

1400
1500



e-chain system® E2/000 Series 1400/1500



Price Index



Series 1400/1450/1500

Special Features / Options



IPA Qualification Certificate, Air Cleanliness Class ISO Class 3 (at v = 2 m/s) upon request



ESD classification: Electrically conductive ESD/ATEX version upon request



Flammability Class VDE 0304 IIC UL94 HB

Assembly Tips



Snap-open mechanism, choice of snap-open on left or right. Hinged crossbar can be swiveled by more than 180° on both sides. Lightning-fast closing by hand. Secure fit without additional locking devices.

Other Installation Methods

Vertical, hanging ≤ 65.6 ft (20 m)

Vertical, standing ≤ 6.56 ft (2 m)

Side-mounted, un supp. ≤ 2.30 ft (0.7 m)

Rotary requires further calculation

Usage Guidelines



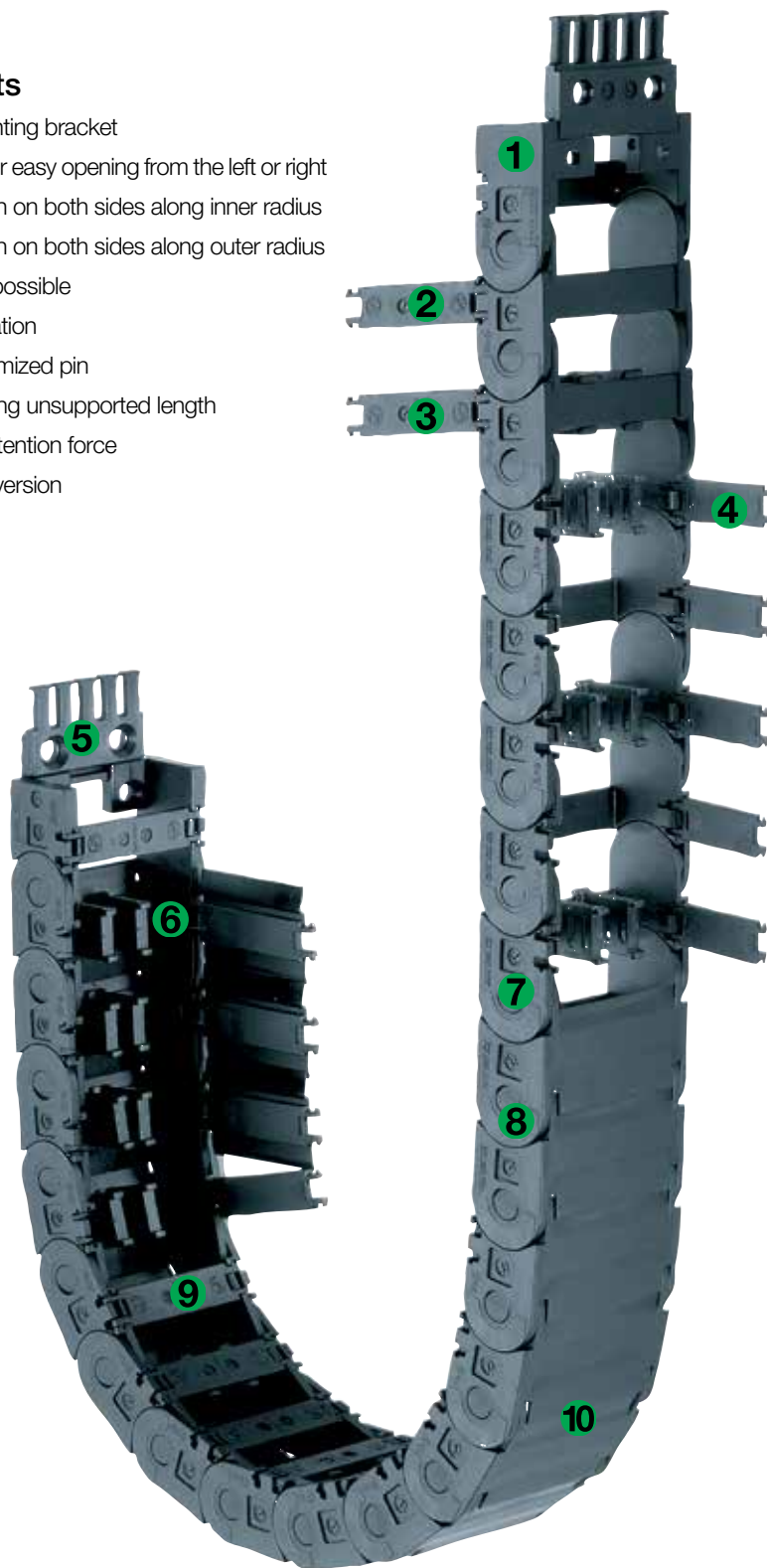
- If snap-open accessibility along the inner or outer radius is required
- If integrated strain relief at the mounting point is required
- If half e-tube is required (Series 1450)
- If long service life is required
- If easy installation is required



