Energy Chain System® E-Z Chain Series E14/Z14

Features & Benefits

1. Small pitch for low-noise and smooth operation
2. Cable-friendly interior
3. Limited torsion tolerance
4. Very easy to fill - ideal for harnessed cable assemblies
5. Integrated strain relief option
6. Patented push button principle holds the links together
7. “E” Series features split crossbar along the outer radius
8. “Z” Series features split crossbar along the inner radius

Assembly Tips

Just push the cables into the Energy Chain using your thumb

Order Example: Complete Energy Chain®
Please indicate chain length or number of links. Example:

3.28 ft (1 m) E14-3-038-0
1 Set 114-3-12PZ

Price Index

- Series E14/Z14

Special Features / Options

- IPA Qualification Certificate
- Air Cleanliness Class ISO Class 2 (at v = 3.28 ft/s) upon request
- Flammability Class
- VDE 0304 IIIC UL94 V2
- IPA Qualification Certificate: ESD Classification Level 1 (for Series E14-3-038). Special equipment: Electrically conductive ESD/ATEX version upon request

Usage Guidelines

- If filling is required without opening and closing
- If price is an issue
- If quiet operation is required

- “Z” Series is unsuitable for gliding applications
  - Series B15 E2 Mini
- If a long unsupported length is required
  - Series B15 E2 Mini

energy chain® configurator
Short travel, unsupported length

- FLB = unsupported with permitted sag
- FLG = unsupported with straight upper run

Further information ➤ Design, Chapter 1

The required clearance height: \( H_r = H + 0.39 \text{ in. (10 mm)} \) (with .13 lbs/ft (0.2 kg/m) fill weight. Please consult igus® if space is particularly restricted.

<table>
<thead>
<tr>
<th>R</th>
<th>1.10 (028)</th>
<th>1.50 (038)</th>
<th>1.89 (048)</th>
<th>2.95 (075)</th>
<th>3.94 (100)</th>
<th>4.92 (125)</th>
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</thead>
<tbody>
<tr>
<td>H</td>
<td>3.19 (81)</td>
<td>3.98 (101)</td>
<td>4.76 (121)</td>
<td>6.89 (175)</td>
<td>8.86 (225)</td>
<td>10.83 (275)</td>
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<tr>
<td>D</td>
<td>3.35 (86)</td>
<td>3.78 (96)</td>
<td>4.17 (106)</td>
<td>5.24 (133)</td>
<td>6.22 (158)</td>
<td>7.20 (183)</td>
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<tr>
<td>K</td>
<td>5.91 (150)</td>
<td>7.28 (185)</td>
<td>8.46 (215)</td>
<td>11.81 (300)</td>
<td>14.96 (380)</td>
<td>17.91 (455)</td>
</tr>
</tbody>
</table>

Speed / acceleration FLG

- Max. 65.6 ft/s (20 m/s) / max. 656 ft/s² (200 m/s²)

Speed / acceleration FLB

- Max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s² (6 m/s²)

Girling speed / acceleration (maximum)

- Max. 9.84 ft/s (3 m/s) / max. 32.8 ft/s² (10 m/s²)

Material (Energy Chain®) - permitted temperature

- igumid NB / -40°F (-40°C) up to +176°F (+80°C)

Material (mounting brackets)* - permitted temperature

- igumid G / -40°F (-40°C) up to +248°F (+120°C)

Flammability Class (Energy Chain®), igumid NB

- VDE 0304 IIC UL94 V2

Flammability Class (mounting brackets), igumid G*

- VDE 0304 IIC UL94 HB

*Available in igumid NB upon request, please consult igus® for delivery time.

