

Price Index

Series 08
Special Features / Options

IPA Qualification Certificate:
Cleanroom test upon request

ESD Classification:
Electrically conductive
ESD/ATEX version upon request

Flammability Class
VDE 0304 IIC UL94 HB

Assembly Tips


Easy to assemble and disassemble

Usage Guidelines


- If quiet operation is required
- If cost is a factor
- If connection options are required (Quicksnap, Quickfix, etc.)
- If high torsional rigidity is required



- If snap-open links are required
➤ **Series 09 "Zipper"**
- If quick insertion of cables with preassembled connectors is required
➤ **Series E08/Z08 E-Z Chain**

Features & Benefits

- 1 Small pitch for very quiet operation
- 2 High torsional rigidity
- 3 Mounting brackets with strain relief options
- 4 One-piece, non snap-open Energy Chain®
- 5 Very lightweight - low price
- 6 Dirt repellent exterior


[energy chain® configurator](#) ▶

Order Example: Complete Energy Chain®

Please indicate chain length or number of links. Example:

3.28 ft (1 m) 08-30-038-0


Energy Chain®

1 Set 080-30-12PZ


Mounting Bracket

Energy Chain System® E2 Micro Series 08

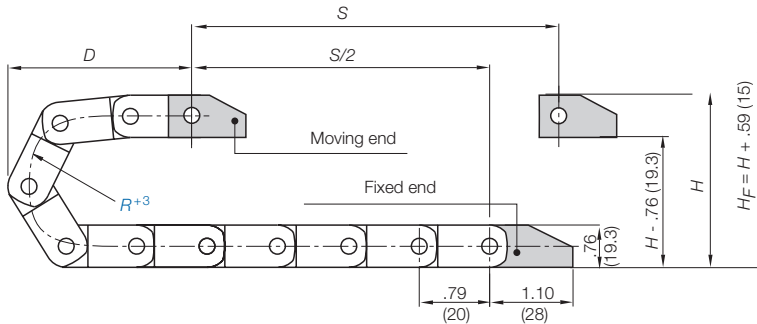
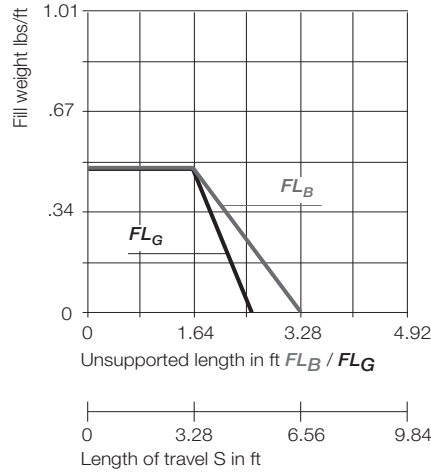
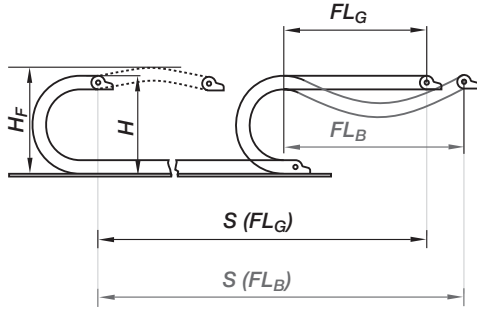
Installation Dimensions

energy chain® configurator ▶



Short travel, unsupported length

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



Pitch per link: = .79" (20 mm)
 Links per ft (m): = 15.24 (50)
 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	.98 (025*)	1.10 (028)	1.50 (038)	1.89 (048)
H	2.72 (69)	2.95 (75)	3.74 (95)	4.53 (115)
D	2.56 (65)	2.68 (68)	3.07 (78)	3.46 (88)
K	4.72 (120)	5.12 (130)	6.30 (160)	7.48 (190)

*Only for 08-10 Energy Chain®

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

*If the mounting bracket location is set lower



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 - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120° C)
Flammability Class, igumid G	VDE 0304 IIC UL94 HB

