

Price Index



Series 15

Special Features / Options



Upon request: Cleanroom Class 1 (ISO class 3) tested by the Dryden Engineering Company, CA

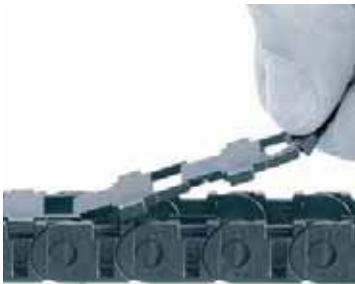


Flammability Class VDE 0304 IIC UL94 HB



Low-noise

Assembly Tips



"Zipper-fast" opening and closing

Usage Guidelines



- If fast, zipper-like accessibility to cables is required
- If connection options are required (Quicksnap, Quickfix)
- If interior separation is required
- If high stability and long service life are required



- If opening of the link is not necessary
%o **Series 10 E2 Mini**
- If torsion occurs
%o **Series E14 E-Z Chain**
- If the chain must snap-open along the inner radius
%o **Series B15i E2 Mini**

3.19

Features & Benefits

- 1 Large pins and double stop dog for superior life and long unsupported length
- 2 'Zipper-fast' opening and closing
- 3 Small pitch for low-noise, smooth operation
- 4 Zipper lids can be separated and joined at each link
- 5 Mounting bracket with integrated strain relief
- 6 For high acceleration



Order Example: Complete Energy Chain®

Please indicate chain length or number of links. Example:

3.28 ft (1 m) **15-025-038-0**

Energy Chain®

With 2 separators **154** assembled every 2nd link

Interior Separation

1 Set **1025-12PZ**

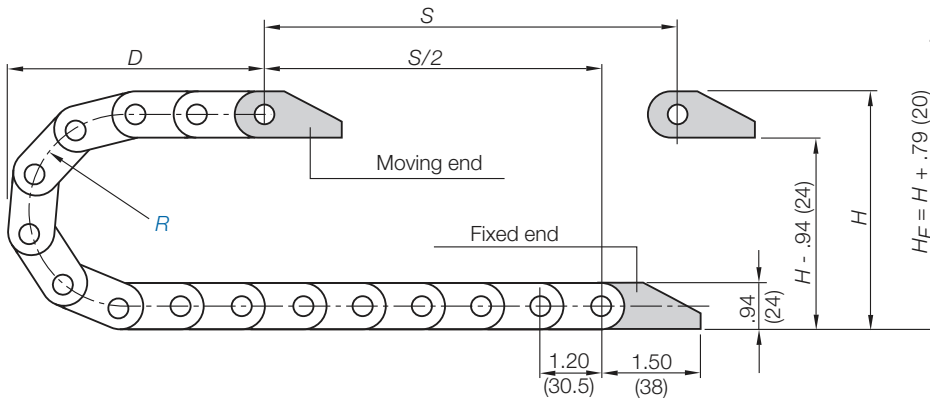
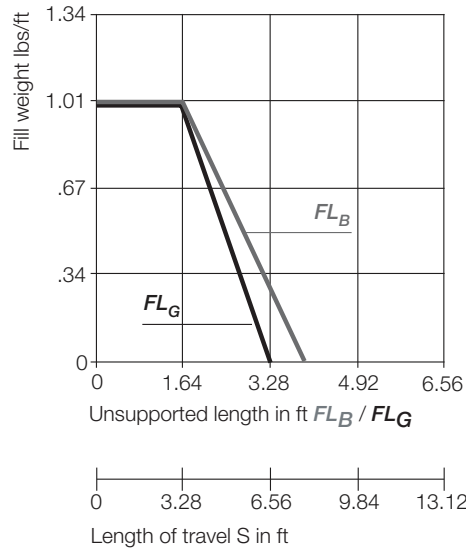
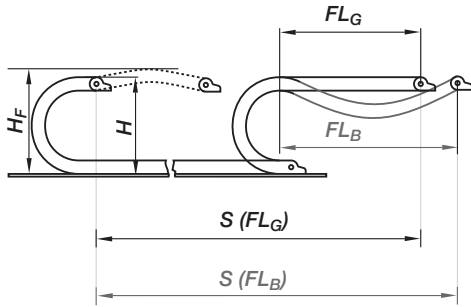
Mounting Bracket

Energy Chain System® Zipper Series 15

Installation Dimensions

Short travel, unsupported length

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



The required clearance height: $H_F = H + .79$ in. (20 mm) (with .67 lbs/ft (1.0 kg/m) fill weight). Please consult igus® if space is particularly restricted.

