2210-124 |
| 1.89 (48) | 2200-48 | 2210-48 | 5.87 (149) | 2200-149 | 2210-149 |



PDF: igus.com/e-chain-pdfs
Product information: igus.com/e-chains

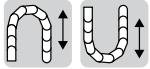
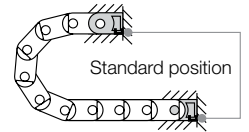
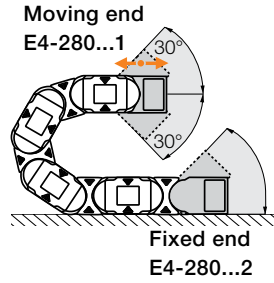




Standard

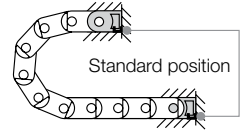
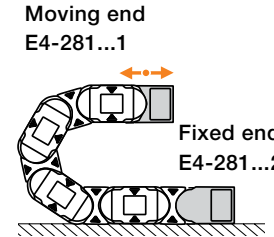
Option 1: pivoting

- Unsupported and gliding applications
- mounting capabilities on all sides
- Bolted connection outside of chain cross-section
- Space-restricted conditions
- corrosion-resistant



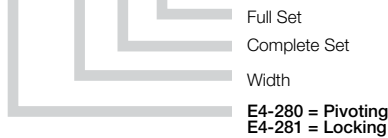
Option 2: locking

- Vertical hanging/standing applications
- For high accelerations
- Universally mountable
- Various mounting positions
- Corrosion-resistant



Part Number Structure

E4-281-040-2-12



Full set, for both ends:

E4-280-040-12

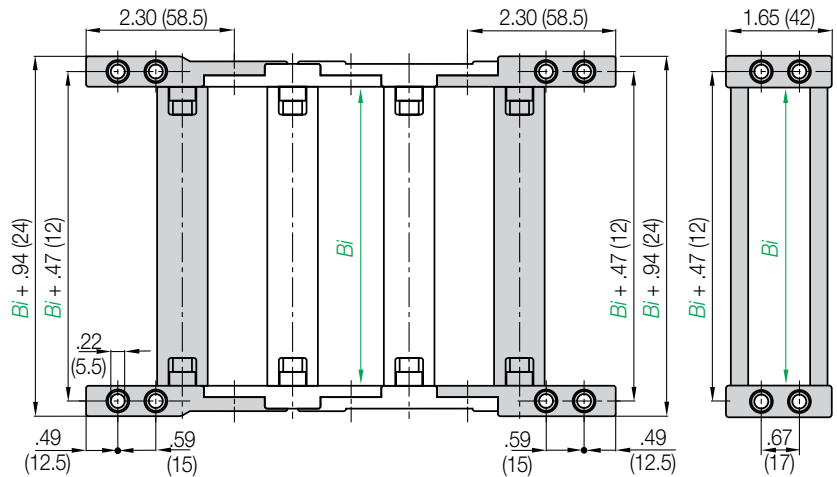
Single-part order:

E4-280-040-1

Mounting bracket moving end

E4-280-040-2

Mounting bracket fixed end



Part number example is shown for pivoting brackets.
For locking brackets change part number to E4-281

Part No. Full Set (pivoting)
Series E4-28
E4-28-Width-12

| Width | Part No. Full Set | | | Bi in. (mm) |
|-------|-------------------|---------|---------|----------------|
| | Pivoting | Locking | | |
| -040 | E4-280 | E4-281 | -040-12 | 1.57 (40) |
| -050 | E4-280 | E4-281 | -050-12 | 1.97 (50) |
| -052 | E4-280 | E4-281 | -052-12 | 2.05 (52) |
| -062 | E4-280 | E4-281 | -062-12 | 2.44 (62) |
| -070 | E4-280 | E4-281 | -070-12 | 2.76 (70) |
| -075 | E4-280 | E4-281 | -075-12 | 2.95 (75) |
| -087 | E4-280 | E4-281 | -087-12 | 3.43 (87) |
| -100 | E4-280 | E4-281 | -100-12 | 3.94 (100) |
| -125 | E4-280 | E4-281 | -125-12 | 4.92 (125) |
| -150 | E4-280 | E4-281 | -150-12 | 5.91 (150) |
| -175 | E4-280 | E4-281 | -175-12 | 6.89 (175) |
| -200 | E4-280 | E4-281 | -200-12 | 7.87 (200) |
| -225 | E4-280 | E4-281 | -225-12 | 8.86 (225) |
| -250 | E4-280 | E4-281 | -250-12 | 9.84 (250) |
| -275 | E4-280 | E4-281 | -275-12 | 10.83 (275) |
| -300 | E4-280 | E4-281 | -300-12 | 11.81 (300) |

Due to the design of the E4-28 series chains,
please note the following when ordering brackets:

