

igls

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E-Z Chain

CHAINFLEX®

igus

igus

E-Z Chain® - easy to fill and very cost-effective

E-Z Chain – cost effective cable carrier offers easy access to cables and hoses. E-Z Chain cable carriers are designed with a split crossbar along the outer radius for fast installation or removal of cables and hoses—without any tools. The split crossbars are flexible, but retain their shape and strength to provide secure protection and easy cable accessibility.

Typical industries and applications

- General machinery
- Cleanroom applications
- Electronic apparatus
- Office equipment
- Vending machines
- Packaging machines





Machinery of all kinds feature igus® E-Z Chains® - reduces assembly times



Clean room test acc. to Fraunhofer Institute IPA
 Standard material - ISO Class 2 acc. to ISO 14644-1
 Speed: $v = 3.28 \text{ ft/s}$ (1.0 m/s) and $a = 6.56 \text{ ft/s}$ (2.0 m/s) -
 Series E14-3-038



Special equipment: Electrically conductive ESD/ATEX version upon request.



Flammability Class
 VDE 0304 IIC UL94 V2



With E-Z Chain® rotatory and torsional motions are possible



Assembly time: Insertion of 2 cables Ø .24" and .39" (6 and 10 mm).

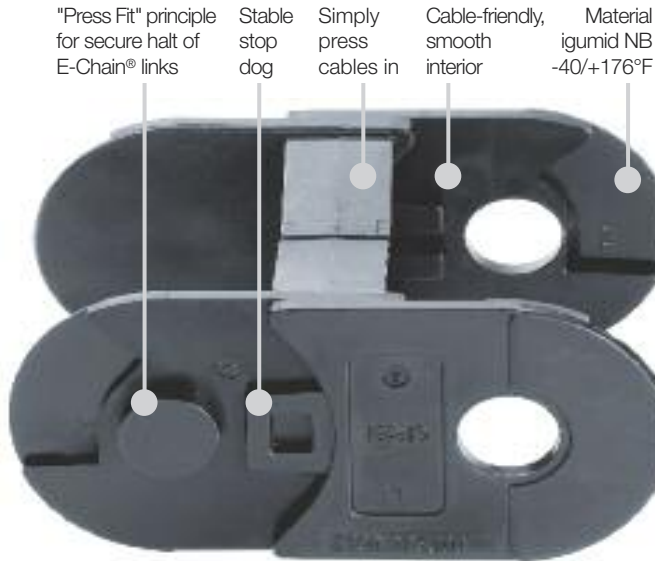
We can provide you with more details about this and other tests.



E-Z Chain® Series E14 on server unit, removable for maintenance purposes Cleanroom Class 2 ISO is standard



E-Z Chain® on adjustable office furniture with UL94 - V2 Classification



E-Z Chain®: "E" and "Z" makes "Easy"

- Easy to fill from the outer (exterior) radius (Version "E") or inner radius (Version "Z")
- Fast cable accessibility without opening and closing lids
- Easy to lengthen and shorten at any point
- Low price with one-piece design
- Dirt-repellent, contoured exterior
- Mounting brackets available with integrated strain relief
- Limited torsion tolerance
- Available with interior separation (some types)
- Flammability rating UL94-V2
- Suitable for clean-room applications
- You can find more technical data about the material, chemical resistance, temperatures ▶ **Chapter 1, Design**

Selection table

Series	Inner height <i>hi</i>		Inner width <i>Bi</i>		Outer width <i>Ba</i>		Outer height <i>ha</i>		Bending radius <i>R</i>	
	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)
E03	.20	(5)	.20 - .39	(5-10)	.34 - .54	(8.7-13.7)	.31	(8)	.39 - 1.10	(10-28)
E04	.28	(7)	.28	(7)	.51	(13)	.39	(10)	.59 - 1.89	(15-48)
E045/Z045	.37	(9.4)	.39 - 1.06	(10-27)	.63 - 1.46	(16-37)	.49	(12.5)	.71 - 1.50	(18-38)
E06/Z06	.41/.42	(10.5 / 10.7)	.39 - .79	(10-20)	.65 - 1.04	(16.5-26.5)	.59	(15)	.71 - 1.50	(18-38)
E065	.44	(11.3)	.63 - 1.42	(16-36)	.98 - 1.94	(24.8-49.3)	.59	(15)	.71 - 1.50	(18-38)
E08/Z08	.57/.58	(14.6 / 14.7)	.39 - 1.97	(10-50)	.72 - 2.29	(18.2-58.2)	.76	(19.3)	1.10 - 1.89	(28-48)
E14/Z14	.75	(19)	.59 - 1.97	(15-50)	1.06 - 2.44	(27-62)	.98	(25)	1.10 - 4.92	(28-125)
E200/Z200	.96	(24.3)	1.46 - 2.24	(37-57)	2.93 - 4.74	(74.4-120.4)	1.38	(35)	2.17 - 7.87	(55-200)
E16/Z16	1.26	(32)	.91 - 3.94	(23-100)	1.48 - 4.54	(37.5-115.3)	1.54	(39)	1.57 - 3.94	(40-100)
E26/Z26	1.44/1.46	(36.5 / 37.1)	1.85 - 2.95	(47-75)	3.62 - 6.57	(92-167)	1.97	(50)	2.48 - 9.84	(63-250)
E300/Z300	1.91	(48.5)	1.81 - 2.95	(46-75)	3.74 - 6.69	(95-170)	2.52	(64)	2.95 - 11.81	(75-300)

Quick assembly with ESD!



E-Z Chain® now available as ESD version

- Easy to fill on the outer-/inner radius
- Accessible to the cables without opening and closing of lids
- Cost-effective one-piece design Energy Chain®
- Mounting brackets available

More information ▶ www.igus.com

Energy Chain System® E-Z Chain Series

Assembling | Separating | Filling | Series E03 · E04 · E/Z045



1 Twist and click or twist and divide



2 Press in cable

Assembling | Series E/Z06 · E065 · E/Z08 · E/Z14 · E/Z200 · E/Z16 · E/Z26 · E/Z300



1 Push and click...



2 Snap in pin

Separating | Series E/Z06 · E065 · E/Z08 · E/Z14 · E/Z200 · E/Z16 · E/Z26 · E/Z300



3 Release side link



4 Twist and pull apart

Filling | Series E/Z06 · E065 · E/Z08 · E/Z14 · E/Z200 · E/Z16 · E/Z26 · E/Z300



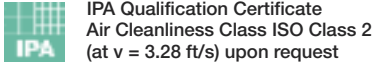
5 Press in cable



6 Pull out cable

Price Index


Series E03

Special Features / Options

 IPA Qualification Certificate
 Air Cleanliness Class ISO Class 2
 (at v = 3.28 ft/s) upon request

 Flammability Class
 VDE 0304 IIC UL94 V2

 Smallest inner heights .20" (5 mm)
 Series E03 E-Z Chain

Assembly Tips

 Just push the cables into the Energy Chain
 using your thumb

Usage Guidelines


- If filling is required without opening and closing
- If price is an issue
- If quiet operation is required



- If a non-opening Energy is needed
 ➤ **Series 03 E2 Micro**

Features & Benefits

- 1 Smallest Energy Chain® - interior dimensions .20" x .20" (5 x 5 mm)
- 2 Small pitch for low-noise and smooth operation
- 3 Very easy to fill - ideal for harnessed cable assemblies, without opening and closing lids
- 4 Mounting bracket with integrated strain relief
- 5 Very lightweight - ideal for low fill weight
- 6 Patented push button principle holds the links together
- 7 For smallest bending radii

Chainflex® CF98/CF99 - 4 x d


Order Example: Complete Energy Chain®

Please indicate chain length or number of links. Example:

[energy chain® configurator](#)

 3.28 ft (1 m) **E03-05-010-0**
Energy Chain®

 1 Set **E03-05-12Z**
Mounting Bracket

Energy Chain System® E-Z Chain Series E03

Installation Dimensions

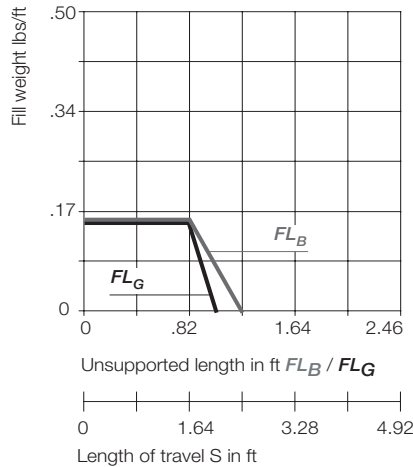
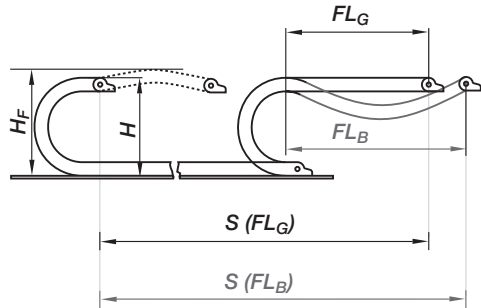
energy chain® configurator



E03

Short travel, unsupported length

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



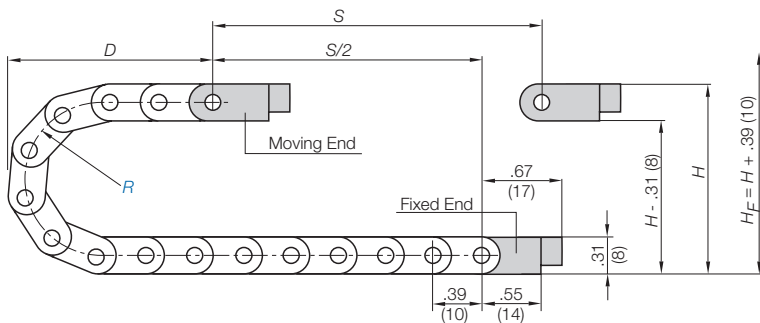
Short Travels - Unsupported



Unsupported 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 = .39" (10 mm)
 Links per ft (m) = 30.47 (100)
 For center mount applications:
 Chain length = $S/2 + K$

The required clearance height: $H_F = H + .39$ in. (10 mm) (with .067 lbs/ft (0.1 kg/m) fill weight). Please consult igus® if space is particularly restricted.

R	.39 (010)	.47 (012)	.59 (015)	.71 (018)	1.10 (028)
H	1.10 (28)	1.26 (32)	1.50 (38)	1.73 (44)	2.52 (64)
D	1.14 (29)	1.22 (31)	1.34 (34)	1.46 (37)	1.85 (47)
K	2.17 (55)	2.36 (60)	2.76 (70)	3.15 (80)	4.33 (110)

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. 9.84 ft/s (3 m/s) / max. 32.8 ft/s ² (10 m/s ²)
Material (Energy Chain®) - permitted temperature	igumid NB / -40°F (-40°C) up to +176°F (+80° C)
Material (mounting brackets)* - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120° C)
Flammability Class (Energy Chain®), igumid NB	VDE 0304 IIC UL94 V2
Flammability Class (mounting brackets), igumid G*	VDE 0304 IIC UL94 HB

*Available in igumid NB upon request, please consult igus® for delivery time

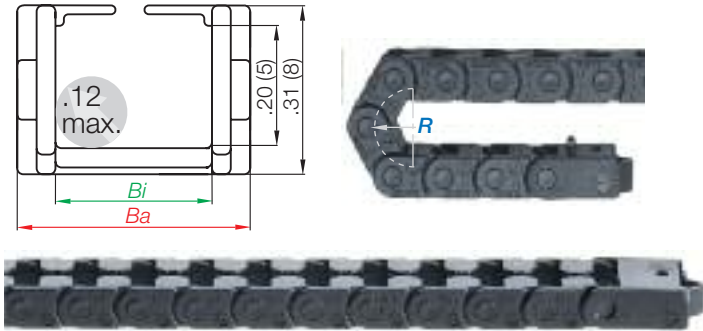
Technical Data



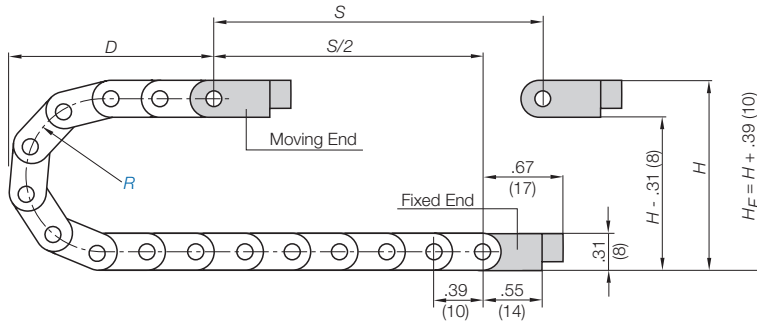
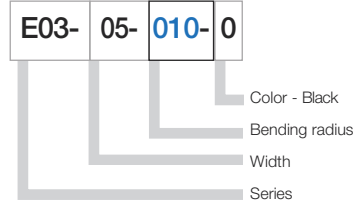
Details of material properties

Chapter 1

Series E03 - Split crossbar along the outer radius



Part Number Structure



Supplement part number with required radius. Example: E03-05-**028**-0
Pitch: .39 in. (10 mm) per link links/ft (m) = 30.47 (100)

Part Number	Bi in. (mm)	Ba in. (mm)	Weight lbs/ft (kg/m)	Crossbar gap in. (mm)
E03-05- <input type="text"/> -0*	.20 (5)	.34 (8.7)	≈ 0.020 (0.03)	.04 (1)
E03-07- <input type="text"/> -0*	.28 (7)	.42 (10.7)	≈ 0.026 (0.04)	.08 (2)
E03-10- <input type="text"/> -0*	.39 (10)	.54 (13.7)	≈ 0.033 (0.05)	.08 (2)

Choose from the radii below for all of the above sizes

Radius (mm) Example: 03-05-**028**-0

	010	012	015	018	028
R	.39 (010)	.47 (012)	.59 (015)	.71 (018)	1.10 (028)
H	1.10 (28)	1.26 (32)	1.50 (38)	1.73 (44)	2.52 (64)
D	1.14 (29)	1.22 (31)	1.34 (34)	1.46 (37)	1.85 (47)
K	2.17 (55)	2.36 (60)	2.76 (70)	3.15 (80)	4.33 (110)

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

*Please note: For this series the crossbars do not overlap. Please see table for gap amount.

Energy Chain System® E-Z Chain Series E03 Mounting Brackets

energy chain® configurator ▶

igus®

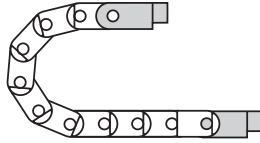
E03



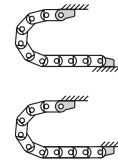
Polymer, one-piece

- One-piece mounting bracket
- Corrosion resistant
- Available preassembled
- Inner and outer attachment possible
- Adaptor plate for rapid installation

Moving end with bore
03 ...1Z



Fixed end with pin
03...2Z



Possible installation configurations -

Part Number Structure

03- 05- 12Z

Complete Set
Width
Mounting bracket for selected chain type

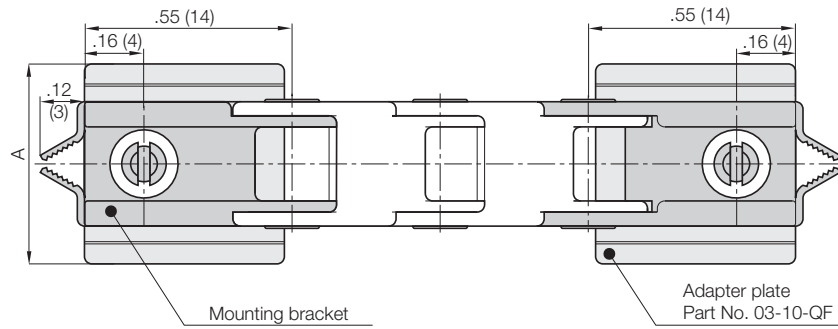
Full set, for both ends:

03- 05- 12Z Full set, each part with pin/bore

Single-part order:

03- 05- 1Z Mounting bracket with bore

03- 05- 2Z Mounting bracket with pin



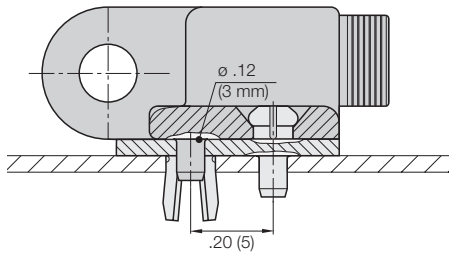
Chain Width	Part No. Full Set	Dimension A
		in. (mm)
-05	03-05-12Z	.34 (8.7)
-07	03-07-12Z	.42 (10.7)
-10	03-10-12Z	.54 (13.7)

Additional Accessories



03-10-QF = Adapter plate for all sizes

The adapter has broken edges, so that it can be adapted to the respective chain width. It is not absolutely necessary for attaching the mounting brackets. The mounting brackets can also be screwed on without the adapter plate.



