

200
240
250

igus®

Price Index



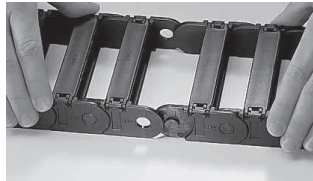
Series 200/240/250

Special Features / Options



Flammability Class
VDE 0304 IIC UL94 HB

Assembly Tips



Easy to assemble and disassemble

Other Installation Methods

Vertical, hanging ≤ 131 ft (40 m)

Vertical, standing ≤ 9.84 ft (3 m)

Side-mounted, un supp. ≤ 3.28 ft (1 m)

Rotary requires further calculation

Usage Guidelines



- If snap-open accessibility along the inner or outer radius is required (Series 200 does not open)
- If integrated strain relief at the mounting point is required
- If modular interior separation is required
- If long service life is required
- If easy installation is required



- If each link requires snap-open accessibility on both sides simultaneously
 - Series 220 E4/100
- If chip protection is required
 - Series R48 E2 Tubes
- If the application is very simple
 - Series E200 E-Z Chain

4.177

E-Chain System® E2 Medium Series 200/240/250

Features & Benefits

- 1 Dirt-repellent contoured exterior
- 2 Cable-friendly, smooth interior with modular interior separation
- 3 Lateral glide surfaces for side mounted operation
- 4 Large pins for long service life
- 5 Double stop dog for long unsupported length
- 6 Tapered insertion point for easy assembly
- 7 Integrated strain relief possible
- 8 Snap-open, hinged to left or right, accessible from the top
- 9 Series 240 snap-open along the inner radius can be combined with Series 250 snap-open along the outer radius



Order Example: Complete E-Chain®

Please indicate chain length or number of links. Example:

6.56 ft (2 m) 250-10-100-0



E-Chain®

With 2 separators 211 assembled every 2nd link



Interior Separation

1 Set 2100-34PZB

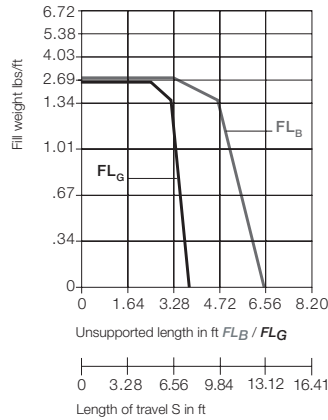
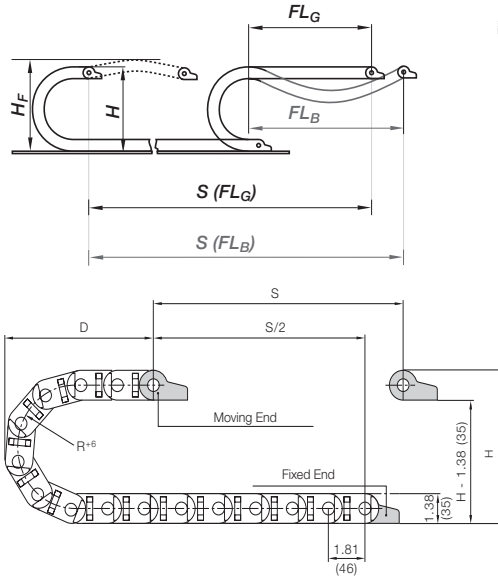


Mounting Bracket

E-Chain System® E2 Medium Series 200/240/250 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 = 1.81" (46 mm)

Links per ft (m): = 6.63 (22)

For center mount applications:

Chain length = $\frac{S}{2} + K$

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	2.17 (55)	2.95 (75)	3.94 (100)	4.92 (125)	5.91 (150)	6.89 (175)	7.87 (200)	8.66 (225)	9.84 (250)
H ⁺⁴	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	4.92 (125)	5.91 (150)	6.69 (170)	7.68 (195)	8.66 (220)	9.65 (245)	10.63 (270)	11.61 (295)	12.60 (320)
K	10.87 (276)	13.62 (346)	16.30 (414)	19.53 (496)	22.76 (578)	25.98 (660)	29.21 (742)	32.05 (814)	36.22 (920)

igus®

200
240
250

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.