Even number of links = full set, part number ending in -12
Odd number of links = 2 pieces, part number ending in -1

Strain relief tiwrap plate
Part No. 2050-Z can be fixed
on the last crossbar.
Details ► chapter 10 main catalog

| Part No. | Width [mm] | Number of teeth |
|----------|------------|-----------------|
| 2050.Z | 60 | 6 |

e-chain system® E4-1

Series R4-28

Mounting Bracket - KMA

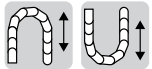
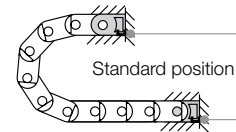
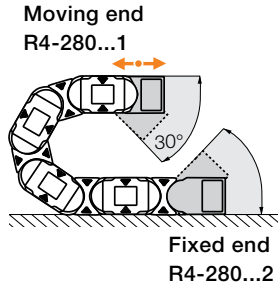


E4-28
R4-28



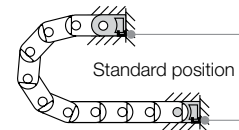
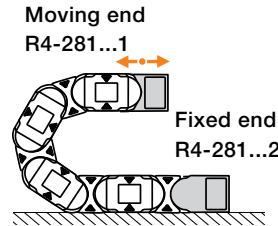
Option 1: pivoting

- Unsupported and gliding applications
- mounting capabilities on all sides
- Bolted connection outside of chain cross-section
- Space-restricted conditions
- corrosion-resistant

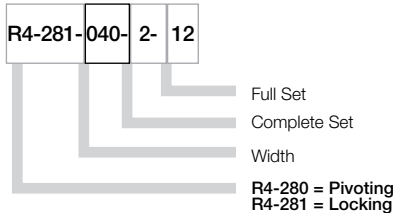


Option 2: locking

- Vertical hanging/standing applications
- For high accelerations
- Universally mountable
- Various mounting positions
- Corrosion-resistant



Part Number Structure



Full set, for both ends:

R4-280-040-12

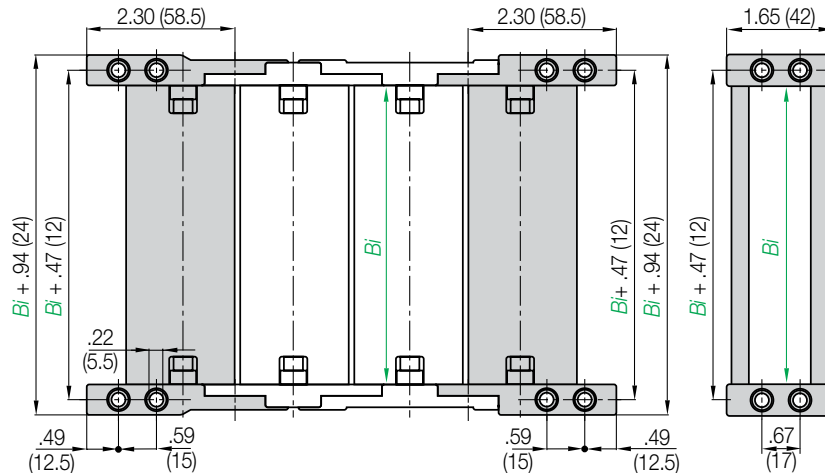
Single-part order:

R4-280-040-1

Mounting bracket moving end

R4-280-040-2

Mounting bracket fixed end




Part number example is shown for pivoting brackets.
For locking brackets change part number to R4-281

Part No. Full Set (pivoting)
Series R4-28
R4-28-Width-12

| Width | Part No. Full Set | | <i>Bi</i> | in. (mm) |
|-------|-------------------|---------|-----------|-------------|
| | Pivoting | Locking | | |
| -050 | R4-280 | R4-281 | -050-12 | 1.97 (50) |
| -075 | R4-280 | R4-281 | -075-12 | 2.95 (75) |
| -100 | R4-280 | R4-281 | -100-12 | 3.94 (100) |
| -125 | R4-280 | R4-281 | -125-12 | 4.92 (125) |
| -150 | R4-280 | R4-281 | -150-12 | 5.91 (150) |
| -175 | R4-280 | R4-281 | -175-12 | 6.89 (175) |
| -200 | R4-280 | R4-281 | -200-12 | 7.87 (200) |
| -225 | R4-280 | R4-281 | -225-12 | 8.86 (225) |
| -250 | R4-280 | R4-281 | -250-12 | 9.84 (250) |
| -300 | R4-280 | R4-281 | -300-12 | 11.81 (300) |

Due to the design of the E4-28 series chains,
please note the following when ordering brackets:

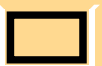
Even number of links = full set, part number ending in -12
Odd number of links = 2 pieces, part number ending in -1



Strain relief tiwrap plate
Part No. 2050-Z can be fixed
on the last crossbar.
Details ► chapter 10 main catalog

| Part. No. | Width [mm] | Number of teeth |
|-----------|------------|-----------------|
| 2050.Z | 60 | 6 |

PDF: igus.com/e-chain-pdfs
Product information: igus.com/e-chains



Guide troughs are used with applications where the upper run of the e-chain® glides on the lower run. If using igus® steel guide troughs, the following components are required:

- Full travel length of guide trough
Part No. 96-30
- 1/2 travel length of glide bars
Part No. 92-01
- Installation sets as end connectors
Part No. 95-50-XX

-XX indicates the length of the profile rail on which the guide trough is mounted. The values and part numbers are specified in the table on the left. Standard length of the trough components and glide bars is 6.56 ft (2m). The required overall length of the guide trough directly correlates to the length of travel.