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



Price Index

Series E04

Special Features / Options

 IPA Qualification Certificate
Air Cleanliness Class ISO Class 2
(at v = 3.28 ft/s) upon request

 Flammability Class
VDE 0304 IIC UL94 V2

 Special equipment: Electrically
conductive ESD/ATEX version
upon request

Assembly Tips


Just push the cables into the Energy Chain
using your thumb



Special solution:
opening gap (0.8 mm)
Part No. E04-07-015-S

Usage Guidelines


- If filling is required without opening and closing
- If price is an issue
- If quiet operation is required



- If a non-opening Energy is needed
➤ **Series 04 E2 Micro**

Features & Benefits

- 1 Small pitch for low-noise and smooth operation
- 2 Very easy to fill - ideal for harnessed cable assemblies, without opening and closing lids
- 3 For high acceleration
- 4 Mounting brackets available
- 5 Limited torsion tolerance
- 6 Cable friendly smooth interior
- 7 Patented push button principle holds the links together


Order Example: Complete Energy Chain®

Please indicate chain length or number of links. Example:

energy chain® configurator

3.28 ft (1 m) **E04-07-038-0**

Energy Chain®

1 Set **040-07-12**

Mounting Bracket

Energy Chain System® E-Z Chain Series E04 Installation Dimensions

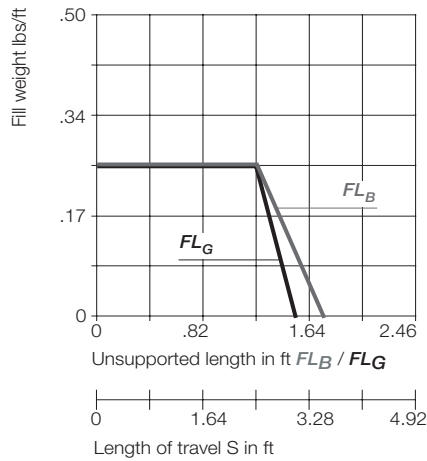
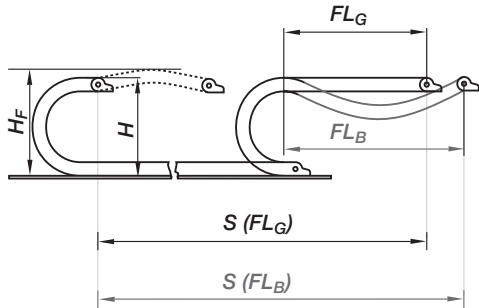
energy chain® configurator



E04

Short travel, unsupported length

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



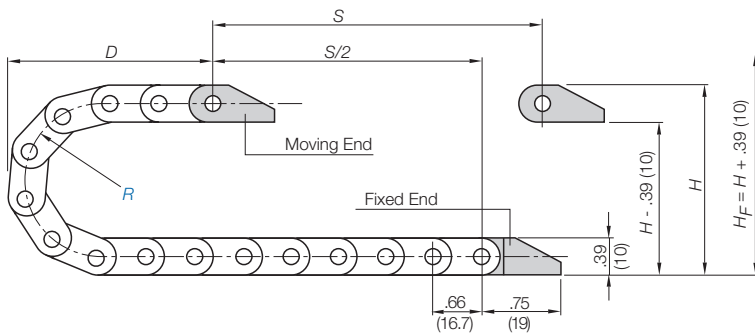
Short Travels - Unsupported



Unsupported 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 = .66" (16.7 mm)
Links per ft (m) = 18.28 (60)
For center mount applications:
Chain length = $S/2 + K$

The required clearance height: $H_F = H + .39$ in. (10 mm) (with .067 lbs/ft (0.1 kg/m) fill weight). Please consult igus® if space is particularly restricted.

R	.59 (015)	.71 (018)	1.10 (028)	1.50 (038)	1.89 (048)
H	1.57 (40)	1.81 (46)	2.60 (66)	3.39 (86)	4.17 (106)
D	1.77 (45)	1.89 (48)	2.28 (58)	2.68 (68)	3.07 (78)
K	3.35 (85)	3.54 (90)	4.92 (125)	6.10 (155)	7.28 (185)

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)
Material (Energy Chain®) - permitted temperature	igumid NB / -40°F (-40°C) up to +176°F (+80°C)
Material (mounting brackets)* - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120°C)
Flammability Class (Energy Chain®), igumid NB	VDE 0304 IIC UL94 V2
Flammability Class (mounting brackets), igumid G	VDE 0304 IIC UL94 HB

Technical Data



Details of material properties

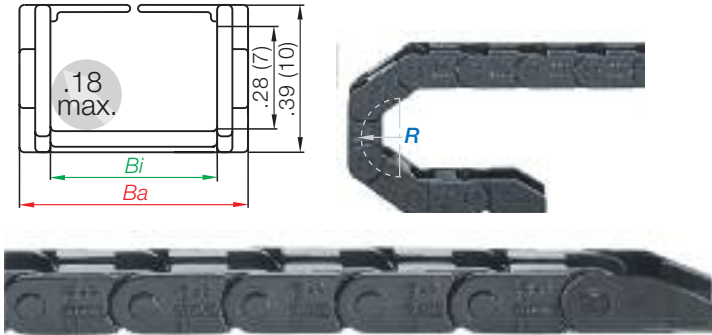
Chapter 1

igus® Energy Chain System®

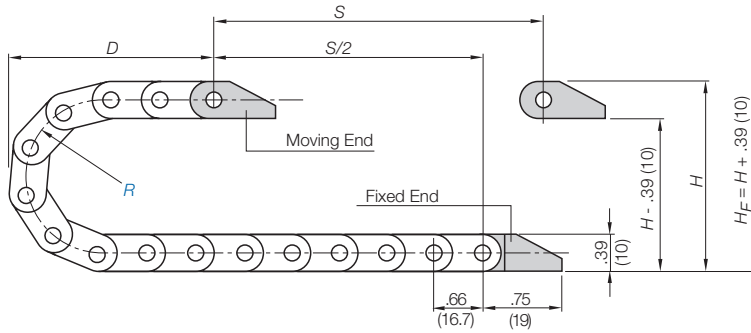
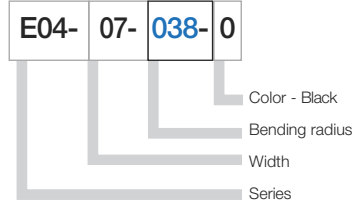
Telephone 1-800-521-2747
Fax 1-401-438-7270

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

Series E04 - Split crossbar along the outer radius



Part Number Structure



Supplement part number with required radius. Example: E04-07-038-0
Pitch: .66 in. (16.7 mm) per link links/ft (m) = 18.28 (60)

Part Number	Bi in. (mm)	Ba in. (mm)	Weight lbs/ft (kg/m)	Crossbar Gap in. (mm)
E04-07- <input type="text"/> -0*	.28 (7)	.47 (12)	≈ 0.053 (0.08)	.10 (2.5)

Choose from the radii below for all of the above sizes
Radius (mm) Example: E04-07-038-0

	015	018	028	038	048
R	.59 (015)	.71 (018)	1.10 (028)	1.50 (038)	1.89 (048)
H	1.57 (40)	1.81 (46)	2.60 (66)	3.39 (86)	4.17 (106)
D	1.77 (45)	1.89 (48)	2.28 (58)	2.68 (68)	3.07 (78)
K	3.35 (85)	3.54 (90)	4.92 (125)	6.10 (155)	7.28 (185)

0=Standard color black. For other colors see Chapter 1
*Please note: For this series the crossbars do not overlap. Please see table for gap amount.

Energy Chain System® E-Z Chain Series E04 Mounting Brackets

energy chain® configurator 

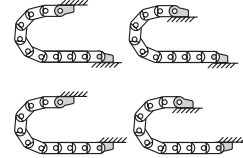
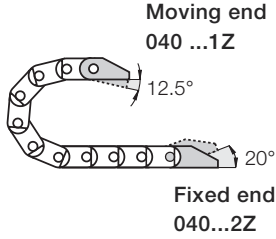
igus®

E04



Polymer, one-piece

- One-piece mounting bracket
- Corrosion resistant
- Available preassembled



Possible installation configurations -

Part Number Structure

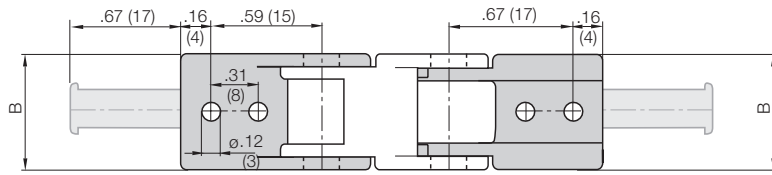
040- 07- 12 PZ

With tiewrap plates

Complete Set

Width

Mounting brackets for selected chain type



Full set, for both ends:

040-07-12 Full set, each part with pin/bore

Single-part order:

040-07-1 Mounting bracket with bore

040-07-2 Mounting bracket with pin

Chain Type	Part No.	Part No.	Dimension B in. (mm)	Number of Teeth
	Full set without Tiewrap Plate	Full set with Tiewrap Plate		
E04-07	040-07-12	040-07-12PZ	.47 (12)	1

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



Additional accessories



Quicksnap - the complete, detachable mounting unit, upon request
Only available for the 040-07 Energy Chain - **Part No. 040-07-QS**

Price Index



Series E045

Special Features / Options

IPA Qualification Certificate
Air Cleanliness Class ISO Class 2
(at v = 3.28 ft/s) upon request

Flammability Class
VDE 0304 IIC UL94 V2

Special equipment: Electrically
conductive ESD/ATEX version
upon request

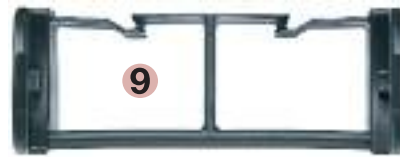
Assembly Tips



Just push the cables into the Energy Chain
using your thumb

Features & Benefits

- 1 Limited torsion tolerance
- 2 Small pitch for low-noise and smooth operation
- 3 Cable friendly interior
- 4 Patented push button principle holds the links together
- 5 Very easy to fill
- 6 Mounting brackets available
- 7 "E" Series features split crossbar along the outer radius
- 8 "Z" Series features split crossbar along the inner radius
- 9 1-, 2-, or 3-chamber system available



Usage Guidelines



- If filling is required without opening and closing
- If a very small pitch is required



- If smooth operation is required
➤ Series 045 E2 Micro
- If high stability is required
➤ Series 06 E2 Micro
- If non-opening is required
➤ Series 045 E2 Micro

Order Example: Complete Energy Chain®

Please indicate chain length or number of links. Example:

energy chain® configurator

3.28 ft (1 m) E045-16-038-0

Energy Chain®

1 Set 0450-16-12

Mounting Bracket

Energy Chain System® E-Z Chain Series E045/Z045 Installation Dimensions

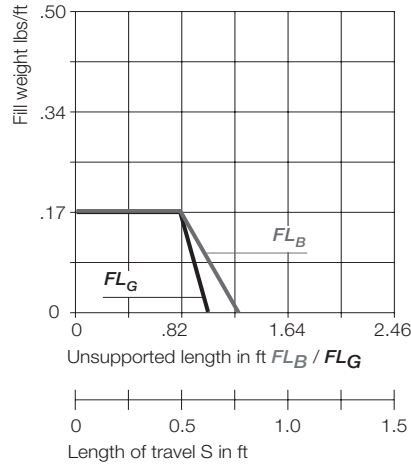
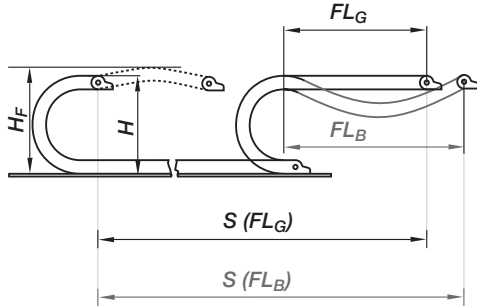
energy chain® configurator ▶

igus®

E045
Z045

Short travel, unsupported length

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



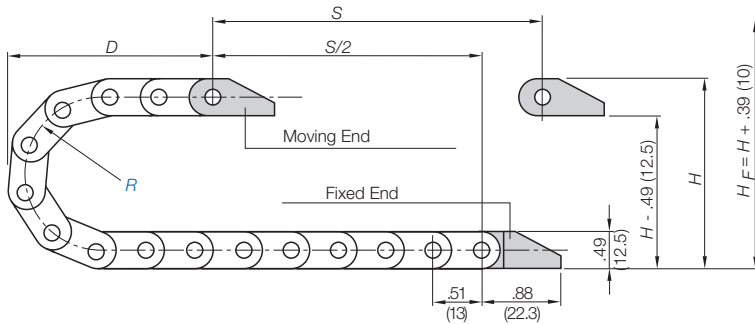
Short Travels - Unsupported



Unsupported 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 = .51" (13 mm)

Links per ft (m) = 23.47 (77)

For center mount applications:

Chain length = $S/2 + K$

The required clearance height: $H_F = H + .39$ in. (10 mm) (with .067 lbs/ft (0.1 kg/m) fill weight). Please consult igus® if space is particularly restricted.

R	.71 (018)	1.10 (028)	1.50 (038)
H	1.91 (48.5)	2.70 (68.5)	3.48 (88.5)
D	1.73 (44)	2.13 (54)	2.52 (64)
K	3.35 (85)	4.53 (115)	5.91 (150)

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)
Material (Energy Chain®) - permitted temperature	igumid NB / -40°F (-40°C) up to +176°F (+80° C)
Material (mounting brackets)* - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120° C)
Flammability Class (Energy Chain®), igumid NB	VDE 0304 IIC UL94 V2
Flammability Class (mounting brackets), igumid G	VDE 0304 IIC UL94 HB

Technical Data

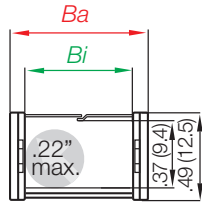


Details of material properties

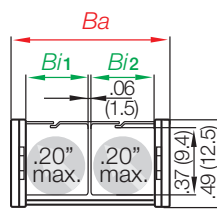
▶ Chapter 1

Series E045 - Split crossbar along the outer radius

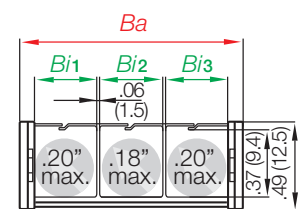
Single Chamber System



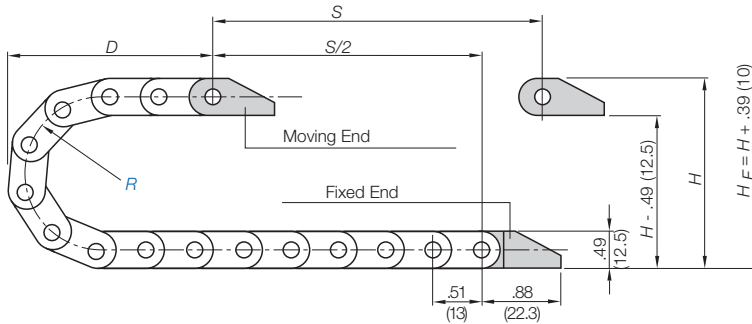
2 Chamber System



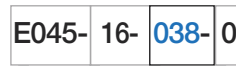
3 Chamber System



Supplement part number with required radius. Example: E045-16-038-0
Pitch: .51 in. (13 mm) per link links/ft (m) = 23..47 (77)



Part Number Structure



- Color - Black
- Bending radius
- Width
- Series

Part Number	Bi in. (mm)	Ba in. (mm)	Weight lbs/ft (kg/m)	Crossbar Gap in. (mm)
Single Chamber System				
E045-10-□-0*	.39 (10)	.63 (16)	≈ 0.06 (0.09)	.08 (2)
E045-16-□-0	.63 (16)	.91 (23)	≈ 0.07 (0.11)	-
2 Chamber System				
E045-2/7-□-0*	.28/.28 (7/7)	.91 (23)	≈ 0.09 (0.13)	.09 (2.25)
E045-2/9-□-0*	.35/.35 (9/9)	1.06 (27)	≈ 0.09 (0.14)	.09 (2.25)
3 Chamber System				
E045-3/9-□-0*	.35/.35/.35 (9/9/9)	1.46 (37)	≈ 0.11 (0.17)	.09 (2.25)

Choose from the radii below for all of the above sizes

Radius (mm) Example: E045-16-038-0

	018	028	038
R	.71 (018)	1.10 (028)	1.50 (038)
H	1.91 (48.5)	2.70 (68.5)	3.48 (88.5)
D	1.73 (44)	2.13 (54)	2.52 (64)
K	3.35 (85)	4.53 (115)	5.91 (150)

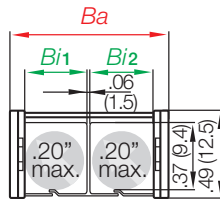
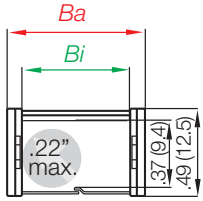
0=Standard color black. For other colors see Chapter 1

*Please note: For this series the crossbars do not overlap. Please see table for gap amount.

