

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 interior separation is required
- If high stability and long service life are required



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

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
 - 4 operation
 - 5 Zipper lids can be separated and joined at each link
 - 6 Mounting bracket with integrated strain relief
- For high acceleration


Order Example: Complete e-chain®

Please indicate chain length or number of links. Example:

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

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

 Interior Separation

 1 Set **1025-12PZ**
Mounting Bracket

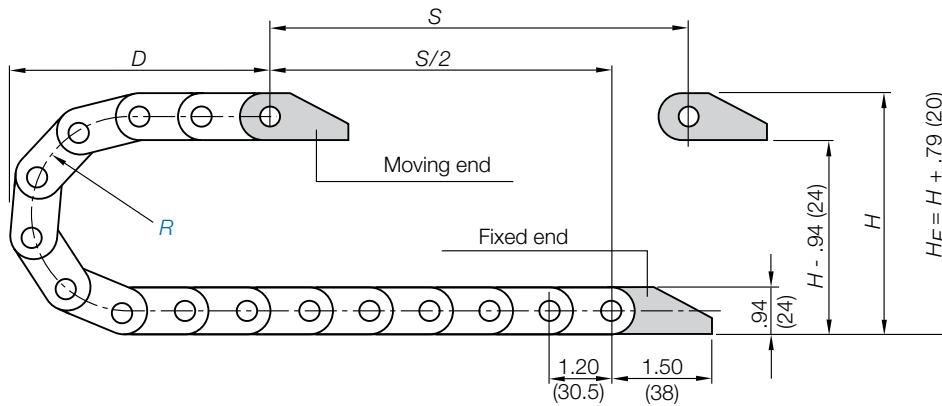
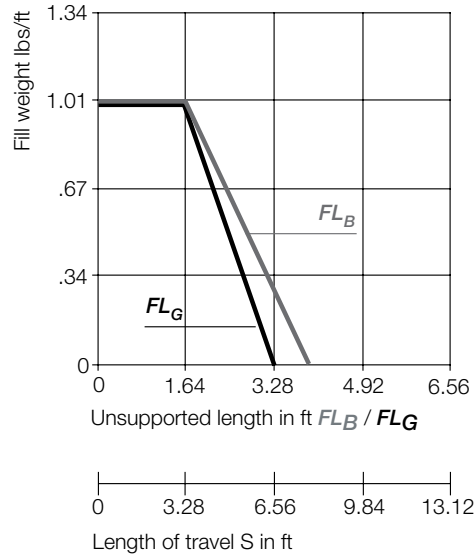
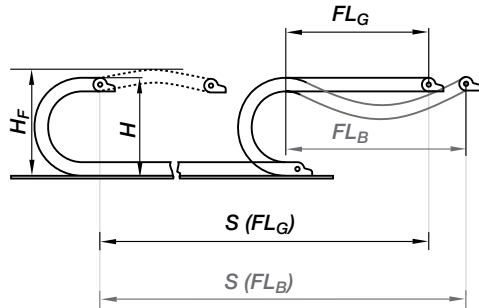
e-chain system® Zipper

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



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

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	3.90 (99)	4.69 (119)	6.81 (173)	8.78 (223)	9.57 (243)	10.75 (273)	12.32 (313)	15.08 (383)
D	3.74 (95)	4.13 (105)	5.20 (132)	6.18 (157)	6.57 (167)	7.17 (182)	7.95 (202)	9.33 (237)
K	7.28 (185)	8.46 (215)	11.81 (300)	14.96 (380)	16.14 (410)	17.91 (455)	20.47 (520)	24.80 (630)

igus®

15

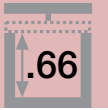
Short Travels - Unsupported



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

Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- H_F = Required clearance height



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



Speed / acceleration FL_G	max. 65.6 ft/s (20 m/s) / max. 656 ft/s² (200 m/s²)
Speed / acceleration FL_B	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s² (6 m/s²)
Gliding speed / acceleration (maximum)	max. 32.8 ft/s (10 m/s) / max. 164 ft/s² (50 m/s²)
Material - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120°C)
Flammability Class, igumid G	VDE 0304 IIC UL94 HB

