

E2 micro

Small inner heights and bend radii



Advantages of the E2 micro series:

- For the smallest applications
- Lightweight and cost-effective
- Quiet operation due to small pitch
- Ideal for applications with low inertia
- Variety of options - E2 micro as non-openable or openable along the inner or outer radius



When to use another e-chain® series:

- When openable crossbars are required
 - ▶ E2.1 micro, page 334
 - ▶ zipper, page 240
- When easy filling with connectorised cables is required
 - ▶ easy chain®, page 212



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Smallest inner heights and bend radii - E2 micro

micro e-chains® are very small, one- and two-piece (B07/B09) e-chains® with low height, making them ideal for highly dynamic applications. E2 micro e-chains® are optimised for the smallest installation spaces, and are available in many versions. IguS® also offers a range of accessories and fixation options. Grades of the openable versions are available for many types; different types are interchangeable and can therefore be used as spare parts for existing applications, for example.

Industrial industries and applications

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

 Cleanroom test upon request

 UL94-V2 classification - for series 03, 074, 094 (UL94-V0 upon request)

 iF product design award 1989 IguS® series 05

micro 

Series	Inner height <i>h_I</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
 E2 micro - one-piece design non-openable							
03	5	5 - 10	8.70 - 13.7	8	010 - 028	0.40	280
04	7	7 - 30	12 - 35	10	015 - 048	0.50	282
05	10	6 - 64	10 - 68	12	018 - 038	0.55	284
045	10.3	6 - 64	12 - 70	12.5	018 - 083	0.50	286
06 ¹⁾	10.5	6 - 64	12.5 - 71	15	018 - 038	0.60	290
08 ²⁾	15	10 - 50	18.2 - 58.2	19.3	025 - 048	1.00	300
 E2 micro - one-piece design openable along the inner radius with film hinge							
074	11.5	10 - 20	16.3 - 26.3	15	018 - 038	0.55	292
094	15.6	10 - 30	18.2 - 38.2	19.3	028 - 048	1.00	294
 E2 micro - two-piece design openable along the outer radius							
B07 ³⁾	10.3	16 - 40	22.5 - 47	15	018 - 038	0.55	288
B09 ⁴⁾	14.3	16 - 40	24.2 - 48.2	19.3	028 - 048	1.00	296

For new designs we recommend E2.1 micro system, series: 1) E2C.10, 2) E2C.15, 3) E2.10, 4) E2.15 ▶ From page 334

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

 3D CAD, service life calculation, configurators and more ▶ www.igus.eu/E2micro 277

	≤ 3 [m/s] / ≤ 10 [m/s²]
	≤ 20 [m/s] / ≤ 200 [m/s²]
	≤ 3 [m/s] / ≤ 6 [m/s²]
	-40°C / +120°C
)	-40°C / +80°C
1 B07, B09)	-40°C / +120°C
3 B07, B09)	-40°C / +80°C
34-HB / igumid NB = VDE 0304 IIC UL94-V2	



ide mounted
unsupported



Rotary



Zig-zag

upon request	with rework	upon request
upon request	with rework	upon request
upon request	with rework	upon request
upon request	with rework	upon request
upon request	with rework	upon request
upon request	with rework	upon request
upon request	with rework	upon request
upon request	with rework	upon request
upon request	with rework	upon request
upon request	with rework	upon request

1:15 ▶ From page 334



E2 micro | Options and order keys

Options with order keys | Examples based on series 08



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**



08.50.R.0	08.50.R.0.NC	08.50.R1/R2.0	08.50.R.0.ESD
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Ready to ship in 24 - 48hrs.*	Ready to ship in 3-5 business days*	Ready to ship in 12 business days*	Delivery time upon request*
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ⓘ RBR version (Reverse Bend Radius) - some radii available from stock - further information and the complete product range ▶ From page 130
⚠ **If an ESD-Version (Electro Static Discharge) from stock is required, please select a E2.1 system ▶ Form page 334
*Average time before the ordered goods are dispatched.

