Smallest inner heights and bend radii

Advantages of the E2 micro series:
● For the smallest applications
● Lightweight and cost-effective
● Quiet operation due to small pitch
● Ideal for applications with low inertia
● Variety of options - E2 micro as non-openable or openable along the inner or outer radius

When to use another e-chain® series:
● When openable crossbars are required
  ▶ E2.1 micro, page 320
  ▶ zipper, page 226
● When easy filling with connectorised cables is required
  ▶ easy chain®, page 198
E2 micro | Introduction | Advantages

**Smallest inner heights and bend radii - E2 micro**

E2 micro e-chains® are very small, one- and two-piece (B07/B09) e-chains® with low weight, making them ideal for highly dynamic applications. E2 micro e-chains® are optimal for the smallest installation spaces, and are available in many versions. igus® also offers a range of accessories and fixation options. Upgrades of the openable versions are available for many types; different types are interchangeable and can therefore be used as, spare parts for existing applications, for example.

**Typical industries and applications**
- Models (micro e-chain®)
- Automatic doors
- Vehicles
- Measuring machines
- Electronic engineering
- Handling
- Pick and place robots
- General machinery, etc.

**Universal connection: mounting bracket with strain relief option**

**Cost-efficient:** very lightweight, low price

**Smooth Design:** dirt-repellent outer contour

**Smooth running:** small pitch for low-noise, smooth running

**Cost-effective:** one-piece design, non-openable

**Series 074 /094:** moulded crossbar, openable along the inner radius with film hinge

**Series B07/B09:** openable along the outer radius

**Cleanroom test**
- upon request

**UL94-V2 classification - for series**
- G3, G04, G04 (UL94-V0 upon request)

**IF product design award**
- 1989 igus® series 05

**Selection table**

<table>
<thead>
<tr>
<th>Series</th>
<th>Inner height ( H ) [mm]</th>
<th>Inner width ( B_i ) [mm]</th>
<th>Outer width ( B_a ) [mm]</th>
<th>Outer height ( h_a ) [mm]</th>
<th>Bend radius ( R ) [mm]</th>
<th>Unsupported length ( L ) [m]</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>03</td>
<td>5</td>
<td>5 - 10</td>
<td>8.70 - 13.7</td>
<td>8</td>
<td>010 - 028</td>
<td>0.40</td>
<td>266</td>
</tr>
<tr>
<td>04</td>
<td>7</td>
<td>7 - 30</td>
<td>12 - 35</td>
<td>10</td>
<td>015 - 048</td>
<td>0.50</td>
<td>268</td>
</tr>
<tr>
<td>05</td>
<td>10</td>
<td>6 - 64</td>
<td>10 - 68</td>
<td>12</td>
<td>018 - 038</td>
<td>0.55</td>
<td>270</td>
</tr>
<tr>
<td>045</td>
<td>10.3</td>
<td>6 - 64</td>
<td>12 - 70</td>
<td>12.5</td>
<td>018 - 083</td>
<td>0.50</td>
<td>272</td>
</tr>
<tr>
<td>06 1)</td>
<td>10.5</td>
<td>6 - 64</td>
<td>12.5 - 71</td>
<td>15</td>
<td>018 - 038</td>
<td>0.60</td>
<td>276</td>
</tr>
<tr>
<td>08 2)</td>
<td>15</td>
<td>10 - 50</td>
<td>18.2 - 58.2</td>
<td>19.3</td>
<td>025 - 048</td>
<td>1.00</td>
<td>286</td>
</tr>
</tbody>
</table>

**E2 micro - one-piece design**
- non-openable

**E2 micro - one-piece design**
- openable along the inner radius with film hinge

**E2 micro - two-piece design**
- openable along the outer radius

**For new designs we recommend E2.1 system, series:**
- 1) E2C.10, 2) E2C.15, 3) E2.10, 4) E2.15

For more information, visit www.igus.eu/E2micro

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**Available from stock. Ready to ship in 24 - 48hrs.**
- *The delivery times indicated correspond to the average time until the ordered goods are dispatched.*

**igus®**
- 3D CAD, service life calculation, configurators and more
- www.igus.eu/E2micro
E2 micro | Technical data | Overview

Technical data

- Speed gliding / acceleration gliding: ≤ 3 [m/s] / ≤ 10 [m/s²]
- Speed FL₀ / acceleration FL₀: ≤ 20 [m/s²] / ≤ 200 [m/s³]
- Speed FL₈ / acceleration FL₈: ≤ 3 [m/s] / ≤ 6 [m/s²]
- Material - permitted temperature °C, igumid G: -40°C / +120°C
- Material - permitted temperature °C, igumid NB (only series 03, 074, 094): -40°C / +80°C
- Material lower part - permitted temperature °C, igumid G (only series B07, B09): -40°C / +120°C
- Material crossbar - permitted temperature °C, igumid NB (only series B07, B09): -40°C / +80°C
- Flammability class: igumid G = VDE 0304 IIC UL94-HB / igumid NB = VDE 0304 IIC UL94-V2

Installation types, maximum travels

<table>
<thead>
<tr>
<th>Series</th>
<th>Unsupported</th>
<th>Vertical hanging</th>
<th>Vertical standing</th>
<th>Side mounted unsupported</th>
<th>Rotary</th>
<th>Zip-zag</th>
</tr>
</thead>
<tbody>
<tr>
<td>03</td>
<td>≤ 0.80m</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request with rework</td>
<td>upon request</td>
<td>upon request</td>
</tr>
<tr>
<td>04</td>
<td>≤ 1.00m</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request with rework</td>
<td>upon request</td>
<td>upon request</td>
</tr>
<tr>
<td>05</td>
<td>≤ 1.10m</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request with rework</td>
<td>upon request</td>
<td>upon request</td>
</tr>
<tr>
<td>045</td>
<td>≤ 1.00m</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request with rework</td>
<td>upon request</td>
<td>upon request</td>
</tr>
<tr>
<td>B07 ³)≤ 1.10m</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request with rework</td>
<td>upon request</td>
<td>upon request</td>
</tr>
<tr>
<td>06 ¹)≤ 1.20m</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request with rework</td>
<td>upon request</td>
<td>upon request</td>
</tr>
<tr>
<td>074</td>
<td>≤ 1.10m</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request with rework</td>
<td>upon request</td>
<td>upon request</td>
</tr>
<tr>
<td>094</td>
<td>≤ 2.00m</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request with rework</td>
<td>upon request</td>
<td>upon request</td>
</tr>
<tr>
<td>B09 ⁴)≤ 2.00m</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request with rework</td>
<td>upon request</td>
<td>upon request</td>
</tr>
<tr>
<td>08 ²)≤ 2.00m</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request with rework</td>
<td>upon request</td>
<td>upon request</td>
</tr>
</tbody>
</table>

For new designs we recommend E2.1 system, series: 1) E2C.10, 2) E2C.15, 3) E2.10, 4) E2.15

E2 micro | Options and order keys

Options with order keys | Examples based on series 08

<table>
<thead>
<tr>
<th>Standard</th>
<th>NC version - (No Camber) without pretension</th>
<th>Reverse Bend Radius (RBR) for circular movements</th>
<th>ESD - electrically conductive material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part No.</td>
<td>Part No.</td>
<td>Part No.</td>
<td>Part No.</td>
</tr>
<tr>
<td>Standard</td>
<td>NC version</td>
<td>RBR</td>
<td>igumid ESD</td>
</tr>
<tr>
<td>08.50.R.0</td>
<td>08.50.R.0.NC</td>
<td>08.50.R1/R2.0</td>
<td>08.50.R.0.ESD</td>
</tr>
</tbody>
</table>

- Ready to ship* in 24 - 48 hrs.
- Delivery time* 2-5 business days
- Delivery time* several series from stock
- Delivery time* 10 business days

*The delivery times indicated correspond to the average time until the ordered goods are dispatched.

Order example | Order key and colour examples | Examples based on series 08

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 50 links
- 08.50.038.0
- + Mounting brackets: 1 set (with tie-wrap plates)
- 080.50.12PZ
- Interior separation: with 2 separators assembled every 2nd link
- 2 x B09.2.1
- Order text: 1 m 08.50.038.0 + 080.50.12PZ + 2 x B09.2.1

Order key

One piece, non-openable 08.50.038.0 Order index for colour options

<table>
<thead>
<tr>
<th>Colour</th>
<th>Order index</th>
<th>Colour</th>
<th>Order index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>Standard .0</td>
<td>Orange</td>
<td>Special colour .2</td>
</tr>
<tr>
<td>Silver-grey</td>
<td>Special colour .31</td>
<td>Yellow</td>
<td>Special colour .4</td>
</tr>
<tr>
<td>White</td>
<td>Special colour .1</td>
<td>Light grey</td>
<td>Special colour .14</td>
</tr>
<tr>
<td>Grey-white</td>
<td>Special colour .1S</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Black e-chains® available from stock.
Above special colours upon request.

More information www.igus.eu/E2micro

3D CAD, service life calculation, configurators and more www.igus.eu/E2micro
E2 micro | Series 03 | Product range
Smallest applications

e-chains® | Series 03 | One-piece, non-openable

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Bi [mm]</th>
<th>Ba [mm]</th>
<th>R Available bend radii</th>
<th>Weight [kg/m]</th>
</tr>
</thead>
<tbody>
<tr>
<td>e-chains®</td>
<td>03.05 .R</td>
<td>5</td>
<td>8.7</td>
<td>0.04</td>
</tr>
<tr>
<td></td>
<td>03.07 .R</td>
<td>7</td>
<td>10.7</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td>03.10 .R</td>
<td>10</td>
<td>13.7</td>
<td>0.06</td>
</tr>
</tbody>
</table>

Complete Part No. with required radius (R).
Example: 03.05.028.0

Installation dimensions

<table>
<thead>
<tr>
<th>Weight [kg/m]</th>
<th>Fl [kg/m]</th>
<th>FL [kg/m]</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.05</td>
<td>≤3.5</td>
<td></td>
</tr>
</tbody>
</table>

Inner height [mm] 5
Pitch [mm/link] 10
Links/m 100

Material mounting bracket - igumid G, temperature: -40° up to +120°C, VDE 0304 IIC UL94-HB

E2 micro | Series 03 | Accessories
Mounting brackets, polymer one-piece | Pivoting

Moving end

Fixed end

Width

<table>
<thead>
<tr>
<th>Weight [kg/m]</th>
<th>Part No.</th>
<th>A [mm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.05</td>
<td>03.05.12Z</td>
<td>8.7</td>
</tr>
<tr>
<td>0.07</td>
<td>03.07.12Z</td>
<td>10.7</td>
</tr>
<tr>
<td>0.10</td>
<td>03.10.12Z</td>
<td>13.7</td>
</tr>
</tbody>
</table>

Adapter plate for rapid installation for all sizes, Part No. 03.10.QF
The adapter has scored lines so that it can be adapted to the respective e-chain® width. It is not always necessary when attaching the mounting brackets. The mounting brackets can also be screwed on without the adapter plate.

