



E2.1 micro

For very small spaces, strong



Advantage of the E2.1 micro series:

- More useable installation space*
- 25% longer unsupported length*
- 100% more fill weight*
- 10% weight saving*
- e-chain® opener for opening long sections of e-chains® quickly. Provided free of charge with first delivery
- Cable friendly interior separation range
- Openable from both sides (left or right)
- Available in 2 sizes, from stock
- Version with electrically conductive ESD material, tested with over 10 million cycles for the most demanding applications

* in comparison to equivalent igus® series



When to use another e-chain® series:

- When a quicker fitting of cables is required
 - ▶ **easy chain®**, page 322
- When an e-chain® that is suitable for cleanrooms is needed
 - ▶ **E3 system**, page 916
- When an openable e-chain® is not necessary
 - ▶ **E2 micro**, page 274

Universal connection: mounting bracket with strain relief and quickflange option

Cable-friendly: very smooth contours ensure the longest cable life

Variety of options: non-openable or openable along the inner or outer radius

Strong: large, assembly-friendly pins

Cost-effective: lightweight and low-priced

Lockable interior separation: recommended for side-mounted applications

Quiet operation: integrated brake reduces noise

Smooth Design: dirt-repellent outer contour


Tough: square stop-dog system for large fill weights


For very small spaces, strong - E2.1 micro

E2.1 micro e-chains® are very small, one- and two-piece e-chains® with low weight, making them ideal for highly dynamic applications. E2.1 micro e-chains® are optimal for smallest installation spaces, and are available in many versions. They feature a strong stop-dog system for up to 25% longer unsupported travels as well as 100% higher fill weights (compared to similar igus® types). They are lightweight, robust and easy to open. An e-chain® opener is included in order to open the e-chain® in one go. Many accessories like interior separation and fixation options are also available.

Typical industries and applications

- Models (micro e-chain®) ● Automatic doors
- Vehicles ● Measuring machines ● Electronic engineering
- Handling ● Pick und place robots ● General machinery, etc.

 UL94-V0 classification upon request

 Electrically conductive ESD e-chains® - several series available from stock



For a quick and easy opening, an e-chain® opener is included with every first order of openable E2.1 micro from igus®

Series	Inner height <i>hi</i> [mm]	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Outer height <i>ha</i> [mm]	Bend radius <i>R</i> [mm]	Unsupported length ≤ [m]	Page
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E2.1 micro - two-piece design
openable along the inner radius

E2i.10	10.1	6 - 50	13.4 - 57.4	15	018 - 038	0.75	340
E2i.15	14.4	10 - 50	17.8 - 57.8	19.3	028 - 075	1.30	344



E2.1 micro - two-piece design
openable along the outer radius

E2.10	10.1	6 - 50	13.4 - 57.4	15	018 - 038	0.75	340
E2.15	14.4	10 - 50	17.8 - 57.8	19.3	028 - 075	1.30	344







E2.1 micro - one-piece design
one-piece, non-openable

E2C.10	10.6	6 - 50	13.4 - 57.4	15	018 - 038	0.75	340
E2C.15	14.9	10 - 50	17.8 - 57.8	19.3	028 - 075	1.30	344

 Available from stock. Ready to ship in 24 - 48hrs.*
*Average time before the ordered goods are dispatched.

Technical data

	Speed gliding / acceleration gliding	≤ 10 [m/s] / ≤ 50 [m/s ²]
	Speed FL_G / acceleration FL_G	≤ 20 [m/s] / ≤ 200 [m/s ²]
	Speed FL_B / acceleration FL_B	≤ 3 [m/s] / ≤ 6 [m/s ²]
	Material - permitted temperature °C, igumid G	-40°C / +120°C
	Flammability class, igumid G	VDE 0304 IIC UL94-HB

FL_G = unsupported with straight upper run FL_B = unsupported with permitted sag

Installation types, maximum travels

Series	Unsupported	Vertical hanging	Vertical standing	Side mounted unsupported	Rotary	Zig-zag
E2i.10/E2.10/E2C.10	≤ 1.50m	upon request	upon request	upon request	with rework	upon request
E2i.15/E2.15/E2C.15	≤ 2.60m	upon request	upon request	upon request	with rework	upon request

E2.1 micro special | ice-chain



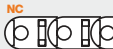




ice-chain - outdoors at low temperatures

- In order to prevent e-chains® from freezing at very low temperature in an inclined lift, two "nubs" have been injection-moulded onto the e-chain®.
 - Closed link for maximum holding strength
 - High strength for large unsupported lengths
- More information ► upon request




When the e-chain® rarely moves and temperatures are very low, injection-moulded nubs prevent the igus® ice-chain from freezing to the running surface.