Order example | Order key and colour examples | Examples based on series 08



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	08.50.038.0
+ Mounting brackets	1 set (with tiwrap plates)	080.50.12PZ
Interior separation	with 2 separators assembled every 2 nd link	2 x B09.2.1
Order text:	1m 08.50.038.0 + 080.50.12PZ + 2 x B09.2.1	



Order key

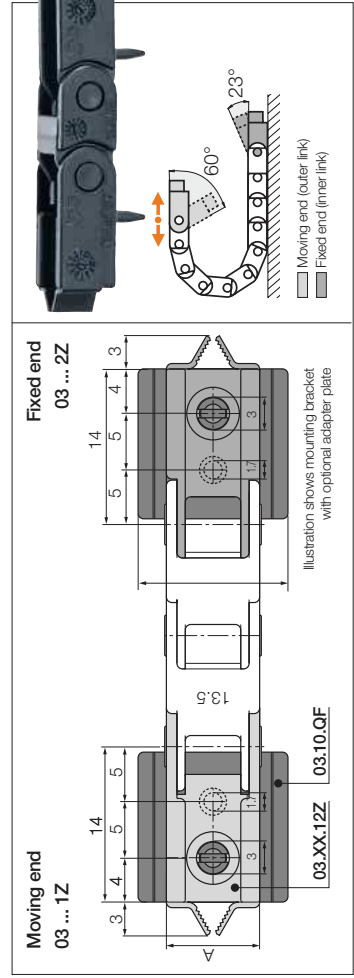
One-piece, non-openable

08.50.038.0

Order index for colour options

Series / Type		Order index		Colour		Order index	
Width index (depends on <i>B</i>)	Bend radius <i>R</i>	Colour	Order index	Colour	Order index	Special colour	Order index
Colour index (standard black)	Bend radius <i>R</i>	Colour	Order index	Colour	Order index	Special colour	Order index

Black e-chains® ready to ship in 24 - 48hrs.*
Above special colours upon request.

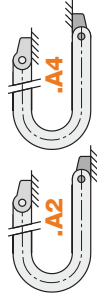


nd radii	Weight [kg/m]
15 018 028	≈ 0.04
15 018 028	≈ 0.05
15 018 028	≈ 0.06

je 130

Width index	Part No. full set	A [mm]
05.	03.05.12Z	8.7
07.	03.07.12Z	10.7
10.	03.10.12Z	13.7

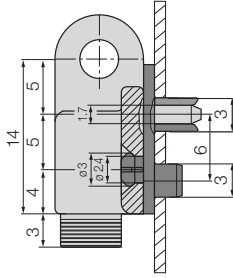
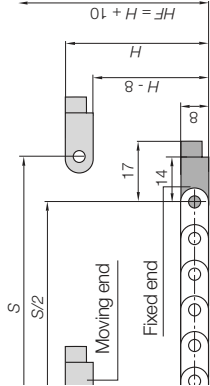
Material mounting bracket - igumid G, temperature: -40° up to +120°C, VDE 0304 IIC UL94-HB



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

03.05.12Z **.A2**
Order example
A. to indicate option with brackets pre-fitted
Full set
Series

Inner height [mm]	5
Pitch [mm/link]	10
Links/m	100
corresponds to [mm]	1,000
e-chain® length	$L_K = \frac{s}{2} + K$



Adapter plate for rapid installation for all sizes, Part No. 03.10.QF
The adapter has scored lines so that it can be adapted to the respective e-chain® width. The adapter plate is not always necessary when attaching the mounting brackets as they can also be screwed on without the adapter plate.