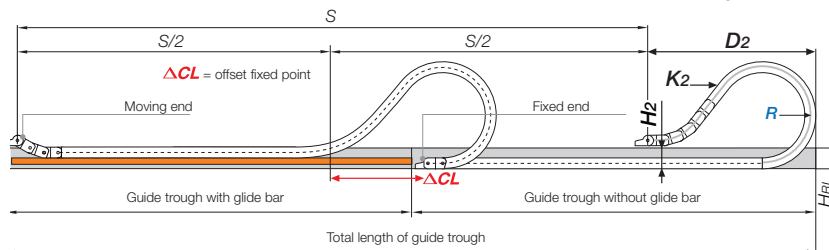
Legend

- 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_{RI} = Trough inner height
- H₂ = *Mounting height
- D₂ = Overlength - long travels, gliding
- K₂ = *Add-on

*If the mounting bracket location is set lower

For long travels with lowered mounting height

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



For center mount applications:

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

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

R	2.17 (55)	2.95 (75)	3.94 (100)	4.92 (125)	5.91 (150)	6.89 (175)	7.87 (200)	8.66 (225)	9.84 (250)
H ₂ ⁺⁴	—	—	3.94 (100)	3.94 (100)	3.94 (100)	3.94 (100)	3.94 (100)	3.94 (100)	3.94 (100)
D ₂ ⁺²⁵	—	—	14.96 (380)	17.32 (440)	23.23 (590)	29.72 (755)	37.40 (950)	40.94 (1040)	44.49 (1130)
K ₂	—	—	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. 32.81 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

Technical Data



Details of material properties

► Chapter 1

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



200
240
250



E-Chain System® E2 Medium Series 200/240/250

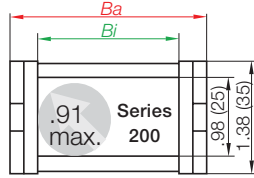
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System®

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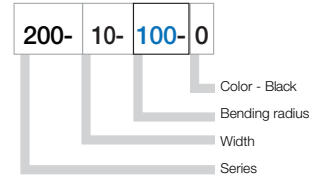
Internet: <http://www.igus.com>
email: sales@igus.com
QuickSpec: <http://www.igus.com/quickspec>

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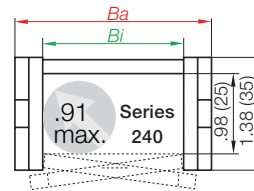
Series 200 - Non snap-open



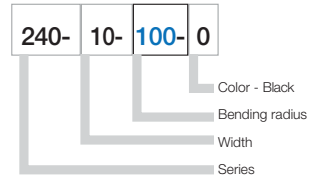
Part Number Structure



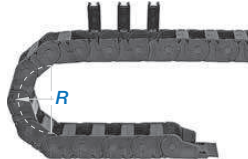
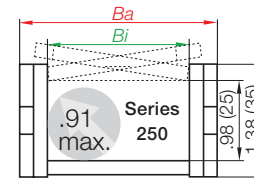
Series 240 - Snap-open along the inner radius



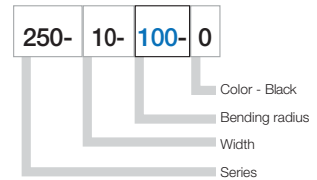
Part Number Structure



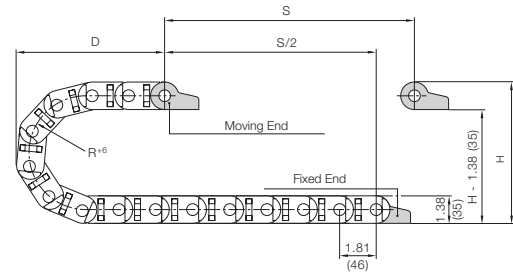
Series 250 - Snap open along the outer radius



Part Number Structure



Supplement part number with required radius. Example: 250-10-100-0
Pitch: 1.81 in. (46 mm) per link links/ft (m) = 6.71 (22)



