

2400
2500



e-chain system® E2/000 Series 2400/2500



Price Index



Series 2400/2500

Special Features / Options



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



ESD classification: Electrically conductive ESD/ATEX version upon request



UL94 V2 classifications upon request

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 $\leq 131.24 \text{ ft}$ (40 m)

Vertical, standing $\leq 9.84 \text{ ft}$ (3 m)

Side-mounted, un_supp. $\leq 3.28 \text{ ft}$ (1 m)

Rotary requires further calculation

Usage Guidelines



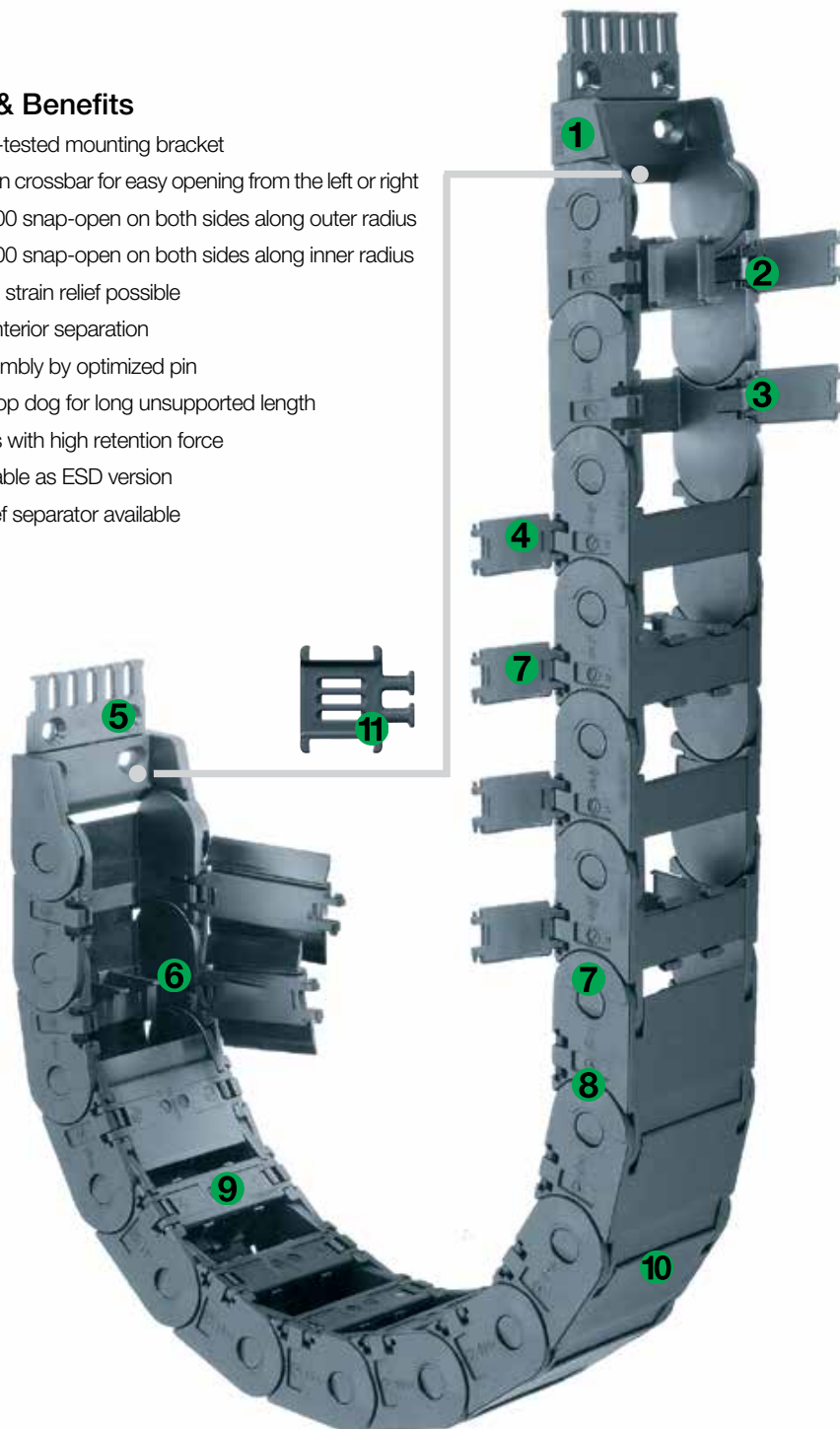
- If snap-open accessibility along the inner or outer radius is required
- If integrated strain relief at the mounting point is required
- If modular interior separation is needed
- If long service life is required
- If easy installation is required



- 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 2500 snap-open on both sides along outer radius
- 4 Series 2400 snap-open on both sides along inner 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
- 11 Strain relief separator available