Optional adapter plate



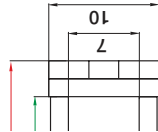
Rotating energy supply systems with Reverse Bend Radius (RBR) - some radii available from stock
● Maximum rotation angle in minimal installation space
● Minimal friction forces and maximum service life
● Short delivery times from stock
More information and the complete product range ▶ From page 130



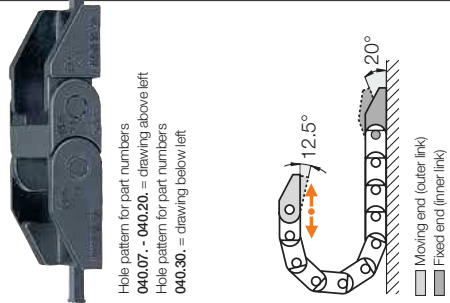
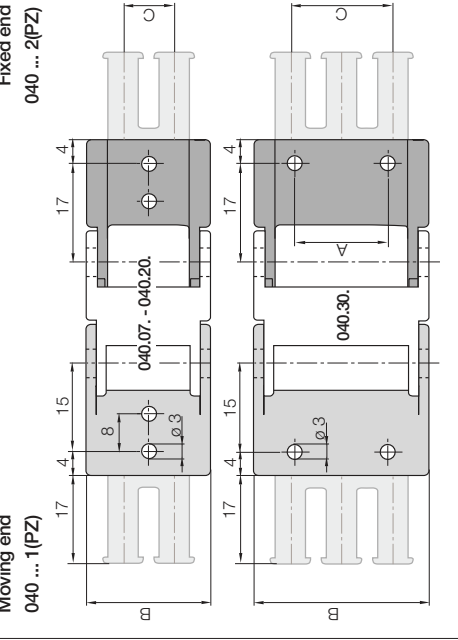
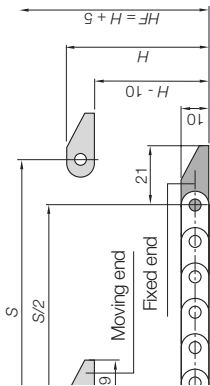
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nd radii	Weight [kg/m]	
28 038 048	048	≈ 0.07
28 038 048	048	≈ 0.08
28 038 048	048	≈ 0.09
28 038 048	048	≈ 0.10
28 038 048	048	≈ 0.11



Inner height [mm]	7
Pitch [mm/link]	16.7
Links/m	60
corresponds to [mm]	1,002
e-chain® length	$L_K - S/2 + K$



Width index	Part No. full set with tiewrap plates	Part No. full set without tiewrap plates	A [mm]	B [mm]	C [mm]	Number of teeth
07. ▲	040.07.12PZ	040.07.12	—	12	—	1
10. ▲	040.10.12PZ	040.10.12	—	15	—	1
16. ▲	040.16.12PZ	040.16.12	—	21	10	2
20. ▲	040.20.12PZ	040.20.12	—	25	10	2
30. ▲	040.30.12PZ	040.30.12	22	35	20	3

Material mounting bracket - igumid G, temperature: -40° up to +120°C, VDE 0304 IIC UL94-HB