Complete Part No. with required radius (R). Example: 03.05.028.0

Order example
A to indicate option with brackets pre-fitted
Full set
Series

Optional adapter plate

More information ▶ www.igus.eu/03
3D CAD, service life calculation, configurators and more ▶ www.igus.eu/E2micro
E2 micro | Series 04 | Product range

Lightweight

**e-chains® | Series 04 | One-piece, non-openable**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Bi [mm]</th>
<th>Ba [mm]</th>
<th>$R$ Available bend radii</th>
<th>Weight [kg/m]</th>
</tr>
</thead>
<tbody>
<tr>
<td>e-chains®</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>04.07 .R.0</td>
<td>7 12</td>
<td>015 018 028 038 048</td>
<td>= 0.07</td>
<td></td>
</tr>
<tr>
<td>04.10 .R.0</td>
<td>10 15</td>
<td>015 018 028 038 048</td>
<td>= 0.08</td>
<td></td>
</tr>
<tr>
<td>04.16 .R.0</td>
<td>16 21</td>
<td>015 018 028 038 048</td>
<td>= 0.09</td>
<td></td>
</tr>
<tr>
<td>04.20 .R.0</td>
<td>20 25</td>
<td>015 018 028 038 048</td>
<td>= 0.10</td>
<td></td>
</tr>
<tr>
<td>04.30 .R.0</td>
<td>30 35</td>
<td>015 018 028 038 048</td>
<td>= 0.11</td>
<td></td>
</tr>
</tbody>
</table>

Complete Part No. with required radius ($R$), Example: 04.10.028.0

**Installation dimensions**

<table>
<thead>
<tr>
<th>FLg</th>
<th>FLc</th>
<th>Inner height [mm]</th>
<th>Pitch [mm/link]</th>
<th>Links/m</th>
<th>corresponds to [mm]</th>
<th>1,002 e-chain® length $L = \frac{1}{2} + K$</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>10</td>
<td>7</td>
<td>16.7</td>
<td>60</td>
<td>1,002</td>
<td>1,002</td>
</tr>
</tbody>
</table>

Material mounting bracket - igumid G, temperature: -40° up to +120°C, VDE 0304 IIC UL94-HB

**Part No.**

<table>
<thead>
<tr>
<th>e-chains®</th>
<th>Available bend radii</th>
<th>Weight [kg/m]</th>
</tr>
</thead>
<tbody>
<tr>
<td>04.07 .R.0</td>
<td>7 12 015 018 028 038 048</td>
<td>= 0.07</td>
</tr>
<tr>
<td>04.10 .R.0</td>
<td>10 15 015 018 028 038 048</td>
<td>= 0.08</td>
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<tr>
<td>04.16 .R.0</td>
<td>16 21 015 018 028 038 048</td>
<td>= 0.09</td>
</tr>
<tr>
<td>04.20 .R.0</td>
<td>20 25 015 018 028 038 048</td>
<td>= 0.10</td>
</tr>
<tr>
<td>04.30 .R.0</td>
<td>30 35 015 018 028 038 048</td>
<td>= 0.11</td>
</tr>
</tbody>
</table>

The required clearance height: $H_F = H + 5$mm (with 0.1kg/m fill weight)

**Moving end 040.1(PZ)**

**Fixed end 040.2(PZ)**

Hole pattern for part numbers 040.07.040.20.

= drawing above left

Hole pattern for part numbers 040.30.

= drawing below left

**E2 micro | Series 04 | Accessories**

Mounting brackets, polymer one-piece | Pivoting

Possible orientations for assembled mounting brackets.

To receive brackets **pre-fitted** please add index .A2 or .A4.

Order example 040.07.12PZ.A2

3D CAD, service life calculation, configurators and more►www.igus.eu/E2micro

More information ► www.igus.eu/04

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E2 micro | Series 05 | Product range
Low weight, high dynamics, cost-effective

e-chains® | Series 05 | One-piece, non-openable

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Bi [mm]</th>
<th>Ba [mm]</th>
<th>R Available bend radii [mm]</th>
<th>Weight [kg/m]</th>
</tr>
</thead>
<tbody>
<tr>
<td>05.06 .R0</td>
<td>6</td>
<td>10</td>
<td>[018</td>
<td>028</td>
</tr>
<tr>
<td>05.10 .R0</td>
<td>10</td>
<td>14</td>
<td>[018</td>
<td>028</td>
</tr>
<tr>
<td>05.16 .R0</td>
<td>16</td>
<td>20</td>
<td>[018</td>
<td>028</td>
</tr>
<tr>
<td>05.20 .R0</td>
<td>20</td>
<td>24</td>
<td>[018</td>
<td>028</td>
</tr>
<tr>
<td>05.30 .R0</td>
<td>30</td>
<td>34</td>
<td>[018</td>
<td>028</td>
</tr>
<tr>
<td>05.64 .R0</td>
<td>64</td>
<td>68</td>
<td>[018</td>
<td>028</td>
</tr>
</tbody>
</table>

Complete Part No. with required radius (R). Example: 05.10.028.0

Installation dimensions

Inner height [mm] 10
Pitch [mm/link] 20
Links/m 50
corresponds to [mm] 1,000

Material mounting bracket - igumid G, temperature: -40°C up to +120°C, VDE 0304 IIC UL94-HB

The required clearance height: HF = H + 10mm (with 0.2kg/m fill weight)

More information ➤ www.igus.eu/05

E2 micro | Series 05 | Accessories
Mounting brackets, polymer one-piece | One end pivoting

Hole pattern for part numbers 050.06 - 050.20.
= drawing above left
Hole pattern for part numbers 050.30 - 050.64.
= drawing below left


Order example 050.10.12.A2

Full set Series

3D CAD, service life calculation, configurators and more ➤ www.igus.eu/E2micro

270 ➤ 271
e-chains® | Series 045 | One-piece, non-openable

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Bi [mm]</th>
<th>Ba [mm]</th>
<th>R [mm]</th>
<th>Weight [kg/m]</th>
</tr>
</thead>
<tbody>
<tr>
<td>045.06.R0</td>
<td>6</td>
<td>12</td>
<td>018 – 028 – 038 – 083*</td>
<td>0.09</td>
</tr>
<tr>
<td>045.10.R0</td>
<td>10</td>
<td>16</td>
<td>018 – 028 – 038</td>
<td>0.10</td>
</tr>
<tr>
<td>045.16.R0</td>
<td>16</td>
<td>22</td>
<td>018 – 028 – 038 – 083</td>
<td>0.11</td>
</tr>
<tr>
<td>045.20.R0</td>
<td>20</td>
<td>26</td>
<td>018 – 028 – 038</td>
<td>0.13</td>
</tr>
<tr>
<td>045.30.R0</td>
<td>30</td>
<td>36</td>
<td>018 – 028 – 038</td>
<td>0.16</td>
</tr>
<tr>
<td>045.64.R0</td>
<td>64</td>
<td>70</td>
<td>018 – 028 – 038</td>
<td>0.19</td>
</tr>
</tbody>
</table>

Radii 083 only for Part No. 045.20. For other widths available upon request. Please consult igus® for delivery time.

Complete Part No. with required radius (R). Example: 045.10.028.0

### Installation dimensions

- **Inner height**: 10.3 mm
- **Pitch**: 13 mm
- **Links/m**: 77
- **Corresponds to [mm]**: 1,001

**e-chain® length**: \( L_e = \frac{1}{10} + K \)

### Fill weight

**Unsupported length**: FLG / FLB [m]

<table>
<thead>
<tr>
<th>R</th>
<th>H</th>
<th>D</th>
<th>K</th>
</tr>
</thead>
<tbody>
<tr>
<td>018</td>
<td>48.5</td>
<td>44</td>
<td>85</td>
</tr>
<tr>
<td>028</td>
<td>68.5</td>
<td>54</td>
<td>115</td>
</tr>
<tr>
<td>038</td>
<td>88.5</td>
<td>64</td>
<td>150</td>
</tr>
<tr>
<td>083</td>
<td>178.5</td>
<td>109</td>
<td>290</td>
</tr>
</tbody>
</table>

The required clearance height: \( H_e = H + 10\) mm (with 0.2 kg/m fill weight)

Radii for several widths available upon request. Please see product range table above.
E2 micro | Series B07 | Product range
Openable along the outer radius, cost-effective

e-chains® | Series B07 | Openable along the outer radius, from one side

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Bi [mm]</th>
<th>Ba [mm]</th>
<th>Available bend radii</th>
<th>Weight [kg/m]</th>
</tr>
</thead>
<tbody>
<tr>
<td>B07.16.R.0</td>
<td>16</td>
<td>22.5</td>
<td>20</td>
<td>018</td>
</tr>
<tr>
<td>B07.20.R.0</td>
<td>20</td>
<td>27</td>
<td>30</td>
<td>018</td>
</tr>
<tr>
<td>B07.30.R.0</td>
<td>30</td>
<td>37</td>
<td>40</td>
<td>018</td>
</tr>
<tr>
<td>B07.40.R.0</td>
<td>40</td>
<td>47</td>
<td>50</td>
<td>018</td>
</tr>
</tbody>
</table>

For new designs we recommend E2.1 system, series E2.10 ▶ From page 326
Complete Part No. with required radius (R). Example: B07.40.038.0

Installation dimensions

<table>
<thead>
<tr>
<th>Weight [kg/m]</th>
<th>Width ≤ 8.0 mm</th>
<th>Pitch 20 mm/link</th>
<th>Links/m 50</th>
<th>e-chain® length Lx + 10 + K</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>0.16</td>
<td>0.17</td>
<td>0.20</td>
<td>0.23</td>
</tr>
</tbody>
</table>

Material mounting bracket - igumid G, temperature: -40° up to +120°C, VDE 0304 IIC UL94-HB

Order example 060.40.12PZ A1 ▶ To indicate option with brackets pre-fitted with integrated strain relief tiewrap plates

Moving end

<table>
<thead>
<tr>
<th>Part No. full set</th>
<th>Part No. full set</th>
</tr>
</thead>
<tbody>
<tr>
<td>with tiewrap plates</td>
<td>without tiewrap plates</td>
</tr>
<tr>
<td>060.16.12PZ</td>
<td>060.16.12P</td>
</tr>
<tr>
<td>060.20.12PZ</td>
<td>060.20.12P</td>
</tr>
<tr>
<td>060.30.12PZ</td>
<td>060.30.12P</td>
</tr>
<tr>
<td>060.40.12PZ</td>
<td>060.40.12P</td>
</tr>
</tbody>
</table>

