

Mounting bracket
with strain
relief option

e-chain® zip-open
along outer radius

Lightweight
and stable

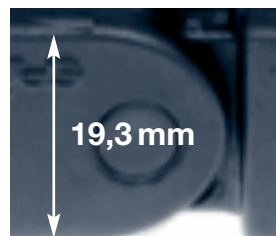
For high
accelerations

Small pitch
for low-noise,
smooth running

Can be separated
and joined at each link

Two-piece
link design

Interior separation
possible



Original size 1:1
Outer height 19,3 mm

+ Fast opening, high accelerations

When to use Series 09:

- If a very small e-chain® with an inner height of 15 mm and smallest bending radii are required
- For inner widths up to 50 mm
- For unsupported lengths up to 1,0 m and fill weights up to 0,7 kg/m
- Small pitch for smooth running
- If fast, zipper-like accessibility to cables is required
- If quick insertion of cables with preassembled connectors is required



When to use a different igus® Series:

- If a fully enclosed e-tube with zipper opening mechanism is required
 - ▶ **Series R09 zipper e-tube, page 4.32**
- If a cheaper, easy to open e-chain® is required
 - ▶ **Series B09 E2 micro, page 5.66**
- If cable installation without opening of lids is required
 - ▶ **Series E08 easy chain®, page 3.28**
- If an e-chain® snap-open along inner radius with film-hinge is required
 - ▶ **Series 094 E2 micro, page 5.54**
- If opening of the links is not necessary
 - ▶ **Series 08 E2 micro, page 5.60**

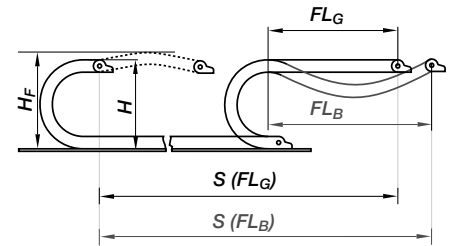
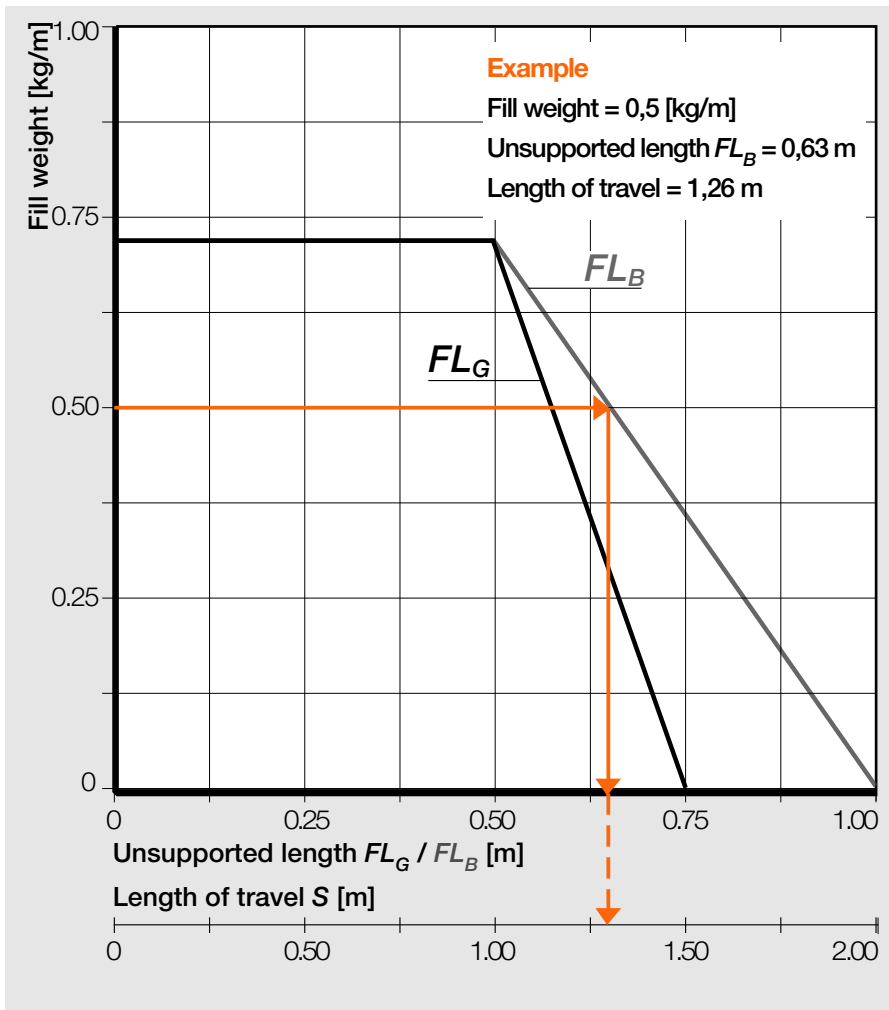