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

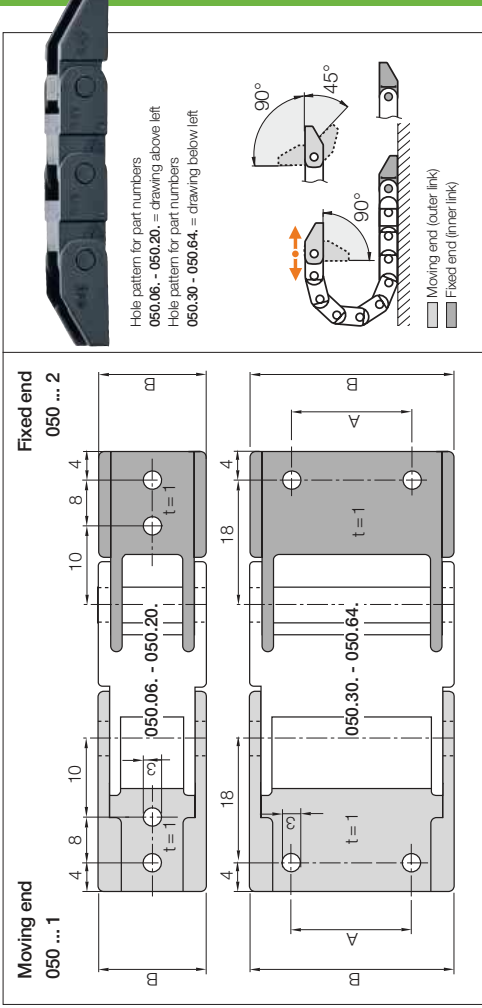
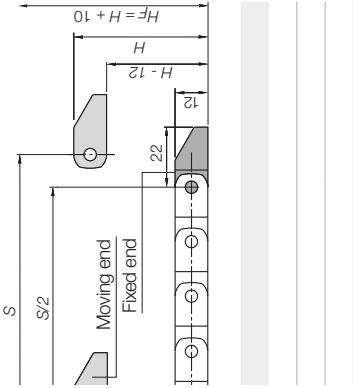


Order example
A. to indicate option with brackets pre-fitted With integrated strain relief tiewrap plates Full set Series



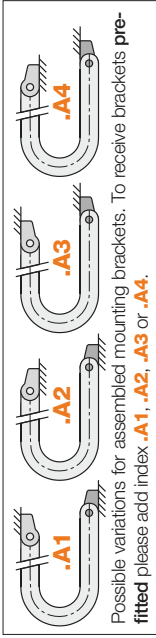
nd radii	Weight [kg/m]
38	≈ 0.06
38	≈ 0.07
38	≈ 0.07
38	≈ 0.08
38	≈ 0.09
38	≈ 0.19
je 130	

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



Width index	Part No. full set without tiewrap plates	A [mm]	B [mm]	Number of teeth
06. ▲	050.06.12	—	10.7	—
10. ▲	050.10.12	—	14.7	—
16. ▲	050.16.12	—	20.7	—
20. ▲	050.20.12	—	24.7	—
30. ▲	050.30.12	22	34.7	—
64. ▲	050.64.12	56	68.7	—

Material mounting bracket - igumid G, temperature: -40° up to +120°C, VDE 0304 IIC UL94-HB



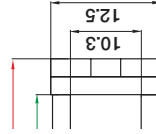
Rotating energy supply systems with Reverse Bend Radius (RBR) - some radii available from stock

- Maximum rotation angle in minimal installation space
- Minimal friction forces and maximum service life
- Short delivery times from stock

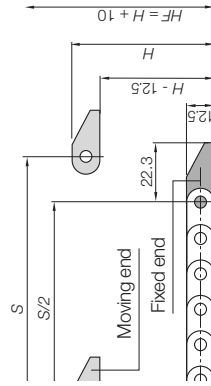
More information and the complete product range ► From page 130



nd radii	Weight [kg/m]
38	≈0.09
38	≈0.10
38	≈0.11
38 083	≈0.13
38	≈0.16
38	≈0.19



Inner height [mm]	10.3
Pitch [mm/link]	13
Links/m	77
corresponds to [mm]	1,001
e-chain® length	$L_K = S_b + K$