Width index

<table>
<thead>
<tr>
<th>Width [mm]</th>
<th>A [mm]</th>
<th>B [mm]</th>
<th>Number of teeth</th>
</tr>
</thead>
<tbody>
<tr>
<td>16.</td>
<td>0.16</td>
<td>0.17</td>
<td>0.20</td>
</tr>
<tr>
<td>20.</td>
<td>0.17</td>
<td>0.18</td>
<td>0.21</td>
</tr>
<tr>
<td>30.</td>
<td>0.20</td>
<td>0.22</td>
<td>0.24</td>
</tr>
<tr>
<td>40.</td>
<td>0.23</td>
<td>0.25</td>
<td>0.27</td>
</tr>
</tbody>
</table>

e-chains® | Series 06 | One-piece, non-openable

Part No. | \(B_i\) [mm] | \(B_a\) [mm] | \(R\) Available bend radii | Weight [kg/m]
--- | --- | --- | --- | ---
e-chains® | | | |
06.06..R.0 | 6 | 12.5 | | 0.13
06.10..R.0 | 10 | 16.5 | | 0.14
06.16..R.0 | 16 | 22.5 | | 0.16
06.20..R.0 | 20 | 27 | | 0.17
06.30..R.0 | 30 | 37 | | 0.20
06.40..R.0 | 40 | 47 | | 0.23
06.50..R.0 | 50 | 57 | | 0.26
06.64..R.0 | 64 | 77 | | 0.30

For new designs we recommend E2.1 system, series E2C.10. From page 335

Complete Part No. with required radius (\(R\)). Example: 06.10.028.0

Installation dimensions

Width [mm] Part No. full set with tiewrap plates Part No. full set without tiewrap plates A [mm] B [mm] Number of teeth
--- | --- | --- | --- | ---
06. | 060.06..12PZ | 060.06..12P | – | 12.5 | 1
10. | 060.10..12PZ | 060.10..12P | – | 16.5 | 1
16. | 060.16..12PZ | 060.16..12P | – | 22.5 | 2
20. | 060.20..12PZ | 060.20..12P | – | 27.0 | 2
30. | 060.30..12PZ | 060.30..12P | 22 | 37.0 | 3
40. | 060.40..12PZ | 060.40..12P | 32 | 47.0 | 4
50. | 060.50..12PZ | 060.50..12P | 42 | 57.0 | 5
64. | 060.64..12PZ | 060.64..12P | 56 | 71.0 | 6

Material mounting bracket - igumid G, temperature: -40° up to +120°C, VDE 0304 IIC UL94-HB

The required clearance height, \(HF = H + 10\text{mm}\) (with 0.2kg/m fill weight)

060.10..12PZ A1 Order example A1 to indicate option with brackets pre-fitted With integrated strain relief tiewrap plates Full set Series

e-chains® | Series 074 | Openable along the inner radius from one side with film hinge

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Bi [mm]</th>
<th>Ba [mm]</th>
<th>R Available bend radii [mm]</th>
<th>Weight [kg/m]</th>
</tr>
</thead>
<tbody>
<tr>
<td>074. 06/R.0</td>
<td>06</td>
<td>12.3</td>
<td>018 028 038</td>
<td>0.14</td>
</tr>
<tr>
<td>074. 10/R.0</td>
<td>10</td>
<td>16.3</td>
<td>018 028 038</td>
<td>0.15</td>
</tr>
<tr>
<td>074. 16/R.0</td>
<td>16</td>
<td>22.3</td>
<td>018 028 038</td>
<td>0.16</td>
</tr>
<tr>
<td>074. 20/R.0</td>
<td>20</td>
<td>26.3</td>
<td>018 028 038</td>
<td>0.17</td>
</tr>
<tr>
<td>074. 30/R.0**</td>
<td>30</td>
<td>36.3</td>
<td>018 028 038</td>
<td>0.20</td>
</tr>
<tr>
<td>074. 40/R.0**</td>
<td>40</td>
<td>46.3</td>
<td>018 028 038</td>
<td>0.23</td>
</tr>
</tbody>
</table>

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

Complete Part No. with required radius (R). Example: 074.10.018.0

Installation dimensions

Inner height [mm] 11.5
Pitch [mm/link] 20
Links/m 50
corresponds to [mm] 1,000
e-chain® length \( L + 10 \times H \)

The required clearance height: \( H = H + 10 \text{mm} \) (with 0.2kg/m fill weight)

Material mounting bracket - igumid G, temperature: -40° up to +120°C, VDE 0304 IIC UL94-HB

<table>
<thead>
<tr>
<th>Width [mm]</th>
<th>Part No. full set with tiewrap plates</th>
<th>Part No. full set without tiewrap plates</th>
<th>Number of teeth</th>
</tr>
</thead>
<tbody>
<tr>
<td>06.</td>
<td>060.06.12PZ</td>
<td>060.06.12P</td>
<td>1.0</td>
</tr>
<tr>
<td>10.</td>
<td>060.10.12PZ</td>
<td>060.10.12P</td>
<td>1.0</td>
</tr>
<tr>
<td>16.</td>
<td>060.16.12PZ</td>
<td>060.16.12P</td>
<td>2.0</td>
</tr>
<tr>
<td>20.</td>
<td>060.20.12PZ</td>
<td>060.20.12P</td>
<td>2.0</td>
</tr>
<tr>
<td>30.</td>
<td>060.30.12PZ**</td>
<td>060.30.12P**</td>
<td>3.0</td>
</tr>
<tr>
<td>40.</td>
<td>060.40.12PZ**</td>
<td>060.40.12P**</td>
<td>4.0</td>
</tr>
</tbody>
</table>

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


Order example 060.10-12PZ A1
E2 micro | Series 094 | Product range
Openable along the inner radius, cost-effective

---

e-chains® | Series 094 | Openable along the inner radius from one side with film hinge

Part No.  | Bi  | Ba  | R  | Weight
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>094.10.R.0</td>
<td>10</td>
<td>18.2</td>
<td>028</td>
<td>028</td>
</tr>
<tr>
<td>094.16.R.0</td>
<td>16</td>
<td>24.2</td>
<td>028</td>
<td>028</td>
</tr>
<tr>
<td>094.20.R.0</td>
<td>20</td>
<td>28.2</td>
<td>028</td>
<td>028</td>
</tr>
<tr>
<td>094.30.R.0</td>
<td>30</td>
<td>38.2</td>
<td>028</td>
<td>028</td>
</tr>
<tr>
<td>094.40.R.0.**</td>
<td>40</td>
<td>48.2</td>
<td>028</td>
<td>028</td>
</tr>
</tbody>
</table>

**Width available upon request. Please consult igus® for delivery time. Complete Part No. with required radius (R). Example: 094.10.028.0

Installation dimensions

![Diagram showing installation dimensions](image)

<table>
<thead>
<tr>
<th>Index</th>
<th>Part No. full set with tiwrap plates</th>
<th>Part No. full set without tiwrap plates</th>
<th>A</th>
<th>B</th>
<th>Number of teeth</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.</td>
<td>080.10. 12PZ</td>
<td>080.10. 12P</td>
<td>–</td>
<td>18.2</td>
<td>1</td>
</tr>
<tr>
<td>16.</td>
<td>080.10. 12PZ</td>
<td>080.10.12P</td>
<td>–</td>
<td>24.2</td>
<td>2</td>
</tr>
<tr>
<td>20.</td>
<td>080.20. 12PZ</td>
<td>080.20. 12P</td>
<td>–</td>
<td>28.2</td>
<td>2</td>
</tr>
<tr>
<td>30.</td>
<td>080.30. 12PZ</td>
<td>080.30. 12P</td>
<td>–</td>
<td>38.2</td>
<td>3</td>
</tr>
<tr>
<td>40.</td>
<td>080.40.12PZ</td>
<td>080.40. 12P</td>
<td>–</td>
<td>48.2</td>
<td>4</td>
</tr>
</tbody>
</table>

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

Material mounting bracket - igumid G, temperature: -40° up to +120°C, VDE 0304 IIC UL94-HB

---

E2 micro | Series 094 | Accessories
Mounting brackets, polymer one-piece | Locking

Moving end

Fixed end

Hole pattern for part numbers 080.10. - 080.20.
- drawing above left
Hole pattern for part numbers 080.30. - 080.40.
- drawing below left

---

E2 micro | Series 094 | Product range
Openable along the inner radius, cost-effective

---

E2 micro | Series 094 | Accessories
Mounting brackets, polymer one-piece | Locking

Moving end

Fixed end

Hole pattern for part numbers 080.10. - 080.20.
- drawing above left
Hole pattern for part numbers 080.30. - 080.40.
- drawing below left

---

E2 micro | Series 094 | Accessories
Mounting brackets, polymer one-piece | Locking

Moving end

Fixed end

Hole pattern for part numbers 080.10. - 080.20.
- drawing above left
Hole pattern for part numbers 080.30. - 080.40.
- drawing below left
### E2 micro | Series B09 | Openable along the outer radius, cost-effective

#### e-chains® | Series B09 | Openable along the outer radius, from one side

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Bi [mm]</th>
<th>Ba [mm]</th>
<th>R Available bend radii</th>
<th>Weight [kg/m]</th>
</tr>
</thead>
<tbody>
<tr>
<td>e-chains®</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B09.16 ... R.0</td>
<td>16</td>
<td>24.2</td>
<td>[028</td>
<td>038</td>
</tr>
<tr>
<td>B09.20 ... R.0</td>
<td>20</td>
<td>28.2</td>
<td>[028</td>
<td>038</td>
</tr>
<tr>
<td>B09.30 ... R.0</td>
<td>30</td>
<td>38.2</td>
<td>[028</td>
<td>038</td>
</tr>
<tr>
<td>B09.40 ... R.0</td>
<td>40</td>
<td>48.2</td>
<td>[028</td>
<td>038</td>
</tr>
</tbody>
</table>

For new designs we recommend E2.1 system, series E2.15 [From page 330].