Part Number					<i>Bi</i>	<i>Ba</i>	Weight		
Non Snap-open	Snap-open Inner Radius	Snap-open Outer Radius			in. (mm)	in. (mm)	lbs/ft (kg/m)		
200-02	240-02	250-02	☐ -0		.98 (25)	1.61 (41)	≈ 0.50 (0.74)		
200-03-	240-03	250-03	☐ -0		1.50 (38)	2.13 (54)	≈ 0.54 (0.81)		
200-05-	240-05	250-05	☐ -0		2.24 (57)	2.87 (73)	≈ 0.60 (0.90)		
200-07-	240-07	250-07	☐ -0		3.03 (77)	3.66 (93)	≈ 0.68 (1.01)		
200-09-	240-09	250-09	☐ -0		3.54 (90)	4.17 (106)	≈ 0.73 (1.08)		
200-10	240-10	250-10	☐ -0		4.06 (103)	4.69 (119)	≈ 0.77 (1.15)		
200-12	240-12	250-12	☐ -0		4.92 (125)	5.55 (141)	≈ 0.82 (1.22)		
Choose from the radii below for all of the above sizes									
<i>Radius</i> (mm) Example: 250-10- 100 -0									
	55	075	100	125	150	175	200	225	250
R	2.17 (55)	2.95 (75)	3.94 (100)	4.92 (125)	5.91 (150)	6.89 (175)	7.87 (200)	8.86 (225)	9.84 (250)
H ₄₄	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	4.92 (125)	5.91 (150)	6.69 (170)	7.68 (195)	8.66 (220)	9.65 (245)	10.63 (270)	11.61 (295)	12.60 (320)
K	10.87 (276)	13.62 (346)	16.30 (414)	19.53 (496)	22.76 (578)	25.98 (660)	29.21 (742)	32.05 (814)	36.22 (920)

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

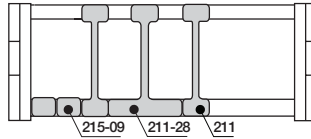
E-Chain System® E2 Medium Series 200/240/250 Interior Separation



200
240
250

Option 1: Vertical separators and spacers

Vertical separators are used if a vertical subdivision of the E-Chain® interior is required. By standard, vertical separators are assembled every other E-Chain® link. These separators are the only option when compartmentalizing the interior of the non snap-open E-Chain® such as the Series 200. Both are predominantly used for side-mounted applications.



STANDARD

Vertical
separator
201

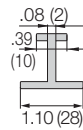


Vertical Separator

Unassembled	Part No. 201
Assembled	Part No. 211

- **Standard separator 201 for E-Chains®**
This separator is used for general subdivision of E-Chain®.

Vertical
separator
201-28



Vertical Separator

Unassembled	Part No. 201-28
Assembled	Part No. 211-28

- **Standard separator 201-28 for E-Chains®**
This separator features a wide base for use when a large distance between separators is required.

Spacers
205-09



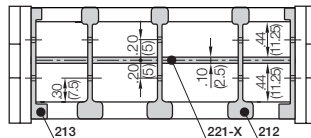
Spacer

Unassembled	Part No. 205-09
Assembled	Part No. 215-09

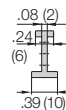
- **NOTE ON SPACERS**
Vertical separators are adjustable, but can be fixed in position by means of a spacer. Spacers are most often necessary for side mounted applications. The available inner height is reduced by .08" (2mm) **per spacer** (for example if one spacer is placed on either side of the separator, the overall inner height is reduced by .16" (4mm)). To avoid this, place the spacers on the **outside** of the opening crossbar (**not for long travels**).

Option 2: Full-width shelf

This option is available for the snap-open Series 240/250 chains. 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.



Slotted vertical
separator
202

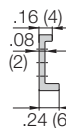


Vertical Separator

Unassembled	Part No. 202
Assembled	Part No. 212

- **Slotted separator 202 for E-Chains®**
This component is used to form the basic pattern of a shelf system.

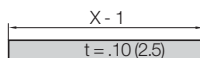
Side Plate
203



Side plate

Unassembled	Part No. 203
Assembled	Part No. 213

- **Side plate 203 for E-Chains®**
This component is used to form the basic pattern of a shelf system.



Width X in. (mm)	Part No. Unassembled	Part No. Assembled
.98 (25)	220-25	221-25
1.50 (38)	220-38	221-38
2.24 (57)	220-57	221-57
3.03 (77)	220-77	221-77

Width X in. (mm)	Part No. Unassembled	Part No. Assembled
3.54 (90)	220-90	221-90
4.06 (103)	220-103	221-103
4.92 (125)	220-125	221-125

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



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200
240
250



E-Chain System® E2 Medium Series 200/240/250 Interior Separation

igus® E-Chain
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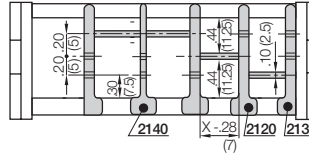
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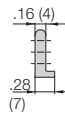
4.181

Option 3: Shelves

This option is available for the Series 240/250 snap-open chains. It is ideal for use in applications involving many cables with different diameters. This option allows for variable compartment heights and widths across the chain width, but can also be used for level separation across the entire width.