Options with order keys | Examples based on series E2.10

 Standard	NC version - (No Camber) without pretension	Reverse Bend Radius (RBR) for circular movements	ESD - electrically conductive material
Part No. Standard	Part No. NC version	Part No. RBR	Part No. igumid ESD
			
 E2i.10.20.R.0 e-chain® openable along the inner radius	E2i.10.20.R.0.NC e-chain® openable along the inner radius	E2i.10.20.R1/R2.0 e-chain® openable along the inner radius	E2i.10.20.R.0.ESD e-chain® openable along the inner radius
E2.10.20.R.0 e-chain® openable along the outer radius	E2.10.20.R.0.NC e-chain® openable along the outer radius	E2.10.20.R1/R2.0 e-chain® openable along the outer radius	E2.10.20.R.0.ESD e-chain® openable along the outer radius
E2C.10.20.R.0 One-piece, non-openable	E2C.10.20.R.0.NC One-piece, non-openable	E2C.10.20.R1/R2.0 One-piece, non-openable	E2C.10.20.R.0.ESD One-piece, non-openable
 Ready to ship in 24 - 48hrs.*	Ready to ship in 2-5 business days*	Ready to ship in 12 business days*[Ⓢ]	Ready to ship in 12 business days*[▲]

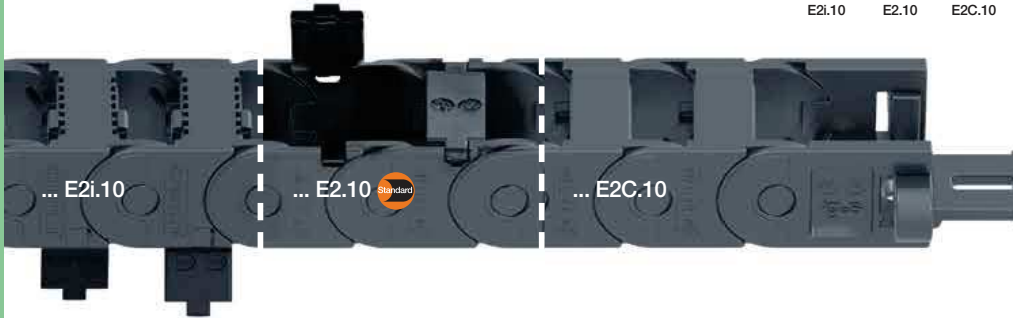
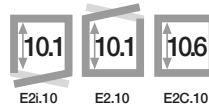
[Ⓢ] RBR version (Reverse Bend Radius) - some radii available from stock - further information and the complete product range ► From page 130
[▲] ESD version - some series available from stock - further information and the complete product range ► From page 142
 *Average time before the ordered goods are dispatched.

Order example | Order key and colour examples | Examples based on series E2.10

 Order example for complete e-chain® (1.0m), colour black, with mounting brackets and interior separation:		
e-chain® (1.0m)	Please indicate e-chain® length or number of links: 1.0m or 50 links	E2.10.20.18.0
+ Mounting brackets	1 set (with tiwrap plates)	E2.100.20.34PZ
Interior separation	with 2 separators assembled every 2 nd link	E2.10.2.1
Order text:	1m E2.10.20.18.0 + E2.100.20.34PZ + 2 x E2.10.2.1	

 Order key	Order index for colour options				
Openable along the inner radius	E2i. 10.20.18.0	Colour	Order index	Colour	Order index
Openable along the outer radius	E2. 10.20.18.0	■ Black	Standard .0	■ Orange	Special colour .2
One-piece, non-openable	E2C. 10.20.18.0	■ Silver-grey	Special colour .31	■ Yellow	Special colour .4
Series / Type		□ White	Special colour .1	■ Light grey	Special colour .14
Width index (depends on B)		□ Grey-white	Special colour .1S		
Bend radius R		Black e-chains® ready to ship in 24 - 48hrs.*			
Colour index (standard black)		Above special colours upon request.			