Complete Part No. with required radius (R). Example: B09.40.038.0

#### Installation dimensions

<table>
<thead>
<tr>
<th>FL0</th>
<th>FL1</th>
<th>FL2</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00</td>
<td>0.25</td>
<td>0.50</td>
</tr>
<tr>
<td>0.75</td>
<td>1.00</td>
<td>1.25</td>
</tr>
</tbody>
</table>

**Inner height [mm]**: 14.3

**Pitch [mm/link]**: 20

**Links/m**: 50

**corresponds to [mm]**: 1,000

**e-chain® length**: \( L_e + \frac{1}{2}R - K \)

**Unsuspended length**: \( \frac{L_u - L_e}{2} + \frac{L_u}{2} \)

**Unsuspended length**: 0.32 mm

**Property length**: 0.50 mm

**Moving end**

**Fixed end**

**Moving end 080 ... 1P(Z)**

**Fixed end 080 ... 2P(Z)**

**Hole pattern for part numbers**

080.16. - 080.20. = drawing above left

080.30. - 080.40. = drawing below left

#### Width index

<table>
<thead>
<tr>
<th>Width index</th>
<th>Part No. full set with tiewrap plates</th>
<th>Part No. full set without tiewrap plates</th>
<th>A [mm]</th>
<th>B [mm]</th>
<th>Number of teeth</th>
</tr>
</thead>
<tbody>
<tr>
<td>16.</td>
<td>080.16. 12PZ 080.16. 12P</td>
<td>–</td>
<td>24.2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>20.</td>
<td>080.20. 12PZ 080.20. 12P</td>
<td>–</td>
<td>28.2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>30.</td>
<td>080.30. 12PZ 080.30. 12P</td>
<td>22</td>
<td>38.2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>40.</td>
<td>080.40. 12PZ 080.40. 12P</td>
<td>32</td>
<td>48.2</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

Material mounting bracket - igumid G, temperature: -40° up to +120°C, VDE 0304 IIC UL94-HB


### E2 micro | Series B09 | Accessories

Mounting brackets, polymer one-piece | Locking

#### Moving end 080 ... 1P(Z)

#### Fixed end 080 ... 2P(Z)

Order example

080.40.12PZ .A1

To indicate option with brackets pre-fitted

With integrated strain relief tiewrap plates

Full set

Series
E2 micro | Series B09 | Accessories

Interior separation

No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-chain® link!

Slotted separator
For easy vertical separation. The slot allows basic vertical/horizontal shelving arrangements.

Full-width shelf
This option is for applications with many small cables with similar diameters. For full width separation.

Full-width shelves
Width = X [mm]

<table>
<thead>
<tr>
<th>Width [mm]</th>
<th>Unassembled</th>
<th>Assembled</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>110.10</td>
<td>111.10</td>
</tr>
<tr>
<td>110</td>
<td>110.13</td>
<td>111.13</td>
</tr>
<tr>
<td>120</td>
<td>110.16</td>
<td>111.16</td>
</tr>
</tbody>
</table>

E2 micro | Application example

E2 micro e-chain® space-saving, zig-zag design in a mobile OP table

More information ► www.igus.eu/B09

E2 micro | Application example

E2 micro e-chain® space-saving, zig-zag design in a mobile OP table

3D CAD, service life calculation, configurators and more ► www.igus.eu/E2micro
e-chains® | Series 08 | One-piece, non-openable

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Bi [mm]</th>
<th>Ba [mm]</th>
<th>R Available bend radii</th>
<th>Weight [kg/m]</th>
</tr>
</thead>
<tbody>
<tr>
<td>08.10 .R.0</td>
<td>10</td>
<td>18.2</td>
<td></td>
<td>025</td>
</tr>
<tr>
<td>08.13 .R.0</td>
<td>13</td>
<td>21.2</td>
<td></td>
<td>025*</td>
</tr>
<tr>
<td>08.16 .R.0</td>
<td>16</td>
<td>24.2</td>
<td></td>
<td>025*</td>
</tr>
<tr>
<td>08.20 .R.0</td>
<td>20</td>
<td>28.2</td>
<td></td>
<td>025</td>
</tr>
<tr>
<td>08.30 .R.0</td>
<td>30</td>
<td>38.2</td>
<td></td>
<td>025*</td>
</tr>
<tr>
<td>08.40 .R.0</td>
<td>40</td>
<td>48.2</td>
<td></td>
<td>025*</td>
</tr>
<tr>
<td>08.50 .R.0</td>
<td>50</td>
<td>58.2</td>
<td></td>
<td>025*</td>
</tr>
</tbody>
</table>

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

For new designs we recommend E2.1 system, series E2C.15. From page 330

Complete Part No. with required radius (R). Example: 08.50.038.0

Installation dimensions

- Inner height [mm]: 15
- Pitch [mm/lin]: 20
- Links/m: 50
- Corresponds to [mm]: 1,000 e-chain® length

The required clearance height: HF = H + 15mm (with 0.3kg/m fill weight)

For all widths available upon request, please see product range table above.
No lateral gap to side links necessary. As standard separators are fitted every 2nd e-chain® link!

### Slotted separator

For easy vertical separation. The slot allows basic vertical/horizontal shelving arrangements.

### Full-width shelf

This option is for applications with many small cables with similar diameters. For full width separation.

<table>
<thead>
<tr>
<th>Full-width shelves</th>
<th>Width = X [mm]</th>
<th>X [mm]</th>
<th>unassembled</th>
<th>assembled</th>
<th>unassembled</th>
<th>assembled</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>010</td>
<td>110.10</td>
<td>111.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>013</td>
<td>110.13</td>
<td>111.13</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>016</td>
<td>110.16</td>
<td>111.16</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>020</td>
<td>110.20</td>
<td>111.20</td>
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<td></td>
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<td>030</td>
<td>110.30</td>
<td>111.30</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>040</td>
<td>110.40</td>
<td>111.40</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>050</td>
<td>110.50</td>
<td>111.50</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Series 03 - extremely small installation space on a paint-spraying machine
Small and medium sizes

Advantages of the E2 mini series:
- If a small, but extremely strong e-chain® is required
- Quiet operation due to small pitch
- For highly dynamic applications
- Variety of options - E2 mini as non-openable or openable along the inner or outer radius

When to use another e-chain® series:
- When openable crossbars are required
  - E2.1 micro, page 320
  - zipper, page 226
- When easy filling with connectorised cables is required
  - easy chain®, page 198
Small and medium sizes - E2 mini

E2 mini are small one- or two-piece e-chains®, recommended for highly dynamic applications. igus® also offers a range of accessories and fixation options. Upgrades to openable versions are available for many types. Different types are interchangeable and can also serve as replacements.

Typical industries and applications

- Construction machinery
- Handling
- Furniture
- Packaging machines
- Textile machines
- Vehicle applications
- Woodworking machines
- Glass machines
- Automation
- General machinery, etc.

Flexible use:

- one-piece e-chains®, openable along the outer radius (series B15/B17)
- two-piece e-chains®, openable along the outer radius (series B15/B17)
- two-piece e-chains®, openable along the inner radius (series B15i/B17i)

UL94-V2 classification - for series 14 and F17 (UL94-V0 upon request)

Electrically conductive ESD e-chains® upon request

E2 mini - one-piece e-chains®

<table>
<thead>
<tr>
<th>Series</th>
<th>Inner height hi [mm]</th>
<th>Inner width B1 [mm]</th>
<th>Outer width Ba [mm]</th>
<th>Outer height ha [mm]</th>
<th>Bend radius R [mm]</th>
<th>Unsupported length ≤ [m]</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>18</td>
<td>15 - 100</td>
<td>26 - 113</td>
<td>23</td>
<td>028 – 180</td>
<td>1.20</td>
</tr>
<tr>
<td>11.031</td>
<td>23</td>
<td>31</td>
<td>41.2</td>
<td>28</td>
<td>045 – 070</td>
<td>≈1.35 300</td>
</tr>
<tr>
<td>11.080</td>
<td>28</td>
<td>80</td>
<td>93</td>
<td>33.4</td>
<td>038 – 065</td>
<td>1.50 302</td>
</tr>
<tr>
<td>11.1/11.2</td>
<td>41</td>
<td>15 - 25</td>
<td>25.5 - 35.5</td>
<td>46</td>
<td>040 – 100</td>
<td>≈1.35 304</td>
</tr>
</tbody>
</table>

E2 mini - two-piece e-chains®

<table>
<thead>
<tr>
<th>Series</th>
<th>Inner height hi [mm]</th>
<th>Inner width B1 [mm]</th>
<th>Outer width Ba [mm]</th>
<th>Outer height ha [mm]</th>
<th>Bend radius R [mm]</th>
<th>Unsupported length ≤ [m]</th>
</tr>
</thead>
<tbody>
<tr>
<td>B15</td>
<td>17</td>
<td>15 - 100</td>
<td>26 - 113</td>
<td>23</td>
<td>038 – 180</td>
<td>1.20 308</td>
</tr>
<tr>
<td>B17</td>
<td>32</td>
<td>15 - 100</td>
<td>25.5 - 113</td>
<td>39</td>
<td>048 – 125</td>
<td>1.00 310</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Series</th>
<th>Inner height hi [mm]</th>
<th>Inner width B1 [mm]</th>
<th>Outer width Ba [mm]</th>
<th>Outer height ha [mm]</th>
<th>Bend radius R [mm]</th>
<th>Unsupported length ≤ [m]</th>
</tr>
</thead>
<tbody>
<tr>
<td>B15i</td>
<td>17</td>
<td>15 - 100</td>
<td>26 - 113</td>
<td>23</td>
<td>038 – 180</td>
<td>1.20 308</td>
</tr>
<tr>
<td>B17i</td>
<td>32</td>
<td>25 - 63</td>
<td>35.5 - 76</td>
<td>39</td>
<td>048 – 125</td>
<td>1.00 310</td>
</tr>
</tbody>
</table>

*Radii for several widths available upon request (please see product range table).

