

Price Index


Series 10

Special Features / Options


Cleanroom Class 1 (ISO class 3)


 ESD Classification:
Electrically conductive
ESD/ATEX version upon request

Features & Benefits

- 1 Large pins and double stop dog for superior life and long unsupported length
- 2 Dirt repellant exterior
- 3 Mounting bracket with integrated strain relief
- 4 One piece each link
- 5 Interior separation available
- 6 Molded-in separator available

Series 10-050-075-S


Assembly Tips


Easy to assemble and disassemble

Usage Guidelines


- If snap-open links are not necessary
- If a small but very stable chain is required



- If snap-open links are necessary
%o Series 15 "Zipper"
- If quick insertion of cables with preassembled connector is required
%o Series E14 E-Z Chain

Order Example: Complete Energy Chain®

Please indicate chain length or number of links. Example:

3.28 ft (1 m) 10-025-038-0



Energy Chain®

With 2 separators 111 assembled every 2nd link



Interior Separation

1 Set 1025-12PZ



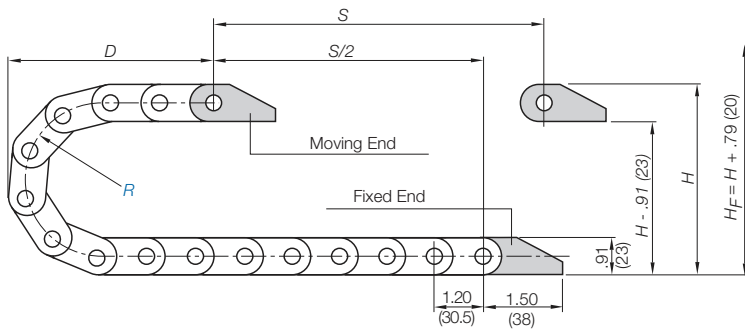
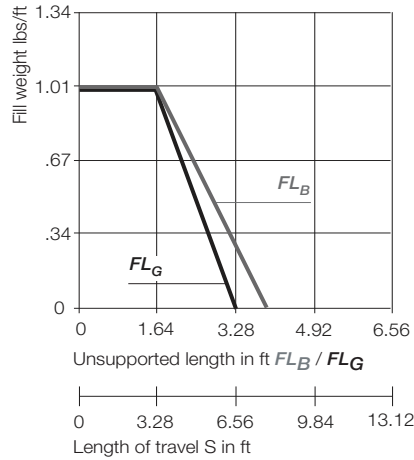
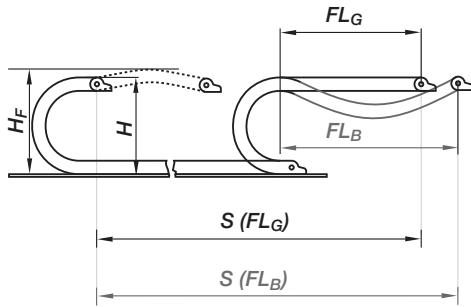
Mounting Bracket

Energy Chain System® E2 Mini Series 10

Installation Dimensions

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: = 1.20" (30.5 mm)
 Links per ft (m): = 10.06 (33)
 For center mount applications:
 Chain length = $S/2 + K$

The required clearance height: $H_F = H + .79$ in. (20 mm) (with 1.01 lbs/ft (1.5 kg/m) fill weight).
 Please consult igus® if space is particularly restricted.

R	1.10 (028)	1.50 (038)	1.89 (048)	2.95 (075)	3.94 (100)	4.33 (110)	4.92 (125)	5.71 (145)	7.09 (180)
H	3.15 (80)	3.94 (100)	4.72 (120)	6.89 (175)	8.86 (225)	9.65 (245)	10.83 (275)	12.40 (315)	15.16 (385)
D	2.76 (70)	3.15 (80)	3.54 (90)	4.72 (120)	5.71 (145)	6.10 (155)	6.69 (170)	7.48 (190)	8.86 (225)
K	5.91 (150)	7.28 (185)	8.46 (215)	11.81 (300)	14.76 (375)	16.14 (410)	17.91 (455)	20.47 (520)	24.80 (630)

Short Travels - Unsupported

Unsupported Energy 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 Energy Chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- H_F = Required clearance height