Technical Data

Details of material properties ➤ Chapter 1
Energy Chain System® E-Z Chain
Series E14/Z14

Series E14 - Split crossbar along the outer radius

Series Z14 - Split crossbar along the inner radius

Part Number Structure

- Color - Black
- Bending radius
- Width
- Series

Supplement part number with required radius. Example: E14-3-038-0
Pitch: 1.20 in. (30.5 mm) per link links/ft (m) = 10.06 (33)

Choose from the radii below for all of the above sizes

Radius (mm) Example: E14-3-038-0

028 1.10 (28) 1.50 (38) 1.89 (48) 2.95 (75) 3.94 (100) 4.92 (125)
038 3.19 (81) 3.98 (101) 4.76 (121) 6.89 (175) 8.86 (225) 10.83 (275)
048 3.35 (86) 3.78 (96) 4.17 (106) 5.24 (133) 6.22 (158) 7.20 (183)
075 5.91 (150) 7.28 (185) 8.46 (215) 11.81 (300) 14.96 (380) 17.91 (455)
100
125

0 = Standard color black. For other colors see Chapter 1
Energy Chain System® E-Z Chain
Series E14/Z14
Mounting Brackets

Plastic, one-piece
- One-piece mounting bracket
- Corrosion resistant
- Available preassembled
- Inner and outer attachment possible
- Available with or without strain relief tiewrap plates

Dimensions and order configurations
Strain relief is possible on the moving end and/or the fixed end.

Part Number Structure

<table>
<thead>
<tr>
<th>114-</th>
<th>20-</th>
<th>12</th>
<th>P</th>
<th>PZ</th>
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<tr>
<td>Width</td>
<td>Mounting brackets for selected chain type</td>
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<td></td>
<td>With assembled strain relief tiewrap plates</td>
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<tr>
<td></td>
<td>Without assembled strain relief tiewrap plates</td>
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<td></td>
<td>Complete Set</td>
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</table>

Full set, for both ends:

114- 20- 12 PZ
114- 20- 1 PZ

Full set, each part with pin/bore + tiewrap plate

Single-part order:

114- 20- 2 PZ
114- 20- 2 PZ

Mounting bracket with bore + tiewrap plate

Mounting bracket with pin + tiewrap plate

<table>
<thead>
<tr>
<th>Chain Type</th>
<th>Part No.</th>
<th>Part No.</th>
<th>Dimension A in. (mm)</th>
<th>Dimensions B in. (mm)</th>
<th>Number of Teeth</th>
</tr>
</thead>
<tbody>
<tr>
<td>E14/Z14-1</td>
<td>114-1-12PZ</td>
<td>114-1-12P</td>
<td>—</td>
<td>—</td>
<td>1.04 (26.3)</td>
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<tr>
<td>E14/Z14-2</td>
<td>114-2-12PZ</td>
<td>114-2-12P</td>
<td>.39 (10)</td>
<td>1.43 (36.3)</td>
<td>3</td>
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<tr>
<td>E14/Z14-3</td>
<td>114-3-12PZ</td>
<td>114-3-12P</td>
<td>.91 (23)</td>
<td>1.94 (49.3)</td>
<td>4</td>
</tr>
<tr>
<td>E14/Z14-4</td>
<td>114-4-12PZ</td>
<td>114-4-12P</td>
<td>1.38 (35)</td>
<td>2.45 (62.3)</td>
<td>5</td>
</tr>
</tbody>
</table>

Additional Accessories

Quicksnap - the complete, detachable mounting unit, upon request

Quickfix - mounting bracket with dowel, upon request
**E-Z Chain® System: Energy Chain**