Example:

Length of travel 164 ft. (50 m)
Center mounted

Required guide troughs:

164 ft (50 m) guide trough,
82 ft (25 m) glide bar
= 25 sections of 6.56 ft (2 m) guide trough

Part No. 96-30

= 13 sections of 6.56 ft. (2 m) glide bar

Part No. 92-01

Required number of installation sets

= Number of guide trough components + 1
= 25 + 1 = 26

Part number of the installation sets

95-50-XXX

Example: 95-50-400 for

15.75 (400 mm) long profile rail



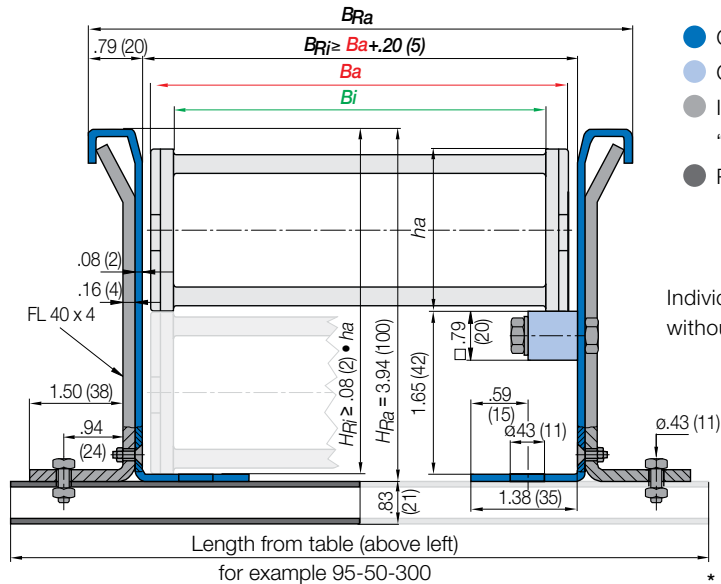
Left: Guide trough with glide bars
Right: Guide troughs without glide bars



Installation sets as section connectors

Width of Crossbar
E4-28-040-200-0

| | B_{Ri} | Installation Part No. |
|------|-------------|-----------------------|
| -040 | 2.56 (65) | * |
| -050 | 2.95 (75) | 95-50-200 |
| -052 | 2.99 (76) | 95.50-200 |
| -062 | 3.43 (87) | 95-50-200 |
| -070 | 3.74 (95) | 95-50-200 |
| -075 | 3.94 (100) | 95-50-225 |
| -100 | 4.92 (125) | 95-50-250 |
| -125 | 5.91 (150) | 95-50-275 |
| -150 | 6.89 (175) | 95-50-300 |
| -175 | 7.87 (200) | 95-50-325 |
| -200 | 8.86 (225) | 95-50-350 |
| -225 | 9.84 (250) | 95-50-375 |
| -250 | 10.83 (275) | 95-50-400 |
| -275 | 11.81 (300) | 95-50-425 |
| -300 | 12.80 (325) | 95-50-450 |



- Guide trough
- Glide bars
- Installation set "Basic"
- Profile rail

Individual attachment without profile rail

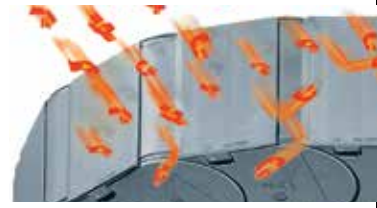
* Specialized guide trough available upon request

Standard length profile rail

Hot chips up to 1562°F

- e-tubes to withstand 1,562°F hot chips, as a special option
- No hot chips melting or embedding into the chain
- igus® igumid HT material

More information ► www.igus.com/HT



Aluminum support tray

- Corrosion-resistant and seawater-resistant aluminium rails with adjustable width
- Noise-reducing glide strip integrated as standard
- Easy installation and connection of the e-chain®
- Open design - dirt and debris fall through

More information ► [Chapter 9](#)



Reduce assembly time - E4 e-chain® opener

- e-chain® opener tools for easy opening and closing of e-chains®
- Simple opening and closing of e-chain® crossbars
- Also for use in hard to reach locations
- Significant assembly time reduction

More information ► www.igus.com/E4savetime