Side plate
2030



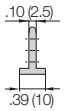
Vertical Separator

Unassembled **Part No. 2030**
Assembled **Part No. 2130**

- **Side plate 2030 for E-Chains®**

This component is used to form the basic pattern of a shelf system.

Vertical
separator
2040



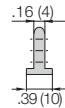
Vertical Separator

Unassembled **Part No. 2040**
Assembled **Part No. 2140**

- **Vertical slotted separator 2040 for E-Chains®**

This component is used to form the basic pattern of a shelf system.

Vertical
separator
2020



Vertical Separator

Unassembled **Part No. 2020**
Assembled **Part No. 2120**

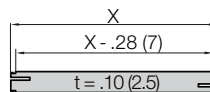
- **Vertical slotted separator 2020 for E-Chains®**

This component is used to form the basic pattern of a shelf system.

Width X in. (mm)	Part No. Unassembled	Part No. Assembled
.71 (18)	2200-18	2210-18
.91 (23)	2200-23	2210-23
1.10 (28)	2200-28	2210-28
1.30 (33)	2200-33	2210-33
1.50 (38)	2200-38	2210-38
1.69 (43)	2200-43	2210-43
1.89 (48)	2200-48	2210-48
2.28 (58)	2200-58	2210-58
2.68 (68)	2200-68	2210-68
2.87 (73)	2200-73	2210-73
3.46 (88)	2200-88	2210-88
3.90 (99)	2200-99	2210-99
4.88 (124)	2200-124	2210-124

Shelves 2200-XX

These components form the basic pattern of a shelf system. Shelves of various widths can be arranged at 3 different heights in .20" (5mm) increments



E-Chain System® E2 Medium Series 200/240/250 Mounting Brackets - Plastic

igus®

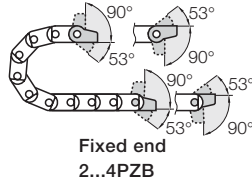
200
240
250



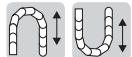
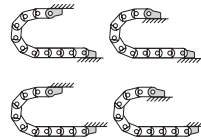
Option 1: pivoting

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

Moving end
2...3PZB



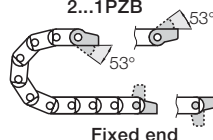
Fixed end
2...4PZB



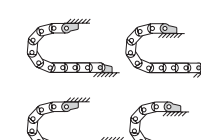
Option 2: locking

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

Moving end
2...1PZB



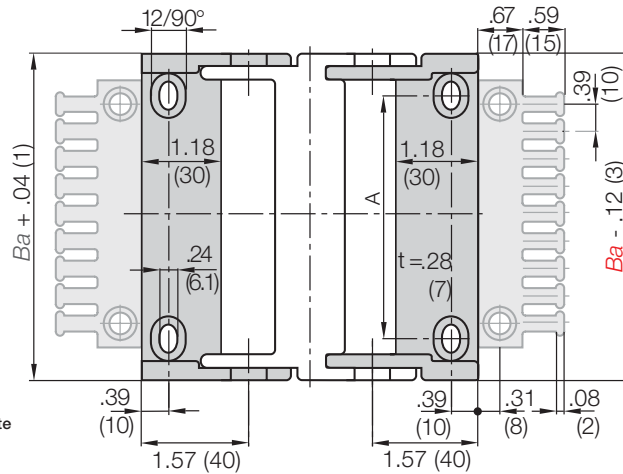
Fixed end
2...2PZB



Part Number Structure

2020-	34	PZ	B	K1
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- With 10 cable tieswraps
- With tiewrap plates
- Without tiewrap plates
- Complete Set
34 = Pivoting
12 = Locking
- Mounting brackets for
selected chain type



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 200, 240 or 250:
2020-34PZB

Part No. Full Set (pivoting)
With Tiewrap Plates
+ 10 cable ties
Series 200, 240 or 250:
2020-34PZBK1

Part No. Full Set (pivoting)
Without Tiewrap Plates
Series 200, 240 or 250:
2020-34PZ