- If the application is very simple
➤ **Series E200 E-Z Chain**
- If greater stability is required
➤ **Series E4-21 E4-1 Series**

Features & Benefits

- 1 Tried-and-tested mounting bracket
- 2 Snap-open crossbar for easy opening from the left or right
- 3 Series 1400 snap-open on both sides along inner radius
- 4 Series 1500 snap-open on both sides along outer radius
- 5 Integrated strain relief possible
- 6 Modular interior separation
- 7 Easy assembly by optimized pin
- 8 Double stop dog for long unsupported length
- 9 Crossbars with high retention force
- 10 Also available as ESD version



Order Example: Complete e-chain®

Please indicate chain length or number of links. Example:

9.84 ft (3 m) **1400-038-100-0**



e-chain®

With 2 separators **14011** assembled every 2nd link



Interior Separation

1 Set **15000-038-34PZB**



Mounting Bracket

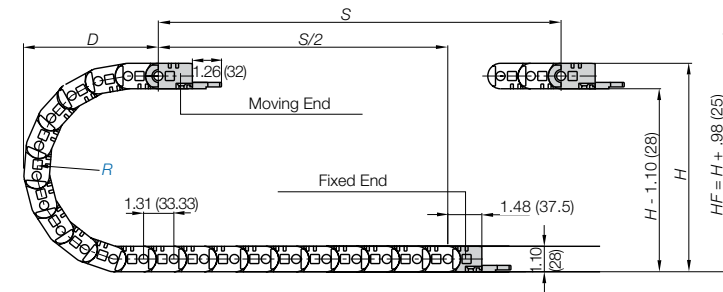
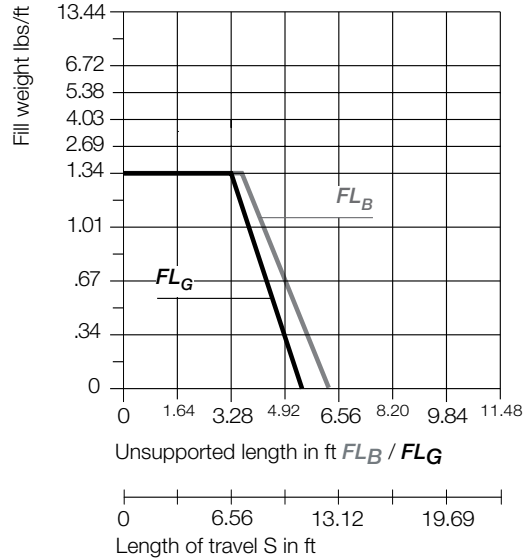
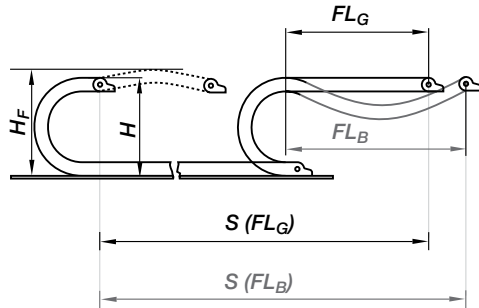
e-chain system® E2/000

Series 1400/1500

Installation Dimensions

Short travel, unsupported length

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



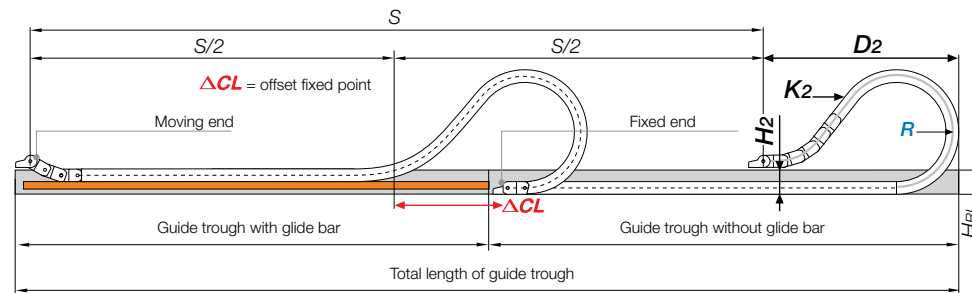
The required clearance height: $H_F = H + .98$ in. (25 mm) (with .34 lbs/ft (0.5 kg/m) fill weight).
Please consult igus® if space is particularly restricted.