*If the mounting bracket location is set lower



PDF: www.igus.com/e-chain-pdfs
 Specs/CAD/RFQ: www.igus.com/e-chains
 RoHS info: www.igus.com/RoHS



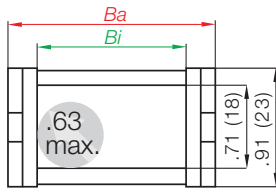
Speed / acceleration FL_G	max. 65.6 ft/s (20 m/s) / max. 656 ft/s ² (200 m/s ²)
Speed / acceleration FL_B	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s ² (6 m/s ²)
Gliding speed / acceleration (maximum)	max. 9.84 ft/s (3 m/s) / max. 32.8 ft/s ² (10 m/s ²)
Material - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120°C)
Flammability Class, igumid G	VDE 0304 IIC UL94 HB

Technical Data

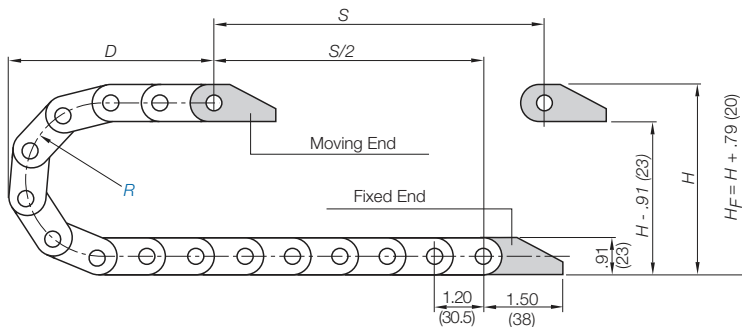
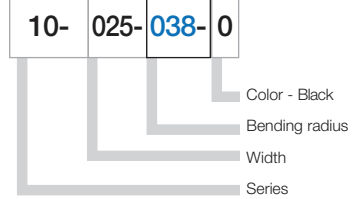


Details of material properties
 % Chapter 1

Series 10 - Energy Chain® non snap-open



Part Number Structure



Supplement part number with required radius. Example: 10-025-038-0
Pitch: 1.20 in. (30.5 mm) per link links/ft (m) = 10.06 (33)

Part Number	Bi in. (mm)	Ba in. (mm)	Weight lbs/ft (kg/m)
10-015- [] -0	.59 (15)	1.02 (26)	≈ 0.24 (0.35)
10-025- [] -0	.98 (25)	1.42 (36)	≈ 0.27 (0.40)
10-038- [] -0	1.50 (38)	1.93 (49)	≈ 0.31 (0.46)
10-050- [] -0	1.97 (50)	2.40 (61)	≈ 0.35 (0.52)
10-5- [] -0	2.48 (63)	2.99 (76)	≈ 0.42 (0.63)
10-6 [] -0	3.15 (80)	3.70 (94)	≈ 0.47 (0.70)
10-7 [] -0	3.94 (100)	4.45 (113)	≈ 0.51 (0.76)

Choose from the radii below for all of the above sizes

	028	038	048	075	100	110	125	145	180
R	1.10 (028)	1.50 (038)	1.89 (048)	2.95 (075)	3.94 (100)	4.33 (110)	4.92 (125)	5.71 (145)	7.09 (180)
H	3.15 (80)	3.94 (100)	4.72 (120)	6.89 (175)	8.86 (225)	9.65 (245)	10.83 (275)	12.40 (315)	15.16 (385)
D	2.76 (70)	3.15 (80)	3.54 (90)	4.72 (120)	5.71 (145)	6.10 (155)	6.69 (170)	7.48 (190)	8.86 (225)
K	5.91 (150)	7.28 (185)	8.46 (215)	11.81 (300)	14.76 (375)	16.14 (410)	17.91 (455)	20.47 (520)	24.80 (630)

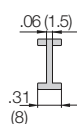
0=Standard color black. For other colors see Chapter 1

Interior Separation

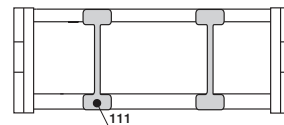


Option 1: Vertical separators

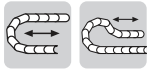
Vertical separators are used if a vertical subdivision of the Energy Chain® interior is required. By standard, vertical separators are assembled every other Energy Chain® link.