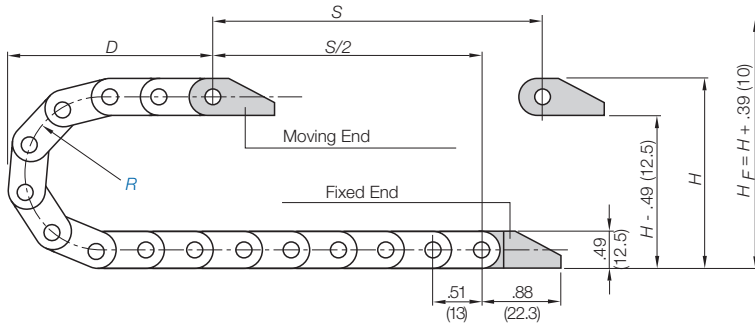
Series Z045 - Split crossbar along the inner radius

Single Chamber System

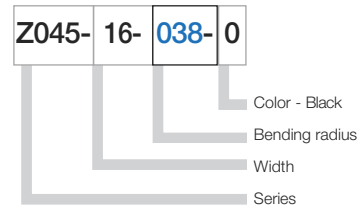
2 Chamber System



Supplement part number with required radius. Example: Z045-16-038-0
Pitch: .51 in. (13 mm) per link links/ft (m) = 23.47 (77)



Part Number Structure



Part Number	Bi	Ba	Weight	Crossbar Gap
Single Chamber System	in. (mm)	in. (mm)	lbs/ft (kg/m)	in. (mm)
Z045-16- <input type="text"/> -0*	.63 (16)	.91 (23)	≈ 0.07 (0.11)	.08 (2)
2 Chamber System				
Z045-2/7- <input type="text"/> -0*	.28/.28 (7/7)	.91 (23)	≈ 0.09 (0.13)	.09 (2.25)

Choose from the radii below for all of the above sizes
Radius (mm) Example: Z045-16-038-0

R	.71 (018)	1.10 (028)	1.50 (038)
H	1.91 (48.5)	2.70 (68.5)	3.48 (88.5)
D	1.73 (44)	2.13 (54)	2.52 (64)
K	3.35 (85)	4.53 (115)	5.91 (150)

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

*Please note: For this series the crossbars do not overlap. Please see table for gap amount.



E045
Z045



Energy Chain System® E-Z Chain Series E045/Z045 Mounting Brackets

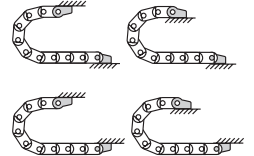
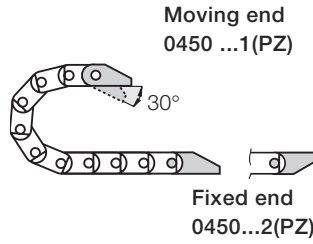
energy chain® configurator

igus® Energy Chain
System®



Polymer, one-piece

- One-piece mounting bracket
- Corrosion resistant
- Available preassembled



Possible installation configurations -

Part Number Structure



- With tiewrap plates
- Complete Set
- Width
- Mounting brackets for selected chain type

Full set, for both ends:

0450-10-12-PZ

Full set, each part with pin/bore + tiewrap plate

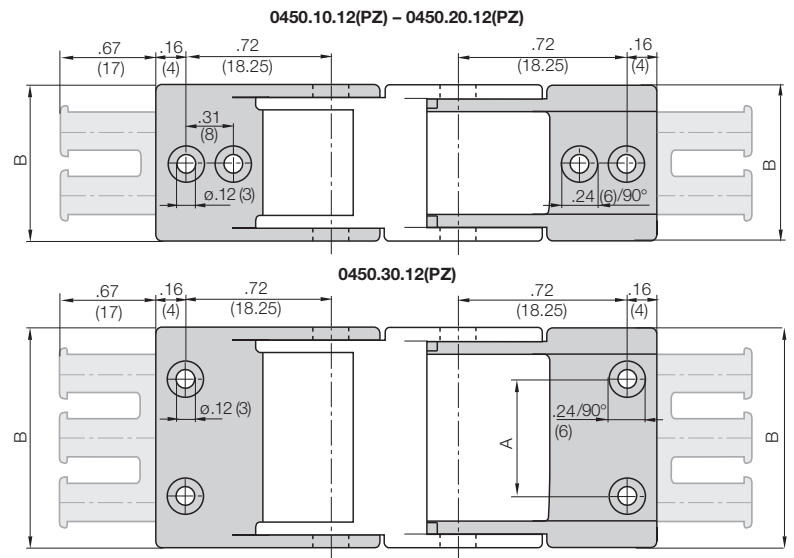
Single-part order:

0450-10-1-PZ

Mounting bracket with bore + tiewrap plate

0450-10-2-PZ

Mounting bracket with pin + tiewrap plate



Chain Type	Part No.		Dimension A in. (mm)	Dimensions B in. (mm)		Number of Teeth
	Full set with Tiewrap Plate	Full Set without Tiewrap Plate				
E045/Z045-10	0450-10-12PZ	0450-10-12	—	.63 (16)	1	
E045/Z045-16	0450-16-12PZ	0450-16-12	—	.87 (22)	2	
E045/Z045-2/7	0450-16-12PZ	0450-16-12	—	.87 (22)	2	
E045/Z045-2/9	0450-20-12PZ	0450-20-12	—	1.02 (26)	2	
E045/Z045-3/9	0450-30-12PZ	0450-30-12	.87 (22)	1.42 (36)	3	

Telephone 1-800-521-2747
Fax 1-401-438-7270

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

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





Price Index



Series E06/Z06

Special Features / Options



IPA Qualification Certificate
Air Cleanliness Class ISO Class 2
(at v = 3.28 ft/s) upon request



Flammability Class
VDE 0304 IIC UL94 V2



Special equipment: Electrically
conductive ESD/ATEX version
upon request

Assembly Tips



Just push the cables into the Energy Chain using your thumb



Special solution -
opening gap 0.14 (3.5 mm)
Part No. E06-10-018S3

Usage Guidelines



- If filling is required without opening and closing
- If price is an issue
- If quiet operation is required



- "Z" Series is unsuitable for gliding applications
➤ Series 07 Zipper
- If non-opening is required
➤ Series 06 E2 Micro

Features & Benefits

- 1 Small pitch for low-noise and smooth operation
- 2 Cable friendly - smooth interior
- 3 Very lightweight
- 4 Patented push button principle holds the links together
- 5 Very easy to fill - ideal for harnessed cable assemblies
- 6 Integrated strain relief option
- 7 "E" Series features split crossbar along the outer radius
- 8 "Z" Series features split crossbar along the inner radius
- 9 Limited torsion tolerance



Order Example: Complete Energy Chain®

Please indicate chain length or number of links. Example:

energy chain® configurator ▶

3.28 ft (1 m) E06-10-038-0



Energy Chain®

1 Set 060-10-12



Mounting Bracket

Energy Chain System® E-Z Chain Series E06/Z06 Installation Dimensions

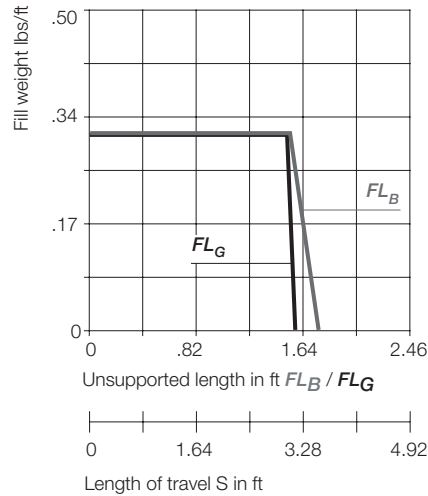
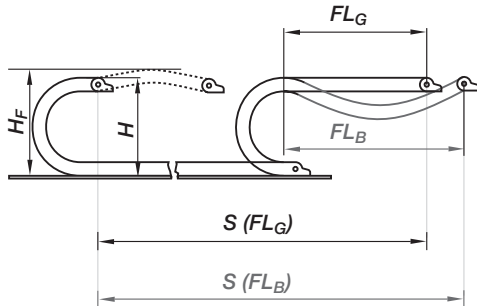
energy chain® configurator 



E06
Z06

Short travel, unsupported length

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



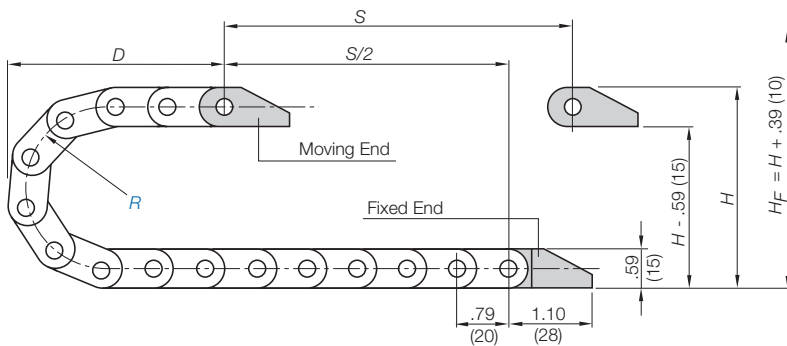
Short Travels - Unsupported



Unsupported 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 = .79" (20 mm)

Links per ft (m) = 15.24 (50)

For center mount applications:

Chain length = $S/2 + K$

The required clearance height: $H_F = H + .39$ in. (10 mm) (with .13 lbs/ft (0.2 kg/m) fill weight. Please consult igus® if space is particularly restricted.

R	.71 (018)	1.10 (028)	1.50 (038)
H*	2.01 (51)	2.80 (71)	3.58 (91)
D	2.20 (56)	2.60 (66)	2.99 (76)
K	3.94 (100)	5.12 (130)	6.30 (160)

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)
Material (Energy Chain®) - permitted temperature	igumid NB / -40°F (-40°C) up to +176°F (+80°C)
Material (mounting brackets)* - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120°C)
Flammability Class (Energy Chain®), igumid NB	VDE 0304 IIC UL94 V2
Flammability Class (mounting brackets), igumid G	VDE 0304 IIC UL94 HB

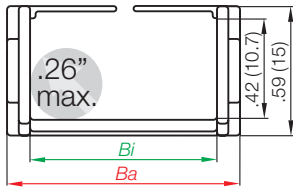
Technical Data



Details of material properties

 Chapter 1

Series E06 - Split crossbar along the outer radius



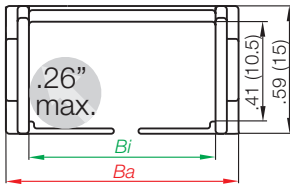
Part Number Structure



- Color - Black
- Bending radius
- Width
- Series



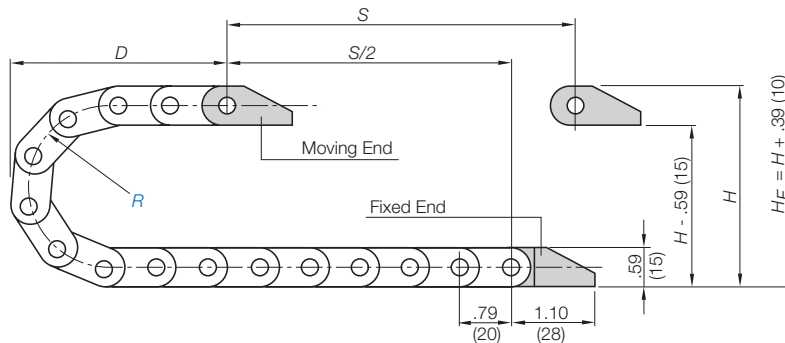
Series Z06 - Split crossbar along the inner radius



Part Number Structure



- Color - Black
- Bending radius
- Width
- Series



Supplement part number with required radius. Example: E06-10-038-0
Pitch: .79 in. (20 mm) per link links/ft (m) = 15.24 (50)

Part Number			Bi	Ba	Weight	Crossbar Gap
Split Crossbar Outer Radius	Split Crossbar Inner Radius		in. (mm)	in. (mm)	lbs/ft (kg/m)	in. (mm)
E06-10	Z06-10*	<input type="text" value="0"/>	.39 (10)	.65 (16.5)	≈ 0.09 (0.14)	.22 (5.5)
E06-16-	Z06-16*	<input type="text" value="0"/>	.63 (16)	.86 (22.5)	≈ 0.11 (0.16)	.22 (5.5)
E06-20-	Z06-20	<input type="text" value="0"/>	.79 (20)	1.04 (26.5)	≈ 0.12 (0.18)	-

Choose from the radii below for all of the above sizes
Radius (mm) Example: E06-10-038-0

	018	028	038
R	.71 (018)	1.10 (028)	1.50 (038)
H*	2.01 (51)	2.80 (71)	3.58 (91)
D	2.20 (56)	2.60 (66)	2.99 (76)
K	3.94 (100)	5.12 (130)	6.30 (160)

0=Standard color black. For other colors see Chapter 1
*Please note: For this series the crossbars do not overlap. Please see table for gap amount.

Energy Chain System® E-Z Chain Series E06/Z06 Mounting Brackets

energy chain® configurator ▶

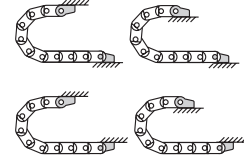
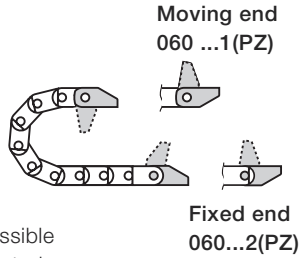


E06
Z06



Polymer, one-piece

- One-piece mounting bracket
- Corrosion resistant
- Available preassembled
- Inner and outer attachment possible
- Available with or without integrated strain relief tiwrap plates



Possible installation configurations -

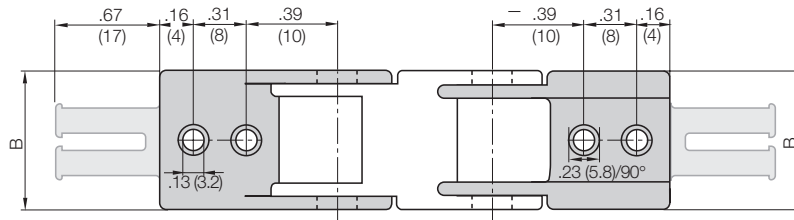
Dimensions and order configurations

Strain relief is possible on the moving end and/or the fixed end.

Part Number Structure

060-	20-	12	PZ
------	-----	----	----

- With assembled strain relief tiwrap plates
- Complete Set
- Width
- Mounting brackets for selected chain type



Full set, for both ends:

060- 20- 12 PZ Full set, each part with pin/bore

Single-part order:

060- 20- 1 PZ Mounting bracket with bore

060- 20- 2 PZ Mounting bracket with pin

Chain Type	Part No. Full set with Tiewrap Plate	Part No. Full Set without Tiewrap Plate	Dimensions B		Number of Teeth
			in.	(mm)	
E06/Z06-10	060-10-12PZ	060-10-12	.65	(16.5)	1
E06/Z06-16	060-16-12PZ	060-16-12	.89	(22.5)	2
E06/Z06-20	060-20-12PZ	060-20-12	1.06	(27.0)	2

Additional Accessories



Quicksnap - the complete, detachable mounting unit, upon request

Part No.

060-10-QS

060-16-QS

060-20-QS



Quickfix - mounting bracket with dowel, upon request

Part No. 060-20-4-QZ

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



Price Index



Series E08/Z08

Special Features / Options



IPA Qualification Certificate
Air Cleanliness Class ISO Class 2
(at v = 3.28 ft/s) upon request



Flammability Class
VDE 0304 IIC UL94 V2



Special equipment: Electrically
conductive ESD/ATEX version
upon request

Assembly Tips



Just push the cables into the Energy Chain
using your thumb

Usage Guidelines



- If filling is required without opening and closing
- If price is an issue
- If quiet operation is required



- "Z" Series is unsuitable for gliding applications
➤ Series 09 Zipper

Features & Benefits

- 1 Cable-friendly interior
- 2 Small pitch for low-noise and smooth operation
- 3 Lightweight
- 4 Patented push button principle holds the links together
- 5 Integrated strain relief option
- 6 Very easy to fill - ideal for harnessed cable assemblies
- 7 "E" Series features split crossbar along the outer radius
- 8 "Z" Series features split crossbar along the inner radius
- 9 Limited torsion tolerance



Order Example: Complete Energy Chain®

Please indicate chain length or number of links. Example:

energy chain® configurator ▶

3.28 ft (1 m) E08-30-038-0



Energy Chain®

1 Set 080-30-12PZ



Mounting Bracket

Energy Chain System® E-Z Chain Series E08/Z08 Installation Dimensions

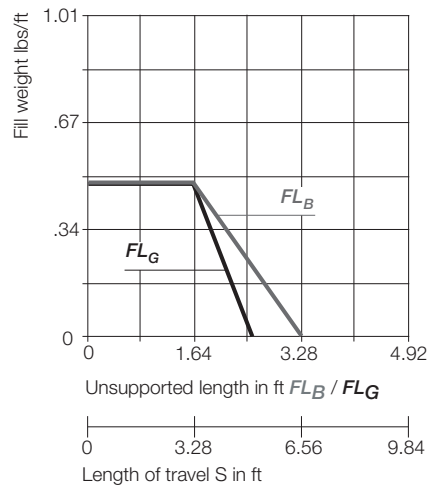
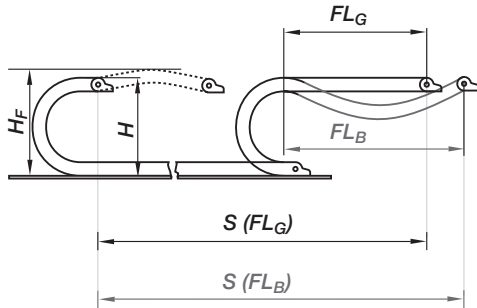
energy chain® configurator

igus®

E08
Z08

Short travel, unsupported length

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



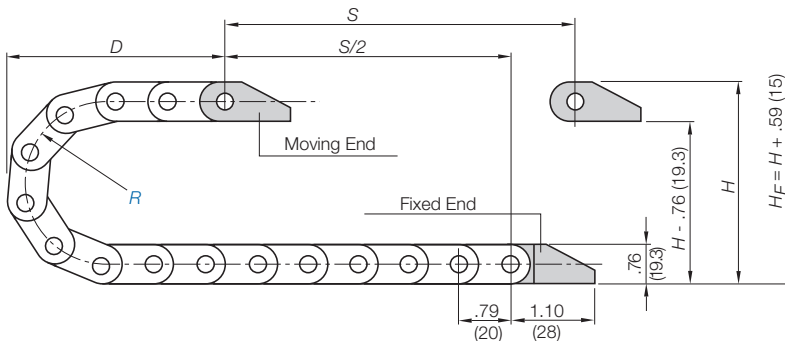
Short Travels - Unsupported



Unsupported 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 = .79" (20 mm)
Links per ft (m) = 15.24 (50)
For center mount applications:
Chain length = $S/2 + K$

The required clearance height: $H_F = H + .59$ in. (15 mm) (with .20 lbs/ft (0.3 kg/m) fill weight. Please consult igus® if space is particularly restricted.