Available from stock. Ready to ship in 24 - 48hrs.*

*The delivery times indicated correspond to the average time until the ordered goods are dispatched.
### Technical data

- **Speed gliding / acceleration gliding**: ≤ 3 [m/s] / ≤ 10 [m/s²]
- **Speed FLG / acceleration FLG**: ≤ 20 [m/s] / ≤ 200 [m/s²]
- **Speed FLB / acceleration FLB**: ≤ 3 [m/s] / ≤ 6 [m/s²]
- **Material - permitted temperature °C, igumid G**: -40°C / +120°C
- **Material - permitted temperature °C, igumid NB (only Series 14)**: -40°C / +80°C
- **Material lower part - permitted temperature °C, igumid G (only Series B15/B15i, B17/B17i, F17)**: -40°C / +120°C
- **Material crossbar - permitted temperature °C, igumid NB (only Series B15/B15i, B17/B17i, F17)**: -40°C / +80°C

**Rammability class**: igumid G = VDE 0304 IIC UL94-HB / igumid NB = VDE 0304 IIC UL94-V2

- **FLG**: unsupported with straight upper run
- **FLB**: unsupported with permitted sag

### Installation types, maximum travels

<table>
<thead>
<tr>
<th>Series</th>
<th>Unsupported</th>
<th>Vertical hanging</th>
<th>Vertical standing</th>
<th>Side mounted unsupported</th>
<th>Rotary</th>
<th>Zip-zag</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>≤ 2.40m</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request</td>
</tr>
<tr>
<td>11.031</td>
<td>≤ 2.70m</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request</td>
<td>—</td>
<td>upon request</td>
</tr>
<tr>
<td>11.080</td>
<td>≤ 3.00m</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request</td>
<td>—</td>
<td>upon request</td>
</tr>
<tr>
<td>11.1/11.2</td>
<td>≤ 2.70m</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request</td>
</tr>
<tr>
<td>14</td>
<td>≤ 1.30m</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request</td>
</tr>
<tr>
<td>B15i / B15</td>
<td>≤ 2.40m</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request</td>
</tr>
<tr>
<td>B17i / B17</td>
<td>≤ 2.00m</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request</td>
</tr>
<tr>
<td>F17</td>
<td>≤ 2.40m</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request</td>
</tr>
</tbody>
</table>

### Options and order keys

#### Options with order keys | Examples based on series B15

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Standard</th>
<th>Part No.</th>
<th>NC version</th>
<th>Part No.</th>
<th>RBR</th>
<th>Part No.</th>
<th>XXL material</th>
<th>Part No.</th>
<th>igumid ESD</th>
</tr>
</thead>
<tbody>
<tr>
<td>B15.025.R.0</td>
<td>NC version - (No Camber) without pretension</td>
<td>B15.025.R/1/2.R.0</td>
<td>Reverse Bend Radius (RBR) for circular movements</td>
<td>B15.025.R.0.XXL</td>
<td>Unsupported lengths +25% possible</td>
<td>B15.025.R.0.ESD</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Ready to ship** in 24 - 48 hrs.
- **Delivery time** 2-5 business days
- **Delivery time** several series from stock
- **Delivery time** 5 business days
- **Delivery time** 10 business days

#### Order example | Order key and colour examples | Examples based on series B15

**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 33 links
- **+ Mounting brackets** 1 set (with tie-wrap plates)
- **Interior separation** with 2 separators assembled every 2nd link

**Order text:**

- **1 m** B15.025.038.0 + 1025.34PZ + 2 x 154

**Order key**

- **Order key for colour options**
  - B15.025.038.0
  - B15.025.038.0

**Order index for colour options**

<table>
<thead>
<tr>
<th>Colour</th>
<th>Colour index</th>
<th>Order index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>Standard .0</td>
<td>Orange Special colour .2</td>
</tr>
<tr>
<td>Silver-grey</td>
<td>Special colour .31</td>
<td>Yellow Special colour .4</td>
</tr>
<tr>
<td>White</td>
<td>Special colour .1</td>
<td>Light grey Special colour .14</td>
</tr>
<tr>
<td>Grey-white</td>
<td>Special colour .1S</td>
<td>Black e-chains® available from stock. Above special colours upon request.</td>
</tr>
</tbody>
</table>

More information → www.igus.eu/E2mini

3D CAD, service life calculation, configurators and more → www.igus.eu/E2mini
e-chains® | Series 10 | One-piece, non-openable

**Part No.**

<table>
<thead>
<tr>
<th>Bi</th>
<th>Ba</th>
<th>R</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>e-chains®</td>
<td>[mm]</td>
<td>[mm]</td>
<td>[mm]</td>
</tr>
<tr>
<td>10.015.R.0</td>
<td>15</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>10.025.R.0</td>
<td>25</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>10.038.R.0</td>
<td>38</td>
<td>49</td>
<td></td>
</tr>
<tr>
<td>10.050,R.0</td>
<td>50</td>
<td>61</td>
<td></td>
</tr>
<tr>
<td>10.5,R.0</td>
<td>63</td>
<td>76</td>
<td></td>
</tr>
<tr>
<td>10.6,R.0</td>
<td>80</td>
<td>94</td>
<td></td>
</tr>
<tr>
<td>10.7,R.0</td>
<td>100</td>
<td>113</td>
<td></td>
</tr>
</tbody>
</table>

**Installation dimensions**

<table>
<thead>
<tr>
<th>Weight</th>
<th>Part No.</th>
<th>Part No.</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bi</td>
<td>Ba</td>
<td>R Available bend radii</td>
<td>Weight</td>
</tr>
<tr>
<td>e-chains®</td>
<td>[mm]</td>
<td>[mm]</td>
<td>[mm]</td>
</tr>
<tr>
<td>10.015.R.0</td>
<td>15</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>10.025.R.0</td>
<td>25</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>10.038.R.0</td>
<td>38</td>
<td>49</td>
<td></td>
</tr>
<tr>
<td>10.050,R.0</td>
<td>50</td>
<td>61</td>
<td></td>
</tr>
<tr>
<td>10.5,R.0</td>
<td>63</td>
<td>76</td>
<td></td>
</tr>
<tr>
<td>10.6,R.0</td>
<td>80</td>
<td>94</td>
<td></td>
</tr>
<tr>
<td>10.7,R.0</td>
<td>100</td>
<td>113</td>
<td></td>
</tr>
</tbody>
</table>

Before using this series on long travels please consult igus®.

Complete Part No. with required radius (R). Example: 10.025.038.0

**Moving end**

10 ... 3P(Z) / 10 ... 1P(Z)

**Fixed end**

10 ... 4P(Z) / 10 ... 2P(Z)

**Hole pattern for part numbers 1015. - 1050.**

= drawing above left

= drawing below left

**Width**

<table>
<thead>
<tr>
<th>Index</th>
<th>Part No. full set pivoting</th>
<th>Part No. full set locking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bi</td>
<td>Ba</td>
<td>R Available bend radii</td>
</tr>
<tr>
<td>e-chains®</td>
<td>[mm]</td>
<td>[mm]</td>
</tr>
<tr>
<td>10.015.R.0</td>
<td>15</td>
<td>26</td>
</tr>
<tr>
<td>10.025.R.0</td>
<td>25</td>
<td>36</td>
</tr>
<tr>
<td>10.038.R.0</td>
<td>38</td>
<td>49</td>
</tr>
<tr>
<td>10.050,R.0</td>
<td>50</td>
<td>61</td>
</tr>
<tr>
<td>10.5,R.0</td>
<td>63</td>
<td>76</td>
</tr>
<tr>
<td>10.6,R.0</td>
<td>80</td>
<td>94</td>
</tr>
<tr>
<td>10.7,R.0</td>
<td>100</td>
<td>113</td>
</tr>
</tbody>
</table>

**Possible orientations for assembled mounting brackets. To receive brackets pre-fitted please add index .A1, .A2, .A3 or .A4.**

The required clearance height: \( H_y = H + 20 \text{mm} \) (with 0.5kg/m fill weight)
E2 mini | Series 10 | Accessories

Interior separation

No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-chain® link!

Separator
For easy vertical separation in e-chains®. Separators can be arranged in any position in the e-chain® cross-section.
Interior separation is not possible for series 10.015.R.0.

Options | With moulded-in vertical separation

<table>
<thead>
<tr>
<th>Part No.</th>
<th>e-chains®</th>
<th>Ø/D</th>
<th>Ø/a</th>
<th>R</th>
<th>Available bend radii</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.038.R.0,5</td>
<td>38 49</td>
<td>075</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.050.R.0,6</td>
<td>50 61</td>
<td>075</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chamber</th>
<th>A</th>
<th>B</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>design</td>
<td>[mm]</td>
<td>[mm]</td>
<td>[kg/m]</td>
</tr>
<tr>
<td>10 15</td>
<td>0.79</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 21</td>
<td>0.86</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Complete Part No. with required radius (R). Example: 10.038.075.0,3 or 10.050.075.0,3.
E2 mini | Series 11.031 | Product range
Large inner height, asymmetric design

E2 mini | Series 11.031 | Accessories
Mounting brackets, polymer one-piece | Pivoting

**Installation dimensions**

- **Part No.**
  - **Bi** (Bi)
  - **Ba** (Ba)
  - **R** (Available bend radii)
  - **Weight** (kg/m)

<table>
<thead>
<tr>
<th>Bi [mm]</th>
<th>Ba [mm]</th>
<th>R [mm]</th>
<th>Weight [kg/m]</th>
</tr>
</thead>
<tbody>
<tr>
<td>41.2</td>
<td>31</td>
<td>045</td>
<td>070</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.43</td>
</tr>
</tbody>
</table>

Complete Part No. with required radius (R): Example: 11.031.045.0

**Inner height** [mm] 23
**Pitch** [mm/link] 30.5
**Links/m** 33
**e-chain® length** \( L_e = 1,006.5 \) \( L_e \) corresponds to [mm] 28

**Moving end**

- **11 ... 1P(Z)**
- **Fixed end**

- **Order example**
  - **11.031.12PZ.A2**
  - **11.031.12P**
  - **3D CAD, service life calculation, configurators and more**

- **Part No. full set**
  - **with tielwrap plates**
  - **without tielwrap plates**

<table>
<thead>
<tr>
<th>Width index</th>
<th>Part No. full set</th>
<th>Part No. full set</th>
<th>A [mm]</th>
<th>B [mm]</th>
<th>Number of teeth</th>
</tr>
</thead>
<tbody>
<tr>
<td>031.01</td>
<td>11.031.12PZ</td>
<td>11.031.12P</td>
<td>16</td>
<td>42</td>
<td>3</td>
</tr>
</tbody>
</table>

**3D CAD, service life calculation, configurators and more**

**More information**

- **www.igus.eu/11.031**
- **www.igus.eu/E2mini**

The required clearance height: \( H_F = H + 20 \text{mm} \) (with 0.5kg/m fill weight)
E2 mini | Series 11.080 | Product range
Large inner height, asymmetric design

E2 mini | Series 11.080 | Accessories
Mounting brackets, polymer one-piece | Pivoting

Moving end 11 ... 1P(Z)
Fixed end 11 ... 2P(Z)

Moving end
Fixed end

Width [mm] Part No. full set with tiewrap plates Part No. full set without tiewrap plates
080. 11.080.12PZ 11.080.12P

Part No. Bi Ba R Available bend radii

Chamber design A B Weight [mm] [mm] [mm] [mm] [kg/m]
e-chains®

11.080.R 80 93 038 065

Part No.