Separator
Unassembled Part No. 101
Assembled Part No. 111



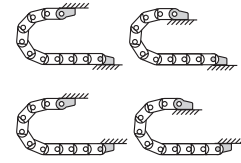
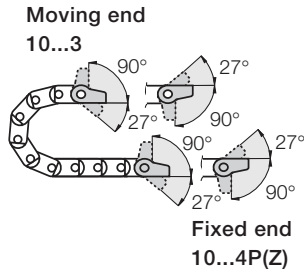
Energy Chain System® E2 Mini Series 10 Mounting Brackets - Plastic



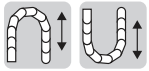
Standard

Option 1: pivoting

- Short and long travel
- Space-restricted conditions
- Corrosion resistant

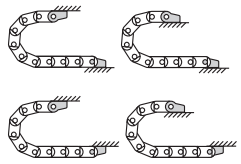
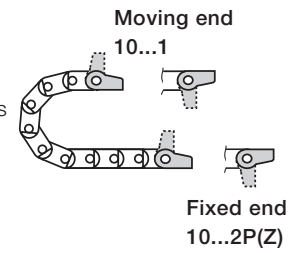


Possible installation configurations -



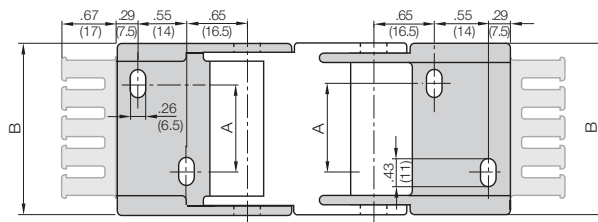
Option 2: locking

- Vertical hanging/standing travels
- Extreme accelerations
- Corrosion resistant

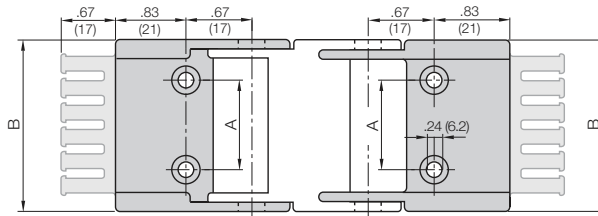


Possible installation configurations -

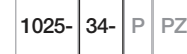
For Energy Chain 10-015 to 10-050



For Energy Chain 10-5 to 10-7



Part Number Structure



- With tie-wrap plate
- Without tie-wrap plate
- Complete Set
12 = Locking
34 = Pivoting
- Mounting brackets for selected chain type

Part number examples are shown for pivoting brackets. For locking brackets fill in the blank with **12**

Part No. Full Set (pivoting) with Tie-wrap Plate
Series 10 with 25mm inner width
1025-34PZ

Part No. Full Set (pivoting) without Tie-wrap Plate
Series 10 with 25 mm inner width
1025-34P

Full set, for both ends:
1025- 34- PZ Full set, each part with pin/bore + tie-wrap plate

Single-part order:
1025- 3- PZ Mounting bracket with bore + tie-wrap plate
1025- 4- PZ Mounting bracket with pin + tie-wrap plate

For Chain Type	Part No. Full set with Tie-wrap Plate	Part No. Full Set without Tie-wrap Plate	Dimension A in. (mm)	Dimensions B in. (mm)
10-015	1015- <input type="text"/> PZ	1015- <input type="text"/> P	— —	1.00 (25.5)
10-025	1025- <input type="text"/> PZ	1025- <input type="text"/> P	.39 (10)	1.40 (35.5)
10-038	1038- <input type="text"/> PZ	1038- <input type="text"/> P	.91 (23)	1.91 (48.5)
10-050	1050- <input type="text"/> PZ	1050- <input type="text"/> P	1.38 (35)	2.38 (60.5)
10-5	105- <input type="text"/> PZ	105- <input type="text"/> P	1.89 (48)	2.95 (75.0)
10-6	106- <input type="text"/> PZ	106- <input type="text"/> P	2.56 (65)	3.62 (92.0)
10-7	107- <input type="text"/> PZ	107- <input type="text"/> P	3.35 (85)	4.41 (112.0)