Available from stock. Delivery in 24h or today!*

*Delivery time means time until shipping of goods



3D-CAD files, configurators, PDF ▶ www.igus.de/en/09



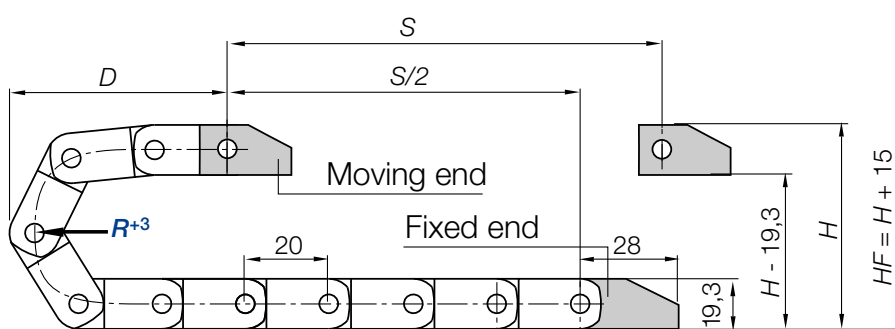
Standard **Unsupported applications**

Unsupported e-chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height H_F . Please consult igus® if space is particularly restricted. More information ► **Design, page 1.8**

Technical Data

Speed, material, temperature and flammability class ► **page 4.6**

- Pitch** = 20 mm/link
- Links/m** = 50 (1000 mm)
- Chain length** = $S/2 + K$



R	028	038	048
H	75	95	115
D	68	78	88
K	130	160	195

The required clearance height: $H_F = H + 15$ mm (with 0,3 kg/m fill weight)

- i** FL_G = with straight upper run
 FL_B = with permitted sag
- S** = Length of travel
R = Bending radius
- H** = Nominal clearance height
 H_F = Required clearance height
- D** = Overlength e-chain®, radius in final position
 $K = \pi \cdot R + \text{"safety"}$

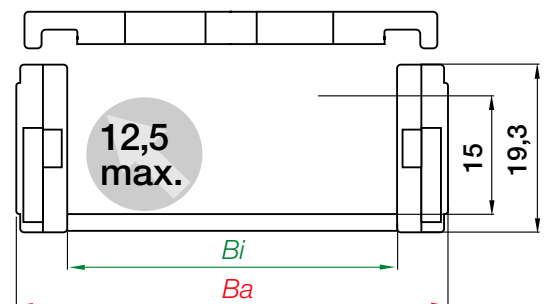
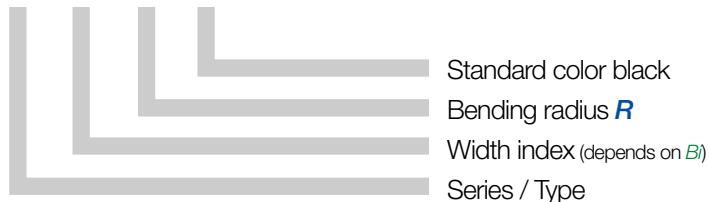