R	1.10 (028)	1.50 (038)	1.89 (048)
H	2.95 (75)	3.74 (95)	4.53 (115)
D	2.68 (68)	3.07 (78)	3.46 (88)
K	5.12 (130)	6.30 (160)	7.68 (195)

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. 9.84 ft/s (3 m/s) / max. 32.8 ft/s ² (10 m/s ²)
Material (Energy Chain®) - permitted temperature	igumid NB / -40°F (-40°C) up to +176°F (+80°C)
Material (mounting brackets)* - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120°C)
Flammability Class (Energy Chain®), igumid NB	VDE 0304 IIC UL94 V2
Flammability Class (mounting brackets), igumid G*	VDE 0304 IIC UL94 HB

Technical Data



Details of material properties

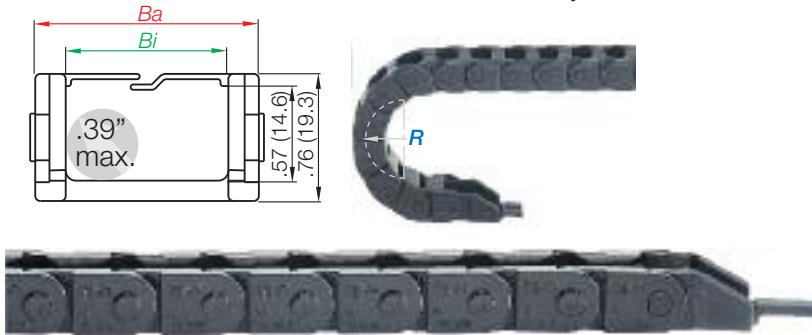
Chapter 1



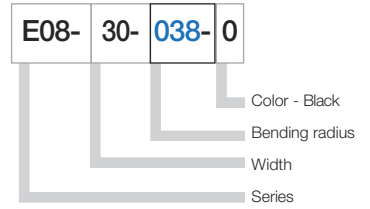
PDF: www.igus.com/e-chain-pdfs
Specs/CAD/RFQ: www.igus.com/e-chains
RoHS info: www.igus.com/RoHS



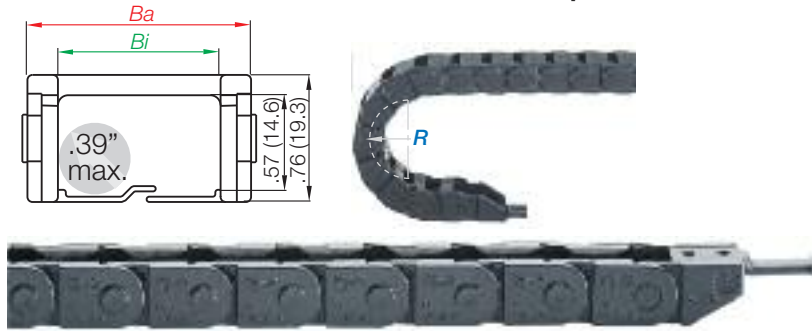
Series E08 - Split crossbar along the outer radius



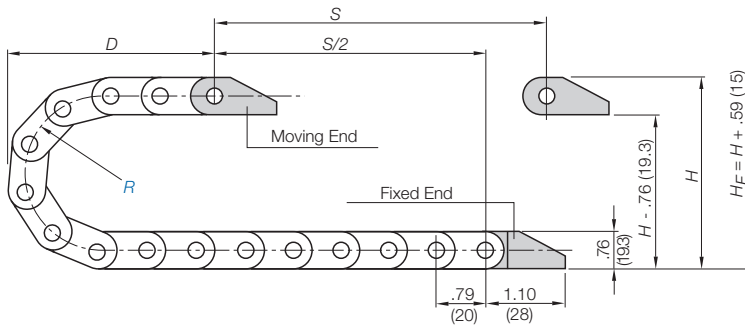
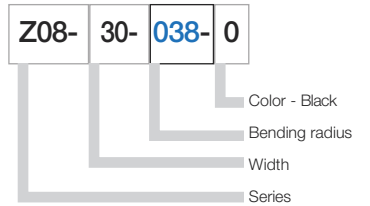
Part Number Structure



Series Z08 - Split crossbar along the inner radius



Part Number Structure



Supplement part number with required radius. Example: E08-10-038-0
Pitch: .79 in. (20 mm) per link links/ft (m) = 15.24 (50)

Part Number			<i>Bi</i>	<i>Ba</i>	Weight
Split Crossbar	Split Crossbar		in. (mm)	in. (mm)	lbs/ft (kg/m)
Outer Radius	Inner Radius				
E08-10	Z08-10	<input type="checkbox"/> -0	.39 (10)	.72 (18.2)	≈ 0.14 (0.21)
E08-16-	Z08-16	<input type="checkbox"/> -0	.63 (16)	.95 (24.2)	≈ 0.16 (0.24)
E08-20-	Z08-20	<input type="checkbox"/> -0	.79 (20)	1.11 (28.2)	≈ 0.17 (0.25)
E08-30-	Z08-30	<input type="checkbox"/> -0	1.18 (30)	1.50 (38.2)	≈ 0.19 (0.28)
E08-40-	Z08-40	<input type="checkbox"/> -0	1.57 (40)	1.90 (48.2)	≈ 0.21 (0.31)
E08-50-	Z08-50	<input type="checkbox"/> -0	1.97 (50)	2.29 (58.2)	≈ 0.25 (0.37)

Choose from the radii below for all of the above sizes

Radius (mm) Example: E08-10-038-0

	028	038	048
R	1.10 (28)	1.50 (38)	1.89 (48)
H	2.95 (75)	3.74 (95)	4.53 (115)
D	2.68 (68)	3.07 (78)	3.46 (88)
K	5.12 (130)	6.30 (160)	7.68 (195)

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

Energy Chain System® E-Z Chain Series E08/Z08 Mounting Brackets

energy chain® configurator ▶

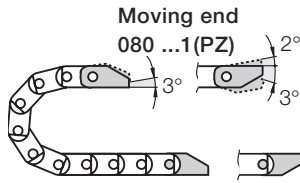


E08
Z08

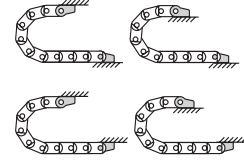


Plastic, one-piece

- One-piece mounting bracket
- Corrosion resistant
- Available preassembled
- Inner and outer attachment possible
- Available with or without integrated strain relief tiwrap plates



Fixed end
080...2(PZ)



Possible installation configurations -

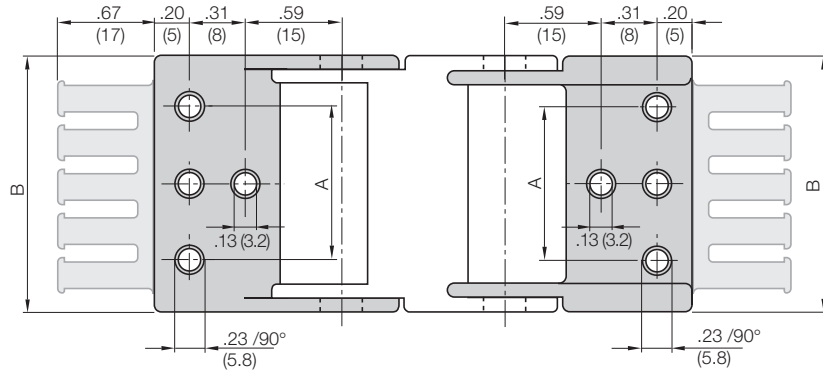
Dimensions and order configurations

Strain relief is possible on the moving end and/or the fixed end.

Part Number Structure

080- 20- 12 PZ

- With assembled strain relief tiwrap plates
- Complete Set
- Width
- Mounting brackets for selected chain type



Full set, for both ends:

080- 20- 12 PZ Full set, each part with pin/bore

Single-part order:

- 080- 20- 1 PZ Mounting bracket with bore
- 080- 20- 2 PZ Mounting bracket with pin

080-10-12 - 080-20-12:

Center bores only

080-30-12 - 080-50-12:

Outer bores only

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
E08/Z08-10	080-10-12PZ	080-10-12	— —	.72 (18.2)	1
E08/Z08-16	080-16-12PZ	080-16-12	— —	.95 (24.2)	2
E08/Z08-20	080-20-12PZ	080-20-12	— —	1.11 (28.2)	2
E08/Z08-30	080-30-12PZ	080-30-12	.87 (22)	1.50 (38.2)	3
E08/Z08-40	080-40-12PZ	080-40-12	1.26 (32)	1.90 (48.2)	4
E08/Z08-50	080-50-12PZ	080-50-12	1.65 (42)	2.29 (58.2)	5

Additional Accessories



Quicksnap - the complete, detachable mounting unit, upon request

Part No.

080-20-QS

080-30-QS



Quickfix - mounting bracket with dowel, upon request

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



Price Index



Series E14/Z14

Special Features / Options

IPA Qualification Certificate
Air Cleanliness Class ISO Class 2
(at v = 3.28 ft/s) upon request

Flammability Class
VDE 0304 IIC UL94 V2

IPA Qualification Certificate: ESD
Classification Level 1 (for Series
E14-3-038). Special equipment:
Electrically conductive ESD/ATEX
version upon request

Assembly Tips



Just push the cables into the Energy Chain using your thumb

Usage Guidelines



- If filling is required without opening and closing
- If price is an issue
- If quiet operation is required



- "Z" Series is unsuitable for gliding applications
➤ Series B15 E2 Mini
- If a long unsupported length is required
➤ Series B15 E2 Mini

Features & Benefits

- 1 Small pitch for low-noise and smooth operation
- 2 Cable-friendly interior
- 3 Limited torsion tolerance
- 4 Very easy to fill - ideal for harnessed cable assemblies
- 5 Integrated strain relief option
- 6 Patented push button principle holds the links together
- 7 "E" Series features split crossbar along the outer radius
- 8 "Z" Series features split crossbar along the inner radius



Order Example: Complete Energy Chain®

Please indicate chain length or number of links. Example:

energy chain® configurator

3.28 ft (1 m) E14-3-038-0

Energy Chain®

1 Set 114-3-12PZ

Mounting Bracket

Energy Chain System® E-Z Chain Series E14/Z14 Installation Dimensions

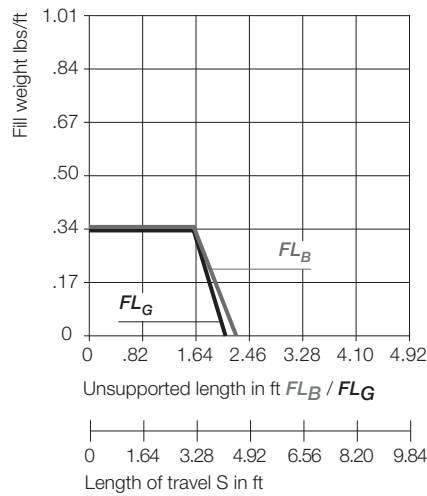
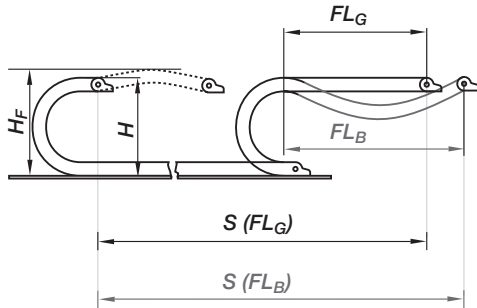
energy chain® configurator



E14
Z14

Short travel, unsupported length

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



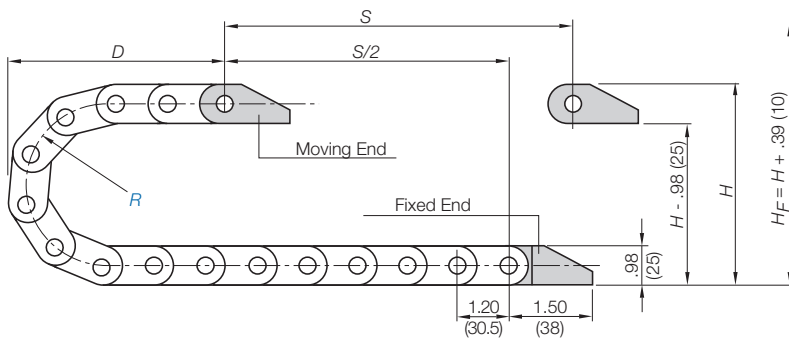
Short Travels - Unsupported



Unsupported 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 = $S/2 + K$

The required clearance height: $H_F = H + .39$ in. (10 mm) (with .13 lbs/ft (0.2 kg/m) fill weight. Please consult igus® if space is particularly restricted.

R	1.10 (028)	1.50 (038)	1.89 (048)	2.95 (075)	3.94 (100)	4.92 (125)
H	3.19 (81)	3.98 (101)	4.76 (121)	6.89 (175)	8.86 (225)	10.83 (275)
D	3.35 (86)	3.78 (96)	4.17 (106)	5.24 (133)	6.22 (158)	7.20 (183)
K	5.91 (150)	7.28 (185)	8.46 (215)	11.81 (300)	14.96 (380)	17.91 (455)



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. 9.84 ft/s (3 m/s) / max. 32.8 ft/s ² (10 m/s ²)
Material (Energy Chain®) - permitted temperature	igumid NB / -40°F (-40°C) up to +176°F (+80° C)
Material (mounting brackets)* - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120° C)
Flammability Class (Energy Chain®), igumid NB	VDE 0304 IIC UL94 V2
Flammability Class (mounting brackets), igumid G*	VDE 0304 IIC UL94 HB

*Available in igumid NB upon request, please consult igus® for delivery time

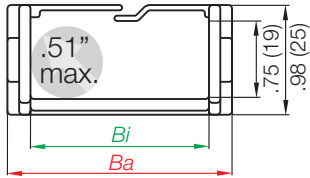
Technical Data



Details of material properties

Chapter 1

Series E14 - Split crossbar along the outer radius



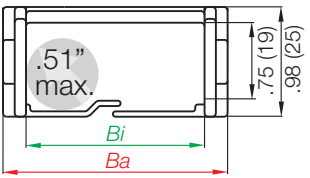
Part Number Structure



Color - Black
Bending radius
Width
Series



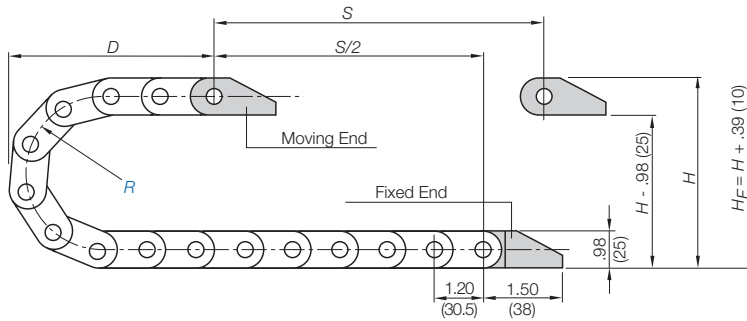
Series Z14 - Split crossbar along the inner radius



Part Number Structure



Color - Black
Bending radius
Width
Series



Supplement part number with required radius. Example: E14-3--0
Pitch: 1.20 in. (30.5 mm) per link links/ft (m) = 10.06 (33)

Part Number				Bi	Ba	Weight
Split Crossbar	Split Crossbar			in. (mm)	in. (mm)	lbs/ft (kg/m)
Outer Radius	Inner Radius					
E14-1-	Z14-1-	<input type="text" value=""/>	-0	.59 (15)	1.06 (27)	≈ 0.21 (0.31)
E14-2-	Z14-2-	<input type="text" value=""/>	-0	.98 (25)	1.46 (37)	≈ 0.22 (0.32)
E14-3-	Z14-3-	<input type="text" value=""/>	-0	1.50 (38)	1.97 (50)	≈ 0.27 (0.40)
E14-4-	Z14-4-	<input type="text" value=""/>	-0	1.97 (50)	2.44 (62)	≈ 0.30 (0.44)

Choose from the radii below for all of the above sizes
Radius (mm) Example: E14-3--0

	<input type="text" value="028"/>	<input type="text" value="038"/>	<input type="text" value="048"/>	<input type="text" value="075"/>	<input type="text" value="100"/>	<input type="text" value="125"/>
R	1.10 (028)	1.50 (038)	1.89 (048)	2.95 (075)	3.94 (100)	4.92 (125)
H	3.19 (81)	3.98 (101)	4.76 (121)	6.89 (175)	8.86 (225)	10.83 (275)
D	3.35 (86)	3.78 (96)	4.17 (106)	5.24 (133)	6.22 (158)	7.20 (183)
K	5.91 (150)	7.28 (185)	8.46 (215)	11.81 (300)	14.96 (380)	17.91 (455)

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

Energy Chain System® E-Z Chain Series E14/Z14 Mounting Brackets

energy chain® configurator ▶

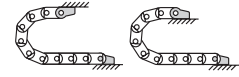
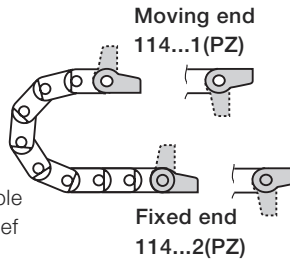


E14
Z14



Plastic, one-piece

- One-piece mounting bracket
- Corrosion resistant
- Available preassembled
- Inner and outer attachment possible
- Available with or without strain relief tiewrap plates



Possible installation configurations -

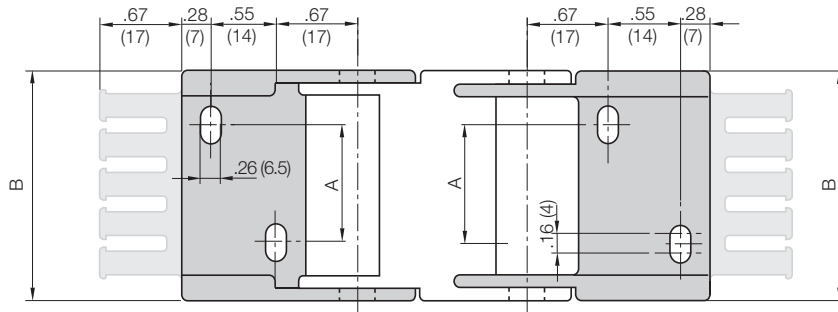
Dimensions and order configurations

Strain relief is possible on the moving end and/or the fixed end.