For very small spaces, strong



e-chains® Series E2i.10 | Openable along the inner radius, from both sides
 e-chains® Series E2.10 | Openable along the outer radius, from both sides
 e-chains® Series E2C.10 | One-piece, non-openable

Part No. e-chains® openable along inner radius	Part No. e-chains® openable along outer radius	Part No. e-chains® one-piece, non- openable	<i>B_i</i> [mm]	<i>B_a</i> [mm]	<i>R</i> Available bend radii [mm]	E2i.10 [kg/m]	E2.10 [kg/m]	E2C.10 [kg/m]
E2i.10.06.R.0*	E2.10.06.R.0*	E2C.10.06.R.0*	6	13.4	018 028 038	≈ 0.13	≈ 0.13	≈ 0.14
E2i.10.10.R.0*	E2.10.10.R.0*	E2C.10.10.R.0* [▲]	10	17.4	018 028 038	≈ 0.14	≈ 0.14	≈ 0.14
E2i.10.16.R.0	E2.10.16.R.0	E2C.10.16.R.0 [▲]	16	23.4	018 028 038	≈ 0.16	≈ 0.16	≈ 0.16
E2i.10.20.R.0	E2.10.20.R.0	E2C.10.20.R.0 [▲]	20	27.4	018 028 038	≈ 0.17	≈ 0.17	≈ 0.17
E2i.10.30.R.0	E2.10.30.R.0	E2C.10.30.R.0 [▲]	30	37.4	018 028 038	≈ 0.19	≈ 0.19	≈ 0.20
E2i.10.40.R.0	E2.10.40.R.0	E2C.10.40.R.0	40	47.4	018 028 038	≈ 0.22	≈ 0.22	≈ 0.23
E2i.10.50.R.0	E2.10.50.R.0	E2C.10.50.R.0	50	57.4	018 028 038	≈ 0.25	≈ 0.25	≈ 0.25

*Interior separation not suitable for inner widths *B_i* 06 and 10

[▲] ESD version (Electro Static Discharge) available from stock. More information ► From page 142

[Ⓡ] RBR version (Reverse Bend Radius), some radii available from stock. More information ► From page 130

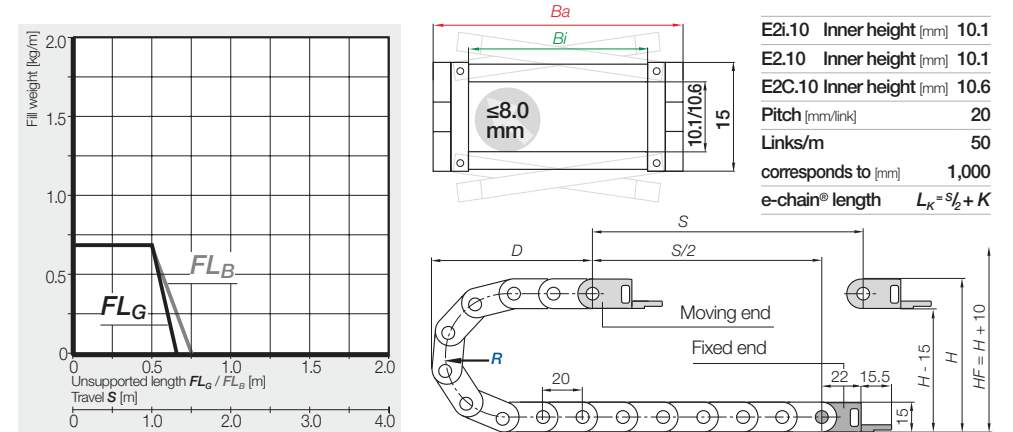
Complete Part No. with required radius (*R*). Example: E2.10.20.038.0

Reduce assembly time - E2.1 micro e-chain® opener

- For a quick and easy opening, an e-chain® opener is included with every first order of openable E2.1 micro from igus®
 - Reduce opening times from 33 to 2 seconds
 - Open a long e-chain® section in one go
- More information ► www.igus.eu/E2.1open



Unsupported applications | Short travels



E2i.10	Inner height [mm]	10.1
E2.10	Inner height [mm]	10.1
E2C.10	Inner height [mm]	10.6
	Pitch [mm/link]	20
	Links/m	50
	corresponds to [mm]	1,000
	e-chain® length	$L_K = S/2 + K$

<i>R</i>	018	028	038
<i>H</i>	51	71	91
<i>D</i>	56	66	76
<i>K</i>	100	130	160

The required clearance height: $H_F = H + 10\text{mm}$ (with 0.2kg/m fill weight)