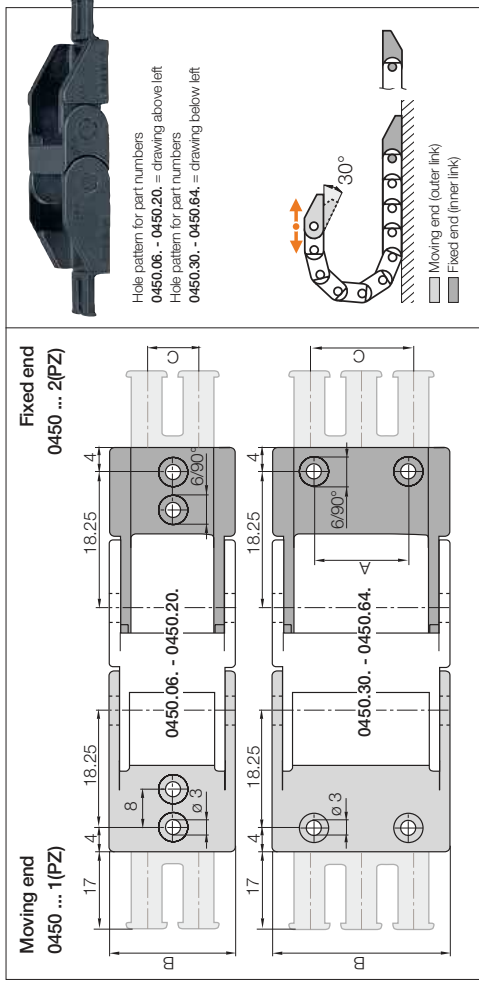


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Width index	 Part No. full set with tiwrap plates	Part No. full set without tiwrap plates	A [mm]	B [mm]	C [mm]	Number of teeth
06. ▲	0450.06.12PZ	0450.06.12	–	12	–	1
10. ▲	0450.10.12PZ	0450.10.12	–	16	–	1
16. ▲	0450.16.12PZ	0450.16.12	–	22	10	2
20. ▲	0450.20.12PZ	0450.20.12	–	26	10	2
30. ▲	0450.30.12PZ	0450.30.12	–	36	20	3
64. ▲	0450.64.12PZ	0450.64.12	56	70	50	6

Material mounting bracket: - liquid N₂ temperature: -40° up to +120°C; VDE 0304 IIC 0/II 0/III 0/4-HB

Mounting bracket with strain relief tie-wrap plate has reductions of ϕ 3mm / ϕ 6mm 90°

Mounting bracket without strain relief tiewrap plate only has holes of $\varnothing$ 3mm



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



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

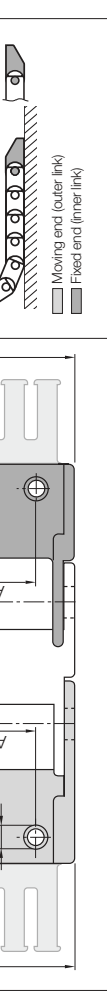
● Short delivery times from stock





Radius, from one side

nd radii	Weight [kg/m]
38	≈ 0.16
38	≈ 0.17
38	≈ 0.20
38	≈ 0.23

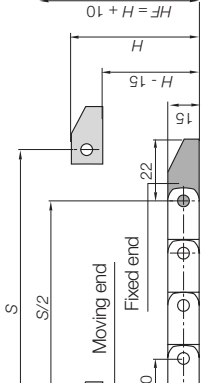


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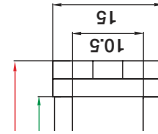
Inner height [mm]	10.3
Pitch [mm/link]	20
Links/m	50
corresponds to [mm]	1,000
e-chain® length	$L_K - S/2 + K$



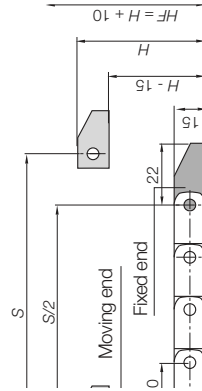
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nd radii	Weight [kg/m]
38	≈0.13
38	≈0.14
38	≈0.16
38	≈0.17
38	≈0.20
38	≈0.23
38	≈0.26
38	≈0.30



Inner height [mm]	10.5
Pitch [mm/link]	20
Links/m	50
corresponds to [mm]	1,000
e-chain® length	$L_K = s/2 + K$