**E-Z Chain Series**

- **Selection table**

<table>
<thead>
<tr>
<th>Series</th>
<th>hi (in. / mm)</th>
<th>Bi (in. / mm)</th>
<th>Ba (in. / mm)</th>
<th>ha (in. / mm)</th>
<th>R (in. / mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>E03</td>
<td>.20 / 5</td>
<td>.20 - .39 (5-10)</td>
<td>.34 - .54 (8.7-13.7)</td>
<td>.31 / 8</td>
<td>.39 - 1.10 (10-28)</td>
</tr>
<tr>
<td>E04</td>
<td>.28 / 7</td>
<td>.28 / 7</td>
<td>.51 / 13</td>
<td>.39 / 10</td>
<td>.59 - 1.89 (15-48)</td>
</tr>
<tr>
<td>E045/Z045</td>
<td>.37 / 9.4</td>
<td>.39 - 1.06 (10-27)</td>
<td>.63 - 1.46 (16-37)</td>
<td>.49 / 12.5</td>
<td>.71 - 1.50 (18-38)</td>
</tr>
<tr>
<td>E06/Z06</td>
<td>.41/.42 (10.5 / 10.7)</td>
<td>.39 - .79 (10-20)</td>
<td>.65 - 1.04 (16.5-26.5)</td>
<td>.59 / 15</td>
<td>.71 - 1.50 (18-38)</td>
</tr>
<tr>
<td>E065</td>
<td>.44 / 11.3</td>
<td>.63 - 1.42 (16-36)</td>
<td>.98 - 1.94 (24.8-49.3)</td>
<td>.59 / 15</td>
<td>.71 - 1.50 (18-38)</td>
</tr>
<tr>
<td>E08/Z08</td>
<td>.57/.58 (14.6 / 14.7)</td>
<td>.39 - 1.97 (10-50)</td>
<td>.72 - 2.29 (18.2-58.2)</td>
<td>.76 / 19.3</td>
<td>1.10 - 1.89 (28-48)</td>
</tr>
<tr>
<td>E14/Z14</td>
<td>.75 / 19</td>
<td>.59 - 1.97 (15-50)</td>
<td>1.06 - 2.44 (27-62)</td>
<td>.98 / 25</td>
<td>1.10 - 4.92 (28-125)</td>
</tr>
<tr>
<td>E200/Z200</td>
<td>.96 / 24.3</td>
<td>1.46 - 2.24 (37-57)</td>
<td>2.93 - 4.74 (74.4-120.4)</td>
<td>1.38 / 35</td>
<td>2.17 - 7.87 (55-200)</td>
</tr>
<tr>
<td>E16/Z16</td>
<td>1.26 / 32</td>
<td>.91 - 3.94 (23-100)</td>
<td>1.48 - 4.54 (37.5-115.3)</td>
<td>1.54 / 39</td>
<td>1.57 - 3.94 (40-100)</td>
</tr>
<tr>
<td>E26/Z26</td>
<td>1.44/1.46 (36.5 / 37.1)</td>
<td>1.85 - 2.95 (47-75)</td>
<td>3.62 - 6.57 (92-167)</td>
<td>1.97 / 50</td>
<td>2.48 - 9.84 (63-250)</td>
</tr>
<tr>
<td>E300/Z300</td>
<td>1.91 / 48.5</td>
<td>1.81 - 2.95 (46-75)</td>
<td>3.74 - 6.69 (95-170)</td>
<td>2.52 / 64</td>
<td>2.95 - 11.81 (75-300)</td>
</tr>
</tbody>
</table>

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**Quick assembly with ESD!**

- **E-Z Chain® now available as ESD version**
  - Easy to fill on the outer-/inner radius
  - Accessible to the cables without opening and closing of lids
  - Cost-effective one-piece design Energy Chain®
  - Mounting brackets available

More information ➤ [www.igus.com](http://www.igus.com)
Energy Chain System®
E-Z Chain Series

Assembling | Separating | Filling | Series E03 · E04 · E/Z045

1. Twist and click or twist and devide
2. Press in cable

Assembling | Series E/Z06 · E065 · E/Z08 · E/Z14 · E/Z200 · E/Z16 · E/Z26 · E/Z300

1. Push and click...
2. Snap in pin

Separating | Series E/Z06 · E065 · E/Z08 · E/Z14 · E/Z200 · E/Z16 · E/Z26 · E/Z300

3. Release side link
4. Twist and pull apart

Filling | Series E/Z06 · E065 · E/Z08 · E/Z14 · E/Z200 · E/Z16 · E/Z26 · E/Z300

5. Press in cable
6. Pull out cable