ESD - many sizes from stock

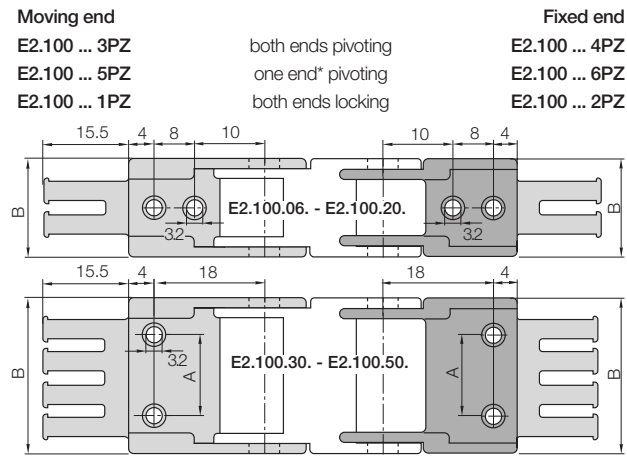
- Standardised product made from igamid ESD
 - ESD material tested for over 10 million cycles for the toughest requirements
 - Short delivery times including mounting brackets and interior separation; 24hrs, from stock
- More information and the complete product range
 ► From page 142 or at ► www.igus.eu/esd



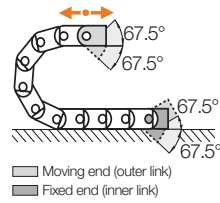
Rotating energy supply systems with Reverse Bend Radius (RBR) - some radii available from stock

- Maximum rotation angle in minimal installation space
 - Minimal friction forces and maximum service life
 - Short delivery times from stock
- More information and the complete product range ► From page 130



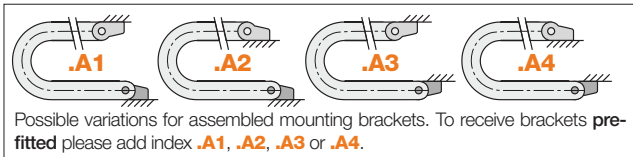


Hole pattern for part numbers
E2.100.06 - E2.100.20. = drawing above left
Hole pattern for part numbers
E2.100.30 - E2.100.50. = drawing below left

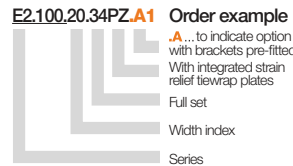


Width index	Part No. full set with tie-wrap plates both ends pivoting	Part No. full set with tie-wrap plates one end* pivoting	Part No. full set with tie-wrap plates both ends locking	A [mm]	B [mm]	Number of teeth
06. ▶	E2.100.06.34PZ	E2.100.06.56PZ	E2.100.06.12PZ	-	13.4	1
10. ▶	E2.100.10.34PZ	E2.100.10.56PZ	E2.100.10.12PZ	-	17.4	1
16. ▶	E2.100.16.34PZ	E2.100.16.56PZ	E2.100.16.12PZ	-	23.4	2
20. ▶	E2.100.20.34PZ	E2.100.20.56PZ	E2.100.20.12PZ	-	27.4	2
30. ▶	E2.100.30.34PZ	E2.100.30.56PZ	E2.100.30.12PZ	22	37.4	3
40. ▶	E2.100.40.34PZ	E2.100.40.56PZ	E2.100.40.12PZ	32	47.4	4
50. ▶	E2.100.50.34PZ	E2.100.50.56PZ	E2.100.50.12PZ	42	57.4	5

*One end pivoting: pivot angle = bend radius. One end only pivots towards the inner radius - whether fitted A1 or A4!