Order Example: Complete e-chain®

Please indicate chain length or number of links. Example:

9.84 ft (3 m) 2500-10-100-0



e-chain®

With 2 separators 25.1 assembled every 2nd link



Interior Separation

1 Set 2100-34PZB



Mounting Bracket

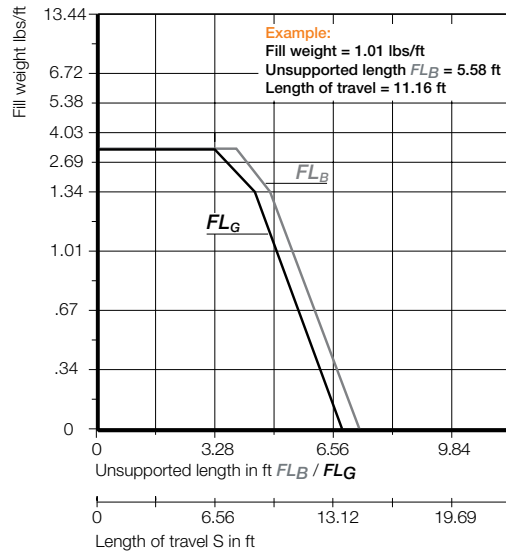
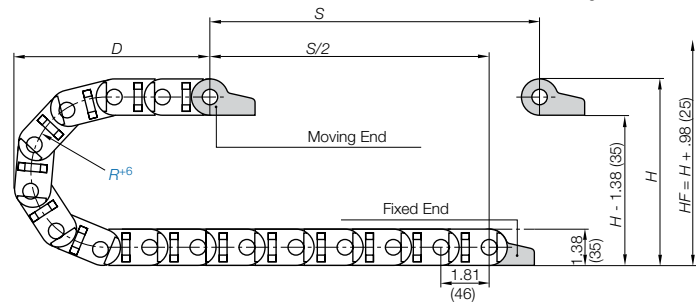
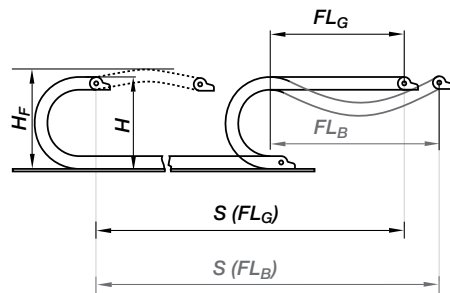
e-chain system® E2/000

Series 2400/2500

Installation Dimensions

Short travel, unsupported length

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



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
- H_{R1} = Trough inner height
- H_2 = *Mounting height
- D_2 = Overlength - long travels, gliding
- K_2 = *Add-on

*If the mounting bracket location is set lower

The required clearance height: $H_F = H + .98$ in. (25 mm) (with 1.01 lbs/ft (1.5 kg/m) fill weight. Please consult igus® if space is particularly restricted.

R	2.16 (055**)	2.95 (075)	3.94 (100)	4.92 (125)	5.91 (150)	6.89 (175)	7.87 (200)	8.86 (225)	9.84 (250)
H	5.71 (145)	7.28 (185)	9.25 (235)	11.22 (285)	13.19 (335)	15.16 (385)	17.13 (435)	19.09 (485)	21.06 (535)
D	5.59 (142)	6.38 (162)	7.36 (187)	8.35 (212)	9.33 (237)	10.31 (262)	11.30 (287)	12.28 (312)	13.27 (337)
K	10.43 (265)	12.99 (330)	16.14 (410)	19.09 (485)	22.24 (565)	25.39 (645)	28.54 (725)	31.50 (800)	34.65 (880)

**upon request

For long travels with lowered mounting height

Long travel lengths from 32.8 ft. (10 m) to max. 328 ft. (100 m)

Note: For using Series 2400 for long travels (gliding), please consult with igus® first.

For long travels, igus® specifies Series 2500 that snap open on the outer radius.

For center mount applications:

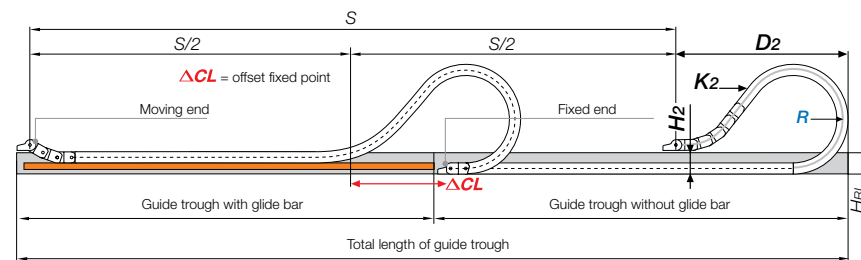
$$\text{Chain length} = \frac{S}{2} + K_2$$

