

**Price Index**


Series 06

**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

**Features & Benefits**

- 1 High torsional rigidity
- 2 Very lightweight - low price
- 3 Dirt repellent exterior
- 4 Mounting bracket with integrated strain relief
- 5 Molded in separator available


**Usage Guidelines**


- If high torsional rigidity is required
- If cost is a factor
- If connection options are required - (Quicksnap & Quickfix)



- If snap-open links are required  
 ➤ **Series 07 "Zipper"**
- If quick insertion of cables with preassembled connectors is required  
 ➤ **Series E06/Z06 E-Z Chain**
- If very quiet operation is required  
 ➤ **Series 045 E2 Micro**

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[energy chain® configurator](#)
**Order Example: Complete Energy Chain®**

Please indicate chain length or number of links. Example:

3.28 ft (1 m) 06-20-038-0



Energy Chain®

1 Set 060-20-12PZ



Mounting Bracket

# Energy Chain System® E2 Micro Series 06

## Installation Dimensions

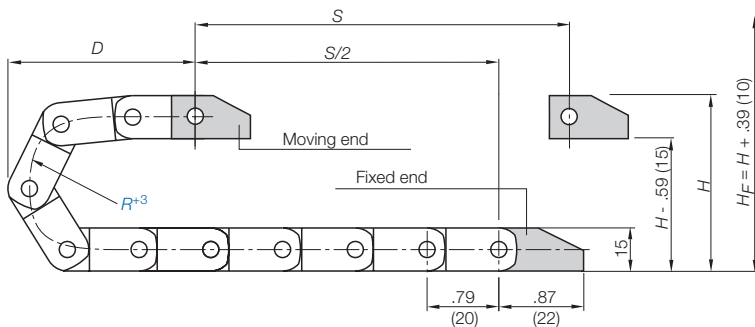
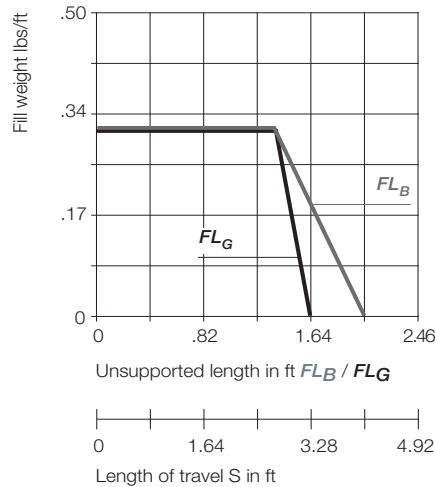
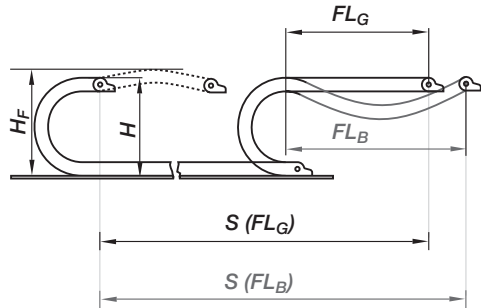
energy chain® configurator



06

### 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:  $H_F = H + .39$  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)

### 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](http://www.igus.com/e-chain-pdfs)  
 Specs/CAD/RFQ: [www.igus.com/e-chains](http://www.igus.com/e-chains)  
 RoHS info: [www.igus.com/RoHS](http://www.igus.com/RoHS)



Speed / acceleration $FL_G$	max. 65.6 ft/s (20 m/s) / max. 656 ft/s <sup>2</sup> (200 m/s <sup>2</sup> )
Speed / acceleration $FL_B$	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s <sup>2</sup> (6 m/s <sup>2</sup> )
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

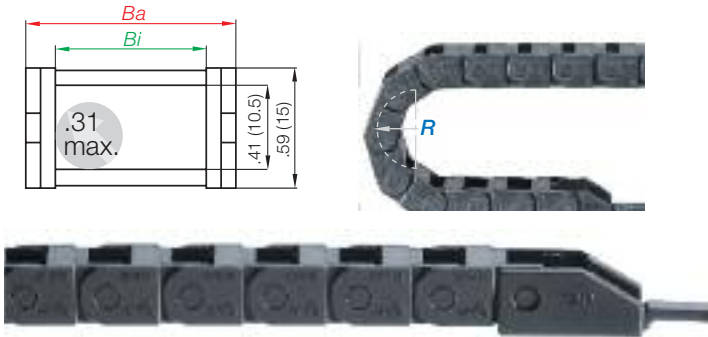


Details of material properties

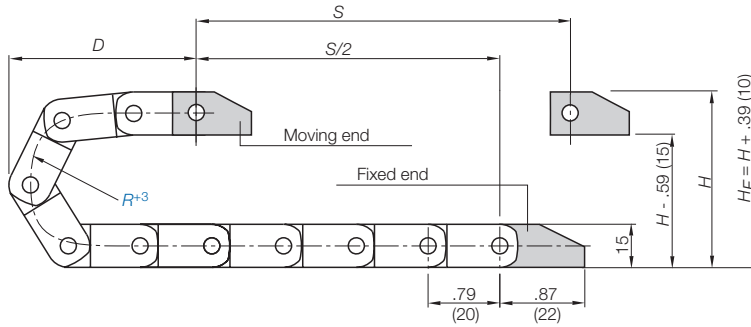
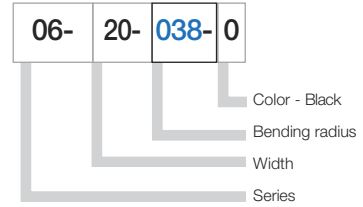
Chapter 1