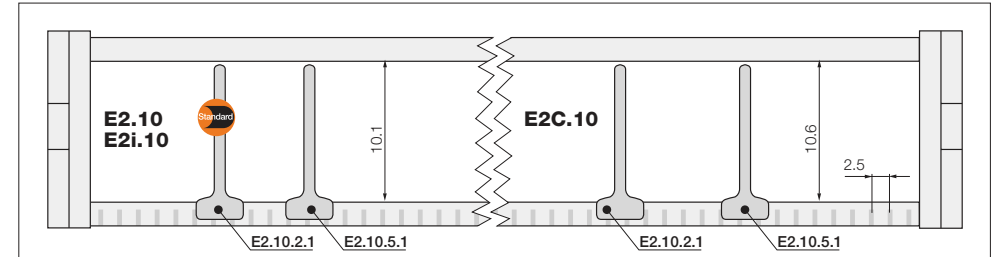
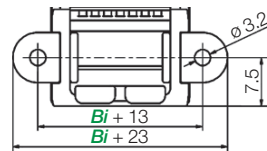
Possible variations for assembled mounting brackets. To receive brackets pre-fitted please add index **.A1, .A2, .A3 or .A4.**



Additional features



The quickflange can be clipped-in to all mounting brackets. Contains a housing for hexagonal nut and socket cap bolt M3. **Single Part No.:** E2.150.QF or Part No. incl. mounting bracket: E2.100.20.34PZQF



Note: for one-piece, non-openable e-chain® links please assemble the interior separation before fitting the e-chain®! As standard separators are fitted every 2nd e-chain® link!

		Standard separator*
		unassembled E2.10.2 assembled E2.10.2.1
		Notch separator for notched crossbar*
		unassembled E2.10.5 assembled E2.10.5.1

Standard - for any application
For easy vertical separation. Separators can be arranged in any position in the cross-section. Without notches, freely movable.

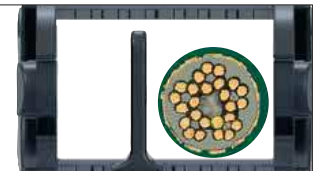
Locks securely in preset increments
Notch separator for exact positioning. Recommended for side-mounted applications.

Note*: interior separation not suitable for inner widths **Bi 06 and 10!**

75% less wear

- igus® separators increase the service life of the cables by a factor of 4
- Separators with a rounded design for less cable wear and abrasion
- Optimised for easier and faster assembly

More information ▶ www.igus.eu/E2.1open



Interior separation assembly tool for the E2.1 micro

- Easy fitting of separators and shelves
- Significant assembly time reduction
- Grip and tool tip can be ordered separately and are easy to change

More information ▶ www.igus.eu/E2.1open



For very small spaces, strong



e-chains® Series E2i.15 | Openable along the inner radius, from both sides
 e-chains® Series E2.15 | Openable along the outer radius, from both sides
 e-chains® Series E2C.15 | One-piece, non-openable

Part No. e-chains® openable along inner radius	Part No. e-chains® openable along outer radius	Part No. e-chains® one-piece, non- openable	<i>B_i</i> [mm]	<i>B_a</i> [mm]	<i>R</i> Available bend radii [mm]	E2i.15 [kg/m]	E2.15 [kg/m]	E2C.15 [kg/m]
E2i.15.10.R.0	E2.15.10.R.0	E2C.15.10.R.0®	10	17.8	028 038 048 -	≈ 0.18	≈ 0.18	≈ 0.19
E2i.15.13.R.0	E2.15.13.R.0	E2C.15.13.R.0	13	20.8	028 038 048 -	≈ 0.19	≈ 0.19	≈ 0.20
E2i.15.16.R.0	E2.15.16.R.0	E2C.15.16.R.0 [▲]	16	23.8	028 038 048 -	≈ 0.20	≈ 0.20	≈ 0.20
E2i.15.20.R.0	E2.15.20.R.0	E2C.15.20.R.0 [▲]	20	27.8	028 038 048 -	≈ 0.21	≈ 0.21	≈ 0.21
E2i.15.30.R.0	E2.15.30.R.0®	E2C.15.30.R.0 [▲]	30	37.8	028 038 048 -	≈ 0.24	≈ 0.24	≈ 0.24
E2i.15.40.R.0	E2.15.40.R.0	E2C.15.40.R.0	40	47.8	028 038 048 075*	≈ 0.26	≈ 0.26	≈ 0.26
E2i.15.50.R.0	E2.15.50.R.0	E2C.15.50.R.0	50	57.8	028 038 048 -	≈ 0.29	≈ 0.29	≈ 0.29

*Radius 075 only for series E2C.15.40

▲ ESD version (Electro Static Discharge) available from stock. More information ► From page 142

Ⓞ RBR version (Reverse Bend Radius), some radii available from stock. More information ► From page 130