R	1.38 (035)	1.50 (038)	1.89 (048)	2.95 (075)	3.94 (100)	4.92 (125)	5.71 (145)	7.09 (180)
H	3.86 (98)	4.09 (104)	4.88 (124)	7.01 (178)	8.98 (228)	10.94 (278)	12.52 (318)	15.28 (388)
D	3.90 (99)	4.02 (102)	4.41 (112)	5.47 (139)	6.46 (164)	7.44 (189)	8.23 (209)	9.61 (244)
K	7.09 (180)	7.48 (190)	8.66 (220)	12.01 (305)	15.16 (385)	18.11 (460)	20.67 (525)	25.00 (635)

Pitch per link = 1.31" (33.3 mm)
Links per ft (m) = 9.16 (30)
For center mount applications:
Chain length = $S/2 + K$

For long travels with lowered mounting height

Long travel lengths from 32.8 ft. (10 m) to max. 246 ft. (75 m)



In case of travels between 13 ft. (4m) and 32.8 ft. (10m) we recommend a longer unsupported length.

R	1.38 (035)	1.50 (038)	1.89 (048)	2.95 (075)	3.94 (100)	4.92 (125)	5.71 (145)	7.09 (180)
H ₂	—	—	—	—	3.94 (100)	3.94 (100)	3.94 (100)	3.94 (100)
D ₂ ²⁵	—	—	—	—	13.39 (340)	19.49 (495)	21.26 (540)	27.17 (690)
K ₂	—	—	—	—	23.62 (600)	31.50 (800)	37.01 (940)	46.06 (1170)
ΔCL	—	—	—	—	7.05 (179)	12.01 (305)	13.39 (340)	17.52 (445)

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. 32.81 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

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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
- HRI = Trough inner height
- H₂ = *Mounting height
- D₂ = Overlength - long travels, gliding
- K₂ = *Add-on

*If the mounting bracket location is set lower

Long Travels - Gliding



If the unsupported length is exceeded, the e-chain®/ Tube must glide on itself. This requires a guide trough.

Design, Chapter 1

Technical Data



Details of material properties

► Chapter 1

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



► Chapter 9

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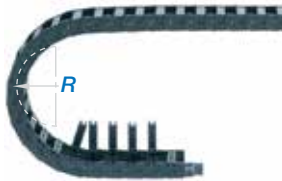
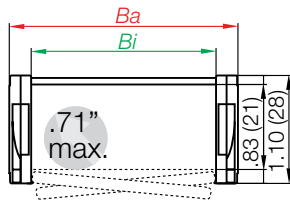


e-chain system® E2/000 Series 1400/1500

igus®
e-chain system®

Telephone 1-800-521-2747

Series 1400 - Snap-open along the inner radius

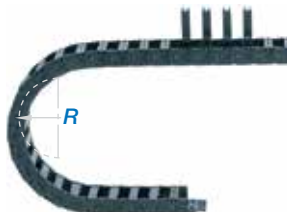
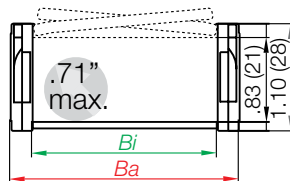


Part Number Structure

1400-038-100-0

Color - Black
Bending radius
Width
Series

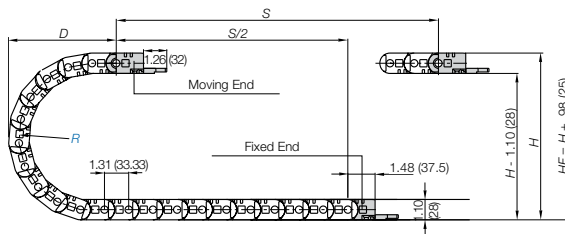
Series 1500 - Snap open along the outer radius



Part Number Structure

1500-038-100-0

Color - Black
Bending radius
Width
Series



Supplement part number with required radius. Example: 1400-038-100-0
Pitch: 1.31 in. (33.3 mm) per link links/ft (m) = 9.14 (30)

Part Number

Snap-open Inner Radius	Snap-open Outer Radius			Bi in. (mm)	Ba in. (mm)	Weight 1400/1500 lbs/ft (kg/m)	Weight 1450 lbs/ft (kg/m)
1400-015-	1500-015-		-0	.59 (15)	1.12 (28.5)	≈ 0.31 (0.46)	≈ 0.32 (0.48)
1400-020-	1500-020-		-0	.79 (20)	1.32 (33.5)	≈ 0.32 (0.47)	—
1400-025-	1500-025-		-0	.98 (25)	1.52 (38.5)	≈ 0.33 (0.49)	≈ 0.38 (0.57)
1400-038-	1500-038-		-0	1.50 (38)	2.03 (51.5)	≈ 0.36 (0.53)	≈ 0.40 (0.59)
1400-050-	1500-050-		-0	1.97 (50)	2.50 (63.5)	≈ 0.38 (0.56)	≈ 0.44 (0.65)
1400-068-	1500-068-		-0	2.68 (68)	3.21 (81.5)	≈ 0.42 (0.63)	≈ 0.50 (0.74)
1400-080-	1500-080-		-0	3.15 (80)	3.68 (93.5)	≈ 0.45 (0.67)	≈ 0.54 (0.80)
1400-100-	1500-100-		-0	3.94 (100)	4.47 (113.5)	≈ 0.50 (0.74)	≈ 0.60 (0.90)
1400-125-	1500-125-		-0	4.92 (125)	5.45 (138.5)	≈ 0.56 (0.83)	≈ 0.69 (1.03)