Part Number Structure

114- 20- 12 P PZ

- With assembled strain relief tiewrap plates
- Without assembled strain relief tiewrap plates
- Complete Set
- Width
- Mounting brackets for selected chain type



Full set, for both ends:

114- 20- 12 PZ

Full set, each part with pin/bore + tiewrap plate

Single-part order:

114- 20- 1 PZ

Mounting bracket with bore + tiewrap plate

114- 20- 2 PZ

Mounting bracket with pin + tiewrap plate

Chain Type	Part No.	Part No.	Dimension A		Dimensions B		Number of Teeth
	Full set with Tiewrap Plate	Full Set without Tiewrap Plate	in.	(mm)	in.	(mm)	
E14/Z14-1	114-1-12PZ	114-1-12P	—	—	1.04	(26.3)	2
E14/Z14-2	114-2-12PZ	114-2-12P	.39	(10)	1.43	(36.3)	3
E14/Z14-3	114-3-12PZ	114-3-12P	.91	(23)	1.94	(49.3)	4
E14/Z14-4	114-4-12PZ	114-4-12P	1.38	(35)	2.45	(62.3)	5

Additional Accessories



Quicksnap - the complete, detachable mounting unit, upon request



Quickfix - mounting bracket with dowel, upon request

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





Price Index



Series E200/Z200

Special Features / Options

IPA Qualification Certificate
Air Cleanliness Class ISO Class 2
(at v = 3.28 ft/s) upon request

Flammability Class
VDE 0304 IIC UL94 V2

Special equipment: Electrically
conductive ESD/ATEX version
upon request

Assembly Tips



Just push the cables into the Energy Chain
using your thumb

Other Installation Methods

- Vertical, hanging ≤ 32.8 ft (10 m)
- Vertical, standing ≤ 4.92 ft (1.5 m)
- Side-mounted, un supp. ≤ 1.64 ft (0.5 m)
- Rotary requires further calculation

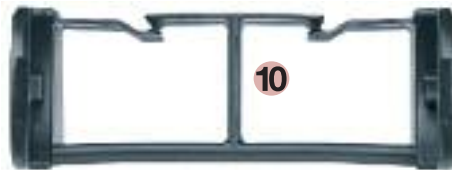
Usage Guidelines

- If filling is required without opening
and closing
- If price is an issue
- If quiet operation is required

- If a long unsupported length is
required
➤ Series 200/240/250 E2 Medium
- If single extrusion crossbars are
required
➤ Series 200/240/250 E2 Medium

Features & Benefits

- 1 Mounting bracket with integrated strain relief
- 2 Large pins for long service life
- 3 Patented push button principle holds the links together
- 4 Limited torsion tolerance
- 5 "E" Series features split crossbar along the outer radius
- 6 Dirt-repellant exterior
- 7 Cable-friendly interior
- 8 "Z" Series features split crossbar along the inner radius
- 9 Very easy to fill - cables only have to be pushed in
- 10 1- or 2-chamber system available



Order Example: Complete Energy Chain®

Please indicate chain length or number of links. Example:

energy chain® configurator

3.28 ft (1 m) E200-05-100-0

Energy Chain®

1 Set 2050-34PZB

Mounting Bracket

Energy Chain System® E-Z Chain Series E200/Z200 Installation Dimensions

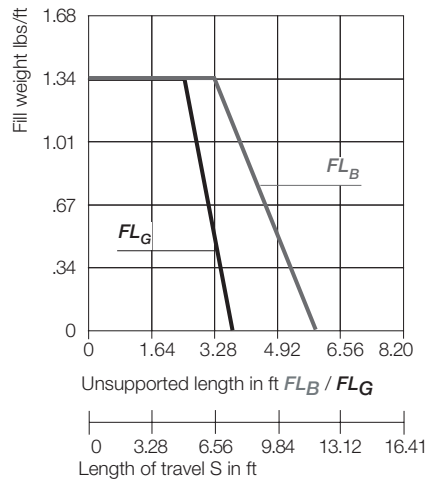
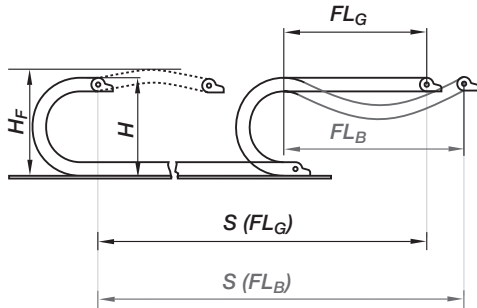
energy chain® configurator

igus®

E200
Z200

Short travel, unsupported length

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



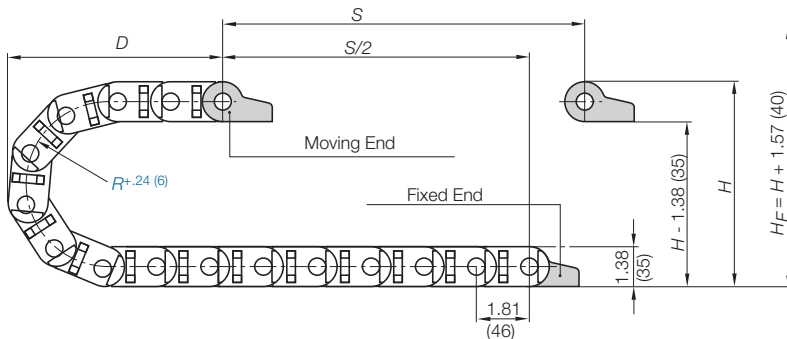
Short Travels - Unsupported



Unsupported 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: = 1.81" (46 mm)
Links per ft (m): = 6.71 (22)
For center mount applications:
Chain length = $S/2 + K$

The required clearance height: $H_F = H + 1.57$ in. (40 mm) (with 1.68 lbs/ft (2.5 kg/m) fill weight). Please consult igus® if space is particularly restricted.

R	2.16 (055)	2.95 (075)	3.94 (100)	5.91 (150)	7.87 (200)
H^{*4}	5.71 (145)	7.28 (185)	9.25 (235)	13.19 (335)	17.12 (435)
D	5.59 (142)	6.38 (162)	7.36 (187)	9.33 (237)	11.30 (287)
K	10.43 (265)	12.99 (330)	16.14 (410)	22.24 (565)	28.54 (725)

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. 9.84 ft/s (3 m/s) / max. 32.8 ft/s ² (10 m/s ²)
Material (Energy Chain®) - permitted temperature	igumid NB / -40°F (-40°C) up to +176°F (+80° C)
Material (mounting brackets)* - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120° C)
Flammability Class (Energy Chain®), igumid NB	VDE 0304 IIC UL94 V2
Flammability Class (mounting brackets), igumid G*	VDE 0304 IIC UL94 HB

*Available in igumid NB upon request, please consult igus® for delivery time

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



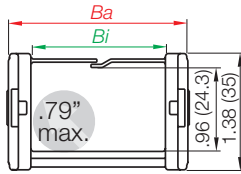
Series E200
Split crossbar along the outer radius



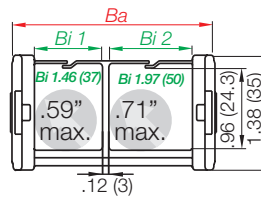
Series Z200
Split crossbar along the inner radius



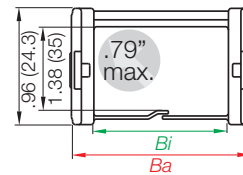
Single Chamber System



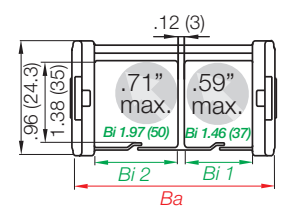
2 Chamber System
1 chamber from each width is shown
Actual carrier will have 2 chambers of the same size.



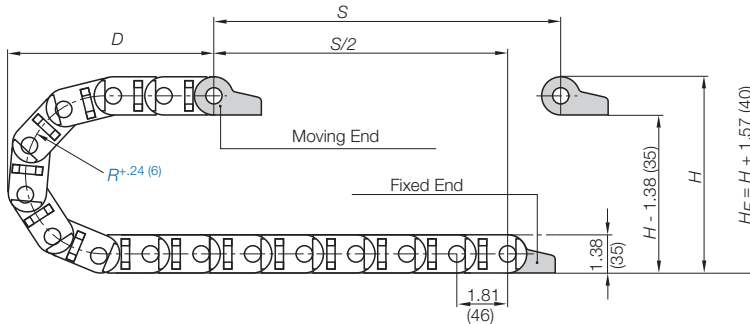
Single Chamber System



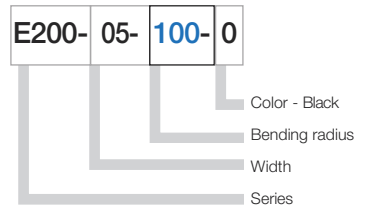
2 Chamber System
1 chamber from each width is shown
Actual carrier will have 2 chambers of the same size.



Supplement part number with required radius. Example: E200-05--0
Pitch: 1.81 in. (46 mm) per link links/ft (m) = 6.71 (22)



Part Number Structure



Part Number
Single Chamber System

Split Crossbar	Split Crossbar		<i>Bi</i>	<i>Ba</i>	Weight
Outer radius	Inner Radius		in. (mm)	in. (mm)	lbs/ft (kg/m)
E200-05-	Z200-05-	<input type="text" value=""/> -0	2.24 (57)	2.93 (74.4)	≈ 0.47 (0.70)

Part Number
2 Chamber System

Split Crossbar	Split Crossbar		<i>Bi 1</i>	<i>Bi 2</i>	<i>Ba</i>	Weight
Outer radius	Inner Radius		in. (mm)	in. (mm)	in. (mm)	lbs/ft (kg/m)
E200-2/35-	Z200-2/35-	<input type="text" value=""/> -0	1.46 (37)	1.46 (37)	3.72 (94.4)	≈ 0.53 (0.79)
E200-2/50-	Z200-2/50-	<input type="text" value=""/> -0	1.97 (50)	1.97 (50)	4.74 (120.4)	≈ 0.55 (0.82)

Choose from the radii below for all of the above sizes

Radius (mm) Example: E200-05--0

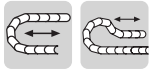
	055	075	100	150	200
R	2.16 (055)	2.95 (075)	3.94 (100)	5.91 (150)	7.87 (200)
H +4	5.71 (145)	7.28 (185)	9.25 (235)	13.19 (335)	17.12 (435)
D	5.59 (142)	6.38 (162)	7.36 (187)	9.33 (237)	11.30 (287)
K	10.43 (265)	12.99 (330)	16.14 (410)	22.24 (565)	28.54 (725)

Energy Chain System® E-Z Chain Series E200/Z200 Mounting Brackets

energy chain® configurator ▶



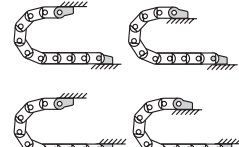
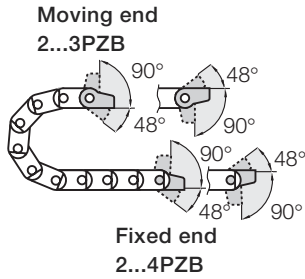
E200
Z200



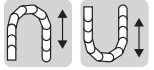
Standard

Option 1: pivoting

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

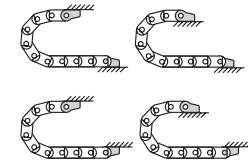
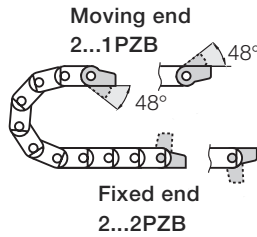


Possible installation configurations -



Option 2: locking

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



Possible installation configurations -

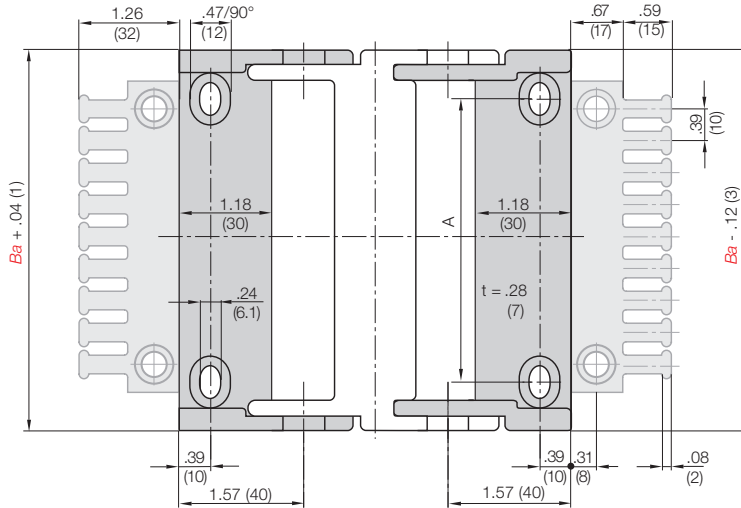
Dimensions and order configurations

Strain relief is possible on the moving end and/or the fixed end.

Part Number Structure

2050- 34 PZ B K1

- 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:

2050- 34 PZB Full set, each part with pin/bore + tiewrap plate

Single-part order:

2050- 3 PZB Mounting bracket with bore + tiewrap plate

2050- 4 PZB Mounting bracket with pin + tiewrap plate

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)	Number of teeth
E200/Z200-05	2050- <input type="checkbox"/> PZB	2050- <input type="checkbox"/> PZBK1	2050- <input type="checkbox"/> PZ	1.73 (44)	6
E200/Z200-2/35	2070- <input type="checkbox"/> PZB	2070- <input type="checkbox"/> PZBK1	2070- <input type="checkbox"/> PZ	2.52 (64)	8
E200/Z200-2/50	2100- <input type="checkbox"/> PZB	2100- <input type="checkbox"/> PZBK1	2100- <input type="checkbox"/> PZ	3.54 (90)	10

34 or 12

For pivoting brackets choose 34

For locking brackets choose 12

Example: 2050- 34 PZB

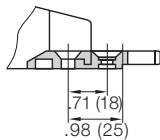
PDF: www.igus.com/e-chain-pdfs
Specs/CAD/RFQ: www.igus.com/e-chains
RoHS info: www.igus.com/RoHS



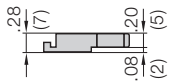
Strain relief for polymer mounting brackets (pivoting or locking)

The strain relief tiwrap plates can be snapped directly onto the mounting bracket. After bolting the mounting brackets to the machine, the strain relief tiwrap plates are firmly connected to the base. There is no need to bolt them on separately. Cable tiwraps secured to the cable and the tiwrap plate (teeth) provide proper strain relief and save time.

Tiwrap Plates



Shown assembled

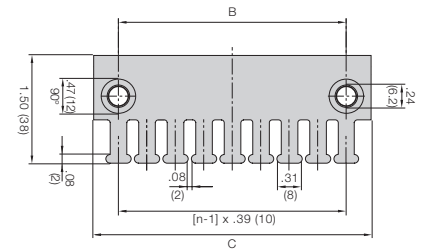


Single tiwrap plate

**Option 1:
Tiwrap plates as an individual part**

Available as an individual component, can be fixed onto a mounting bracket.