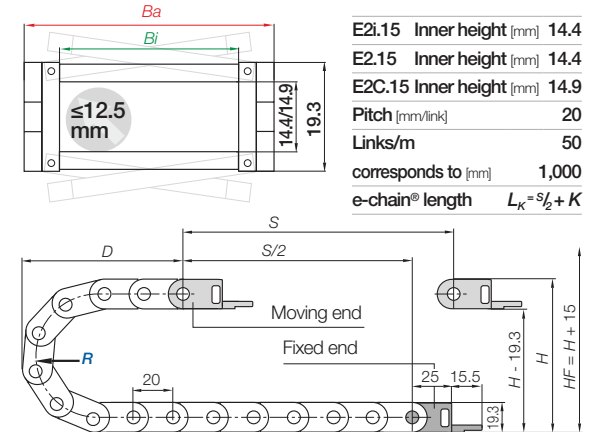
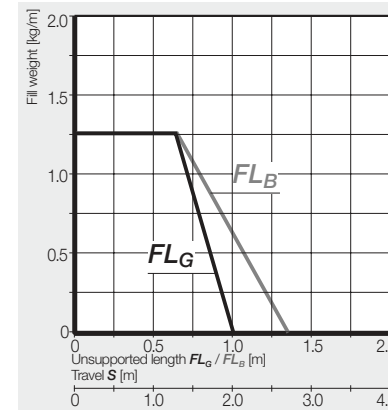
Complete Part No. with required radius (*R*). Example: E2.15.20.038.0

Reduce assembly time - E2.1 micro e-chain® opener

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 - Open a long e-chain® section in one go
- More information ► www.igus.eu/E2.1open



Unsupported applications | Short travels



E2i.15	Inner height [mm]	14.4
E2.15	Inner height [mm]	14.4
E2C.15	Inner height [mm]	14.9
	Pitch [mm/link]	20
	Links/m	50
	corresponds to [mm]	1,000
	e-chain® length $L_K = S/2 + K$	

<i>R</i>	028	038	048	075*
<i>H</i>	75	95	115	169
<i>D</i>	68	78	88	115
<i>K</i>	130	160	195	280

The required clearance height: $H_F = H + 15\text{mm}$ (with 0.3kg/m fill weight)

*Radius 075 only for series E2C.15.40

ESD - many sizes from stock

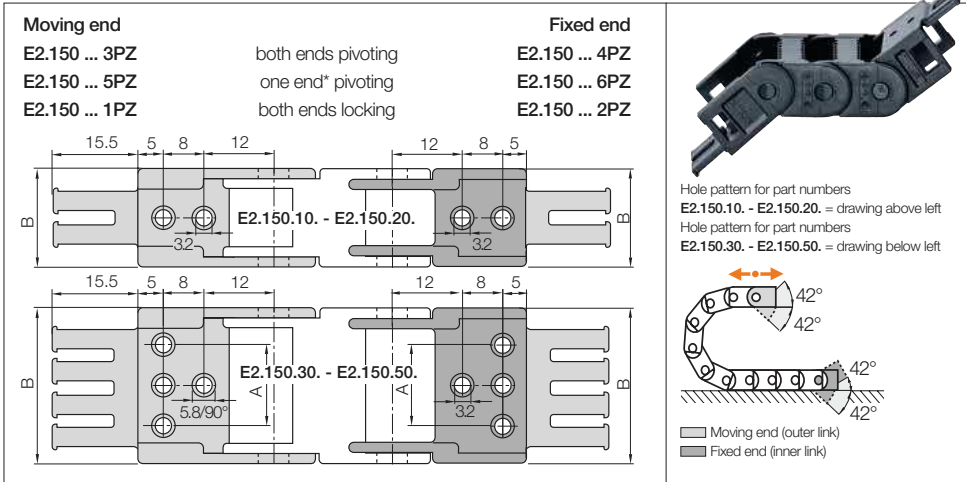
- Standardised product made from igumid ESD
 - ESD material tested for over 10 million cycles for the toughest requirements
 - Short delivery times including mounting brackets and interior separation; 24hrs, from stock
- More information and the complete product range
 ► From page 142 or at ► www.igus.eu/esd



Rotating energy supply systems with Reverse Bend Radius (RBR) - some radii available from stock