Choose from the radii below for all of the above sizes

Radius (mm) Example: 1400-038-100-0

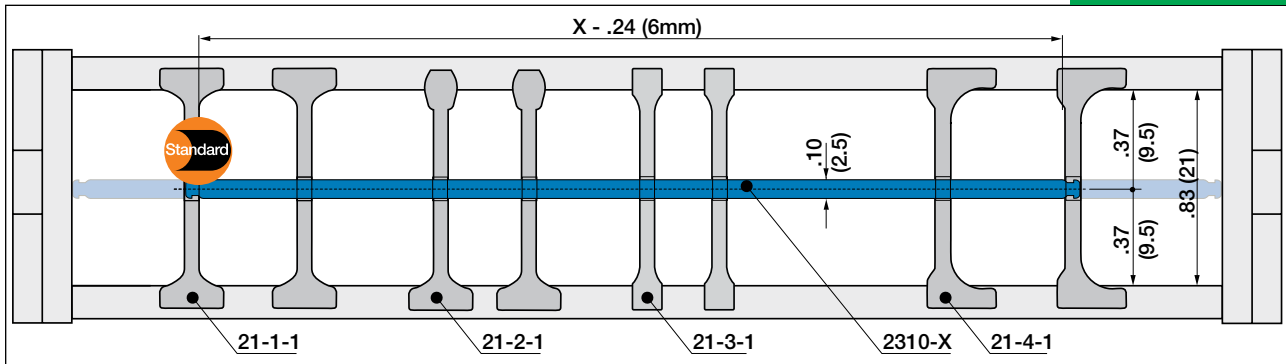
	035	038	048	075	100	125	145	180
R	1.38 (035)	1.50 (038)	1.89 (048)	2.95 (075)	3.94 (100)	4.92 (125)	5.71 (145)	7.09 (180)
H+4	3.86 (98)	4.09 (104)	4.88 (124)	7.01 (178)	8.98 (228)	10.94 (278)	12.52 (318)	15.28 (388)
D	3.90 (99)	4.02 (102)	4.41 (112)	5.47 (139)	6.46 (164)	7.44 (189)	8.23 (209)	9.61 (244)
K	7.09 (180)	7.48 (190)	8.66 (220)	12.01 (305)	15.16 (385)	18.11 (460)	20.67 (525)	25.00 (635)

Internet: igus.com
email: sales@igus.com
QuickSpec: igus.com/quickspec

e-chain system® E2/000
Series 1400/1500
Interior Separation - New Generation

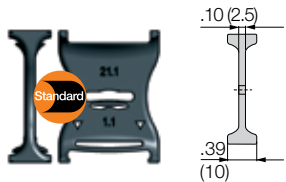
igus®

1400
1500



In the standard configuration separators are assembled every 2nd e-chain® link

Note: Only suitable for e-chain® Series 1400/1500



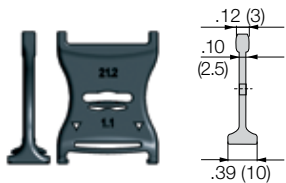
Separator, wide base

Unassembled **Part No. 21.1**

Assembled **Part No. 21.1.1**

- **Standard separator 21.1**
for all applications

Separator with wide base for maximum locking strength and safe standing in e-chains®.



Separator, narrow head

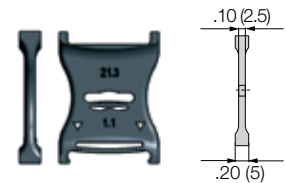
Unassembled **Part No. 21.2**

Assembled **Part No. 21.2.1**

- **Separator 21.2**

For even faster installation

is used when vertical and horizontal separation is required. Due to its slot, it allows basic vertical/horizontal shelving arrangements.



Separator, narrow base

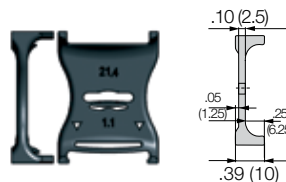
Unassembled **Part No. 21.3**

Assembled **Part No. 21.3.1**

- **Separator 21.3**

For many thin cables

is used when vertical and horizontal separation is required. Due to its slot, it allows basic vertical/horizontal shelving arrangements.