Tiwrap Plates	n Number of Teeth	Dimension C	Dimension B
2050-ZB	6	2.36 (60)	1.57 (40)
2070-ZB	8	3.15 (80)	2.36 (60)
2100-ZB	10	3.94 (100)	3.15 (80)



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 tiwrap plates must be bolted directly into separate bore holes in front of the mounting bracket. Alternatively the tiwrap plates 20XX-ZB can be also used here. **Details chapter 10**



Cable tiwraps as individual parts

Cable tiwraps 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)



**Option 2:
Clip-on Tiwrap plates for opening crossbars**

Clip-on tiwrap plates are also available as an attachment to opening crossbars. They can be positioned at any point along the Energy Chain®.

Part No.	Number of Teeth	Width of Strain Relief in. (mm)
2050-Z	6	2.44 (62)

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

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



Price Index



Series E16/Z16

Special Features / Options

IPA Qualification Certificate
Air Cleanliness Class ISO Class 2
(at v = 3.28 ft/s) upon request

Flammability Class
VDE 0304 IIC UL94 V2

Special equipment: Electrically
conductive ESD/ATEX version
upon request

Assembly Tips



Just push the cables into the Energy Chain
using your thumb

Usage Guidelines



- If filling is required without opening and closing
- If price is an issue
- If quiet operation is required



- If a long unsupported length is required
➤ Series 26/27/27i E2 Medium
- If an Energy Chain with a high locking crossbar is needed
➤ Series 26/27/27i E2 Medium

Features & Benefits

- 1 Cable-friendly interior
- 2 Limited torsion tolerance
- 3 Small pitch for low-noise and smooth operation
- 4 Very easy to fill - cables only have to be pushed in
- 5 Mounting bracket with integrated strain relief
- 6 Patented push button principle holds the links together
- 7 "E" Series features split crossbar along the outer radius
- 8 "Z" Series features split crossbar along the inner radius



Order Example: Complete Energy Chain®

Please indicate chain length or number of links. Example:

energy chain® configurator

3.28 ft (1 m) E16-3-060-0

Energy Chain®

1 Set 117-3-12PZ

Mounting Bracket

Energy Chain System® E-Z Chain Series E16/Z16 Installation Dimensions

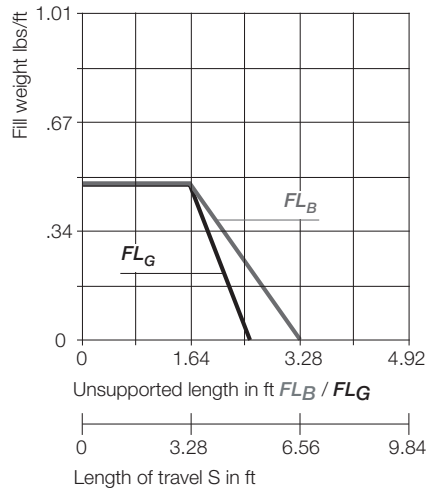
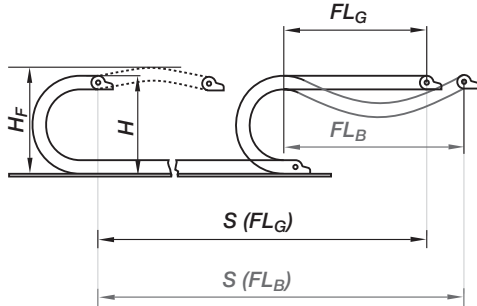
energy chain® configurator ▶



E16
Z16

Short travel, unsupported length

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



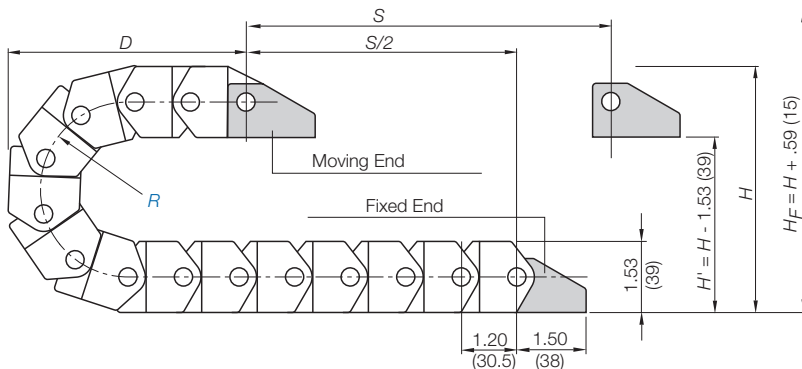
Short Travels - Unsupported



Unsupported 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 = $\frac{S}{2} + K$

The required clearance height: $H_F = H + .59$ in. (15 mm) (with .20 lbs/ft (0.3 kg/m) fill weight). Please consult igus® if space is particularly restricted.

R	1.57 (040)	2.36 (060)	2.95 (075)	3.94 (100)
H	4.69 (119)	6.26 (159)	7.44 (189)	9.41 (239)
D	4.13 (105)	4.92 (125)	5.51 (140)	6.50 (165)
K	7.48 (190)	9.84 (250)	11.81 (300)	14.96 (380)

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. 9.84 ft/s (3 m/s) / max. 32.8 ft/s ² (10 m/s ²)
Material (Energy Chain®) - permitted temperature	igumid NB / -40°F (-40°C) up to +176°F (+80° C)
Material (mounting brackets)* - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120° C)
Flammability Class (Energy Chain®), igumid NB	VDE 0304 IIC UL94 V2
Flammability Class (mounting brackets), igumid G*	VDE 0304 IIC UL94 HB

*Available in igumid NB upon request, please consult igus® for delivery time

Technical Data



Details of material properties

▶ Chapter 1

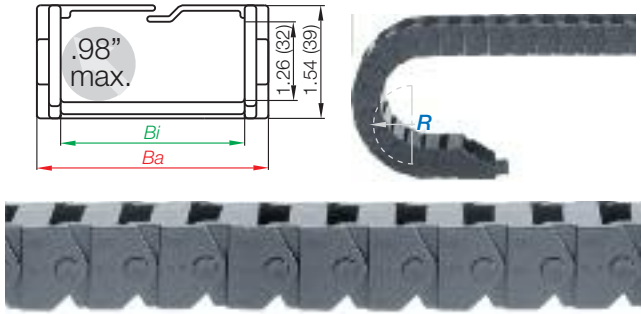


PDF: www.igus.com/e-chain-pdfs
Specs/CAD/RFQ: www.igus.com/e-chains
RoHS info: www.igus.com/RoHS

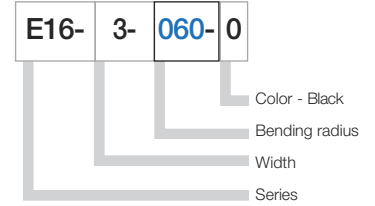


STANDARD

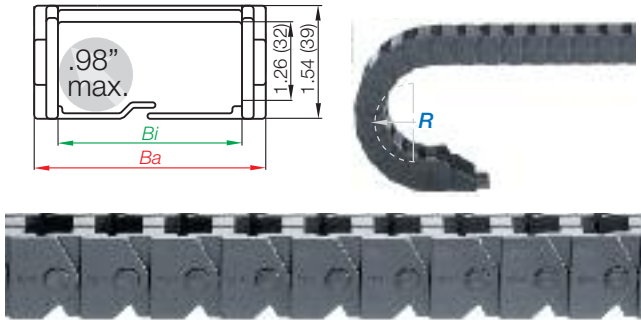
Series E16 - Split crossbar along the outer radius



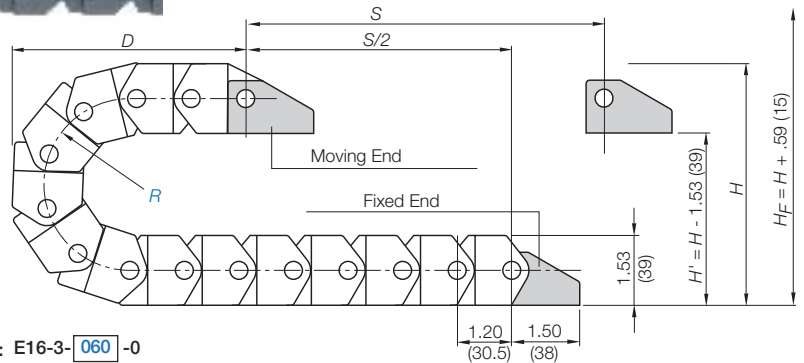
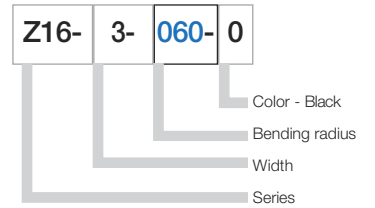
Part Number Structure



Series Z16 - Split crossbar along the inner radius



Part Number Structure



Supplement part number with required radius. Example: E16-3-060-0
Pitch: 1.20 in. (30.5 mm) per link links/ft (m) = 10.06 (33)

Part Number			<i>Bi</i>	<i>Ba</i>	Weight
Split Crossbar	Split Crossbar		in. (mm)	in. (mm)	lbs/ft (kg/m)
Outer radius	Inner radius				
E16-2-	Z16-2-	<input type="text"/> -0	.91 (23)	1.48 (37.5)	≈ 0.34 (0.51)
E16-3-	Z16-3-	<input type="text"/> -0	1.42 (36)	1.99 (50.5)	≈ 0.38 (0.57)
E16-4-	Z16-4-	<input type="text"/> -0	1.89 (48)	2.46 (62.5)	≈ 0.42 (0.62)
E16-5-	Z16-5-	<input type="text"/> -0	2.48 (63)	3.09 (78.5)	≈ 0.50 (0.75)
E16-6-	Z16-6-	<input type="text"/> -0	3.15 (80)	3.76 (95.5)	≈ 0.56 (0.83)
E16-7-	Z16-7-	<input type="text"/> -0	3.94 (100)	4.54 (115.3)	≈ 0.61 (0.91)

Choose from the radii below for all of the above sizes

Radius (mm) Example: E16-3-060-0

	040	060	075	100
R	1.57 (040)	2.36 (060)	2.95 (075)	3.94 (100)
H	4.69 (119)	6.26 (159)	7.44 (189)	9.41 (239)
D	4.13 (105)	4.92 (125)	5.51 (140)	6.50 (165)
K	7.48 (190)	9.84 (250)	11.81 (300)	14.96 (380)

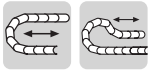
0=Standard color black. For other colors see Chapter 1

Energy Chain System® E-Z Chain Series E16/Z16 Mounting Brackets

energy chain® configurator ▶



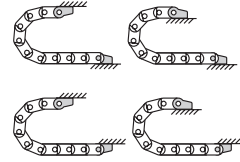
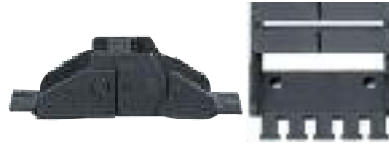
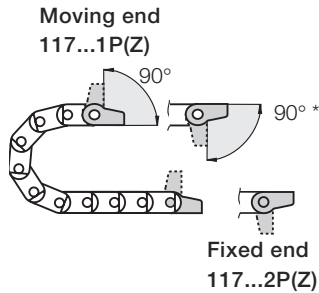
E16
Z16



Standard

Option 1: pivoting

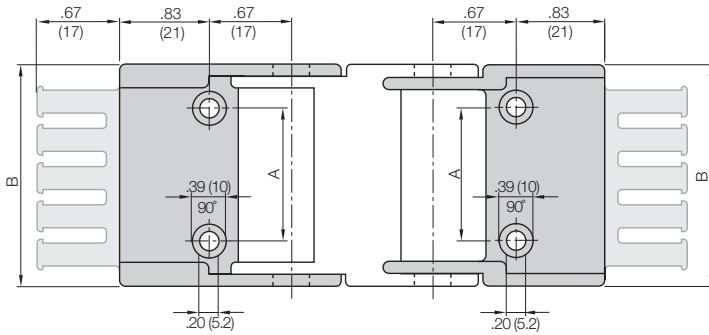
- One-piece mounting bracket
- Corrosion resistant
- Available pre-assembled
- Inner and outer attachment possible
- With our without strain relief tiwrap plates



Possible installation configurations -

Dimensions and order configurations

Strain relief is possible on the moving end and/or the fixed end.



Part Number Structure

117-2- 12 P PZ



Full set, for both ends:

117-2-12-PZ Full set, each part with pin/bore + tiwrap plate

Single-part order:

117-2-1-PZ Mounting bracket with bore + tiwrap plate

117-2-2-PZ Mounting bracket with pin + tiwrap plate

For Chain Type	Part No. Full set with Tiwrap Plate	Part No. Full Set without Tiwrap Plate	Number of Teeth	Dimension A in. (mm)	Dimensions B in. (mm)
E16/Z16-2	117-2-12PZ	117-2-12P	3	.47 (12)	1.40 (35.5)
E16/Z16-3	117-3-12PZ	117-3-12P	4	.98 (25)	1.91 (48.5)
E16/Z16-4	117-4-12PZ	117-4-12P	5	1.46 (37)	2.38 (60.5)
E16/Z16-5	117-5-12PZ	117-5-12P	6	1.89 (48)	2.99 (76.0)
E16/Z16-6	117-6-12PZ	117-6-12P	8	2.56 (65)	3.66 (93.0)
E16/Z16-7	117-7-12PZ	117-7-12P	10	3.35 (85)	4.45 (113.0)

Additional Accessories



Quicksnap - the complete, detachable mounting unit, upon request



Quickfix - mounting bracket with dowel, upon request

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



Price Index



Series E26/Z26

Special Features / Options

IPA Qualification Certificate
Air Cleanliness Class ISO Class 2
(at v = 3.28 ft/s) upon request

Flammability Class
VDE 0304 IIC UL94 V2

Special equipment: Electrically
conductive ESD/ATEX version
upon request

Assembly Tips



Just push the cables into the Energy Chain using your thumb

Other Installation Methods

- Vertical, hanging ≤ 32.8 ft (10 m)
- Vertical, standing ≤ 4.92 ft (1.5 m)
- Side-mounted, un_supp. ≤ 1.64 ft (0.5 m)
- Rotary requires further calculation

Usage Guidelines



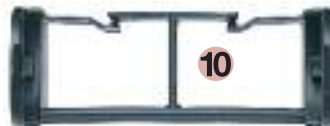
- If filling is required without opening and closing
- If price is an issue
- If quiet operation is required



- If a long unsupported length is required
➤ Series 26/27/27i E2 Medium
- If an Energy Chain with a high locking crossbar is needed
➤ Series 26/27/27i E2 Medium

Features & Benefits

- 1 Integrated strain relief option
- 2 Very easy to fill - cables only have to be pushed in
- 3 Cable-friendly interior
- 4 Limited torsion tolerance
- 5 Large pins for long service life
- 6 "E" Series features split crossbar along the outer radius
- 7 Dirt-repellent exterior
- 8 Patented push button principle holds the links together
- 9 "Z" Series features split crossbar along the inner radius
- 10 1-, 2- or 3-chamber system available



Order Example: Complete Energy Chain®

Please indicate chain length or number of links. Example:

[energy chain® configurator](#) ▶

3.28 ft (1 m) E26-07-150-0

Energy Chain®

1 Set 2607-34PZB

Mounting Bracket

Energy Chain System® E-Z Chain Series E26/Z26 Installation Dimensions

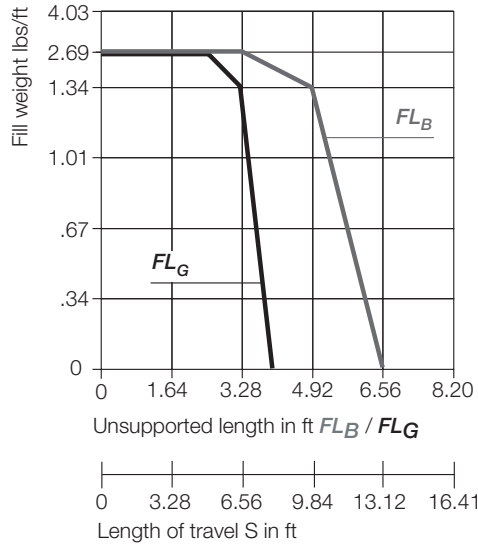
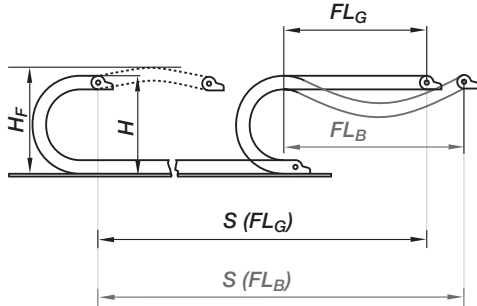
energy chain® configurator

igus®

E26
Z26

Short travel, unsupported length

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



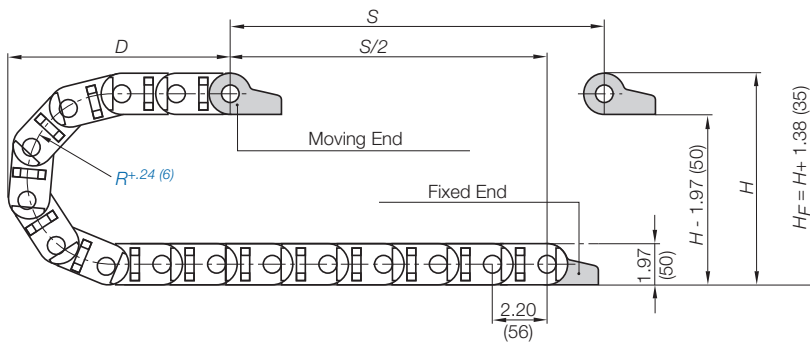
Short Travels - Unsupported



Unsupported 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 = 2.20" (56 mm)
Links per ft (m) = 5.49 (18)
For center mount applications:
Chain length = $S/2 + K$

The required clearance height: $H_F = H + 1.38$ in. (35 mm) (with 1.34 lbs/ft (2.0 kg/m) fill weight). Please consult igus® if space is particularly restricted.