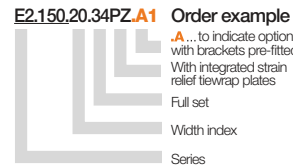
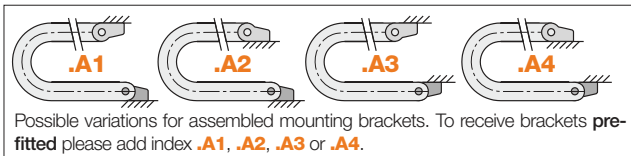
- Maximum rotation angle in minimal installation space
 - Minimal friction forces and maximum service life
 - Short delivery times from stock
- More information and the complete product range ► From page 130





Width index	Part No. full set with tie-wrap plates both ends pivoting	Part No. full set with tie-wrap plates one end* pivoting	Part No. full set with tie-wrap plates both ends locking	A [mm]	B [mm]	Number of teeth
10.	E2.150.10.34PZ	E2.150.10.56PZ	E2.150.10.12PZ	-	17.8	1
13.	E2.150.13.34PZ	E2.150.13.56PZ	E2.150.13.12PZ	-	20.8	1
16.	E2.150.16.34PZ	E2.150.16.56PZ	E2.150.16.12PZ	-	23.8	2
20.	E2.150.20.34PZ	E2.150.20.56PZ	E2.150.20.12PZ	-	27.8	2
30.	E2.150.30.34PZ	E2.150.30.56PZ	E2.150.30.12PZ	22	37.8	3
40.	E2.150.40.34PZ	E2.150.40.56PZ	E2.150.40.12PZ	32	47.8	4
50.	E2.150.50.34PZ	E2.150.50.56PZ	E2.150.50.12PZ	42	57.8	5

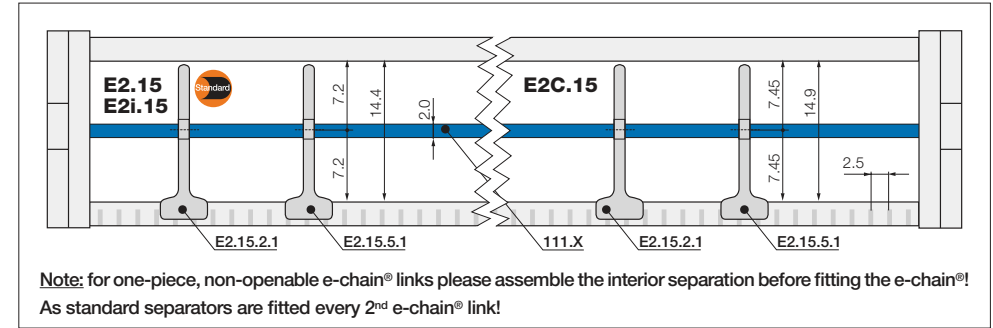
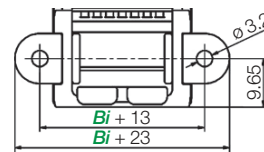
*One end pivoting: pivot angle = bend radius. One end only pivots towards the inner radius - whether fitted A1 or A4!



Additional features



The quickflange can be clipped-in to all mounting brackets. Contains a housing for hexagonal nut and socket cap bolt M3. **Single Part No.:** E2.150.QF or Part No. incl. mounting bracket: E2.150.20.34PZQF



		Standard separator unassembled E2.15.2 assembled E2.15.2.1
		Notch separator for notched crossbar unassembled E2.15.5 assembled E2.15.5.1
		Full-width shelf for e-chains® unassembled 110.X assembled 111.X

Standard - for any application

For easy vertical separation. Separators can be arranged in any position in the cross-section. Without notches, freely movable.

Locks securely in preset increments

Notch separator for exact positioning. Recommended for side-mounted applications.

Full-width shelf

This option is for applications with many small cables with similar diameters. For full-width separation.

Full-width shelves

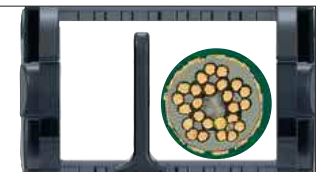
Width = X [mm]

X [mm]	unassembled	assembled	X [mm]	unassembled	assembled	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			

75% less wear

- igus® separators increase the service life of the cables by a factor of 4
- Separators with a rounded design for less cable wear and abrasion
- Optimised for easier and faster assembly

More information ► www.igus.eu/E2.1open



Interior separation assembly tool for the E2.1 micro

- Easy fitting of separators and shelves
- Significant assembly time reduction
- Grip and tool tip can be ordered separately and are easy to change

More information ► www.igus.eu/E2.1open