e-chain® | Series 09 | zip-open along outer radius

e-chain® zip-open along outer radius	<i>Bi</i> [mm]	<i>Ba</i> [mm]	<i>R</i> Bending radii [mm]	Weight [kg/m]
09. 10 . <i>R</i> .0	10	18,2	028 038 048	≈ 0,21
09. 16 . <i>R</i> .0	16	24,2	028 038 048	≈ 0,24
09. 20 . <i>R</i> .0	20	28,2	028 038 048	≈ 0,25
09. 30 . <i>R</i> .0	30	38,2	028 038 048	≈ 0,28
09. 40 . <i>R</i> .0	40	48,2	028 038 048	≈ 0,31
09. 50 . <i>R</i> .0	50	58,2	028 038 048	≈ 0,34

Supplement Part No. with required radius (*R*) Example: 09.40.048.0

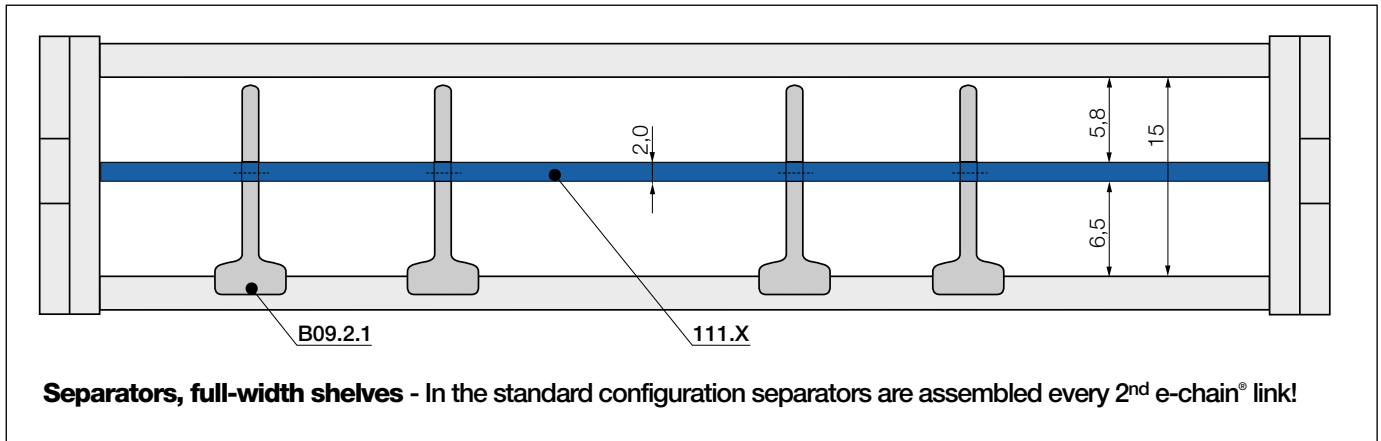
Order key 09. 40. 048. 0 e-chain®



09.40.048.0 = e-chain® zip-open along outer radius, *Bi* 40 mm inner width, *R* 048 mm radius, color black
More order examples and configuration options ► page 4.31

Part No. of e-chain® links as single parts ► page 4.7

Standard e-chains® available from stock. **Delivery in 24h or today!***
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		<p>Slotted separator for e-chains®</p> <p>unassembled B09.2</p> <p>assembled B09.2.1</p>
		<p>Full-width shelf for e-chains®</p> <p>unassembled 110.X</p> <p>assembled 111.X</p>