Separator, asymmetrical

Unassembled **Part No. 21.4**

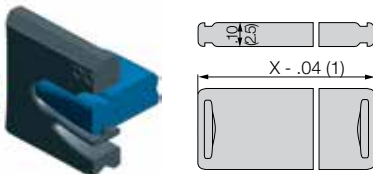
Assembled **Part No. 21.4.1**

- **Separator 21.4**

For side mounted applications

is used when vertical and horizontal separation is required. Due to its slot, it allows basic vertical/horizontal shelving arrangements.

Lockable full-width shelves - for the standard interior separation



Full width shelf, lockable

Unassembled **Part No. 2300-X**

Assembled **Part No. 2310-X**

- **Full width shelf, lockable**

is used when vertical and horizontal separation is required.

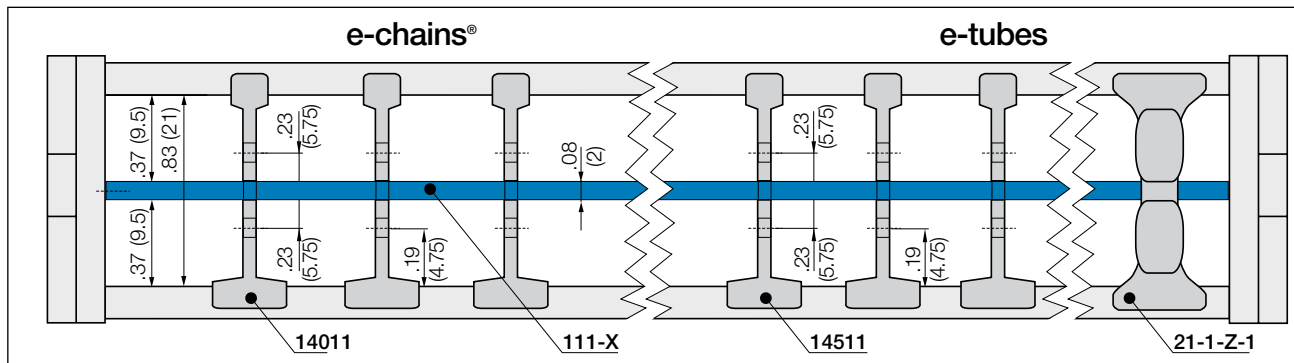
Width X in. (mm)	Part No. Unassembled	Part No. Assembled	Width X in. (mm)	Part No. Unassembled	Part No. Assembled	Width X in. (mm)	Part No. Unassembled	Part No. Assembled
015	2300-15	2310-15	060	2300-60	2310-60	087	2300-87	2310-87
025	2300-25	2310-25	062	2300-62	2310-62	090	2300-90	2310-90
030	2300-30	2310-30	065	2300-65	2310-65	100	2300-100	2310-100
038	2300-38	2310-38	070	2300-70	2310-70	103	2300-103	2310-103
040	2300-40	2310-40	075	2300-75	2310-75	110	2300-110	2310-110
050	2300-50	2310-50	077	2300-77	2310-77	120	2300-120	2310-120
057	2300-57	2310-57	080	2300-80	2310-80	125	2300-125	2310-125

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



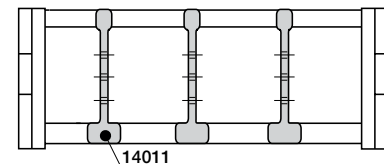
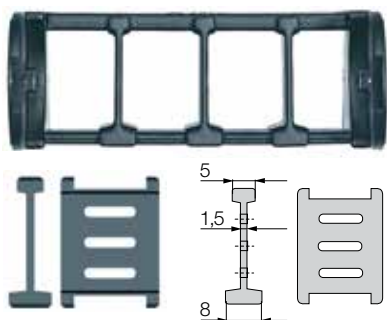
Option 1: Vertical separators

Vertical separators are used if a vertical subdivision of the e-tube interior is required. By standard, vertical separators are assembled every other e-tube link.



Separators, full-width shelves, Strain relief separators

In the standard configuration separators are assembled every 2nd e-chain® link



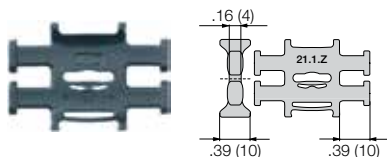
Slotted separator for e-tubes

Unassembled	Part No. 14001
Assembled	Part No. 14011

- **Slotted separator 14001 (Chains only)** is used when vertical and horizontal separation is required. Due to its slot, it allows basic vertical/horizontal shelving arrangements.