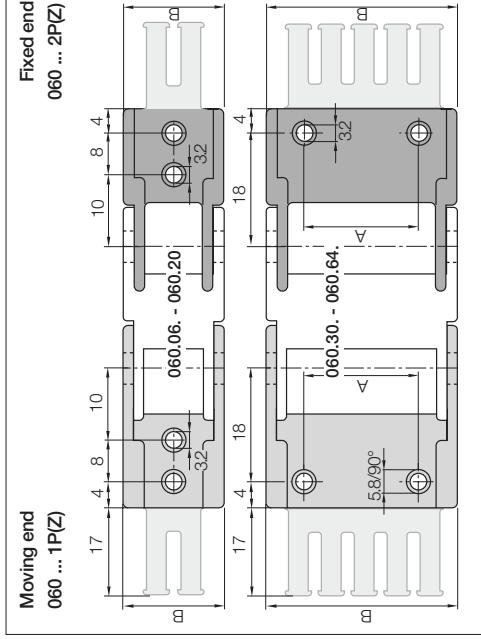


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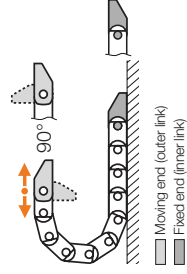
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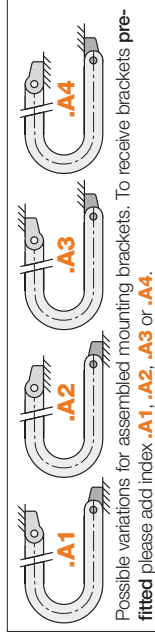


Hole pattern for part numbers
060.06. - 060.20. = drawing above left
 Hole pattern for part numbers
060.30. - 060.64. = drawing below left



Width index		Part No. full set with tiwrap plates	Part No. full set without tiwrap plates	A [mm]	B [mm]	Number of teeth
06. ▲		060.06.12PZ	060.06.12	–	12.5	1
10. ▲		060.10.12PZ	060.10.12	–	16.5	1
16. ▲		060.16.12PZ	060.16.12	–	22.5	2
20. ▲		060.20.12PZ	060.20.12	–	27.0	2
30. ▲		060.30.12PZ	060.30.12	22	37.0	3
40. ▲		060.40.12PZ	060.40.12	32	47.0	4
50. ▲		060.50.12PZ	060.50.12	42	57.0	5
64. ▲		060.64.12PZ	060.64.12	56	71.0	6

Material mounting bracket - igumid G, temperature: -40° up to +120°C, VDE 0304 IIC UL94-HB



060.10.12PZ.A1

Order example

A... to indicate option with brackets pre-fitted

With integrated strain relief lewwrap plates

Full set

Series

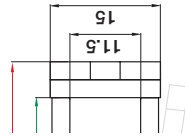
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291

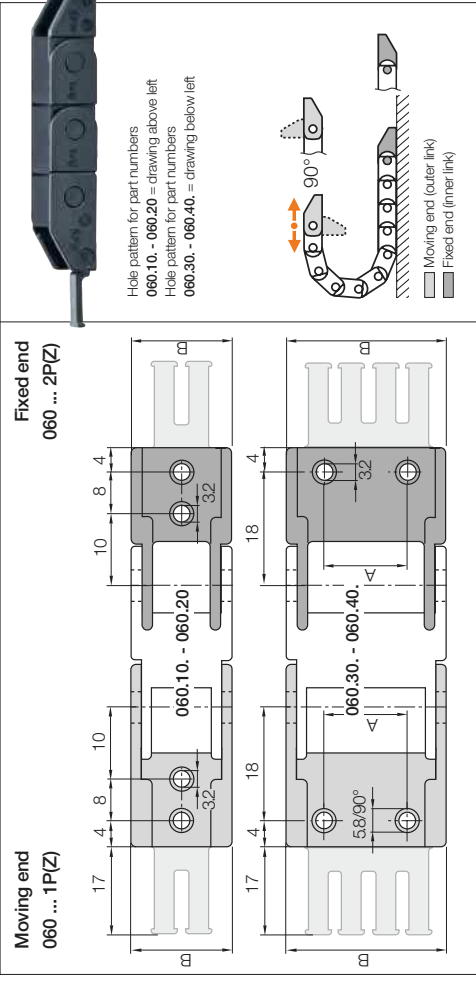
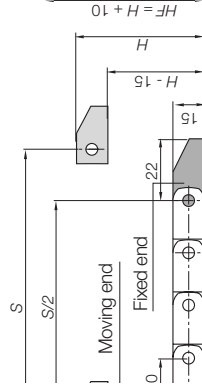