R	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	3.94 (100)	4.72 (120)	6.89 (175)	8.86 (225)	9.65 (245)	10.83 (275)	12.40 (315)	15.16 (385)
D	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	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

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

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

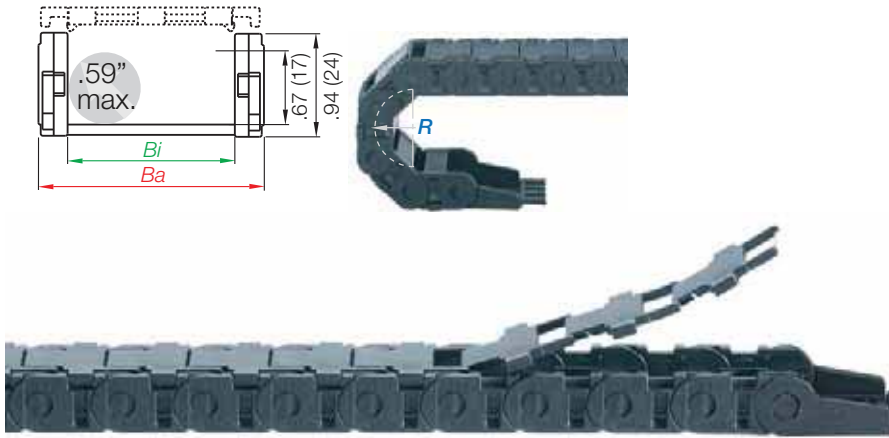
Speed / acceleration FL_G	max. 65.6 ft/s (20 m/s) / max. 656 ft/s ² (200 m/s ²)
Speed / acceleration FL_B	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s ² (6 m/s ²)
Gliding speed / acceleration (maximum)	max. 32.8 ft/s (10 m/s) / max. 164 ft/s ² (50 m/s ²)
Material - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120° C)
Flammability Class, igumid G	VDE 0304 IIC UL94 HB

Technical Data

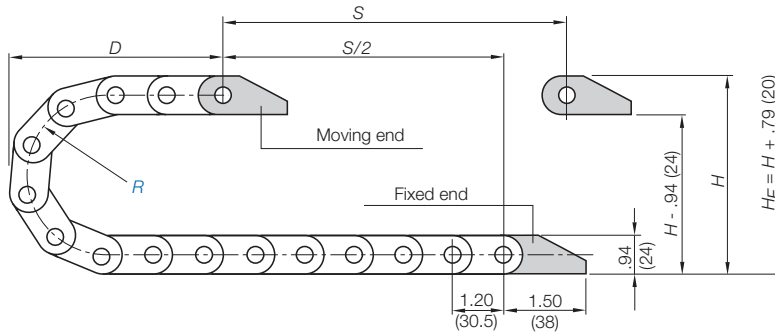
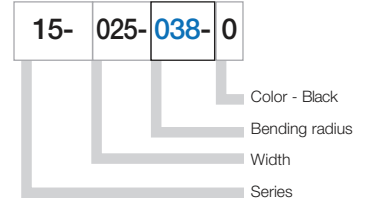


Details of material properties
 % Chapter 1

Series 15 - Zip-open along the outer radius



Part Number Structure



Supplement part number with required radius. Example: 15-025-038-0
Pitch: 1.20 in. (30.5 mm) per link links/ft (m) = 10.06 (33)

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

Choose from the radii below for all of the above sizes

Radius (mm) Example: 15-025-038-0

	038	048	075	100	110	125	145	180
R	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	3.94 (100)	4.72 (120)	6.89 (175)	8.86 (225)	9.65 (245)	10.83 (275)	12.40 (315)	15.16 (385)
D	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	7.28 (185)	8.46 (215)	11.81 (300)	14.76 (375)	16.14 (410)	17.91 (455)	20.47 (520)	24.80 (630)