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



R	2.16 (055)	2.95 (075)	3.94 (100)	4.92 (125)	5.91 (150)	6.89 (175)	7.87 (200)	8.86 (225)	9.84 (250)
H ₂	4.33 (110)	5.91 (150)	3.94 (100)	3.94 (100)	3.94 (100)	3.94 (100)	3.94 (100)	3.94 (100)	3.94 (100)
D ₂ ²⁵	5.59 (142)	6.38 (162)	14.96 (380)	17.32 (440)	23.23 (590)	29.72 (755)	37.40 (950)	40.94 (1040)	44.49 (1130)
K ₂	10.43 (265)	12.99 (330)	25.35 (644)	28.98 (736)	39.84 (1012)	48.90 (1242)	57.95 (1472)	63.39 (1610)	70.63 (1794)
ΔCL	—	—	8.03 (204)	9.61 (244)	14.33 (364)	19.84 (504)	26.54 (674)	29.69 (754)	31.65 (804)

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

2400
2500



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



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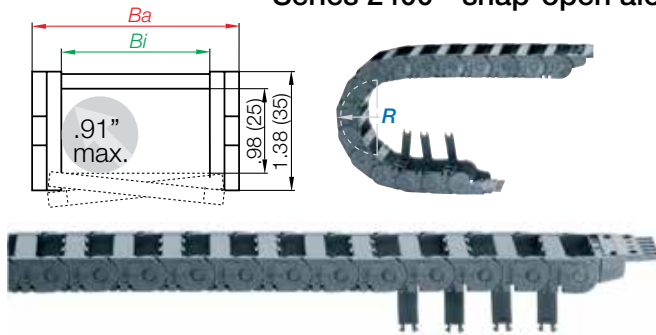
2400
2500



e-chain system® E2/000 Series 2400/2500

igus®
e-chain system®

Series 2400 - snap-open along the inner radius

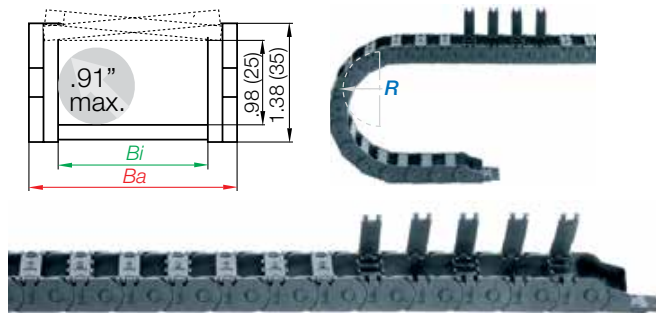


Part Number Structure

2400- 10- 100- 0

Color - Black
Bending radius
Width
Series

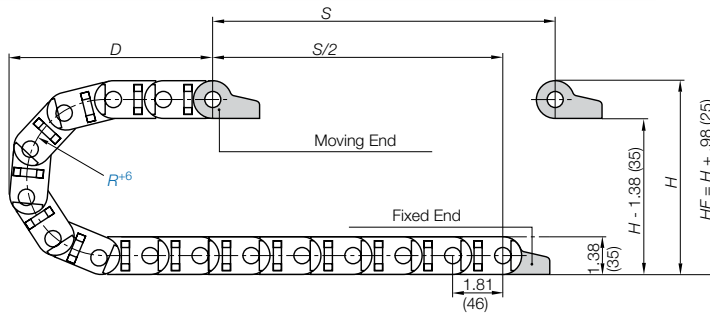
Series 2500 - snap-open along the outer radius



Part Number Structure

2500- 10- 100- 0

Color - Black
Bending radius
Width
Series



Supplement part number with required radius. Example: 2400-10-100-0
Pitch: 1.81 in. (46 mm) per link links/ft(m) = 6.71 (22)

Part Number.

Snap-open inner radius	Snap-open outer radius	Bi in. (mm)	Ba in. (mm)	Weight lbs/ft (kg/m)
2400-02- -0	2500-02- -0	.98 (25)	1.61 (41)	≈ 0.52 (0.77)
2400-03- -0	2500-03- -0	1.50 (38)	2.13 (54)	≈ 0.56 (0.83)
2400-05- -0	2500-05- -0	2.24 (57)	2.87 (73)	≈ 0.61 (0.91)
2400-07- -0	2500-07- -0	3.03 (77)	3.66 (93)	≈ 0.68 (1.01)
2400-09- -0	2500-09- -0	3.50 (89)	4.13 (105)	≈ 0.73 (1.08)
2400-10- -0	2500-10- -0	4.06 (103)	4.69 (119)	≈ 0.77 (1.15)
2400-12- -0	2500-12- -0	4.92 (125)	5.55 (141)	≈ 0.82 (1.22)