For Chain Type	Part No. Full Set with Tiewrap Plate	Part No. Full Set with Tiewrap Plate + 10 cable ties	Part No. Full Set without Tiewrap Plate	Dimension A in. (mm)
200/240/250-02	2020- ☐ PZB	2020- ☐ PZBK1	2020- ☐ PZ	.47 (12)
200/240/250-03	2030- ☐ PZB	2030- ☐ PZBK1	2030- ☐ PZ	.98 (25)
200/240/250-05	2050- ☐ PZB	2050- ☐ PZBK1	2050- ☐ PZ	1.73 (44)
200/240/250-07	2070- ☐ PZB	2070- ☐ PZBK1	2070- ☐ PZ	2.52 (64)
200/240/250-09	2090- ☐ PZB	2090- ☐ PZBK1	2090- ☐ PZ	3.03 (77)
200/240/250-10	2100- ☐ PZB	2100- ☐ PZBK1	2100- ☐ PZ	3.54 (90)
200/240/250-12	2125- ☐ PZB	2125- ☐ PZBK1	2125- ☐ PZ	4.41 (112)

34 or 12

For pivoting brackets choose 34

For locking brackets choose 12

Example: 2020- 34 PZB

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RoHS info: www.igus.com/RoHS



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E-Chain System® E2 Medium Series 200/240/250 Mounting Brackets - KMA

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System®

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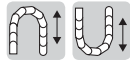
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4.183



Option 1: pivoting

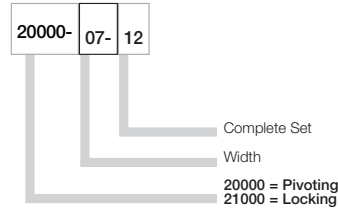
- Short travels
- Space-restricted conditions
- Corrosion resistant
- Bolted connection outside of chain cross section



Option 2: locking

- Vertical hanging/standing travels
- Extreme accelerations
- Corrosion resistant
- Bolted connection outside of chain cross section

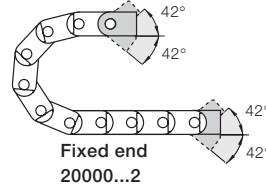
Part Number Structure



Full set, for both ends:
20000- [07-] [12] Full set, each part with pin/bore
Single-part order:
20000- [07-] [1] Mounting bracket with bore
20000- [07-] [2] Mounting bracket with pin

Width	Part No. Full Set			Dimension A		Dimension B	
	Pivoting	Locking		in.	(mm)	in.	(mm)
-02	20000	21000	-02-12	1.36	(34.5)	1.73	(44)
-03	20000	21000	-03-12	1.87	(47.5)	2.24	(57)
-05	20000	21000	-05-12	2.62	(66.5)	2.99	(76)
-07	20000	21000	-07-12	3.41	(86.5)	3.78	(96)
-09	20000	21000	-09-12	3.92	(99.5)	4.29	(109)
-10	20000	21000	-10-12	4.43	(112.5)	4.80	(122)
-12	20000	21000	-12-12	5.30	(134.5)	5.67	(144)

Moving end
20000...1



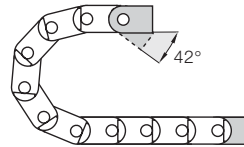
Fixed end
20000...2



Stackable



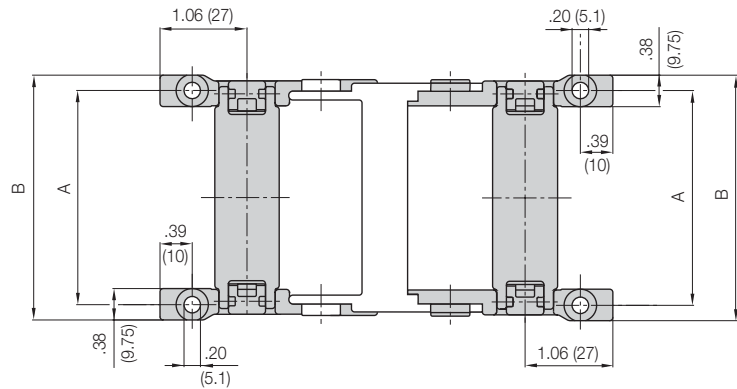
Moving end
21000...1



Fixed end
21000...2



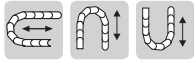
Stackable



E-Chain System® E2 Medium Series 200/240/250 Mounting Brackets - Steel

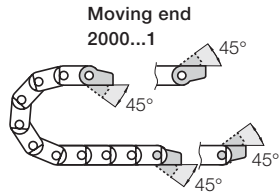
igus®

200
240
250



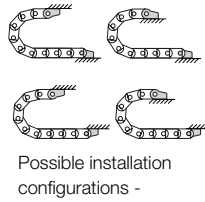
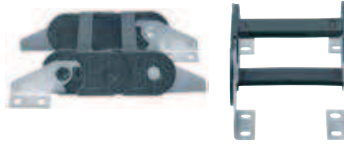
Option 1: Steel