Slotted separator B09.2

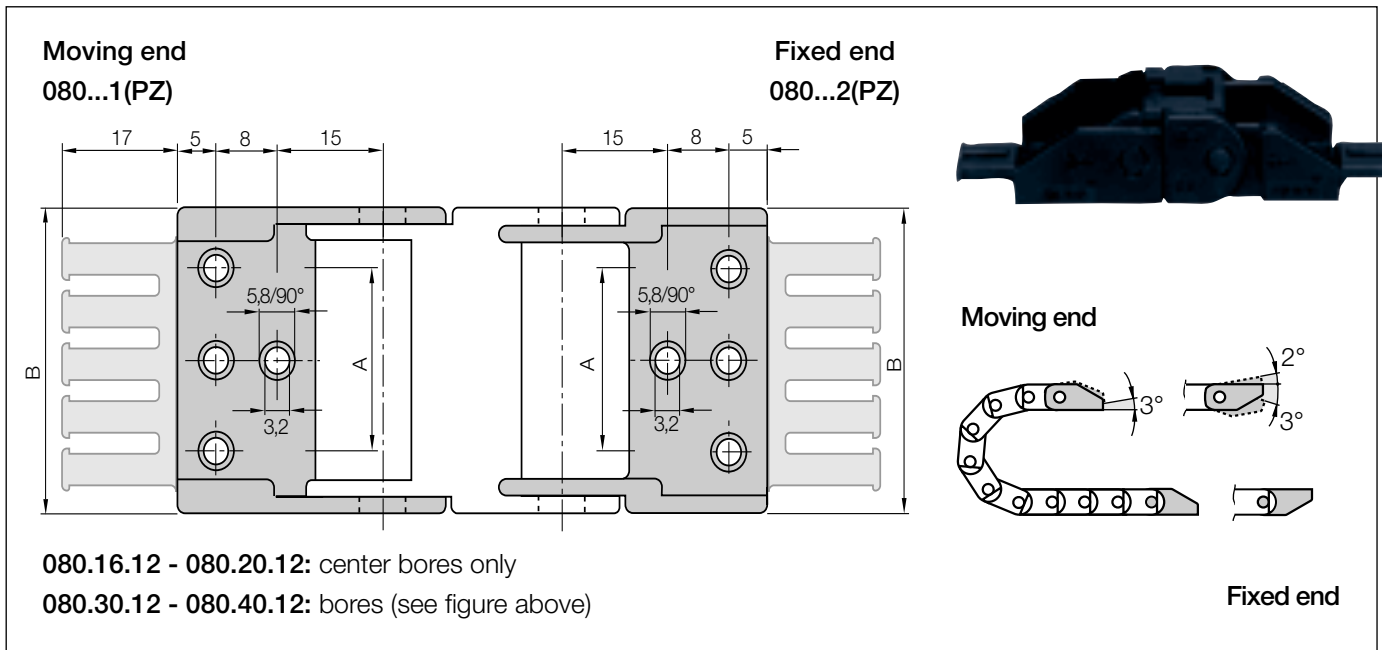
is used when vertical and horizontal separation is required. Due to its slot, it allows basic vertical/horizontal shelving arrangements.

Full-width shelf 110.X

this option makes sense in applications with many thin cables with similar diameters. For a consequent subdivision.

Full-width shelves

Width X [mm]	unassembled	assembled	Width X [mm]	unassembled	assembled	Width X [mm]	unassembled	assembled
010	110.10	111.10	020	110.20	111.20	050	110.50	111.50
013	110.13	111.13	030	110.30	111.30			
016	110.16	111.16	040	110.40	111.40			

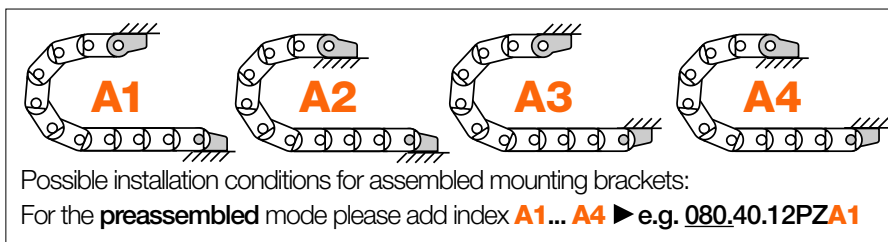


Polymer locking, one-piece | Universal for e-chains®
Recommended for unsupported applications