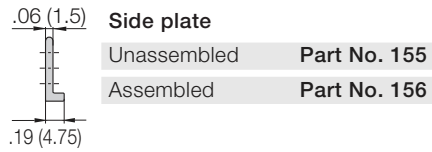
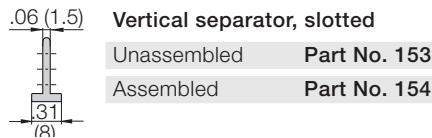
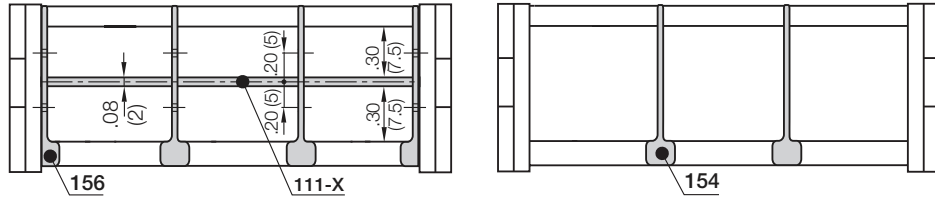
0=Standard color black. For other colors see Chapter 1

Interior Separation



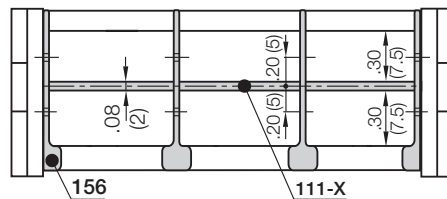
Option 1: Vertical separators

Vertical separators are used if only a vertical subdivision of the Energy Chain® interior is required. A slotted separator is used for this subdivision. This separator can also be used with full-width shelves for a continuous horizontal subdivision. By standard, vertical separators are assembled every other Energy Chain® link.

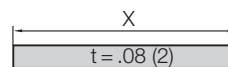


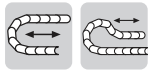
Option 2: Full-width shelf

Interior separation with continuous horizontal subdivision is practical using a large number of thin cables with similar or identical diameters.



Width X in. (mm)	Part No. Unassembled	Part No. Assembled
.59 (015)	110-15	111-15
.98 (025)	110-25	111-25
1.50 (038)	110-38	111-38
1.97 (050)	110-50	111-50
2.48 (063)	110-63	111-63
3.15 (080)	110-80	111-80
3.94 (100)	110-100	111-100

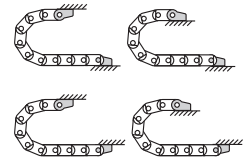
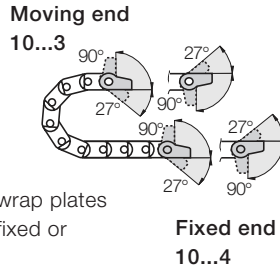




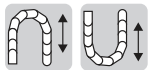
Standard

Option 1: pivoting

- Well suited for space-restricted conditions
- Strain relief with detachable tiwrap plates
- Can be mounted on either the fixed or moving end of the chain
- Variable traverse angle for flexible assembly

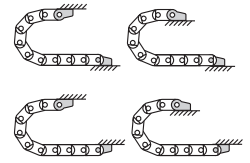
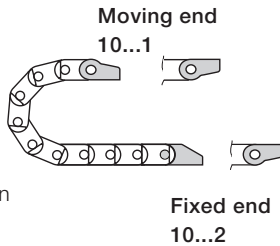


Possible installation configurations -



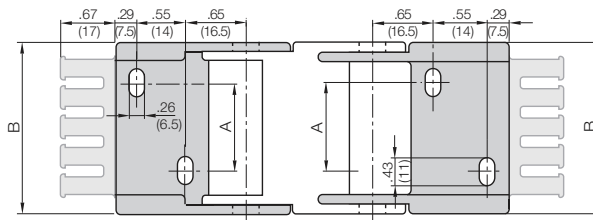
Option 2: locking

- Extreme accelerations
- If space is limited for height
- Can be mounted on either the fixed or moving end of the chain