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

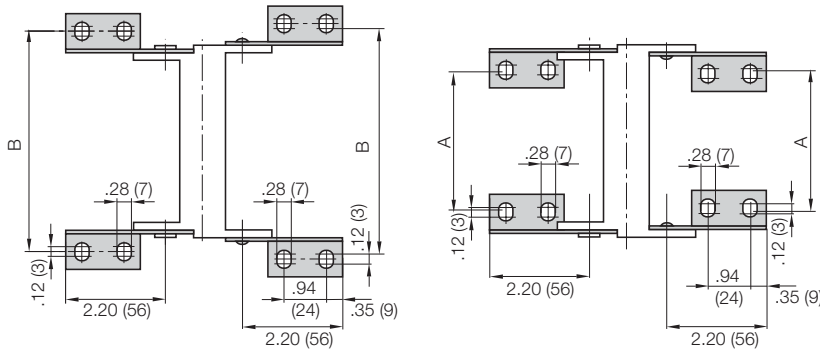


Moving end
2000...1

Fixed end
2000...2



Possible installation configurations -



Chain Type	Part No. Full Set	Dimension A in. (mm)	Dimension B in. (mm)
200/240/250-02	2000-12	—	2.36 (60)
200/240/250-03	2000-12	.98 (25)	2.87 (73)
200/240/250-05	2000-12	1.73 (44)	3.62 (92)
200/240/250-07	2000-12	2.52 (64)	4.41 (112)
200/240/250-09	2000-12	3.03 (77)	4.92 (125)
200/240/250-10	2000-12	3.54 (90)	5.43 (138)
200/240/250-12	2000-12	4.41 (112)	6.30 (160)

Part No. Mounting Brackets Full Set

4 parts, 2 with pin, 2 with bore
Series 200/240/250:
2000-12

Part No. Mounting Bracket Moving End

2 parts, 1 left & 1 right
Series 200/240/250:
2000-1

Part No. Mounting Bracket Fixed End

2 parts, 1 left & 1 right
Series 200/240/250:
2000-2

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



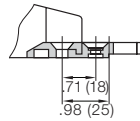
200
240
250



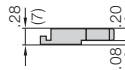
E-Chain System® E2 Medium Series 200/240/250 Strain Relief

igus® E-Chain
System®

Tiewrap Plates



Shown
assembled



Single
tiewrap
plate

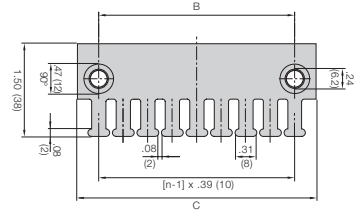


Option 1:

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	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)

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

E-Chain System® E2 Medium Series 200/240/250 Guide Trough

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:

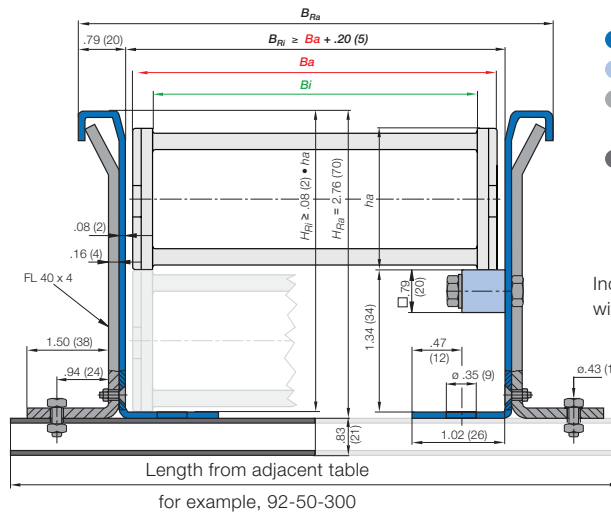
= Number of guide trough components + 1
= 25 + 1 = 26

Part number of the installation sets

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

Width of Crossbar
250-05-200-0

	B_{Pi}	Installation Part No.
-02*	1.81 (46)	92-50-150
-03	2.32 (59)	92-50-175
-05	3.07 (78)	92-50-175
-07	3.86 (98)	92-50-200
-09	4.37 (111)	92-50-250
-10	4.88 (124)	92-50-250
-12	5.75 (146)	92-50-300



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

Individual attachment
without profile rail

* Specialized guide
trough available
upon request

igus®

200
240
250



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