Choose from the radii below for all of the above sizes
Radius (mm) Example: 2400-10-100-0

	055	075	100	125	150	175	200	225	250
R	2.16 (055)	2.95 (075)	3.94 (100)	4.92 (125)	5.91 (150)	6.89 (175)	7.87 (200)	8.86 (225)	9.84 (250)
H	5.71 (145)	7.28 (185)	9.25 (235)	11.22 (285)	13.19 (335)	15.16 (385)	17.13 (435)	19.09 (485)	21.06 (535)
D	5.59 (142)	6.38 (162)	7.36 (187)	8.35 (212)	9.33 (237)	10.31 (262)	11.30 (287)	12.28 (312)	13.27 (337)
K	10.43 (265)	12.99 (330)	16.14 (410)	19.09 (485)	22.24 (565)	25.39 (645)	28.54 (725)	31.50 (800)	34.65 (880)

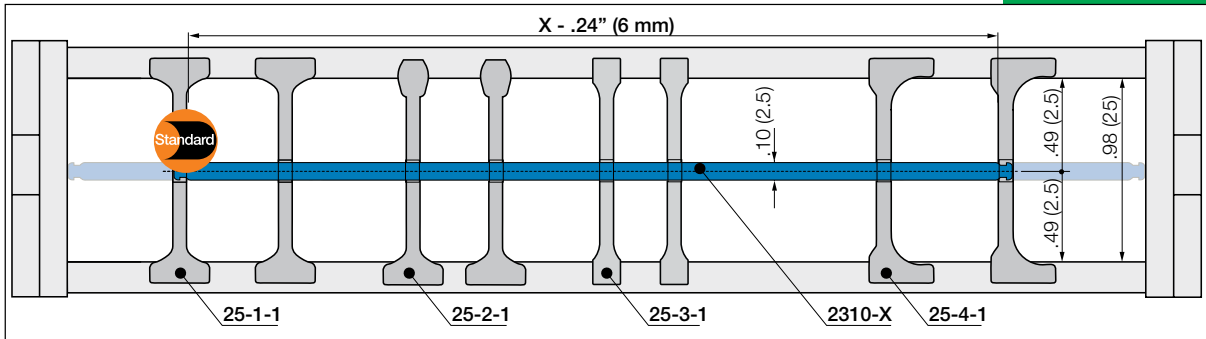
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QuickSpec: igus.com/quickspec

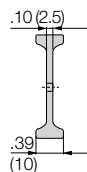
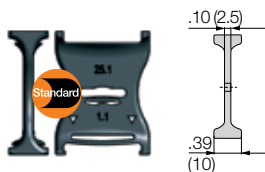
e-chain system® E2/000
Series 2400/2500
Interior Separation



2400
2500



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

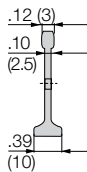
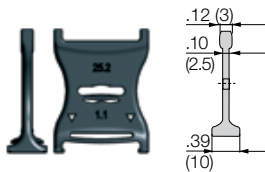


Separator, wide base

Unassembled	Part No. 25.1
Assembled	Part No. 25.1.1

• **Standard separator 25.1**
for all applications

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

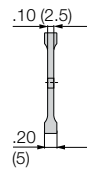


Separator, narrow head

Unassembled	Part No. 25.2
Assembled	Part No. 25.2.1

• **Separator 25.2**
For even faster installation

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

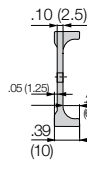


Separator, narrow base

Unassembled	Part No. 25.3
Assembled	Part No. 25.3.1

• **Separator 25.3**
For many thin cables

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



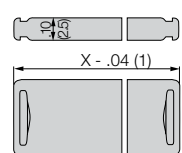
Separator, asymmetrical

Unassembled	Part No. 25.4
Assembled	Part No. 25.4.1

• **Separator 25.4**
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
0.59 (015)	2300-15	2310-15	2.36 (060)	2300-60	2310-60	3.43 (087)	2300-87	2310-87
0.98 (025)	2300-25	2310-25	2.44 (062)	2300-62	2310-62	3.54 (090)	2300-90	2310-90
1.18 (030)	2300-30	2310-30	2.56 (065)	2300-65	2310-65	3.94 (100)	2300-100	2310-100
1.50 (038)	2300-38	2310-38	2.76 (070)	2300-70	2310-70	4.06 (103)	2300-103	2310-103
1.57 (040)	2300-40	2310-40	2.95 (075)	2300-75	2310-75	4.33 (110)	2300-110	2310-110
1.97 (050)	2300-50	2310-50	3.03 (077)	2300-77	2310-77	4.72 (120)	2300-120	2310-120
2.24 (057)	2300-57	2310-57	3.15 (080)	2300-80	2310-80	4.92 (125)	2300-125	2310-125