R	2.48 (063)	2.95 (075)	3.94 (100)	4.92 (125)	5.91 (150)	6.89 (175)	7.87 (200)	9.84 (250)
H^{+5}	6.93 (176)	7.87 (200)	9.84 (250)	11.81 (300)	13.78 (350)	15.75 (400)	17.72 (450)	21.65 (550)
D	6.77 (172)	7.24 (184)	8.23 (209)	9.21 (234)	10.20 (259)	11.18 (284)	12.17 (309)	14.13 (359)
K	12.20 (310)	13.78 (350)	16.93 (430)	19.90 (505)	23.03 (585)	26.18 (665)	29.33 (745)	35.43 (900)

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. 9.84 ft/s (3 m/s) / max. 32.8 ft/s ² (10 m/s ²)
Material (Energy Chain®) - permitted temperature	igumid NB / -40°F (-40°C) up to +176°F (+80° C)
Material (mounting brackets)* - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120° C)
Flammability Class (Energy Chain®), igumid NB	VDE 0304 IIC UL94 V2
Flammability Class (mounting brackets), igumid G*	VDE 0304 IIC UL94 HB

*Available in igumid NB upon request, please consult igus® for delivery time

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



Series E26
Split crossbar along the outer radius

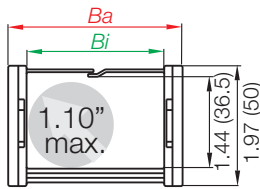


Part Number Structure

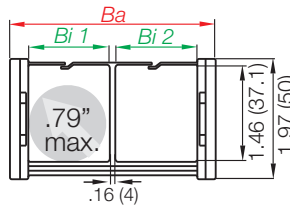


- Color - Black
- Bending radius
- Width
- Series

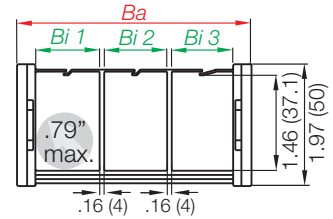
1 Chamber System



2 Chamber System

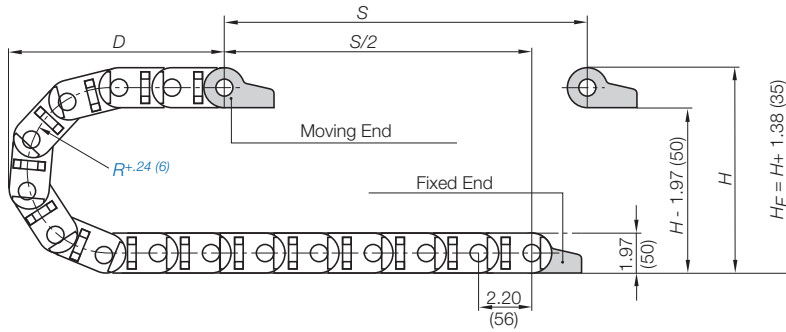


3 Chamber System



Supplement part number with required radius. Example: E26-07-150-0

Pitch: 2.20 in. (56 mm) per link links/ft (m) = 5.49 (18)



Part Number	Bi	Ba	Weight
	in. (mm)	in. (mm)	lbs/ft (kg/m)
1 Chamber System			
E26-07- <input type="text"/> -0	2.95 (75)	3.62 (92)	≈ 0.65 (0.96)

Part Number	Bi	Ba	Weight
	in. (mm)	in. (mm)	lbs/ft (kg/m)
2 Chamber System			
E26-2/45- <input type="text"/> -0	1.89/1.89 (48/48)	4.61 (117)	≈ 0.77 (1.14)

Part Number	Bi	Ba	Weight
	in. (mm)	in. (mm)	lbs/ft (kg/m)
3 Chamber System			
E26-3/45- <input type="text"/> -0	1.85/1.89/1.85 (47/48/47)	6.57 (167)	≈ 0.87 (1.30)

Choose from the radii below for all of the above sizes

Radius (mm) Example: E26-07-100-0

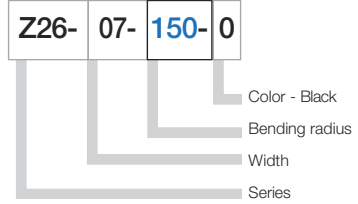
	063	075	100	125	150	175	200	250
R	2.48 (063)	2.95 (075)	3.94 (100)	4.92 (125)	5.91 (150)	6.89 (175)	7.87 (200)	9.84 (250)
H +5	6.93 (176)	7.87 (200)	9.84 (250)	11.81 (300)	13.78 (350)	15.75 (400)	17.72 (450)	21.65 (550)
D	6.77 (172)	7.24 (184)	8.23 (209)	9.21 (234)	10.20 (259)	11.18 (284)	12.17 (309)	14.13 (359)
K	12.20 (310)	13.78 (350)	16.93 (430)	19.88 (505)	23.03 (585)	26.18 (665)	29.33 (745)	35.43 (900)

Series Z26

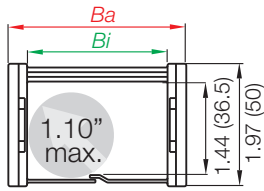
Split crossbar along the inner radius



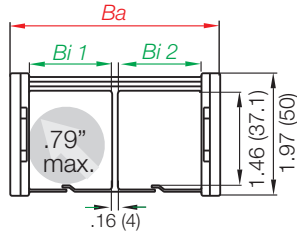
Part Number Structure



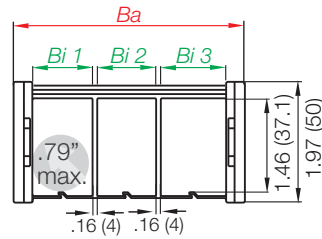
1 Chamber System



2 Chamber System

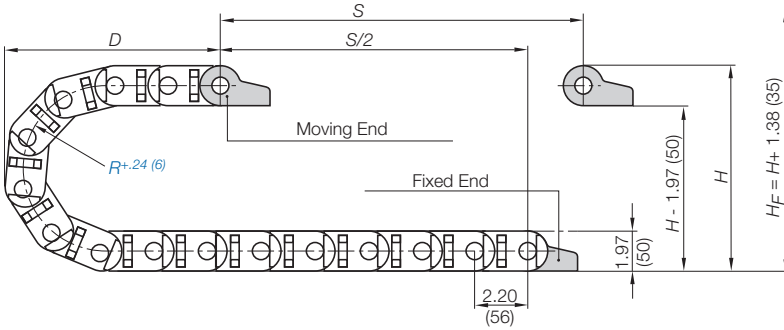


3 Chamber System



Supplement part number with required radius. Example: Z26-07--0

Pitch: 2.20 in. (56 mm) per link links/ft (m) = 5.49 (18)



Part Number	Bi	Ba	Weight
1 Chamber System	in. (mm)	in. (mm)	lbs/ft (kg/m)
Z26-07- <input type="text" value=""/> -0	2.95 (75)	3.62 (92)	≈ 0.65 (0.96)

Part Number	Bi	Ba	Weight
2 Chamber System	in. (mm)	in. (mm)	lbs/ft (kg/m)
Z26-2/45- <input type="text" value=""/> -0	1.89/1.89 (48/48)	4.61 (117)	≈ 0.77 (1.14)

Part Number	Bi	Ba	Weight
3 Chamber System	in. (mm)	in. (mm)	lbs/ft (kg/m)
Z26-3/45- <input type="text" value=""/> -0	1.85/1.89/1.85 (47/48/47)	6.57 (167)	≈ 0.87 (1.30)

Choose from the radii below for all of the above sizes

Radius (mm) Example: Z26-07--0

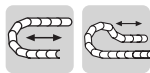
	063	075	100	125	150	175	200	250
R	2.48 (063)	2.95 (075)	3.94 (100)	4.92 (125)	5.91 (150)	6.89 (175)	7.87 (200)	9.84 (250)
H ⁺⁵	6.93 (176)	7.87 (200)	9.84 (250)	11.81 (300)	13.78 (350)	15.75 (400)	17.72 (450)	21.65 (550)
D	6.77 (172)	7.24 (184)	8.23 (209)	9.21 (234)	10.20 (259)	11.18 (284)	12.17 (309)	14.13 (359)
K	12.20 (310)	13.78 (350)	16.93 (430)	19.88 (505)	23.03 (585)	26.18 (665)	29.33 (745)	35.43 (900)



igus® Energy Chain System®

Telephone 1-800-521-2747
Fax 1-401-438-7270

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

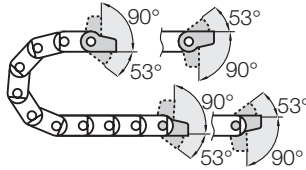


Standard

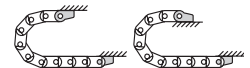
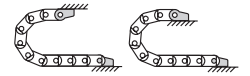
Option 1: pivoting

- Recommended for unsupported and gliding applications
- Space-restricted conditions
- Available with or without strain relief tiewrap plates
- Corrosion resistant

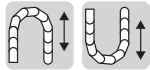
Moving end
26...3PZB



Fixed end
26...4PZB



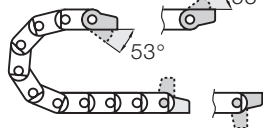
Possible installation configurations -



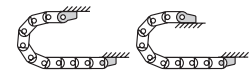
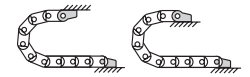
Option 2: locking

- Recommended for unsupported and gliding applications
- For high speed and/or accelerations
- Corrosion resistant

Moving end
26...1PZB



Fixed end
26...2PZB



Possible installation configurations -

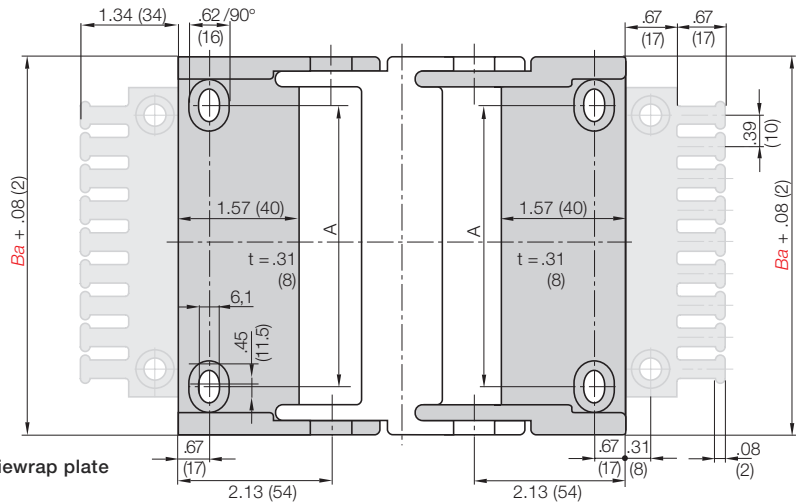
Dimensions and order configurations

Strain relief is possible on the moving end and/or the fixed end.

Part Number Structure

2607- 34 PZB K1

- With 10 cable tieswraps
- With tiewrap plates
- Complete Set
34 = Pivoting
12 = Locking
- Mounting brackets for selected chain type



Full set, for both ends:

2607- [34 | PZB] Full set, each part with pin/bore + tiewrap plate

Single-part order:

2607- [3 | PZB] Mounting bracket with bore + tiewrap plate

2607- [4 | PZB] Mounting bracket with pin + tiewrap plate

Part No. Full Set (pivoting)

With Tiewrap Plates

Series E26/Z26:

2607-34PZB

Part No. Full Set (pivoting)

With Tiewrap Plates + 10 cable ties

Series E26/Z26:

2607-34PZBK1

Part No. Full Set (pivoting)

Without Tiewrap Plates

Series E26/Z26:

2607-34PZ

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)	Number of Teeth
E26/Z26-07	2607- <input type="checkbox"/> PZB	2607- <input type="checkbox"/> PZBK1	2607- <input type="checkbox"/> PZ	2.17 (55)	7
E26/Z26-2/45	2610- <input type="checkbox"/> PZB	2610- <input type="checkbox"/> PZBK1	2610- <input type="checkbox"/> PZ	3.15 (80)	10
E26/Z26-3/45	2615- <input type="checkbox"/> PZB	2615- <input type="checkbox"/> PZBK1	2615- <input type="checkbox"/> PZ	5.12 (130)	15

34 or 12

For pivoting brackets choose 34

For locking brackets choose 12

Example: 2607- 34 | PZB

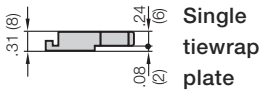
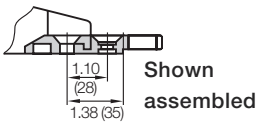
Strain relief for polymer mounting brackets (pivoting or locking)

The strain relief tiwrap plates can be snapped directly onto the mounting bracket. After bolting the mounting brackets to the machine, the strain relief tiwrap plates are firmly connected to the base. There is no need to bolt them on separately. Cable tiwraps secured to the cable and the tiwrap plate (teeth) provide proper strain relief and save time.

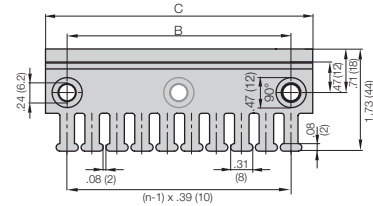
Tiewrap Plates

**Option 1:
Tiewrap plates as an individual part**

Available as an individual component, can be fixed onto a mounting bracket.



Tiewrap Plate	n Number of Teeth	C Overall Width in. (mm)	B Bore Width in. (mm)	Center Bore
3050-ZB	5	1.97 (50)	1.18 (30)	no
3075-ZB	7	2.95 (75)	2.16 (55)	no
3100-ZB	10	3.94 (100)	3.15 (80)	no
3115-ZB	11	4.53 (115)	3.74 (95)	no
3125-ZB	12	4.92 (125)	4.13 (105)	no
3150-ZB	15	5.91 (150)	5.12 (130)	no
3175-ZB	17	6.89 (175)	6.10 (155)	no
3200-ZB	20	7.87 (200)	7.09 (180)	yes
3225-ZB	22	8.86 (225)	8.07 (205)	yes
3250-ZB	25	9.84 (250)	9.06 (230)	yes



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



Cable tiwraps as individual parts

Cable tiwraps 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)

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





Price Index



Series E300/Z300

Special Features / Options

IPA Qualification Certificate
Air Cleanliness Class ISO Class 2
(at v = 3.28 ft/s) upon request

Flammability Class
VDE 0304 IIC UL94 V2

Special equipment: Electrically
conductive ESD/ATEX version
upon request

Assembly Tips



Just push the cables into the Energy Chain using your thumb

Other Installation Methods

Vertical, hanging ≤ 32.8 ft (10 m)

Vertical, standing ≤ 4.92 ft (1.5 m)

Side-mounted, un_supp. ≤ 1.64 ft (0.5 m)

Rotary requires further calculation

Usage Guidelines



- If filling is required without opening and closing
- If price is an issue
- If quiet operation is required



- If high loads and long unsupported lengths are present
➤ Series 340/350 E2 Medium

Features & Benefits

- 1 Limited torsion tolerance
- 2 Cable-friendly interior
- 3 Large pins for long service life
- 4 Very easy to fill - cables only have to be pushed in
- 5 Dirt-repellent exterior
- 6 "E" Series features split crossbar along the outer radius
- 7 Integrated strain relief option
- 8 Patented push button principle holds the links together
- 9 "Z" Series features split crossbar along the inner radius
- 10 Interior separation possible
- 11 1-, 2- or 3-chamber system available



Order Example: Complete Energy Chain®

Please indicate chain length or number of links. Example:

[energy chain® configurator](#) ▶

3.28 ft (1 m) E300-075-100-0

Energy Chain®

1 Set 3075-34PZB

Mounting Bracket

Energy Chain System® E-Z Chain Series E300/Z300 Installation Dimensions

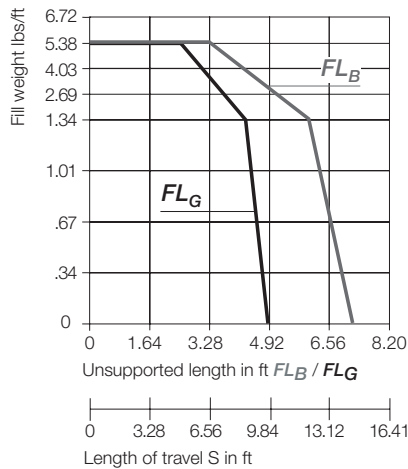
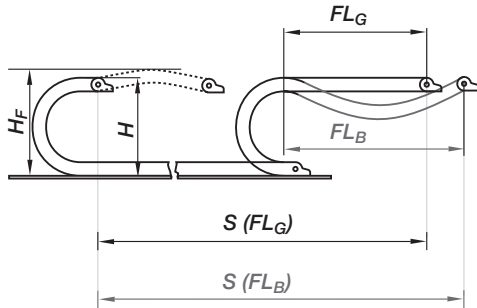
energy chain® configurator



E300
Z300

Short travel, unsupported length

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



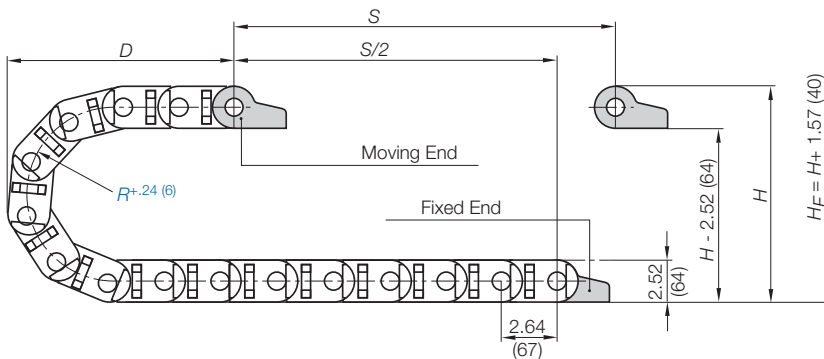
Short Travels - Unsupported



Unsupported 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 = 2.64" (67 mm)
Links per ft (m) = 4.57 (15)
For center mount applications:
Chain length = $S/2 + K$

The required clearance height: $H_F = H + 1.57$ in. (40 mm) (with 1.68 lbs/ft (2.5 kg/m) fill weight). Please consult igus® if space is particularly restricted.

