

Price Index


Series 05

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 V2

 iF-Design Award - for E2 micro
- Series 05

Assembly Tips


Easy to assemble and disassemble

Usage Guidelines


- If lightweight construction is required
- If minimal height and width dimensions are required
- If cost is a factor



- If snap-open links are necessary
➤ **Series 07 "Zipper"**
- If quick insertion of cables with preassembled connectors is required
➤ **Series E06 E-Z Chain**
- If extra rigidity is required
➤ **Series 06 E2 Micro**

Features & Benefits

- 1 Very lightweight - ideal for low inertia applications
- 2 iF-Design Award
- 3 One-piece, non snap-open e-chain®


Order Example: Complete e-chain®

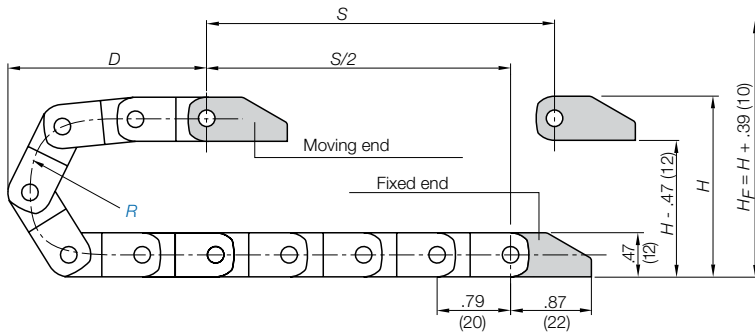
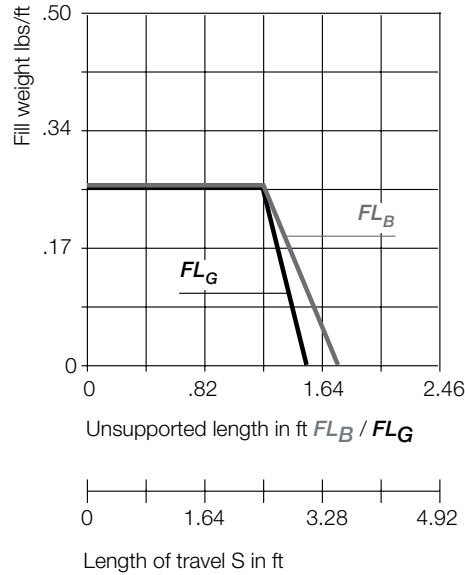
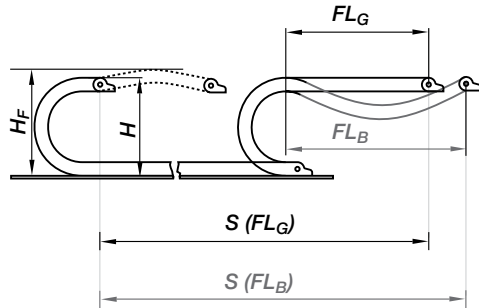
Please indicate chain length or number of links. Example:

3.28 ft (1 m) **05-20-038-0****e-chain®**1 Set **050-20-12****Mounting Bracket**

e-chain system® E2 Micro Series 05 Installation Dimensions

Short travel, unsupported length

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



Pitch per link: = .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	1.89 (48)	2.68 (68)	3.46 (88)
D	2.13 (54)	2.52 (64)	2.91 (74)
K	3.94 (100)	5.12 (130)	6.30 (160)

Short Travels - Unsupported



Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to **Installation dimensions** for further details.

Legend

- S = Length of travel
- R = Bending radius
- H = Nominal clearance height
- D = Overlength e-chain® radius in final position
- $K = \pi \cdot R + \text{safety buffer}$
- H_F = Required clearance height

*If the mounting bracket location is set lower

.39

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



Speed / acceleration FL_G	max. 65.6 ft/s (20 m/s) / max. 656 ft/s² (200 m/s²)
Speed / acceleration FL_B	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s² (6 m/s²)
Gliding speed / acceleration (maximum)	max. 9.84 ft/s (3 m/s) / max. 32.8 ft/s² (10 m/s²)
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