Option 2: Strain relief separator

Can be integrated into the mounting bracket and can be placed there at any position. To be used assembled on either the first or last e-chain® link. Ideal for restricted space conditions.



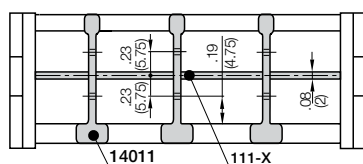
Strain relief separator for e-chains®

Unassembled	Part No. 21.1.Z
Assembled	Part No. 21.1.Z.1

- **Slotted separator 21.1.Z (Chains only)** It combines strain relief and interior separation.

Option 3: Full-width shelf

It is ideal for use in applications involving many thin cables with similar or identical diameters. This shelf slides into place and spans the entire width of the chain.



Width X in. (mm)	Part No. Unassembled	Part No. Assembled	Width X in. (mm)	Part No. Unassembled	Part No. Assembled
0.59 (15)	110-15	111-15	2.68 (68)	110-68	111-68
0.79 (20)	110-20	111-20	3.15 (80)	110-80	111-80
0.98 (25)	110-25	111-25	3.94 (100)	110-100	111-100
1.50 (38)	110-38	111-38	4.92 (125)	110-125	111-125
1.97 (50)	110-50	111-50			

• Full-width shelf 110-X (Chains®/Tubes)

this option makes sense in applications with many thin cables with similar diameters. Full-width shelves can be inserted at 3 different heights in .23" (5.75mm) increments

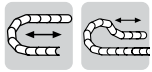
e-chain system® E2/000

Series 1400/1500

Mounting Brackets - Plastic

igus®

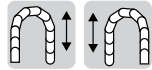
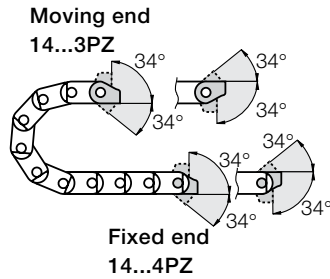
1400
1500



Standard

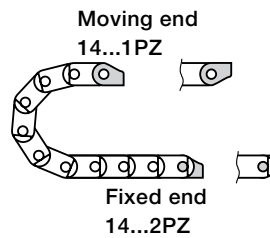
Option 1: pivoting

- Unsupported and gliding applications
- Space-restricted conditions
- Integrated strain relief
- Easy to assemble
- Various mounting positions

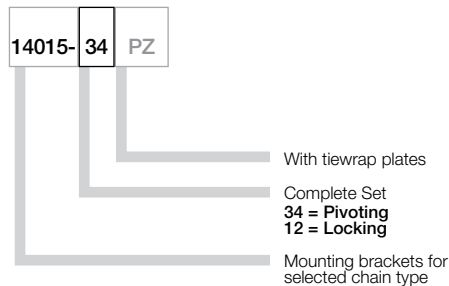


Option 2: locking

- Unsupported applications
- Extreme speed/accelerations
- If space is limited for height (H_F)
- Various mounting positions



Part Number Structure



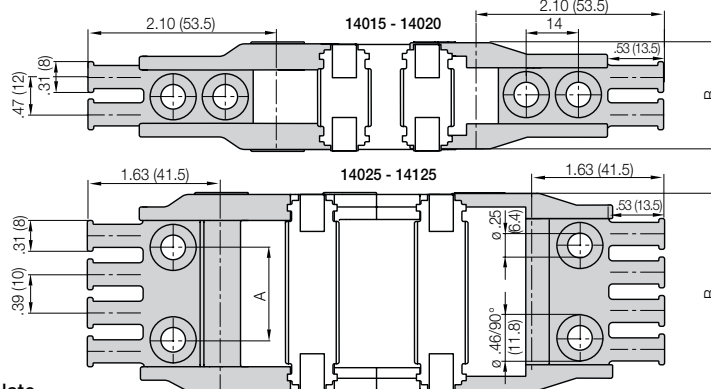
Full set, for both ends:

14015- 34 PZ Full set, each part with pin/bore + tiewrap plate

Single-part order:

14015- 3 PZ Mounting bracket with bore + tiewrap plate

14015- 4 PZ Mounting bracket with pin + tiewrap plate



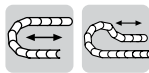
For Chain Type	Part No. Full Set with Tiewrap Plate	Dimension A in. (mm)	Dimension B in. (mm)	Number
1400/1450/1500-015	14015- ☐ PZ	— —	1.12 (28.5)	2
1400/1450/1500-020	14020- ☐ PZ	— —	1.32 (33.5)	2
1400/1450/1500-025	14025- ☐ PZ	.51 (13)	1.52 (38.5)	2
1400/1450/1500-038	14038- ☐ PZ	.94 (24)	2.03 (51.5)	4
1400/1450/1500-050	14050- ☐ PZ	1.42 (36)	2.50 (63.5)	6
1400/1450/1500-068	14068- ☐ PZ	2.13 (54)	3.21 (81.5)	7
1400/1450/1500-080	14080- ☐ PZ	2.60 (66)	3.68 (93.5)	8
1400/1450/1500-100	14100- ☐ PZ	3.39 (86)	4.47 (113.5)	10
1400/1450/1500-125	14125- ☐ PZ	4.37 (111)	5.45 (138.5)	13