R	2.95 (075)	3.94 (100)	4.92 (125)	5.91 (150)	7.87 (200)	9.84 (250)	11.81 (300)
H^{+4}	8.43 (214)	10.39 (264)	12.36 (314)	14.33 (364)	18.27 (464)	22.20 (564)	26.14 (664)
D	8.19 (208)	9.17 (233)	10.16 (258)	11.14 (283)	13.11 (333)	15.08 (383)	17.05 (433)
K	14.57 (370)	17.72 (450)	20.87 (530)	24.02 (610)	30.12 (765)	36.22 (920)	42.52 (1080)

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. 9.84 ft/s (3 m/s) / max. 32.8 ft/s ² (10 m/s ²)
Material (Energy Chain®) - permitted temperature	igumid NB / -40°F (-40°C) up to +176°F (+80° C)
Material (mounting brackets)* - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120° C)
Flammability Class (Energy Chain®), igumid NB	VDE 0304 IIC UL94 V2
Flammability Class (mounting brackets), igumid G*	VDE 0304 IIC UL94 HB

*Available in igumid NB upon request, please consult igus® for delivery time

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



Series E300
Split crossbar along the outer radius

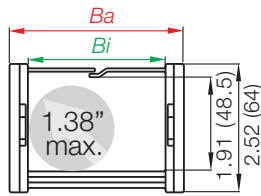


Part Number Structure

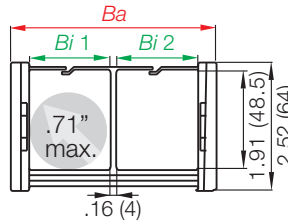


- Color - Black
- Bending radius
- Width
- Series

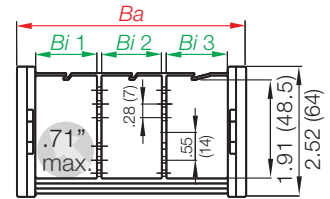
Single Chamber System



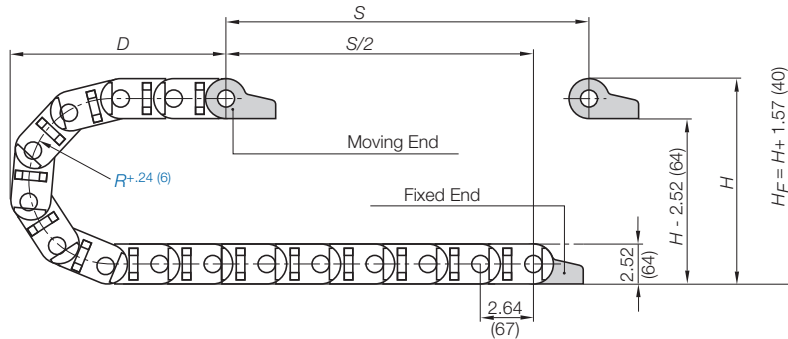
2 Chamber System



3 Chamber System
with optional shelving

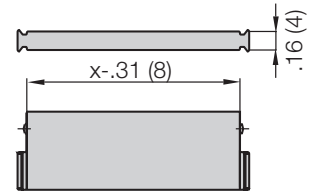


Supplement part number with required radius. Example: E300-075--0
Pitch: 2.64 in. (67 mm) per link links/ft (m) = 4.57 (15)



Shelving

- Unassembled
- Part number 386-54
- Assembled
- Part number 387-54



Part Number	Bi	Ba	Weight
	in. (mm)	in. (mm)	lbs/ft (kg/m)
1 Chamber System			
E300-075- <input type="text"/> -0	2.95 (75)	3.74 (95)	≈ 1.08 (1.60)

Part Number	Bi	Ba	Weight
	in. (mm)	in. (mm)	lbs/ft (kg/m)
2 Chamber System			
E300-2/45- <input type="text"/> -0	1.89/1.89 (48/48)	4.72 (120)	≈ 1.20 (1.78)

Part Number	Bi	Ba	Weight
	in. (mm)	in. (mm)	lbs/ft (kg/m)
3 Chamber System			
E300-3/45- <input type="text"/> -0	1.85/1.81/1.85 (47/46/47)	6.69 (170)	≈ 1.29 (1.92)

Choose from the radii below for all of the above sizes

Radius (mm) Example: E300-075--0

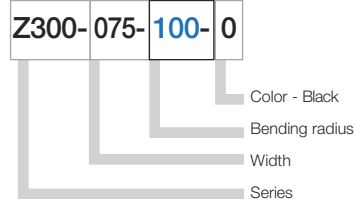
	075	100	125	150	200	250	300
R	2.95 (075)	3.94 (100)	4.92 (125)	5.91 (150)	7.87 (200)	9.84 (250)	11.81 (300)
H +5	8.43 (214)	10.39 (264)	12.36 (314)	14.33 (364)	18.27 (464)	22.20 (564)	26.14 (664)
D	8.19 (208)	9.17 (233)	10.16 (258)	11.14 (283)	13.11 (333)	15.08 (383)	17.05 (433)
K	14.57 (370)	17.72 (450)	20.87 (530)	24.02 (610)	30.12 (765)	36.22 (920)	42.52 (1080)

Series Z300

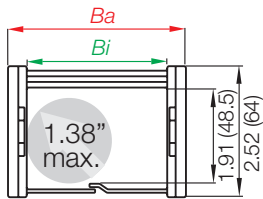
Split crossbar along the inner radius



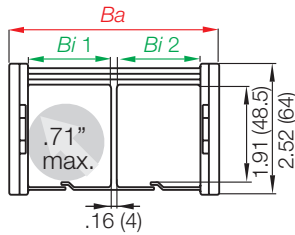
Part Number Structure



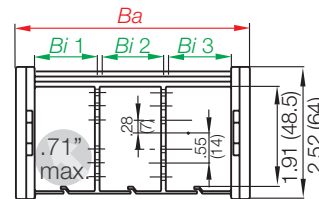
Single Chamber System



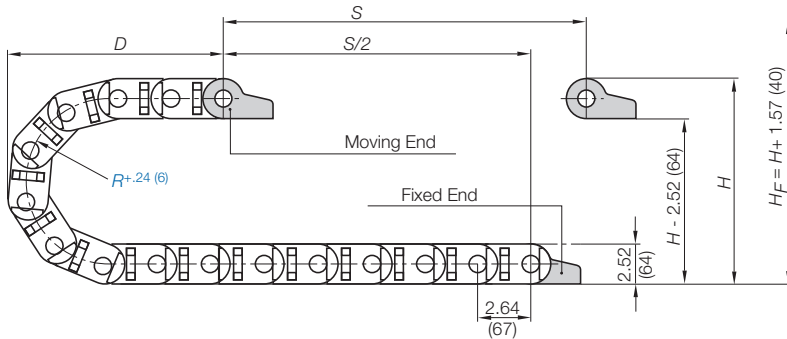
2 Chamber System



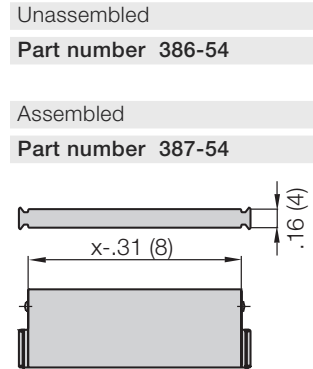
3 Chamber System



Supplement part number with required radius. Example: Z300-075-**100**-0
Pitch: 2.64 in. (67 mm) per link links/ft (m) = 4.57 (15)



Shelving



Part Number	Bi	Ba	Weight
	in. (mm)	in. (mm)	lbs/ft (kg/m)
1 Chamber System			
Z300-075- <input type="text"/> -0	2.95 (75)	3.74 (95)	≈ 1.08 (1.60)

Part Number	Bi	Ba	Weight
	in. (mm)	in. (mm)	lbs/ft (kg/m)
2 Chamber System			
Z300-2/45- <input type="text"/> -0	1.89/1.89 (48/48)	4.72 (120)	≈ 1.20 (1.78)

Part Number	Bi	Ba	Weight
	in. (mm)	in. (mm)	lbs/ft (kg/m)
3 Chamber System			
Z300-3/45- <input type="text"/> -0	1.85/1.81/1.85 (47/46/47)	6.69 (170)	≈ 1.29 (1.92)

Choose from the radii below for all of the above sizes

Radius (mm) Example: Z300-075-**100**-0

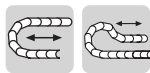
	075	100	125	150	200	250	300
R	2.95 (075)	3.94 (100)	4.92 (125)	5.91 (150)	7.87 (200)	9.84 (250)	11.81 (300)
H +5	8.43 (214)	10.39 (264)	12.36 (314)	14.33 (364)	18.27 (464)	22.20 (564)	26.14 (664)
D	8.19 (208)	9.17 (233)	10.16 (258)	11.14 (283)	13.11 (333)	15.08 (383)	17.05 (433)
K	14.57 (370)	17.72 (450)	20.87 (530)	24.02 (610)	30.12 (765)	36.22 (920)	42.52 (1080)



igus® Energy Chain System®

Telephone 1-800-521-2747
Fax 1-401-438-7270

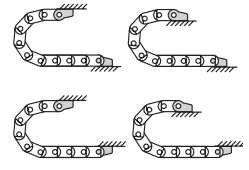
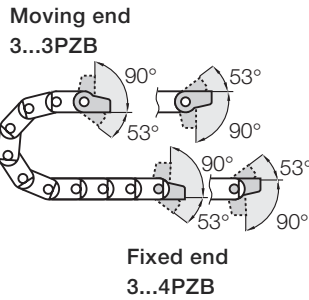
Internet: <http://www.igus.com>
email: sales@igus.com
QuickSpec: <http://www.igus.com/quickspec>



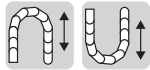
Standard

Option 1: pivoting

- Recommended for unsupported and gliding applications
- Space-restricted conditions
- Available with or without strain relief tiewrap plates
- Corrosion resistant

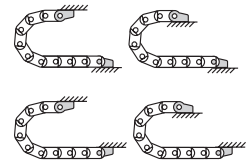
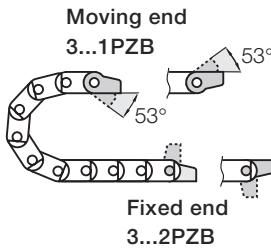


Possible installation configurations -



Option 2: locking

- Recommended for unsupported and gliding applications
- For high speed and/or accelerations
- Corrosion resistant

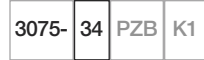


Possible installation configurations -

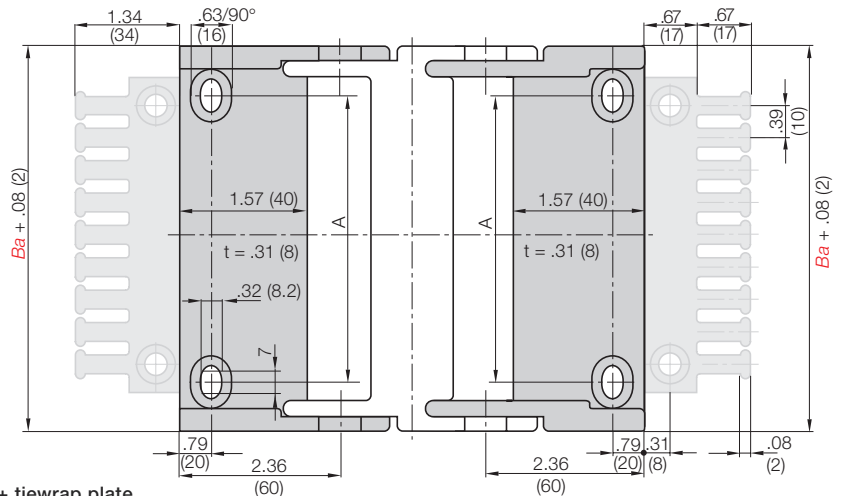
Dimensions and order configurations

Strain relief is possible on the moving end and/or the fixed end.

Part Number Structure



- 3075-34-PZB-K1: With 10 cable tiewraps
- 3075-34-PZB: With tiewrap plates
- 3075-34-PZB-K1: Complete Set
- 34 = Pivoting
- 12 = Locking
- 3075-34-PZB-K1: Mounting brackets for selected chain type



Full set, for both ends:

3075-34-PZB Full set, each part with pin/bore + tiewrap plate

Single-part order:

3075-3-PZB Mounting bracket with bore + tiewrap plate

3075-4-PZB Mounting bracket with pin + tiewrap plate

Part No. Full Set (pivoting)

With Tiewrap Plates

Series E300, Z300:

3075-34PZB

Part No. Full Set (pivoting)

With Tiewrap Plates + 10 cable ties

Series E300, Z300:

3075-34PZBK1

Part No. Full Set (pivoting)

Without Tiewrap Plates

Series E300, Z300:

3075-34PZ

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)	Number of Teeth
E300/Z300-075	3075- <input type="checkbox"/> PZB	3075- <input type="checkbox"/> PZBK1	3075- <input type="checkbox"/> PZ	2.09 (53)	7
E300/Z300-2/45	3100- <input type="checkbox"/> PZB	3100- <input type="checkbox"/> PZBK1	3100- <input type="checkbox"/> PZ	3.07 (78)	10
E300/Z300-3/45	3150- <input type="checkbox"/> PZB	3150- <input type="checkbox"/> PZBK1	3150- <input type="checkbox"/> PZ	5.04 (128)	15

34 or 12

For pivoting brackets choose **34**

For locking brackets choose **12**

Example: 3075-**34** PZB

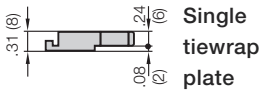
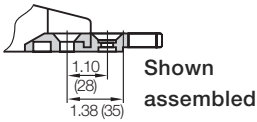
Strain relief for polymer mounting brackets (pivoting or locking)

The strain relief tiwrap plates can be snapped directly onto the mounting bracket. After bolting the mounting brackets to the machine, the strain relief tiwrap plates are firmly connected to the base. There is no need to bolt them on separately. Cable tiwraps secured to the cable and the tiwrap plate (teeth) provide proper strain relief and save time.

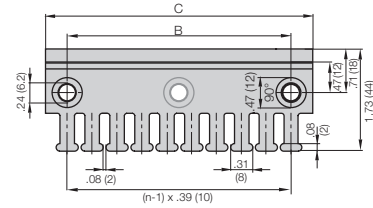
Tiewrap Plates

**Option 1:
Tiewrap plates as an individual part**

Available as an individual component, can be fixed onto a mounting bracket.



Tiewrap Plate	n Number of Teeth	C Overall Width in. (mm)	B Bore Width in. (mm)	Center Bore
3050-ZB	5	1.97 (50)	1.18 (30)	no
3075-ZB	7	2.95 (75)	2.16 (55)	no
3100-ZB	10	3.94 (100)	3.15 (80)	no
3115-ZB	11	4.53 (115)	3.74 (95)	no
3125-ZB	12	4.92 (125)	4.13 (105)	no
3150-ZB	15	5.91 (150)	5.12 (130)	no
3175-ZB	17	6.89 (175)	6.10 (155)	no
3200-ZB	20	7.87 (200)	7.09 (180)	yes
3225-ZB	22	8.86 (225)	8.07 (205)	yes
3250-ZB	25	9.84 (250)	9.06 (230)	yes



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



Cable tiwraps as individual parts

Cable tiwraps 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)

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