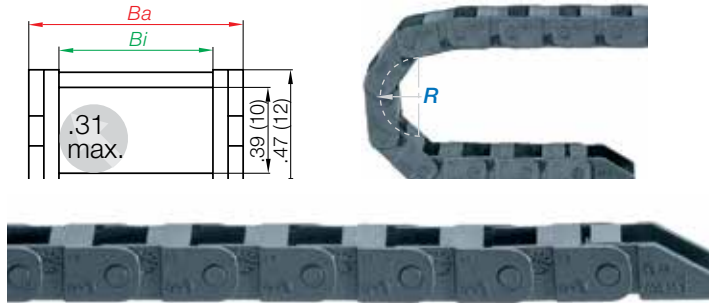
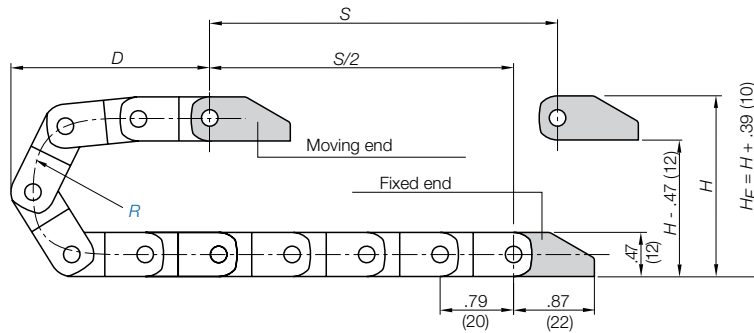
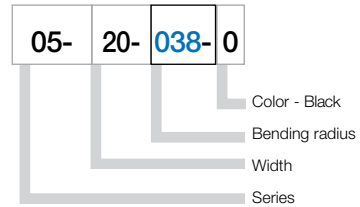


Details of material properties

► Chapter 1

Series 05 - e-chain® non snap-open

igus®
e-chain system®


Part Number Structure


Supplement part number with required radius. Example: 05-20-**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)
05-06- (05-1)	-0	.28 (6)	.39 (10)	≈ 0.040 (0.06)
05-10- (05-2)	-0	.39 (10)	.55 (14)	≈ 0.047 (0.07)
05-16- (05-3)	-0	.63 (16)	.79 (20)	≈ 0.047 (0.07)
05-20- (05-4)	-0	.79 (20)	.94 (24)	≈ 0.054 (0.08)
05-30- (05-5)	-0	1.18 (30)	1.34 (34)	≈ 0.060 (0.09)
05-64-	-0	2.52 (64)	2.68 (68)	≈ 0.128 (0.19)

Choose from the radii below for all of the above sizes

Radius (mm) Example: 05-20-**038**-0

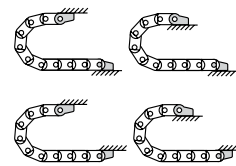
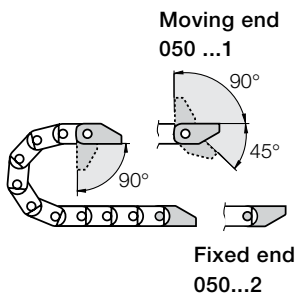
	018	028	038
<i>R</i>	.71 (018)	1.10 (028)	1.50 (038)
<i>H</i>	1.89 (48)	2.68 (68)	3.46 (88)
<i>D</i>	2.13 (54)	2.52 (64)	2.91 (74)
<i>K</i>	3.94 (100)	5.12 (130)	6.30 (160)

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

Telephone 1-800-521-2747

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

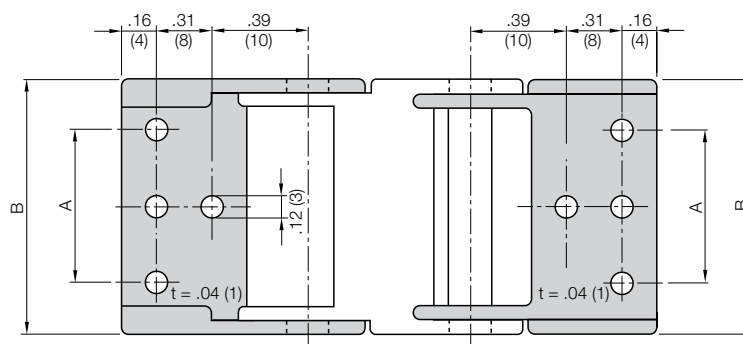
- One-piece mounting bracket
- Corrosion resistant
- Available preassembled
- Inner and outer attachment possible



Possible installation configurations -

050-	10-	12
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■ Mounting brackets for selected chain type



050-	10-	2	Mounting bracket with pin
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Chain Type	Part No.	Dimension A		Dimensions B	
	Full set	in.	(mm)	in.	(mm)
05-06 (05-1)	050-06-12	—	—	.42	(10.7)
05-10 (05-2)	050-10-12	—	—	.58	(14.7)
05-16 (05-3)	050-16-12	—	—	.81	(20.7)
05-20 (05-4)	050-20-12	—	—	.97	(24.7)
05-30 (05-5)	050-30-12	.87	(22)	1.57	(34.7)
05-64	050-64-12	2.20	(56)	2.70	(68.7)

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