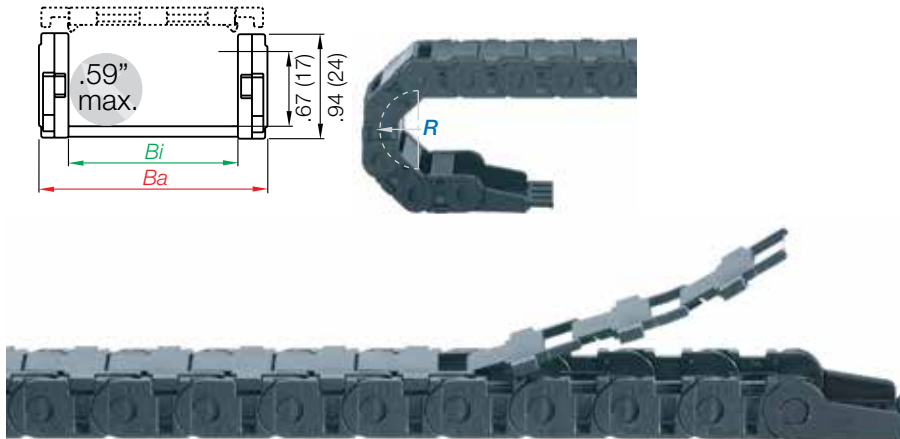
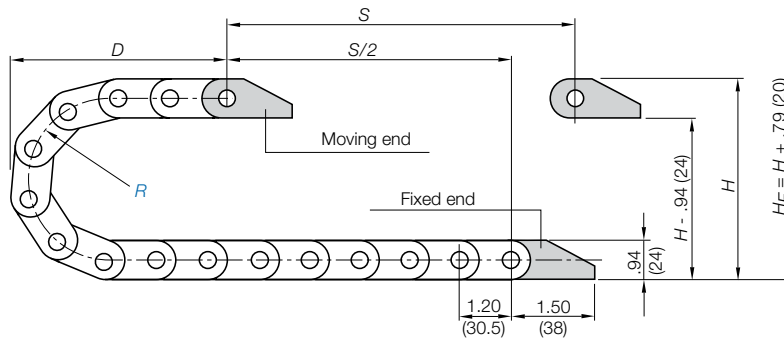
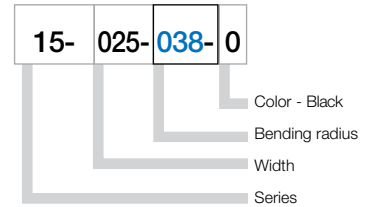
Technical Data



Details of material properties

► Chapter 1

3.28

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

 Snap-open
 outer radius

Bi

in. (mm)

Ba

in. (mm)

Weight

lbs/ft (kg/m)

15-015-		-0	.59 (15)	1.02 (26)	≈ 0.235 (0.35)
15-025-		-0	.98 (25)	1.42 (36)	≈ 0.269 (0.40)
15-038-		-0	1.50 (38)	1.93 (49)	≈ 0.309 (0.46)
15-050-		-0	1.97 (50)	2.40 (61)	≈ 0.349 (0.52)
15-5-		-0	2.48 (63)	2.99 (76)	≈ 0.423 (0.63)
15-6		-0	3.15 (80)	3.70 (94)	≈ 0.470 (0.70)
15-7		-0	3.94 (100)	4.45 (113)	≈ 0.511 (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	3.90 (99)	4.69 (119)	6.81 (173)	8.78 (223)	9.57 (243)	10.75 (273)	12.32 (313)	15.08 (383)
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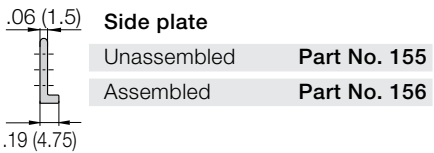
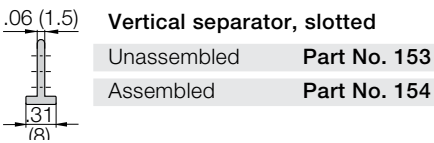
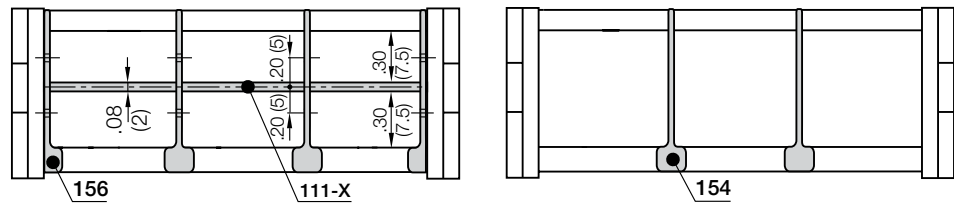
0=Standard color black. For other colors see Chapter 1

Interior Separation



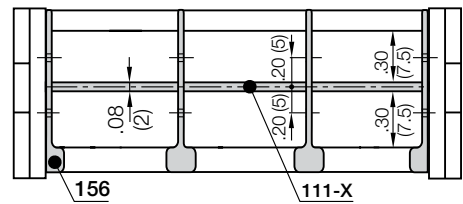
Option 1: Vertical separators

Vertical separators are used if only a vertical subdivision of the e-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 e-chain® link.