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



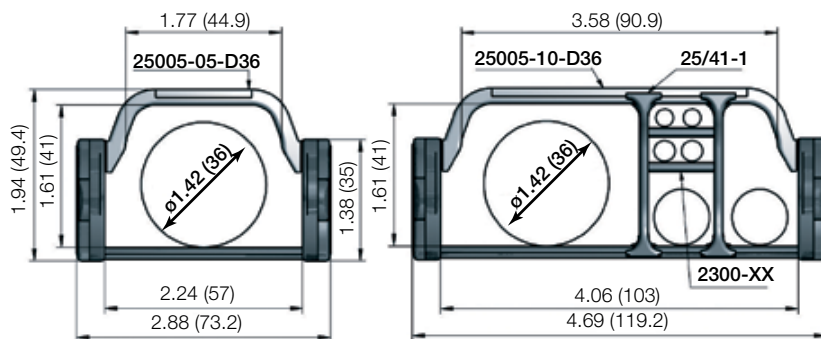
2400
2500



e-chain system® E2/000 Series 2400/2500 Extender crossbars

igus®
e-chain system®

Telephone 1-800-521-2747



Part Number.

Extender crossbars
for e-chains®
that snap-open
along inner radius

Extender crossbars
for e-chains®
that snap-open
along outer radius

Bi
in. (mm)

Ba
in. (mm)

2400-05D36-	-0	2500-05D36-	-0	2.24 (57)	2.87 (73)
2400-10D36-	-0	2500-10D36-	-0	4.06 (103)	4.69 (119)

Choose from the radii below for all of the above sizes

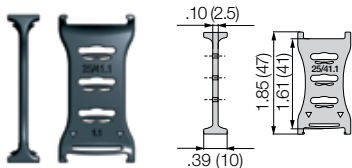
Radius (mm)

Example: 2400-10D36-100-0

	055*	075	100	125	150	175	200	225	250
R	1.38 (055*)	1.50 (075*)	3.94 (100)	4.92 (125)	5.91 (150)	6.89 (175)	7.87 (200)	8.86 (225)	9.84 (250)

*Radius 055 only possible with Series 2500 e-chains®

Interior separation for extender crossbars

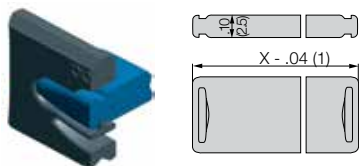


Separator, wide base

Unassembled	Part No. 25/41.1
Assembled	Part No. 25/41.1.1

- **Standard separator 25/41-1, wide base**
For maximum locking strength and safe standing. In standard configuration separators are assembled every 2nd e-chain® link.

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. Due to its slot, it allows basic vertical/horizontal shelving arrangements.

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
0.59 (015)	2300-15	2310-15	2.36 (060)	2300-60	2310-60	3.43 (087)	2300-87	2310-87
0.98 (025)	2300-25	2310-25	2.44 (062)	2300-62	2310-62	3.54 (090)	2300-90	2310-90
1.18 (030)	2300-30	2310-30	2.56 (065)	2300-65	2310-65	3.94 (100)	2300-100	2310-100
1.50 (038)	2300-38	2310-38	2.76 (070)	2300-70	2310-70	4.06 (103)	2300-103	2310-103
1.57 (040)	2300-40	2310-40	2.95 (075)	2300-75	2310-75	4.33 (110)	2300-110	2310-110
1.97 (050)	2300-50	2310-50	3.03 (077)	2300-77	2310-77	4.72 (120)	2300-120	2310-120
2.24 (057)	2300-57	2310-57	3.15 (080)	2300-80	2310-80	4.92 (125)	2300-125	2310-125

Separator with integrated strain relief

Strain relief separator Part No. 2020-Z can be integrated into the mounting bracket and can be placed there at any point of the e-chain®. It combines strain relief and interior separation, it can be installed on the first or last e-chain® link and is easy to assemble without any screws.

