igus®

e-chain system® E2 Micro
Series 03

.20

Special Features / Options

IPA
IPA Qualification Certificate: Cleanroom test upon request

EX
ESD Classification: Electrically conductive ESD/ATEX version upon request

5mm
Smallest inner height .20" (5 mm)

Flammability Class
VDE 0304 IIC UL94 V2

Assembly Tips

Easy to assemble and disassemble

Usage Guidelines

+
- If quieter operation is required
- If cost is a factor
- If snap-open links are not necessary

−
- If snap-open links are required
  ➤ Series 047 "Zipper"
- If quick insertion of cables with preassembled connector is required
  ➤ Series E03 E-Z Chain

Features & Benefits

1 Mounting bracket with integrated strain relief

2 One-piece, non snap-open e-chain®

3 Very lightweight - low price

4 igus® smallest e-chain® - interior dimensions .20" x .20" (5 x 5 mm)

5 Dirt-repellant exterior

6 Available as E-Z style e-chain, See Chapter 2

7 Patented push-button design for better stability

Order Example: Complete e-chain®

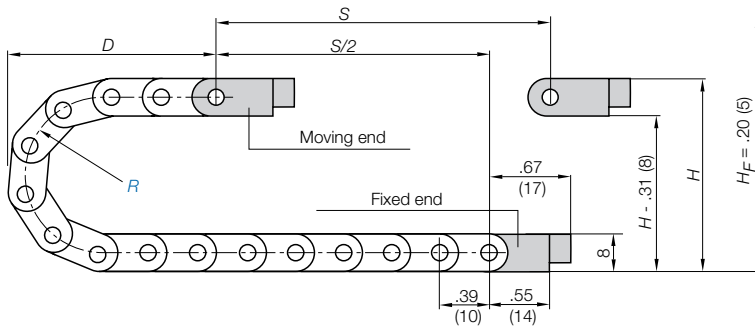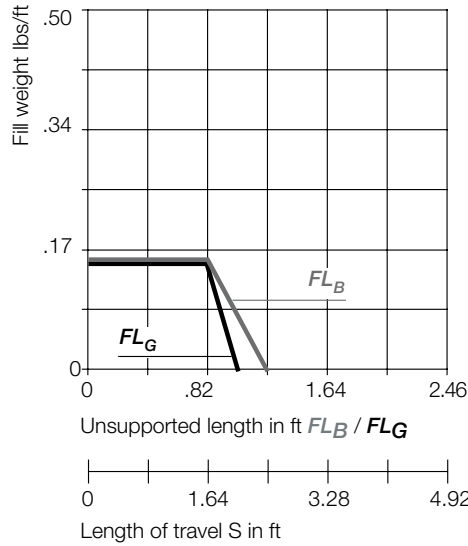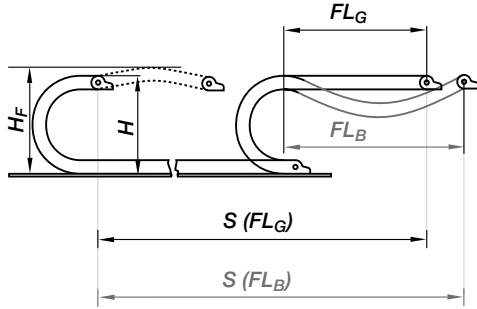Please indicate chain length or number of links. Example:

3.28 ft (1 m) **03-05-028-0**	e-chain®
1 Set **03-05-12Z**	Mounting Bracket

Short travel, unsupported length

● FL_B = unsupported with permitted sag

● FL_G = unsupported with straight upper run

Further information ➤ Design, Chapter 1

Fill weight lbs/ft

.50
.34
.17
0

FL_B

FL_G

0   .82   1.64   2.46

Unsupported length in ft FL_B / FL_G

0   1.64   3.28   4.92

Length of travel S in ft

H_F

H

FL_G

FL_B

$S (FL_G)$

$S (FL_B)$

Legend

S = Length of travel

R = Bending radius

H = Nominal clearance height

D = Overlength e-chain® radius in final position

K = π • R + *safety buffer*

H_F = Required clearance height

*If the mounting bracket location is set lower

S

S/2

D

Moving end

R

Fixed end

.67 (17)

.39 (10)   .55 (14)

H - .31 (8)

H

H_F = .20 (5)

8

Pitch per link: = .39" (10 mm)

Links per ft (m): = 30.47 (100)

For center mount applications:

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

The required clearance height: $H_F = H + .20$ **in. (5 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)