Width Index	Part No. full set with tiewrap plates	Part No. full set without tiewrap plates	Dim. A [mm]	Dim. B [mm]	Number of teeth
10 ▶	080.10.12PZ	080.10.12	–	18,2	1
16 ▶	080.16.12PZ	080.16.12	–	24,2	2
20 ▶	080.20.12PZ	080.20.12	–	28,2	2
30 ▶	080.30.12PZ	080.30.12	22	38,2	3
40 ▶	080.40.12PZ	080.40.12	32	48,2	4
50 ▶	080.50.12PZ	080.50.12	42	58,2	5

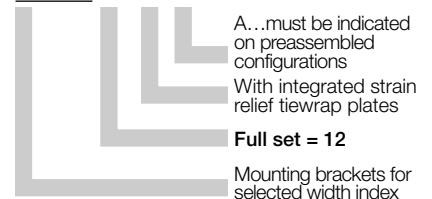


- One-piece mounting bracket
- Available with or without strain relief tiewrap plates
- Corrosion-resistant
- Inner and outer attachment possible
- Various installation options on the fixed end and/or the moving end



Part No. structure

080.40.12 PZ A1



Single-part order

Mounting bracket **Moving end**

080.40.1 PZ A1 (preass. + tiewrap plate)

Mounting bracket **Fixed end**

080.40.2 PZ A1 (preass. + tiewrap plate)

Additional Features



Quicksnap - the complete, detachable mounting unit. **Part Nos. 080.20.QS, 080.30.QS** available from stock



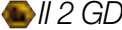





Quickfix - mounting bracket with dowel, available upon request




Strain relief, e.g. clamps, tiewrap plates, nuggets and plug-in clips are available from stock. The complete chainfix range with order options ▶ from page 10.1

zipper | e-chains® | Series 09 | Options and order key

















<p>i <i>Standard</i></p> <p>Part No. Standard e-chains®</p> 	<p>NC-Version - (no camber) without pretension</p> <p>Part No. NC-Material e-chains®</p> <p>NC</p> 	<p>ATEX / ESD classified e-chains®</p> <p></p> <p>Part No. ESD-Material e-chains®</p> 
<p> 09.40.R.0</p>	<p>09.40.R.0.NC</p>	<p>09.40.R.0.ESD</p>
<p> Delivery time 24h or today!*</p>	<p>Delivery time 3-5 work days</p>	<p>Delivery time 5 work days</p>

Order example | Order key and color options

 **Order example for complete e-chain® (1,0 m), color black, with mounting brackets and interior separation:**

e-chain® (1,0 m)	Please indicate e-chain® length or number of links: 1,0 m or 50 links	09.40.048.0
+ Mounting brackets	1 set (with integrated strain relief)	080.40.12PZ
+ Interior separation	with 2 separators assembled every 2 nd link	2 x B09.2.1

Order text: 1,0 m 09.40.048.0 + 080.40.12PZ + 2 x B09.2.1

Order key		Color options for e-chains® and e-tubes			
	09.40.048.0	Color	Order index	Color	Order index
	Standard color black	 black	.0 from stock!	 green*	.7
	Bending radius <i>R</i>	 white*	.1	 grey*	.3 for e-chains®
	Width index (depends on <i>B</i>)	 violet*	.5	 dusty grey*	.3 for e-tubes
	Series / Type	 yellow*	.4	 agate grey*	.11
		 orange*	.2	 light grey*	.14
		 red*	.6	 black grey*	.13
		 blue*	.8	 yellow/black*	.9

Black e-chains® from stock!

*Colored e-chains® delivered in 15 work days (Delivery in 5 work days at an express surcharge, available upon request!)

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*Delivery time means time until shipping of goods