For more information ► Chapter 10, Strain Relief



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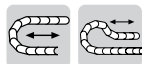
e-chain system® E2/000

Series 2400/2500

Mounting Bracket - Plastic

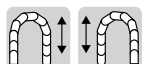
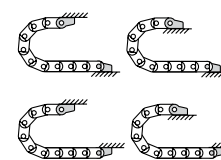
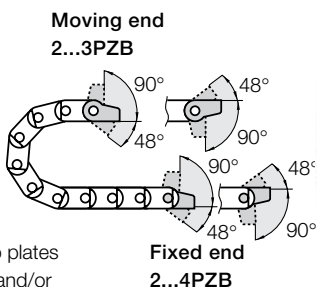
igus®

2400
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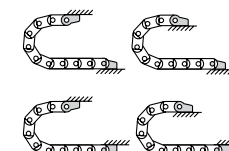
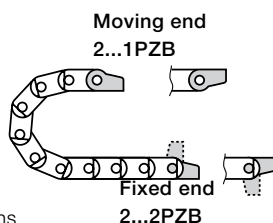
Option 1: pivoting

- For unsupported and gliding applications
- Well suited for tight installation conditions
- Detachable strain relief tiewrap plates
- Can be mounted on the fixed and/or moving end



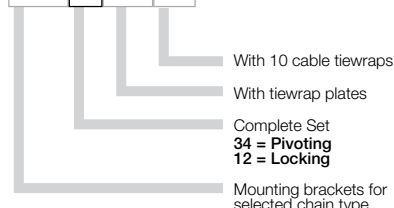
Option 2: locking

- For unsupported and gliding applications
- Extreme speed and/or accelerations
- For height restricted applications
- Can be mounted on the fixed and/or moving end



Part Number Structure

2020- 34 PZB K1



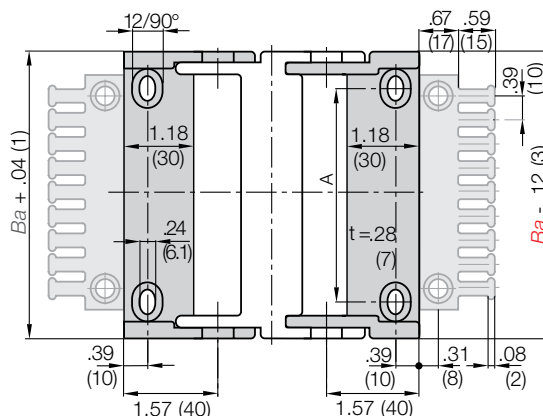
Full set, for both ends:

2020- 34 PZB Full set, each part with pin/bore + tiewrap plate

Single-part order:

2020- 3 PZB Mounting bracket with bore + tiewrap plate

2020- 4 PZB Mounting bracket with pin + tiewrap plate



Part No. Full Set (pivoting)

With Tiewrap Plates

Series 2400/2500:

2020-34PZB

Part No. Full Set (pivoting)

With Tiewrap Plates

+ 10 cable ties

Series 2400/2500:

2020-34PZBK1

For Chain Type	Part No. Full set without Tiewrap Plate	Part No. Full Set with Tiewrap Plate	Part No. Full Set with Tiewrap Plate + 10 cable ties	Dimension A in. (mm)	Number of teeth
2400/2500-02	2020- PZ	2020- PZB	2020- PZBK1	.47 (12)	3
2400/2500-03	2030- PZ	2030- PZB	2030- PZBK1	.98 (25)	4
2400/2500-05	2050- PZ	2050- PZB	2050- PZBK1	1.73 (44)	6
2400/2500-07	2070- PZ	2070- PZB	2070- PZBK1	2.52 (64)	8
2400/2500-09	2090- PZ	2090- PZB	2090- PZBK1	3.03 (77)	9
2400/2500-10	2100- PZ	2100- PZB	2100- PZBK1	3.54 (90)	10
2400/2500-12	2125- PZ	2125- PZB	2125- PZBK1	4.41 (112)	12

34 or 12

For pivoting brackets choose 34

For locking brackets choose 12

Example: 2020- 34 PZB

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



2400
2500

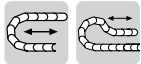


e-chain system® E2/000 Series 2400/2500 Mounting Bracket - KMA

igus®
e-chain system®

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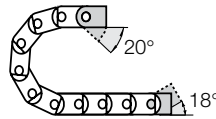
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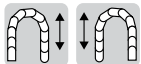
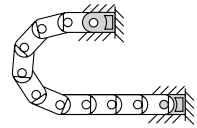
Option 1: pivoting

- For unsupported applications
- Bolted connection outside of chain cross section
- Confined installation conditions
- Attachment points on all sides
- Stackable

Moving end
24001...1



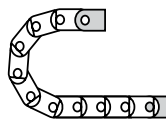
Fixed end
24001...2



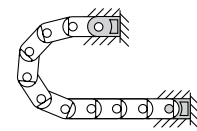
Option 2: locking

- For vertical hanging/standing applications
- Bolted connection outside of chain cross section
- For very high speeds and accelerations
- Attachment points on all sides
- Stackable