4.24

Series 06 - Energy Chain® non snap-open



Part Number Structure



Supplement part number with required radius. Example: 06-20-**038**-0  
Pitch: .79 in. (20 mm) per link links/ft (m) = 15.24 (50)

Part Number	<i>Bi</i> in. (mm)	<i>Ba</i> in. (mm)	Weight lbs/ft (kg/m)
06-06- <input type="text"/> -0	.28 (6)	.49 (12.5)	≈ 0.087 (0.13)
06-10- <input type="text"/> -0	.39 (10)	.65 (16.5)	≈ 0.094 (0.14)
06-16- <input type="text"/> -0	.63 (16)	.89 (22.5)	≈ 0.107 (0.16)
06-20- <input type="text"/> -0	.79 (20)	1.06 (27.0)	≈ 0.114 (0.17)
06-30- <input type="text"/> -0	1.18 (30)	1.46 (37.0)	≈ 0.134 (0.20)
06-40- <input type="text"/> -0	1.57 (40)	1.85 (47.0)	≈ 0.155 (0.23)
06-50- <input type="text"/> -0	1.97 (50)	2.24 (57.0)	≈ 0.175 (0.26)
06-64- <input type="text"/> -0	2.52 (64)	2.80 (71.0)	≈ 0.202 (0.30)

Choose from the radii below for all of the above sizes

Radius (mm) Example: 06-20-**038**-0

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

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

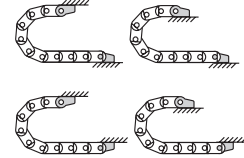
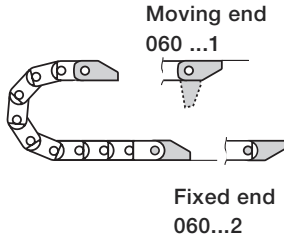
# Energy Chain System® E2 Micro Series 06 Mounting Brackets

energy chain® configurator ▶



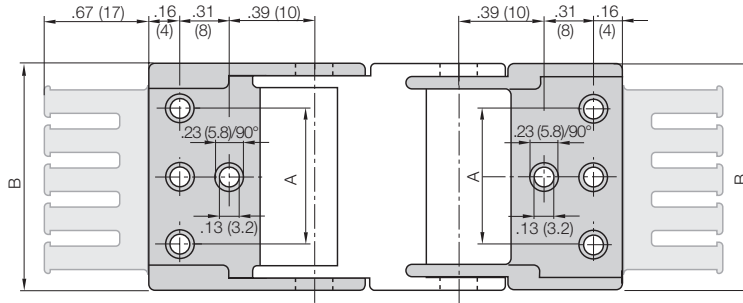
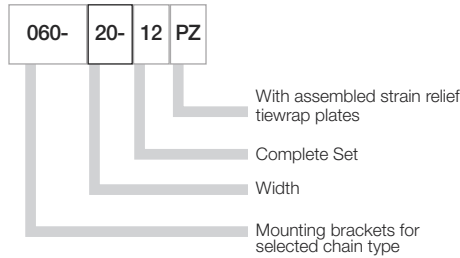
## Polymer, one-piece

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



Possible installation configurations -

## Part Number Structure



## Full set, for both ends:

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

## Single-part order:

060- [20- 1] Mounting bracket with bore

060- [20- 2] Mounting bracket with pin

060-06-12 - 060-20-12:

Center bores only

060-30-12 - 060-64-12:

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)	
06-06	060-06-12PZ	060-06-12	—	—	.42	(12.5)	1
06-10	060-10-12PZ	060-10-12	—	—	.65	(16.5)	1
06-16	060-16-12PZ	060-16-12	—	—	.89	(22.5)	2
06-20	060-20-12PZ	060-20-12	—	—	1.06	(27.0)	2
06-30	060-30-12PZ	060-30-12	.87	(22)	1.46	(37.0)	3
06-40	060-40-12PZ	060-40-12	1.26	(32)	1.85	(47.0)	4
06-50	060-50-12PZ	060-50-12	1.65	(42)	2.24	(57.0)	5
06-64	060-64-12PZ	060-64-12	2.20	(56)	2.70	(71.0)	6

## Additional Accessories



**Quicksnap** - the complete, detachable mounting unit, upon request

### Part No.

060-06-QS

060-10-QS

060-16-QS

060-20-QS

060-40-QS



**Quickfix** - mounting bracket with dowel, upon request

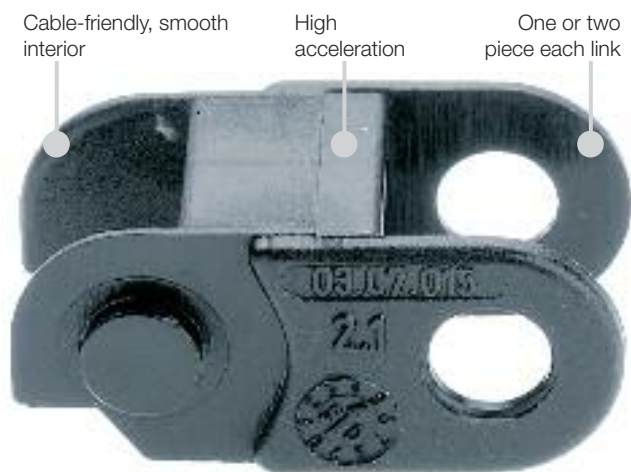
Part No. 060-20-4-QZ

PDF: [www.igus.com/e-chain-pdfs](http://www.igus.com/e-chain-pdfs)  
Specs/CAD/RFG: [www.igus.com/e-chains](http://www.igus.com/e-chains)  
RoHS info: [www.igus.com/RoHS](http://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		Inner width		Outer width		Outer height		Bending radius	
	<i>hi</i>		<i>Bi</i>		<i>Ba</i>		<i>ha</i>		<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!