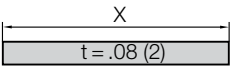


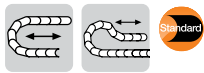
Option 2: Full-width shelf

Interior separation with continuous horizontal subdivision is practical is 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

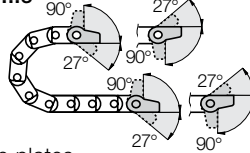




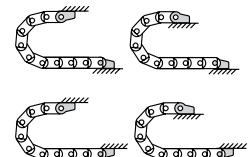
Option 1: pivoting

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

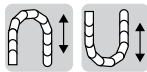
Moving end
10...3



Fixed end
10...4



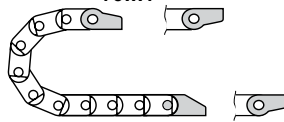
Possible installation configurations -



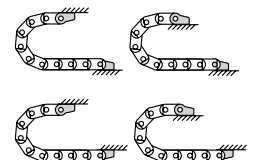
Option 2: locking

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

Moving end
10...1

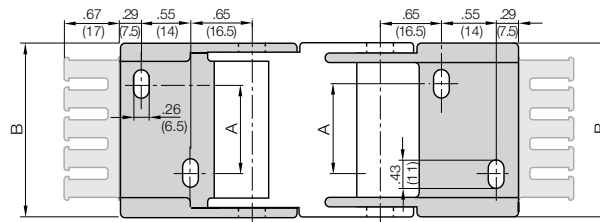


Fixed end
10...2

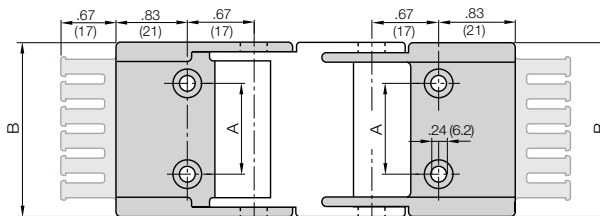


Possible installation configurations -

For e-chain
15-015 to 15-050



For e-chain
15-5 to 15-7



Part Number Structure

1025-	34-	P	PZ
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- With tiewrap plate
- Without tiewrap 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 Tiewrap Plate
Series 15 with 25mm inner width
1025-34PZ

Part No. Full Set (pivoting)
without Tiewrap 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 + tiewrap plate
Single-part order:
1025- [3-] PZ Mounting bracket with bore + tiewrap plate
1025- [4-] PZ Mounting bracket with pin + tiewrap plate

For Chain Type	Part No. Full set with Tiewrap Plate	Part No. Full Set without Tiewrap 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

34 or 12

For pivoting brackets choose **34**

For locking brackets choose **12**

Example: 1025- **34** PZ

e-chain system® Zipper

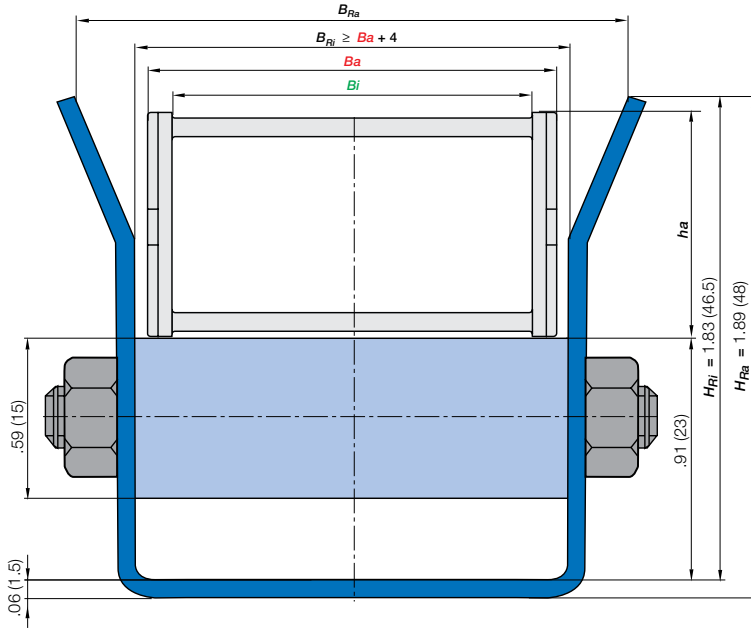
Series 15

Guide Trough



15

One-piece guide troughs made of steel are available for the Series 15 Zipper e-chains®. These guide troughs are available from stock for outer chain widths up to 4.45 in. (113 mm). For wider e-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)
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: igus.com/e-chain-pdfs
Product information: igus.com/e-chains