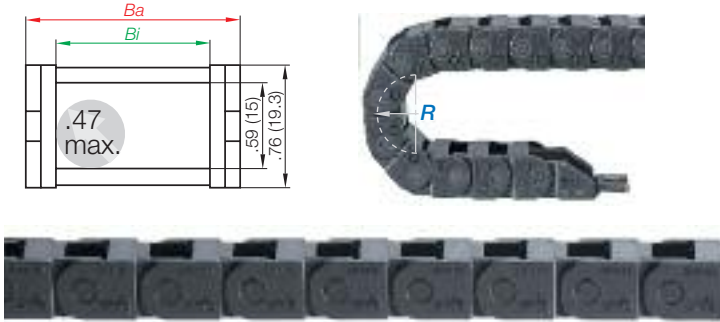
Technical Data



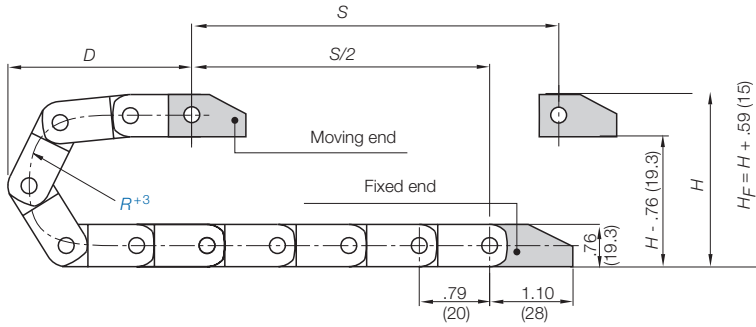
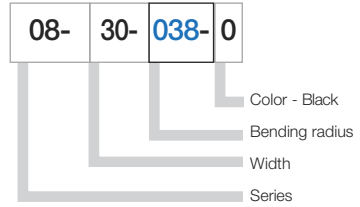
Details of material properties

▶ Chapter 1

Series 08 - Energy Chain® non snap-open



Part Number Structure



Supplement part number with required radius. Example: 08-20-038-0
Pitch: .79 in. (20 mm) per link links/ft (m) = 15.24 (50)

Part Number	Bi in. (mm)	Ba in. (mm)	Weight lbs/ft (kg/m)
08-10- <input type="text"/> -0	.39 (10)	.72 (18.2)	≈ 0.14 (0.21)
08-16- <input type="text"/> -0	.63 (16)	.95 (24.2)	≈ 0.16 (0.24)
08-20- <input type="text"/> -0	.79 (20)	1.11 (28.2)	≈ 0.17 (0.25)
08-30- <input type="text"/> -0	1.18 (30)	1.50 (38.2)	≈ 0.19 (0.28)
08-40- <input type="text"/> -0	1.57 (40)	1.90 (48.2)	≈ 0.21 (0.31)
08-50- <input type="text"/> -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: 08-20-038-0

	025*	028	038	048
R	.98 (025*)	1.10 (028)	1.50 (038)	1.89 (048)
H	2.72 (69)	2.95 (75)	3.74 (95)	4.53 (115)
D	2.56 (65)	2.68 (68)	3.07 (78)	3.46 (88)
K	4.72 (120)	5.12 (130)	6.30 (160)	7.48 (190)

*Only for 08-10 Energy Chain®
0=Standard color black. For other colors see Chapter 1

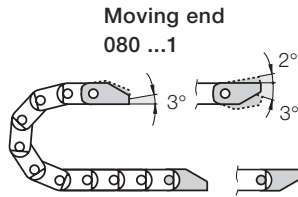
Energy Chain System® E2 Micro Series 08 Mounting Brackets - Plastic

energy chain® configurator ▶



Plastic, one-piece

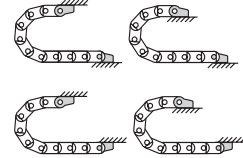
- One-piece mounting bracket
- Corrosion resistant
- Available preassembled
- Inner and outer attachment possible
- Available with or without strain relief tiewrap plates