34 or 12

For pivoting brackets choose 34
For locking brackets choose 12
Example: 14015- 34 PZB

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

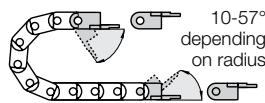




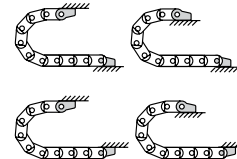
Option 3: plastic

- Unsupported applications
- Space-restricted conditions
- Strain relief with detachable tiewrap plates
- Can be attached at either the fixed end or the moving end

Moving end with bore
15000...3PZ(B)

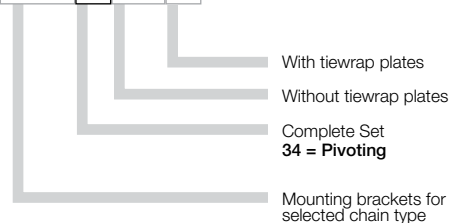


Fixed end with pin
15000...4PZ(B)



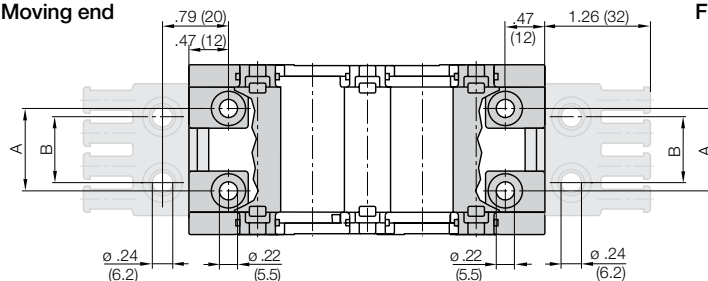
Part Number Structure

15000- 34 PZ B



15000...3PZ(B)

Moving end



15000...4PZ(B)

Fixed end

Full set, for both ends:

15000- 34 PZ B Full set, each part with pin/bore + tiewrap plate

Single-part order:

15000- 3 PZ B Mounting bracket with bore + tiewrap plate

15000- 4 PZ B Mounting bracket with pin + tiewrap plate

For Chain Type	Part No. Full Set with Tiewrap Plate	Part No. Full Set without Tiewrap Plate	Part No. Full Set with Tiewrap Plate + 10 cable ties	Dimension A in. (mm)		Dimension B in. (mm)	
1400/1500-015	—	—	—	—	—	—	—
1400/1500-020	—	—	—	—	—	—	—
1400/1500-025	15000-025-34PZB	15000-025-34PZ	15000-025-34PZBK1	.47	(12)	.59	(15)
1400/1500-038	15000-038-34PZB	15000-038-34PZ	15000-038-34PZBK1	.98	(25)	.79	(20)
1400/1500-050	15000-050-34PZB	15000-050-34PZ	15000-050-34PZBK1	1.46	(37)	1.18	(30)
1400/1500-068	15000-068-34PZB	15000-068-34PZ	15000-068-34PZBK1	2.17	(55)	1.57	(40)
1400/1500-080	15000-080-34PZB	15000-080-34PZ	15000-080-34PZBK1	2.64	(67)	2.36	(60)
1400/1500-100	15000-100-34PZB	15000-100-34PZ	15000-100-34PZBK1	3.43	(87)	3.15	(80)
1400/1500-125	15000-125-34PZB	15000-125-34PZ	15000-125-34PZBK1	4.41	(112)	4.13	(105)

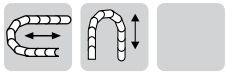
e-chain system® E2/000

Series 1400/1500

Mounting Brackets - Steel

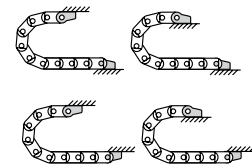
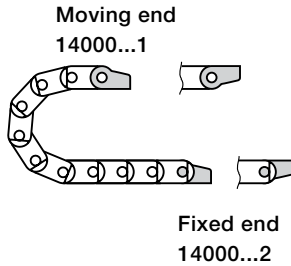