Moving end
24101...1



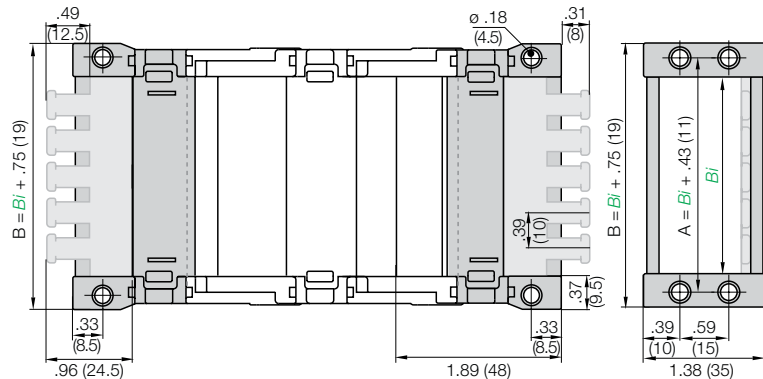
Fixed end
24101...2



Part Number Structure

24001-02-12ZB

- With tiewrap plates
- Complete Set
- Width
- Mounting brackets for selected chain type
24001 = Pivoting
24101 = Locking



Full set, for both ends:

24001-[12]ZB Full set, each part with pin/bore + tiewrap plate

Single-part order:

24001-[1]ZB Mounting bracket with bore + tiewrap plate

24001-[2]ZB Mounting bracket with pin + tiewrap plate

Part No. Full Set (pivoting)

With Tiewrap Plates

Series 2480:

24001-Width-12ZB

Part No. Full Set (pivoting)

Without Tiewrap Plates

Series 2480:

24001-Width-12

For Chain Type	Part No. Full set with Tiewrap Plate	Part No. Full Set without Tiewrap Plate	Dimension A in.	(mm)	Number of Teeth
2400/2500-02	24001-02-12ZB	24001-02-12	1.42	(36)	2
2400/2500-03	24001-03-12ZB	24001-03-12	1.93	(49)	4
2400/2500-05	24001-05-12ZB	24001-05-12	2.68	(68)	6
2400/2500-07	24001-07-12ZB	24001-07-12	3.46	(88)	7
2400/2500-09	24001-09-12ZB	24001-09-12	3.94	(100)	9
2400/2500-10	24001-10-12ZB	24001-10-12	4.49	(114)	10
2400/2500-12	24001-12-12ZB	24001-12-12	5.35	(136)	12

24001 or 24101

For pivoting brackets choose 24001

For locking brackets choose 24101

Example: 24001-02-12ZB

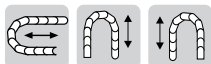
e-chain system® E2/000

Series 2400/2500

Mounting Bracket - Steel

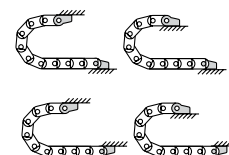
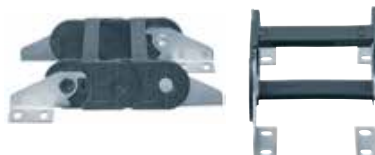
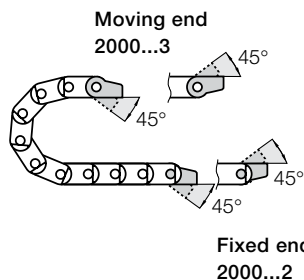
igus®

2400
2500

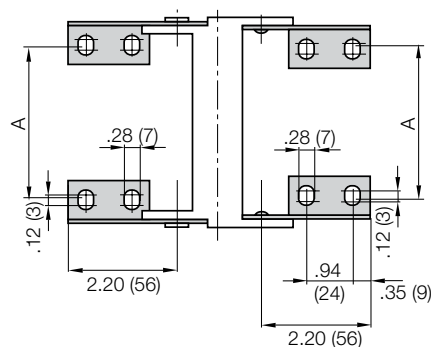
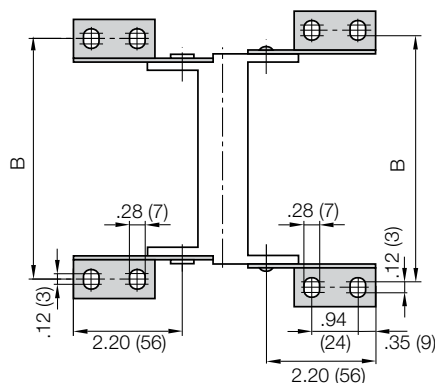