Complete Part No. with required radius (R). Example: 11.080.038.0

Installation dimensions

Inner height [mm] 28
Pitch [mm/ln] 30.5
Links/m 33

corresponds to

1,006.5

e-chain® length

L_e = 10 + K

The required clearance height: \( H_F = H + 20 \text{mm} \) (with 0.5 kg/m fill weight)
E2 mini | Series 11.1 11.2 | Product range

Very large inner height, small outer width, asymmetric design

e-chains® | Series 11.1 11.2 | One-piece, non-openable

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Bi [mm]</th>
<th>Ba [mm]</th>
<th>R [mm]</th>
<th>Available bend radii</th>
<th>Weight [kg/m]</th>
</tr>
</thead>
<tbody>
<tr>
<td>e-chains®</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.1.B.0</td>
<td>15</td>
<td>25</td>
<td>040</td>
<td>063 075 100</td>
<td>0.50</td>
</tr>
<tr>
<td>11.2.B.0</td>
<td>25</td>
<td>35.5</td>
<td>040</td>
<td>063 075 100</td>
<td>0.53</td>
</tr>
</tbody>
</table>

Complete Part No. with required radius (R). Example: 11.1.040.0

Installation dimensions

Part No. with required radius (R). Example: 11.1.040.0

Moving end

Fixed end

E2 mini | Series 11.1 11.2 | Accessories

Mounting brackets, polymer one-piece | Locking

Possible orientation for assembled mounting brackets. To receive brackets pre-fitted please add index A4.

Order example

101.12PZ.A4

Part No. full set with tie wrap plates

Part No. full set without tie wrap plates

A

B

Number of teeth

1

101.12PZ

101.12P

–

26

2

102.12PZ

102.12P

10

36

3

More information ▶ www.igus.eu/11.1

3D CAD, service life calculation, configurators and more ▶ www.igus.eu/E2mini
E2 mini | Series 14 | Product range
Openable along the inner radius, enclosed outer radius

e-chains® | Series 14 | Openable along the inner radius from one side with film hinge

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Bi [mm]</th>
<th>Ba [mm]</th>
<th>R Available bend radii</th>
<th>Weight [kg/m]</th>
</tr>
</thead>
<tbody>
<tr>
<td>e-chains®</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.1 .R</td>
<td>0</td>
<td>15</td>
<td>028 038 048 075 100 125</td>
<td>0.31</td>
</tr>
<tr>
<td>14.2 .R</td>
<td>0</td>
<td>25</td>
<td>028 038 048 075 100 125</td>
<td>0.32</td>
</tr>
<tr>
<td>14.3 .R</td>
<td>0</td>
<td>38</td>
<td>028 038 048 075 100 125</td>
<td>0.40</td>
</tr>
<tr>
<td>14.4 .R</td>
<td>0</td>
<td>50</td>
<td>028 038 048 075 100 125</td>
<td>0.41</td>
</tr>
</tbody>
</table>

Complete Part No. with required radius (R). Example: 14.2.038.0

Installation dimensions

<table>
<thead>
<tr>
<th>FLi</th>
<th>Bi</th>
<th>FLB</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>28</td>
<td>0.75</td>
</tr>
<tr>
<td>0.75</td>
<td>100</td>
<td>2</td>
</tr>
<tr>
<td>1.00</td>
<td>125</td>
<td>2.25</td>
</tr>
</tbody>
</table>

The required clearance height: HF = H + 20mm (with 0.5kg/m fill weight)

Part No. | e-chains® | Bi [mm] | Ba [mm] | R Available bend radii | Weight [kg/m] |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>0</td>
<td>15</td>
<td>028 038 048 075 100 125</td>
<td>0.31</td>
<td></td>
</tr>
<tr>
<td>14.2</td>
<td>0</td>
<td>25</td>
<td>028 038 048 075 100 125</td>
<td>0.32</td>
<td></td>
</tr>
<tr>
<td>14.3</td>
<td>0</td>
<td>38</td>
<td>028 038 048 075 100 125</td>
<td>0.40</td>
<td></td>
</tr>
<tr>
<td>14.4</td>
<td>0</td>
<td>50</td>
<td>028 038 048 075 100 125</td>
<td>0.41</td>
<td></td>
</tr>
</tbody>
</table>

Material mounting bracket - igumid G, temperature: -40° up to +120°C, VDE 0304 IIC UL94-HB

E2 mini | Series 14 | Accessories
Mounting brackets, polymer one-piece | Locking

Moving end
114 ... 1P(Z)

Fixed end
114 ... 2P(Z)

Width Part No. full set Part No. full set A B Number of teeth
<table>
<thead>
<tr>
<th>index</th>
<th>with tiewrap plates</th>
<th>without tiewrap plates</th>
<th>[mm]</th>
<th>[mm]</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>114.1.12PZ</td>
<td>114.1.12P</td>
<td>26.3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>114.2.12PZ</td>
<td>114.2.12P</td>
<td>10</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>114.3.12PZ</td>
<td>114.3.12P</td>
<td>23</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>114.4.12PZ</td>
<td>114.4.12P</td>
<td>35</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>


Order example to indicate option with brackets pre-fitted With integrated strain relief tiewrap plates Full set Series

114.2.12PZ.A1
e-chains® | Series B15i
Openable along the inner or outer radius

**Installation dimensions**

<table>
<thead>
<tr>
<th>FLB</th>
<th>FLG</th>
<th>B15</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>17</td>
<td>23</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FLB</th>
<th>FLG</th>
<th>B15</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>17</td>
<td>23</td>
</tr>
</tbody>
</table>

**Part No. e-chains®**
- Openable along the inner radius
  - B15.015.R0
  - B15.025.R0
  - B15.050.R0
  - B15.075.R0
  - B15.100.R0
  - B15.110.R0
  - B15.125.R0
  - B15.145.R0
  - B15.180.R0

**Part No. e-chains®**
- Openable along the outer radius
  - B15.015.P0
  - B15.025.P0
  - B15.050.P0
  - B15.075.P0
  - B15.100.P0
  - B15.110.P0
  - B15.125.P0
  - B15.145.P0
  - B15.180.P0

**Complete Part No.** with required radius (R):
- Example: B15.038.R0
E2 mini | Series B15i B15 | Accessories

Interior separation

No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-chain® link!

Slotted separator
For easy vertical separation. The slot allows basic vertical/horizontal shelving arrangements.

Slotted side plate
Allows modular shelving right up to the side links. No clearance required!

Full-width shelf
This option is for applications with many small cables with similar diameters. For full width separation.

Full-width shelves
Width = \( X \) [mm]

<table>
<thead>
<tr>
<th></th>
<th>unassembled</th>
<th>assembled</th>
<th></th>
<th>unassembled</th>
<th>assembled</th>
</tr>
</thead>
<tbody>
<tr>
<td>015</td>
<td>110.15</td>
<td>111.15</td>
<td>050</td>
<td>110.50</td>
<td>111.50</td>
</tr>
<tr>
<td>025</td>
<td>110.25</td>
<td>111.25</td>
<td>063</td>
<td>110.63</td>
<td>111.63</td>
</tr>
<tr>
<td>038</td>
<td>110.38</td>
<td>111.38</td>
<td>080</td>
<td>110.80</td>
<td>111.80</td>
</tr>
</tbody>
</table>

E2 mini is a space-saving, reliable cable guide, here supplying power to lift doors.
e-chains® | Series B17i
Openable along the inner or outer radius

Part No. series B17i
B17i.1...B17i.7

Part No. series B17
B17.1...B17.7

Bi [mm]
B17i.1 15
B17i.2 25
B17i.3 38
B17i.4 50
B17i.5 63
B17i.6 80
B17i.7 100

Ba [mm]
B17i.1 25.5
B17i.2 35.5
B17i.3 48.5
B17i.4 60.5
B17i.5 76
B17i.6 93
B17i.7 113

R Available bend radii
B17i 0.048 0.063 0.075 0.100 0.125
B17 0.048 0.063 0.075 0.100 0.125

Weight [kg/m]
≈ 0.52
≈ 0.59
≈ 0.65
≈ 0.70
≈ 0.83
≈ 0.92
≈ 1.06

Radii for several widths available upon request (please see product range table above).

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

Installation dimensions

- Inner height [mm] 32
- Pitch [mm/60°] 30.5
- Links/m 33
- Corresponds to [mm] 1,006.5
- e-chain® length
- L = 1/6 + K

FLG [mm]
S
B17

Fixed end
Moving end

Order example
A1 - 117.2.12PZ A1


117.2 - 117.7.

Hole pattern for part numbers 117.1...

<table>
<thead>
<tr>
<th>Width index</th>
<th>Part No. full set with tiewrap plates</th>
<th>Part No. full set without tiewrap plates</th>
<th>A [mm]</th>
<th>B [mm]</th>
<th>Number of teeth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.   117.1.12PZ</td>
<td>117.1.12P</td>
<td>-</td>
<td>25.5</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>2.   117.2.12PZ</td>
<td>117.2.12P</td>
<td>-</td>
<td>35.5</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>3.   117.3.12PZ</td>
<td>117.3.12P</td>
<td>-</td>
<td>48.5</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>4.   117.4.12PZ</td>
<td>117.4.12P</td>
<td>-</td>
<td>60.5</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>5.   117.5.12PZ</td>
<td>117.5.12P</td>
<td>-</td>
<td>76.0</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>6.   117.6.12PZ</td>
<td>117.6.12P</td>
<td>-</td>
<td>93.0</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>7.   117.7.12PZ</td>
<td>117.7.12P</td>
<td>-</td>
<td>113</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

3D CAD, service life calculation, configurators and more ➤ www.igus.eu/E2mini

More information ➤ www.igus.eu/B17i ➤ www.igus.eu/B17
E2 mini | Series B17i B17 | Accessories

Interior separation

**No lateral gap to side links necessary.**
As standard separators are fitted every 2nd e-chain® link!

### For width index B17.1 up to B17.4

**Slotted separator**
For easy vertical separation. The slot allows basic vertical/horizontal shelving arrangements.

**Slotted side plate, left**
Allows modular shelving right up to the side links. No clearance required!

**Slotted side plate, right**
Allows modular shelving right up to the side links. No clearance required!

### For width index B17.5 up to B17.7

**Slotted separator**
For easy vertical separation. The slot allows basic vertical/horizontal shelving arrangements.

**Slotted side plate**
Allows modular shelving right up to the side links. No clearance required!

### For all widths

**Full-width shelf for e-chains®**
This option is for applications with many small cables with similar diameters. For full width separation.

<table>
<thead>
<tr>
<th>Width = X [mm]</th>
<th>Full-width shelf</th>
<th>Unassembled</th>
<th>Assembled</th>
</tr>
</thead>
<tbody>
<tr>
<td>015</td>
<td>110.15</td>
<td>111.15</td>
<td></td>
</tr>
<tr>
<td>025</td>
<td>110.25</td>
<td>111.25</td>
<td></td>
</tr>
<tr>
<td>038</td>
<td>110.38</td>
<td>111.38</td>
<td></td>
</tr>
</tbody>
</table>

More information ➤ [www.igus.eu/B17i](http://www.igus.eu/B17i) ➤ [www.igus.eu/B17](http://www.igus.eu/B17)

---

**E2 mini | Application example**

Five E2 mini chains installed above one another and side by side. The bend radii are exactly matched to each other.