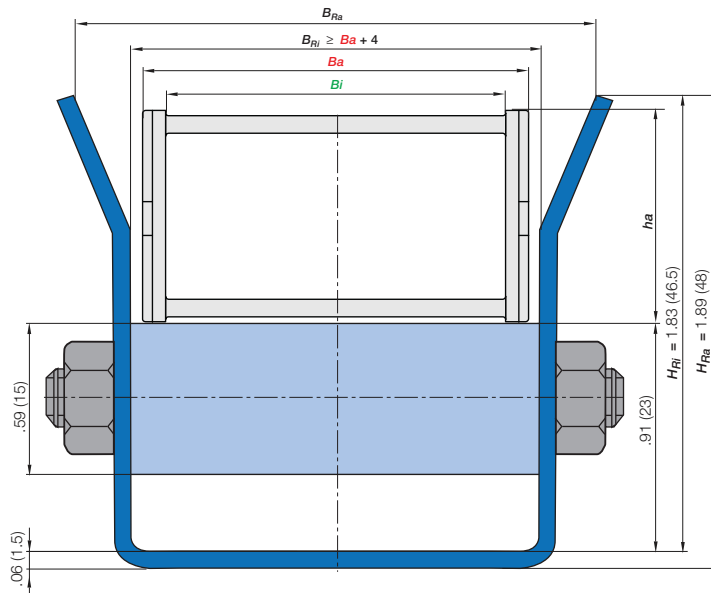
For pivoting brackets choose **34**
For locking brackets choose **12**
Example: 1025- **34** PZ

PDF: www.igus.com/e-chain-pdfs
Specs/CAD/RFQ: www.igus.com/e-chains
RoHS info: www.igus.com/RoHS



Energy Chain System® E2 Mini Series 10 Guide Trough

One-piece guide troughs made of steel are available for the Series 10 Energy Chains®. These guide troughs are available from stock for outer chain widths up to 2.36 in. (60 mm). For wider Energy Chains® and Tubes, special solutions are possible with short lead times. No installation sets are required for these trough sizes since the guide troughs consist of a one-piece U-profile. The joint connection with this type of guide trough is specified individually for every application.



Dimensions Guide troughs 91-10 — 91-71

For Series	Part No.	B _{Ra} in. (mm)	B _{Ri} in. (mm)	Weight lbs/ft (kg/m)
10-015				
Trough without glide bar 6.56 ft. (2m section)	91-10	1.59 (40.5)	1.18 (30)	1.01 (1.50)
Glide bar 6.56 ft. (2m section)	91-11	1.59 (40.5)	1.18 (30)	.30 (.45)
10-025				
Trough without glide bar 6.56 ft. (2m section)	91-20	1.99 (50.5)	1.57 (40)	1.11 (1.65)
Glide bar 6.56 ft. (2m section)	91-21	1.99 (50.5)	1.57 (40)	.38 (.57)
10-038				
Trough without glide bar 6.56 ft. (2m section)	91-30	2.46 (62.5)	2.05 (52)	1.21 (1.80)
Glide bar 6.56 ft. (2m section)	91-31	2.46 (62.5)	2.05 (52)	.46 (.68)
10-050				
Trough without glide bar 6.56 ft. (2m section)	91-40	2.85 (72.5)	2.44 (62)	1.28 (1.90)
Glide bar 6.56 ft. (2m section)	91-41	2.85 (72.5)	2.44 (62)	.61 (.91)
10-5				
Trough without glide bar 6.56 ft. (2m section)	91-50	3.60 (91.5)	3.19 (81)	1.52 (2.26)
Glide bar 6.56 ft. (2m section)	91-51	3.60 (91.5)	3.19 (81)	.84 (1.25)
10-6				
Trough without glide bar 6.56 ft. (2m section)	91-60	4.27 (108.5)	3.86 (98)	1.83 (2.72)
Glide bar 6.56 ft. (2m section)	91-61	4.27 (108.5)	3.86 (98)	.91 (1.35)
10-7				
Trough without glide bar 6.56 ft. (2m section)	91-70	5.06 (128.5)	4.65 (118)	2.13 (3.17)
Glide bar 6.56 ft. (2m section)	91-71	5.06 (128.5)	4.65 (118)	1.14 (1.70)

Trough material in general: St 1203 galvanized

igus® Energy Chain
System®

Telephone 1-800-521-2747
Fax 1-401-438-7270

Internet: <http://www.igus.com>
email: sales@igus.com
QuickSpec: <http://www.igus.com/quickspec>