Option 1: Steel

- Pivoting 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.	Dimension A		Dimension B	
	Full Set	in.	(mm)	in.	(mm)
2400/2500-02	2000-32	—	—	2.36	(60)
2400/2500-03	2000-32	.98	(25)	2.87	(73)
2400/2500-05	2000-32	1.73	(44)	3.62	(92)
2400/2500-07	2000-32	2.52	(64)	4.41	(112)
2400/2500-09	2000-32	2.99	(76)	4.88	(124)
2400/2500-10	2000-32	3.54	(90)	5.43	(138)
2400/2500-12	2000-32	4.41	(112)	6.30	(160)

Part No. Mounting Brackets Full Set

4 parts, 2 with pin, 2 with bore
Series 2400/2500:
2000-32

Part No. Mounting Bracket Moving End

2 parts, 1 left & 1 right
Series 2400/2500:
2000-3

Part No. Mounting Bracket Fixed End

2 parts, 1 left & 1 right
Series 2400/2500:
2000-2

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



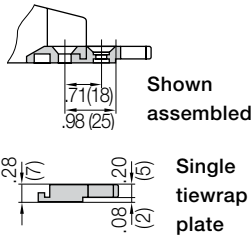
2400
2500



e-chain system® E2/000 Series 2400/2500 Strain Relief

igus®
e-chain system®

Tiewrap Plates

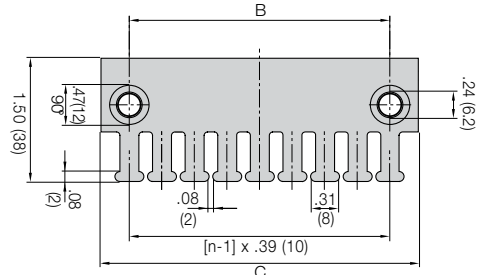


Option 1:

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

Telephone 1-800-521-2747



Cable tiewraps as individual parts

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



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**

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

e-chain system® E2/000

Series 2400/2500

Guide Trough

igus®

2400
2500

Guide troughs are used with applications where the upper run of the e-chain® glides on the lower run. If using igus® steel guide troughs, the following components are required:

- Full travel length of guide trough
Part Number 92-30
- 1/2 travel length of glide bars
Part Number 92-01
- Installation sets as end connectors
Part Number 92-50-XX

-XX indicates the length of the profile rail on which the guide trough is mounted. The values and part numbers are specified in the table on the left. The standard length of the trough components and glide bars is 6.56 ft (2 m.) The required overall length of the guide trough directly correlates to the length of travel.

Example:
Length of travel 164 ft (50 m)
Center mounted
Required guide troughs:
164 ft (50 m) guide trough
82 ft (25 m) glide bar
= 25 sections of 6.56 ft
(2 m) guide trough
Part No. 92-30
= 13 sections of 6.56 ft (2 m) glide bar
Part No. 92-01

Required number of installation sets:
= Number of guide trough components + 1
= 25 + 1 = 26
Part number of the installation sets

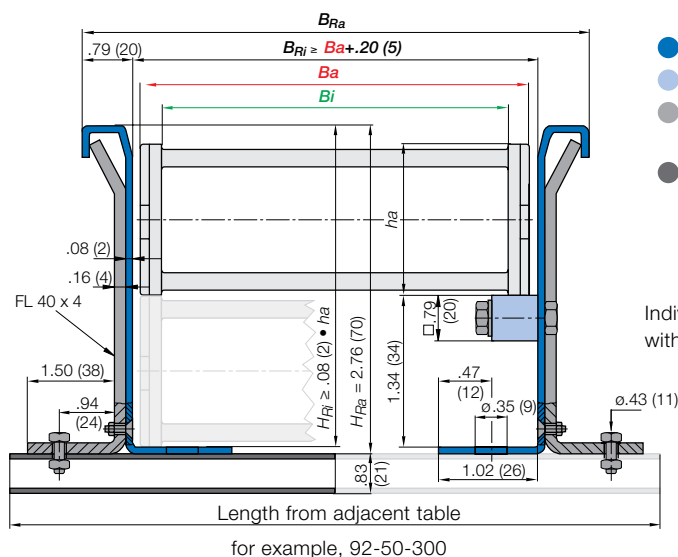
Example: 92-50-400 for 15.75" (400 mm) long profile rail.



Width of Crossbar
2500-05-200-0

Installation
Part No.

-02*	1.81 (46)	—
-03	2.32 (59)	92-50-175
-05	3.07 (78)	92-50-200
-07	3.86 (98)	92-50-225
-09	4.37 (111)	92-50-225
-10	4.88 (124)	92-50-250
-12	5.75 (146)	92-50-275



- Guide trough
- Glide bars
- Installation set "Basic"
- Profile rail

Individual attachment
without profile rail

Standard length profile rail

* Specialized guide
trough available
upon request

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