3D CAD, service life calculation, configurators and more ➤ [www.igus.eu/E2mini](http://www.igus.eu/E2mini)
### E2 mini | Series F17 | Product range

**Large inner height, small outer width, enclosed outer radius**

---

### e-chains® | Series F17 | Openable along the inner radius from one side with film hinge

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Bi [mm]</th>
<th>Ba [mm]</th>
<th>R Available bend radii</th>
<th>Weight [kg/m]</th>
</tr>
</thead>
<tbody>
<tr>
<td>e-chains®</td>
<td></td>
<td></td>
<td>0.5 1.0 2.0 1.5</td>
<td>0.50</td>
</tr>
<tr>
<td>F17.015.R.0</td>
<td>15</td>
<td>26</td>
<td>048 063* 075 100* 125*</td>
<td></td>
</tr>
</tbody>
</table>

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

Complete Part No. with required radius (R). Example: F17.015.048.0

---

### Installation dimensions

<table>
<thead>
<tr>
<th>R</th>
<th>048</th>
<th>063*</th>
<th>075</th>
<th>100*</th>
<th>125*</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>135</td>
<td>165</td>
<td>189</td>
<td>239</td>
<td>289</td>
</tr>
<tr>
<td>D</td>
<td>113</td>
<td>128</td>
<td>140</td>
<td>165</td>
<td>190</td>
</tr>
<tr>
<td>K</td>
<td>215</td>
<td>260</td>
<td>300</td>
<td>380</td>
<td>455</td>
</tr>
</tbody>
</table>

The required clearance height: \( H_f = H + 30 \text{mm} \) (with 0.5 kg/m fill weight)

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

---

### E2 mini | Series F17 | Accessories

**Mounting brackets, polymer one-piece | Locking**

#### Fixed end

117 ... 1P(Z)

#### Moving end

117 ... 2P(Z)

---

#### Part No. full set with tie-wrap plates

<table>
<thead>
<tr>
<th>Width index</th>
<th>Part No.</th>
<th>Length [mm]</th>
<th>Part No.</th>
<th>Length [mm]</th>
<th>A</th>
<th>B</th>
<th>Number of teeth</th>
</tr>
</thead>
<tbody>
<tr>
<td>015. ▶</td>
<td>F17.015.12PZ</td>
<td>113 128 140 165 190</td>
<td>F17.015.12P</td>
<td>135 165 189 239 289</td>
<td>27.7</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

Material mounting bracket: igumid G, temperature: -40° up to +120°C, VDE 0304 IC UL94-HB

---

### Order example

To indicate option with brackets pre-fitted with integrated strain relief tie-wrap plates.

**Example:**

- **Full set Series**
  - F17.015.12PZ A1

---

3D CAD, service life calculation, configurators and more | www.igus.eu/E2mini

---

More information | www.igus.eu/F17
No lateral gap to side links necessary. 
As standard separators are fitted every 2nd e-chain® link!

### Slotted separator
Vertical separation in e-tubes. The slot allows basic vertical/horizontal shelving arrangements.

### Full-width shelf
This option is for applications with many small cables with similar diameters. For full width separation.

<table>
<thead>
<tr>
<th>Full-width shelves</th>
<th>Width = X [mm]</th>
<th>unassembled</th>
<th>assembled</th>
</tr>
</thead>
<tbody>
<tr>
<td>015</td>
<td>110.15</td>
<td>111.15</td>
<td></td>
</tr>
</tbody>
</table>

E2 mini e-chain® with Reverse Bend Radius RBR

---

More information ➤ www.igus.eu/F17

3D CAD, service life calculation, configurators and more ➤ www.igus.eu/E2mini
E2.1 micro
the new "small"
E2 micro standard

Advantage of the E2.1 micro series:
- More usable installation space*
- 25% more unsupported length*
- 100% more fill weight*
- 10% weight saving*
- Chain opener for opening long sections of chain quickly. Provided free of charge with the first delivery
- Cable friendly interior separation range
- Openable from both sides (left or right)
- Available in 2 sizes, from stock
- Version with electrically conductive ESD material, tested with over 10 million cycles for the most demanding applications

* in comparison to equivalent igus® series

When to use another e-chain® series:
- When a quicker fitting of cables is required
  - easy chain®, page 308
- When an e-chain® that is suitable for cleanrooms is needed
  - E3 system, page 732
- When an openable e-chain® is not necessary
  - E2 micro, page 260
The new "small" E2 micro standard - E2.1

E2.1 micro e-chains® are very small, one- and two-piece e-chains® with low weight, making them ideal for highly dynamic applications. E2.1 micro e-chains® are optimal for smallest installation spaces, and are available in many versions. They feature a strong stop-dog system for up to 25% longer unsupported travels as well as 100% higher fill weights (compared to similar igus® types). They are lightweight, robust and easy to open. An e-chain® opener is included in order to open the e-chain® in one go. Many accessories like interior separation and fixation options are also available.

Typical industries and applications
- Models (micro e-chain®)
- Automatic doors
- Vehicles
- Measuring machines
- Electronic engineering
- Handling
- Pick und place robots
- General machinery, etc.

Quick and easy opening: an e-chain® opener is included with every first order of openable E2.1 micro from igus®

UL94-V0 classification upon request

For a quick and easy opening, an e-chain® opener is included with every first order of openable E2.1 micro from igus®

Available from stock. Ready to ship in 24 - 48hrs.*

*The delivery times indicated correspond to the average time until the ordered goods are dispatched.

More information ➤ www.igus.eu/E2.1micro

E2.1 micro | Selection table

<table>
<thead>
<tr>
<th>Series</th>
<th>Inner height $H$ [mm]</th>
<th>Inner width $B_i$ [mm]</th>
<th>Outer width $B_a$ [mm]</th>
<th>Outer height $h_a$ [mm]</th>
<th>Bend radius $R$ [mm]</th>
<th>Unsupported length $l$ [m]</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>E2I.10</td>
<td>10.1</td>
<td>6 - 50</td>
<td>13.4 - 57.4</td>
<td>15</td>
<td>018 - 038</td>
<td>0.75</td>
<td>326</td>
</tr>
<tr>
<td>E2I.15</td>
<td>14.4</td>
<td>10 - 50</td>
<td>17.8 - 57.8</td>
<td>19.3</td>
<td>028 - 075</td>
<td>1.30</td>
<td>330</td>
</tr>
<tr>
<td>E2C.10</td>
<td>10.6</td>
<td>6 - 50</td>
<td>13.4 - 57.4</td>
<td>15</td>
<td>018 - 038</td>
<td>0.75</td>
<td>326</td>
</tr>
<tr>
<td>E2C.15</td>
<td>14.9</td>
<td>10 - 50</td>
<td>17.8 - 57.8</td>
<td>19.3</td>
<td>028 - 075</td>
<td>1.30</td>
<td>330</td>
</tr>
</tbody>
</table>
E2.1 micro | Technical data | Overview

Technical data

- **Speed gliding / acceleration gliding:** \( \leq 10 \text{ [m/s]} / \leq 50 \text{ [m/s]²} \)
- **Speed \( FL_L \) / acceleration \( FL_L \):** \( \leq 20 \text{ [m/s]} / \leq 200 \text{ [m/s]²} \)
- **Speed \( FL_R \) / acceleration \( FL_R \):** \( \leq 3 \text{ [m/s]} / \leq 6 \text{ [m/s]²} \)

- **Material - permitted temperature:** °C, igumid G
  - -40°C / +120°C

- **Flammability class:** igumid G
  - VDE 0304 IIC UL94-HB

- \( FL_L \) = unsupported with straight upper run
- \( FL_R \) = unsupported with permitted sag

Installation types, maximum travels

<table>
<thead>
<tr>
<th>Series</th>
<th>Unsupported</th>
<th>Vertical hanging</th>
<th>Vertical standing</th>
<th>Side mounted unsupported</th>
<th>Rotary</th>
<th>Zig-zag</th>
</tr>
</thead>
<tbody>
<tr>
<td>E2.10/E2.10/E2.C.10</td>
<td>≤ 1.50m</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request</td>
<td>with rework</td>
<td>upon request</td>
</tr>
<tr>
<td>E2.15/E2.15/E2.C.15</td>
<td>≤ 2.60m</td>
<td>upon request</td>
<td>upon request</td>
<td>upon request</td>
<td>with rework</td>
<td>upon request</td>
</tr>
</tbody>
</table>

E2.1 micro special | ice-chain New

- **ice-chain - outdoors at low temperatures**
  - In order to prevent e-chains® from freezing at very low temperature in an inclined lift, two “nubs” have been injection-moulded onto the e-chain®.
  - Closed link for maximum holding strength
  - High strength for large unsupported lengths

More information | www.igus.eu/icechain

Order example | Order key and colour examples | Examples based on series E2.10

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 50 links | E2.10.20.18.0
| + Mounting brackets | 1 set (with tiewrap plates) | E2.10.20.34PZ
| Interior separation | with 2 separators assembled every 2nd link | E2.10.21

Order text:

1 m E2.10.20.18.0 + E2.10.20.34PZ + 2 x E2.10.21

Order key

- **Operable along the inner radius:**
  - E2.10.20.18.0
  - E2.10.20.18.0

- **Operable along the outer radius:**
  - E2.10.20.18.0
  - E2.10.20.18.0

- **One-piece, non-operable:**
  - E2.10.20.18.0
  - E2.10.20.18.0

Series / Type

- **Width index (depends on Bi):**

- **Bend radius R:**

- **Colour index:** (standard black)

Order index for colour options

<table>
<thead>
<tr>
<th>Colour</th>
<th>Order index</th>
<th>Colour</th>
<th>Order index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>Standard</td>
<td>Orange</td>
<td>Special colour</td>
</tr>
<tr>
<td>Silver-grey</td>
<td>Special colour</td>
<td>.31</td>
<td>Yellow</td>
</tr>
<tr>
<td>White</td>
<td>Special colour</td>
<td>.1</td>
<td>Light grey</td>
</tr>
<tr>
<td>Grey-white</td>
<td>Special colour</td>
<td>.1S</td>
<td></td>
</tr>
</tbody>
</table>

Black e-chains® available from stock.

Above special colours upon request.