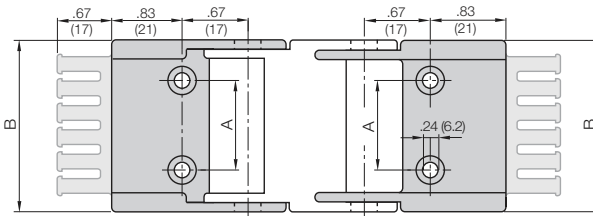


Possible installation configurations -

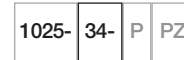
For Energy Chain 15-015 to 15-050



For Energy Chain 15-5 to 15-7



Part Number Structure



- With tiwrap plate
- Without tiwrap plate
- Complete Set
12 = Pivoting
34 = Locking
- 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 Tiwrap Plate
Series 15 with 25mm inner width
1025-34PZ

Part No. Full Set (pivoting) without Tiwrap Plate
Series 15 with 25 mm inner width
1025-34P

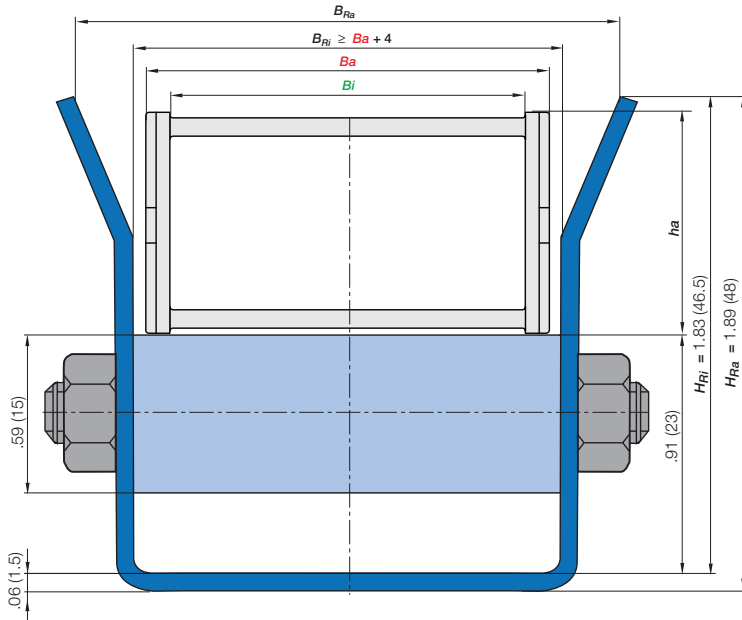
Full set, for both ends:
1025- [34-] [PZ] Full set, each part with pin/bore + tiwrap plate
Single-part order:
1025- [3-] [PZ] Mounting bracket with bore + tiwrap plate
1025- [4-] [PZ] Mounting bracket with pin + tiwrap plate

For Chain Type	Part No. Full set with Tiwrap Plate	Part No. Full Set without Tiwrap Plate	Dimension A in. (mm)	Dimensions B in. (mm)	Number of Teeth
15-015	1015- [] PZ	1015- [] P	—	1.00 (25.5)	2
15-025	1025- [] PZ	1025- [] P	.39 (10)	1.40 (35.5)	3
15-038	1038- [] PZ	1038- [] P	.91 (23)	1.91 (48.5)	4
15-050	1050- [] PZ	1050- [] P	1.38 (35)	2.38 (60.5)	5
15-5	105- [] PZ	105- [] P	1.89 (48)	2.95 (75.0)	6
15-6	106- [] PZ	106- [] P	2.56 (65)	3.62 (92.0)	8
15-7	107- [] PZ	107- [] P	3.35 (85)	4.41 (112.0)	10

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

Energy Chain System® Zipper Series 15 Guide Trough

One-piece guide troughs made of steel are available for the Series 15 Zipper 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.	BRa		BRi		Weight	
		in.	(mm)	in.	(mm)	lbs/ft	(kg/m)
15-015							
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)
15-025							
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)
15-038							
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)
15-050							
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)
15-5							
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)
15-6							
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)
15-7							
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

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