1400
1500

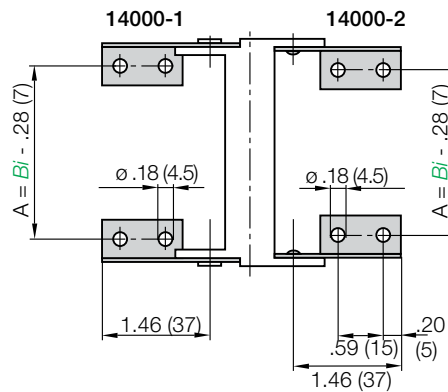
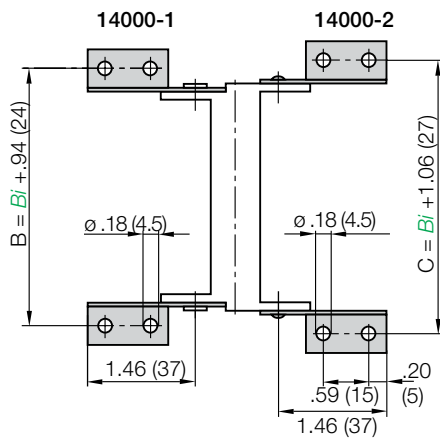


Option 4: Steel

- Locked connections
- One part (two-piece) for all chain widths
- Electrically conductive
- Bolted connection outside of chain cross-section possible



Possible installation configurations -



Chain Type	Part No. Full Set	Dimension A in. (mm)	Dimension B in. (mm)	Dimension C in. (mm)
1400/1500-015	14000-12	.31 (8)	1.54 (39)	1.65 (42)
1400/1500-020	14000-12	.51 (13)	1.73 (44)	1.85 (47)
1400/1500-025	14000-12	.71 (18)	1.93 (49)	2.05 (52)
1400/1500-038	14000-12	1.22 (31)	2.44 (62)	2.56 (65)
1400/1500-050	14000-12	1.69 (43)	2.91 (74)	3.03 (77)
1400/1500-068	14000-12	2.40 (61)	3.62 (92)	3.74 (95)
1400/1500-080	14000-12	2.87 (73)	4.09 (104)	4.21 (107)
1400/1500-100	14000-12	3.66 (93)	4.88 (124)	5.00 (127)
1400/1500-125	14000-12	4.65 (118)	5.87 (149)	5.98 (152)

Part No. Mounting Brackets Full Set

4 parts, 2 with pin, 2 with bore

Series 1400/1500:

14000-12

Part No. Mounting Bracket Moving End

2 parts, 1 left & 1 right

Series 1400/1500:

14000-1

Part No. Mounting Bracket Fixed End

2 parts, 1 left & 1 right

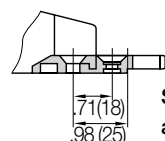
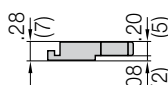
Series 1400/1500:

14000-2

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



Tiewrap Plates

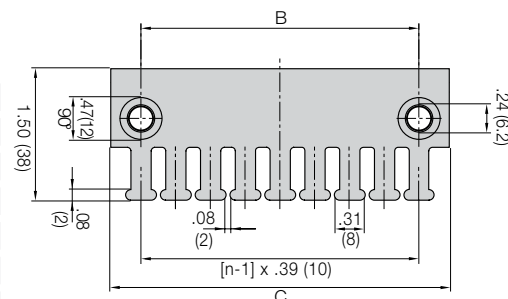
Shown
assembledSingle
tiewrap
plate

Option 1:

Tiewrap plates as an individual part

Available as an individual component, can be fixed onto a mounting bracket with the use of a profile rail.

Tiewrap Plates	n Number of Teeth	Dimension C	Dimension B
2020-ZB	3	1.18 (30)	.59 (15)
2030-ZB	4	1.57 (40)	.79 (20)
2040-ZB	5	1.97 (50)	1.18 (30)
2050-ZB	6	2.36 (60)	1.57 (40)
2070-ZB	8	3.15 (80)	2.36 (60)
2090-ZB	9	3.54 (90)	2.76 (70)
2100-ZB	10	3.94 (100)	3.15 (80)
2125-ZB	12	4.72 (120)	3.94 (100)



For more information please refer to strain relief section of Chapter 10



Strain relief for steel mounting brackets

Clip-on connection is not possible with steel mounting brackets. In this case, the tiewrap plates must be bolted directly into separate bore holes in front of the mounting bracket. Alternatively the tiewrap plates 20XX-ZB can be also used here. **Details chapter 10**



Cable tiewraps as individual parts

Cable tiewraps 100 pieces/bag	Width x Length		Maximum Ø		Tensile Strength	
	in.	(mm)	in.	(mm)	lbs	(N)
CFB-001	.19 x 5.91	(4.8 x 150)	1.42	(36)	50	(222)