3D CAD, service life calculation, configurators and more | www.igus.eu/E2.1micro

E2.1 micro | Series E2.10 | Product range
Next generation, strong, low noise, fast opening

E2.1 micro | Series E2.10 | Installation dimensions
Unsupported applications | Short travels

E2.1 micro | Series E2.10 | Openable along the inner radius, from both sides
Openable along the outer radius, from both sides
One-piece, non-openable

Part No. e-chains® openable along the inner radius Part No. e-chains® openable along the outer radius Part No. e-chains® one-piece, non-openable
E2.10.06.R,0 E2.10.06.R,0 E2.10.06.R,0
E2.10.10.R,0 E2.10.10.R,0 E2.10.10.R,0
E2.10.16.R,0 E2.10.16.R,0 E2.10.16.R,0
E2.10.20.R,0 E2.10.20.R,0 E2.10.20.R,0
E2.10.30.R,0 E2.10.30.R,0 E2.10.30.R,0
E2.10.40.R,0 E2.10.40.R,0 E2.10.40.R,0
E2.10.50.R,0 E2.10.50.R,0 E2.10.50.R,0

\( B_i \) \( B_a \) \( R \) \( \text{Available bend radii} \)
\( \text{[mm]} \) \( \text{[mm]} \) \( \text{[mm]} \) \( \text{[kg/m]} \) \( \text{[kg/m]} \) \( \text{[kg/m]} \)
E2.10 018 028 038
E2.10.06.R,0 06 13.4 018 028 038 = 0.13 = 0.13 = 0.14
E2.10.10.R,0 10 17.4 018 028 038 = 0.14 = 0.14 = 0.14
E2.10.16.R,0 16 23.4 018 028 038 = 0.16 = 0.16 = 0.16
E2.10.20.R,0 20 27.4 018 028 038 = 0.17 = 0.17 = 0.17
E2.10.30.R,0 30 37.4 018 028 038 = 0.19 = 0.19 = 0.20
E2.10.40.R,0 40 47.4 018 028 038 = 0.22 = 0.22 = 0.23
E2.10.50.R,0 50 57.4 018 028 038 = 0.25 = 0.25 = 0.25

\( \text{FL}_{G} \) \( \text{FL}_{B} \)

\( \text{FL}_{G} \)

\( \text{FL}_{B} \)

The required clearance height: \( H_F = H + 10\text{mm} \) (with 0.2kg/m fill weight)

For a quick and easy opening, an e-chain® opener is included with every first order of openable E2.1 micro from igus®

Reduce opening times from 33 to 2 seconds
Open a long chain section in one go

Reduce assembly time - E2.1 micro e-chain® opener

ESD - many sizes from stock
Standardised product made from igumid ESD
ESD material tested with over 10 million cycles for the toughest requirements
Short delivery times including mounting brackets and interior separation; 24hrs, from stock

More information ▶ www.igus.eu/esd
### E2.1 micro | Series E2.10 | Accessories

**Mounting brackets, polymer one-piece** | **Pivoting** | **Locking**

#### Moving end
- E2.100 ... 3PZ
- E2.100 ... 5PZ
- E2.100 ... 1PZ

#### Fixed end
- both ends pivoting
- one end* pivoting
- both ends locking

*One end pivoting: pivot angle = bend radius. One and only pivots towards the inner radius - whether fitted A1 or A4.

<table>
<thead>
<tr>
<th>Width index</th>
<th>Part No. full set with tiewrap plates both ends pivoting</th>
<th>Part No. full set with tiewrap plates one end* pivoting</th>
<th>Part No. full set with tiewrap plates both ends locking</th>
<th>A [mm]</th>
<th>B [mm]</th>
<th>Number of teeth</th>
</tr>
</thead>
<tbody>
<tr>
<td>06</td>
<td>E2.100.06.34PZ</td>
<td>E2.100.06.56PZ</td>
<td>E2.100.06.12PZ</td>
<td>–</td>
<td>13.4</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>E2.100.10.34PZ</td>
<td>E2.100.10.56PZ</td>
<td>E2.100.10.12PZ</td>
<td>–</td>
<td>17.4</td>
<td>1</td>
</tr>
<tr>
<td>16</td>
<td>E2.100.16.34PZ</td>
<td>E2.100.16.56PZ</td>
<td>E2.100.16.12PZ</td>
<td>–</td>
<td>23.4</td>
<td>2</td>
</tr>
<tr>
<td>20</td>
<td>E2.100.20.34PZ</td>
<td>E2.100.20.56PZ</td>
<td>E2.100.20.12PZ</td>
<td>–</td>
<td>27.4</td>
<td>2</td>
</tr>
<tr>
<td>30</td>
<td>E2.100.30.34PZ</td>
<td>E2.100.30.56PZ</td>
<td>E2.100.30.12PZ</td>
<td>22</td>
<td>37.4</td>
<td>3</td>
</tr>
<tr>
<td>40</td>
<td>E2.100.40.34PZ</td>
<td>E2.100.40.56PZ</td>
<td>E2.100.40.12PZ</td>
<td>32</td>
<td>47.4</td>
<td>4</td>
</tr>
<tr>
<td>50</td>
<td>E2.100.50.34PZ</td>
<td>E2.100.50.56PZ</td>
<td>E2.100.50.12PZ</td>
<td>42</td>
<td>57.4</td>
<td>5</td>
</tr>
</tbody>
</table>

#### Additional features
- The quickflange can be clipped-in to all mounting brackets. Contains a housing for hexagonal nut and socket cap bolt M3. Single Part No.: E2.150.QF or Part No. incl. mounting bracket: E2.100.20.34PZQF

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### E2.1 micro | Series E2.10 | Accessories

**Interior separation** | **Increase cable service life**

**Note:** for one-piece, non-openable e-chain® links please assemble the interior separation before fitting the e-chain®! As standard separators are fitted every 2nd e-chain® link!

- **Standard - for any application**
  - For easy vertical separation in e-chains®. Separators can be arranged in any position in the e-chain® cross-section. Without notches, freely movable.

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

- **75% less wear**
  - igus® separators increase the service life of the cables by a factor of 4
  - Separators with a rounded design for less cable wear and abrasion
  - Optimised for easier and faster assembly

**More information** | www.igus.eu/E2.1open

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**Interior separation assembly tool for the E2.1 micro**

- Easy fitting of separators and shelves
- Significant assembly time reduction
- Grip and tool tip can be ordered separately and are easy to change

**More information** | www.igus.eu/E2.1open
e-chains® | Series E2i.15 | Openable along the inner radius, from both sides

Part No.  e-chains® | E2i.15.10.R.0 | E2i.15.13.R.0 | E2i.15.16.R.0 | E2i.15.20.R.0 | E2i.15.30.R.0 | E2i.15.40.R.0 | E2i.15.50.R.0
---|---|---|---|---|---|---|---
Bi [mm] | 10 | 13 | 16 | 20 | 30 | 40 | 50
Ba [mm] | 17.8 | 20.8 | 23.8 | 27.8 | 37.8 | 47.8 | 57.8
R Available bend radii [mm] | 028 | 038 | 048 | 028 | 038 | 048 | 028 | 038 | 048 | 075*
E2i.15 [kg/m] | 0.18 | 0.19 | 0.20 | 0.21 | 0.24 | 0.28 | 0.29
E2i.15 [kg/m] | 0.18 | 0.19 | 0.20 | 0.21 | 0.24 | 0.28 | 0.29
E2i.15 [kg/m] | 0.18 | 0.19 | 0.20 | 0.21 | 0.24 | 0.28 | 0.29

Part No. e-chains® | E2.15.10.R.0 | E2.15.13.R.0 | E2.15.16.R.0 | E2.15.20.R.0 | E2.15.30.R.0 | E2.15.40.R.0 | E2.15.50.R.0
---|---|---|---|---|---|---|---
Bi [mm] | 10 | 13 | 16 | 20 | 30 | 40 | 50
Ba [mm] | 17.8 | 20.8 | 23.8 | 27.8 | 37.8 | 47.8 | 57.8
R Available bend radii [mm] | 028 | 038 | 048 | 028 | 038 | 048 | 028 | 038 | 048 | 075*
E2.15 [kg/m] | 0.18 | 0.19 | 0.20 | 0.21 | 0.24 | 0.28 | 0.29
E2.15 [kg/m] | 0.18 | 0.19 | 0.20 | 0.21 | 0.24 | 0.28 | 0.29
E2.15 [kg/m] | 0.18 | 0.19 | 0.20 | 0.21 | 0.24 | 0.28 | 0.29

---|---|---|---|---|---|---|---
Bi [mm] | 10 | 13 | 16 | 20 | 30 | 40 | 50
Ba [mm] | 17.8 | 20.8 | 23.8 | 27.8 | 37.8 | 47.8 | 57.8
R Available bend radii [mm] | 028 | 038 | 048 | 028 | 038 | 048 | 028 | 038 | 048 | 075*
E2C.15 [kg/m] | 0.18 | 0.19 | 0.20 | 0.21 | 0.24 | 0.28 | 0.29
E2C.15 [kg/m] | 0.18 | 0.19 | 0.20 | 0.21 | 0.24 | 0.28 | 0.29
E2C.15 [kg/m] | 0.18 | 0.19 | 0.20 | 0.21 | 0.24 | 0.28 | 0.29

*Radius 075 only for series E2C.15.40

1) Available as ESD version from stock

Complete Part No. with required radius (R). Example: E2.15.20.038.0

ESD - many sizes from stock

- Standardised product made from igumid ESD
- Short delivery times including mounting brackets and interior separation; 24hrs, from stock

Reduce assembly time - E2.1 micro e-chain© opener

- For a quick and easy opening, an e-chain® opener is included with every first order of openable E2.1 micro from igus©
- Reduce opening times from 33 to 2 seconds
- Open a long chain section in one go

More information ➤ www.igus.eu/E2.1open
E2.1 micro | Series E2.15 | Accessories
Mounting brackets, polymer one-piece | Pivoting | Locking

Moving end
E2.150 ... 3PZ
E2.150 ... 5PZ
E2.150 ... 1PZ

Fixed end
both ends pivoting
one end* pivoting
both ends locking

*One end pivoting: pivot angle = bend radius. One end only pivots towards the inner radius - whether fitted A1 or A4

Possible orientations for assembled mounting brackets. To receive brackets pre-fitted please add index A1, A2, A3 or A4.

Additional features
The quickflange can be clipped-in to all mounting brackets. Contains a housing for hexagonal nut and socket cap bolt M3. Single Part No.: E2.150.QF or Part No. incl. mounting bracket: E2.150.20.34PZQF

E2.1 micro | Series E2.15 | Accessories
Interior separation | Increase cable service life

Standard - for any application
For easy vertical separation in e-chains®. Separators can be arranged in any position in the e-chain® cross-section. Without notches, freely movable.

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

Full-width shelf
This option is for applications with many small cables with similar diameters. For full-width separation.

75% less wear
igus® separators increase the service life of the cables by a factor of 4
Separators with a rounded design for less cable wear and abrasion
Optimised for easier and faster assembly

More information www.igus.eu/E2.1open

More information about E2C.15
3D CAD, service life calculation, configurators and more www.igus.eu/E2.1micro