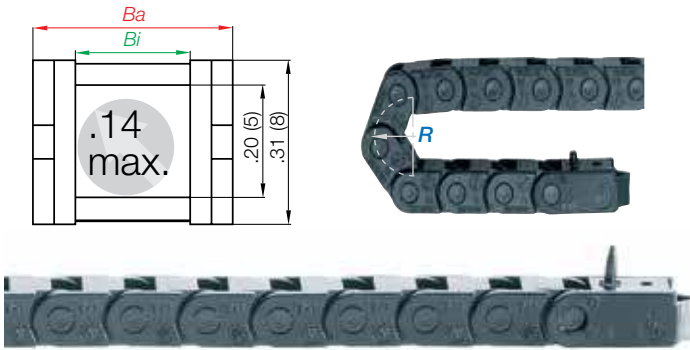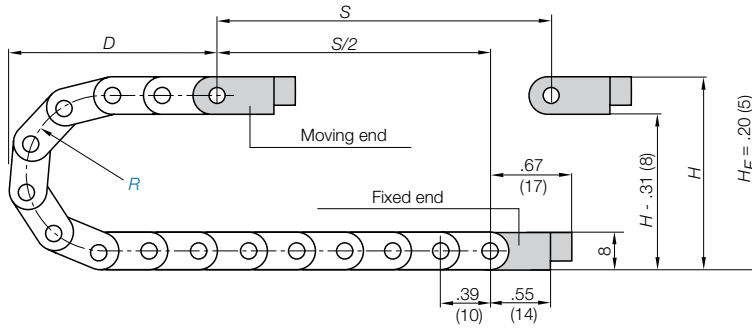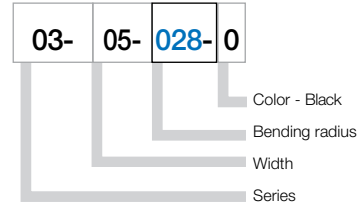|	
Speed / acceleration FL_G	max. 65.6 ft/s (20 m/s) / max. 656 ft/s² (200 m/s²)
Speed / acceleration FL_B	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s² (6 m/s²)
Gliding speed / acceleration (maximum)	max. 9.84 ft/s (3 m/s) / max. 32.8 ft/s² (10 m/s²)
Material - permitted temperature	igumid NB / -40°F (-40°C) up to +176°F (+80° C)
Flammability Class, igumid NB	VDE 0304 IIC UL94 V2

Technical Data

Details of material properties
➤ Chapter 1

4.8

e-chain system® E2 Micro
Series 03

igus®
e-chain system®

Telephone 1-800-521-2747

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

Series 03 - e-chain® non snap-open

.14 max.

.20 (5)
.31 (8)

R

Ba
Bi

Part Number Structure

| 03- | 05- | 028- | 0 |

Color - Black
Bending radius
Width
Series

S
S/2
D

Moving end

Fixed end

.67 (17)
.39 (10)
.55 (14)
8

H
H - .31 (8)
H_F = .20 (5)

R

Supplement part number with required radius. Example: 03-05-| 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)
03-05-		-0	.20 (5)	.34 (8.7)	≈ 0.027 (0.04)
03-07-		-0	.28 (7)	.42 (10.7)	≈ 0.034 (0.05)
03-10-		-0	.39 (10)	.54 (13.7)	≈ 0.040 (0.06)

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)

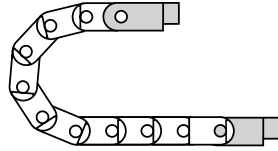0=Standard color black. For other colors see Chapter 1

e-chain system® E2 Micro
Series 03
Mounting Brackets

Polymer, one-piece

- One-piece mounting bracket
- Corrosion resistant
- Available preassembled
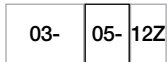- Rapid installation through adaptor plate

Moving end
03 ...1Z

Fixed end
03...2Z

Part Number Structure

Complete Set

Width

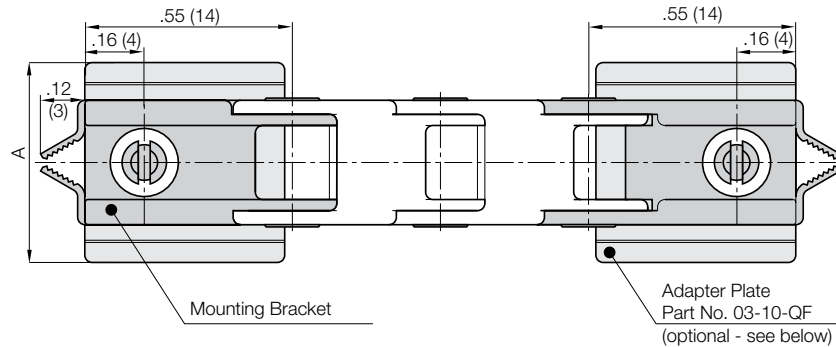Mounting bracket for selected chain type

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**

Mounting Bracket

Adapter Plate
Part No. 03-10-QF
(optional - see below)

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.