Moving end
080 ...1



Fixed end
080...2

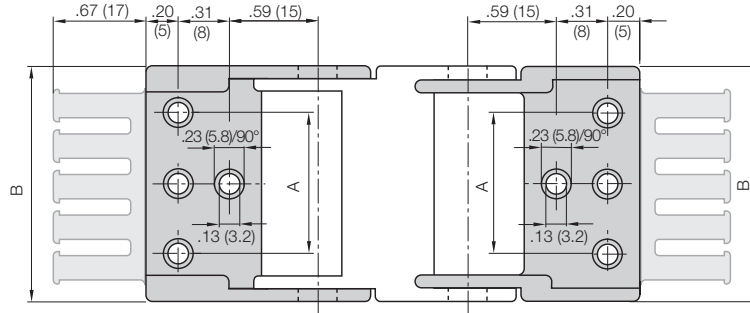


Possible installation configurations -

Part Number Structure

080-	20-	12	PZ
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- With assembled strain relief tiewrap plates
- Complete Set
- Width
- Mounting brackets for selected chain type



Full set, for both ends:

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

Single-part order:

080- [20- 1] Mounting bracket with bore

080- [20- 2] 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		Dimensions B		Number of Teeth
			in.	(mm)	in.	(mm)	
08-10	080-10-12PZ	080-10-12	—	—	.72	(18.2)	1
08-16	080-16-12PZ	080-16-12	—	—	.95	(24.2)	2
08-20	080-20-12PZ	080-20-12	—	—	1.11	(28.2)	2
08-30	080-30-12PZ	080-30-12	.87	(22)	1.50	(38.2)	3
08-40	080-40-12PZ	080-40-12	1.26	(32)	1.90	(48.2)	4
08-50	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

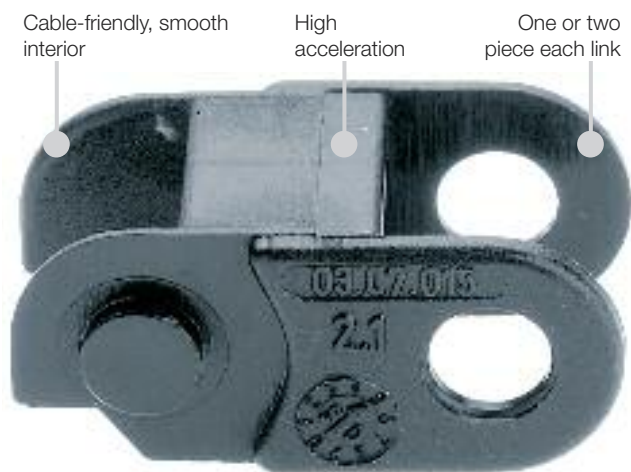
080-30-QS

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



Energy Chain System® E2 Micro Selection Guide

energy chain® configurator 



Cable-friendly, smooth interior

High acceleration

One or two piece each link

- One-piece Energy Chains®, from inner height of .20 (5 mm)
- High torsional rigidity
- Smallest inner heights and bending radii
- Mounting brackets with optional strain relief
- Small pitch for smooth running
- Cable-friendly, smooth interior
- Low weight
- Large pins for longer life
- Space-saving ratio of inner-to-outer dimensions
- To find more technical data about the material, chemical resistance and temperatures ► [Design, Chapter 1](#)

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)
03	.20	(5)	.20-.39	(5-10)	.34-.54	(8.7-13.7)	.31	(8)	.39-1.10	(10-28)
04	.28	(7)	.28-1.18	(7-30)	.47-1.38	(12-35)	.39	(10)	.59-1.89	(15-48)
045	.41	(10.3)	.24-2.52	(6-64)	.47-2.76	(12-70)	.49	(12.5)	.71-1.50	(18-38)
05	.39	(10)	.24-2.52	(6-64)	.39-2.68	(10-68)	.47	(12)	.71-1.50	(18-38)
06	.41	(10.5)	.24-2.52	(6-64)	.49-2.80	(12.5-71)	.59	(15)	.71-1.50	(18-38)
08	.59	(15)	.39-1.97	(10-50)	.72-2.29	(18.2-58.2)	.76	(19.3)	1.10-1.89	(28-48)

Energy Chain System® E2 Micro Assembly Instructions

Assembling | E2 micro



Twist and click

Separating | E2 micro



Twist and separate

Speciality | E2 micro



igus® micro Energy Chains® - for smallest bending radii with Chainflex® CF98 and CF99 - 4 x d!