is from one side with film hinge

nd radii	Weight
<u>38</u>	[kg/m] =0.14
<u>38</u>	=0.15
<u>38</u>	=0.16
<u>38</u>	=0.17

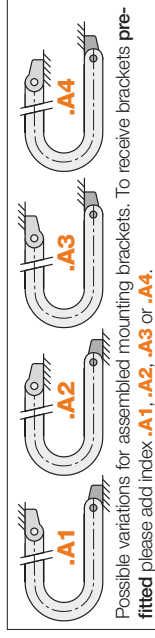


Inner height [mm]	11.5
Pitch [mm/link]	20
Links/m	50
corresponds to [mm]	1,000
e-chain® length	$L_K = s/2 + K$



Width index		Part No. full set with tiewrap plates	Part No. full set without tiewrap plates	A [mm]	B [mm]	Number of teeth
06. ▲		060.06.12PZ	060.06.12	—	12.5	1
10. ▲		060.10.12PZ	060.10.12	—	16.5	1
16. ▲		060.16.12PZ	060.16.12	—	22.5	2
20. ▲		060.20.12PZ	060.20.12	—	27	2

Material mounting bracket - igumid G, temperature: -40° up to +120°C, VDE 0304 IIC UL94-HB



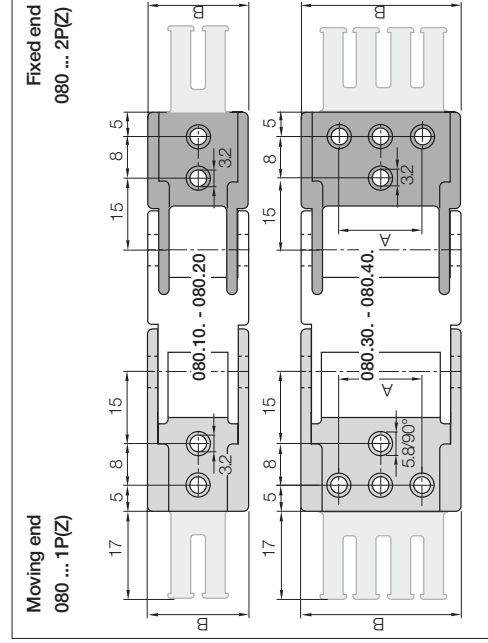
060.10.12PZ A1

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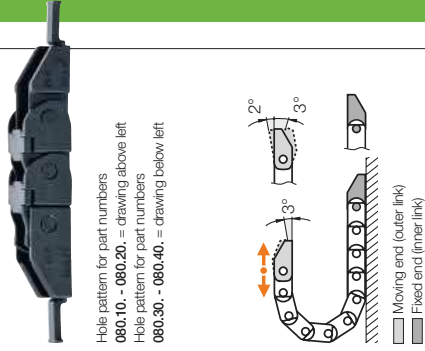
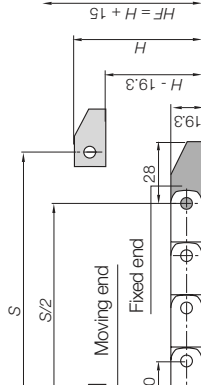
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293

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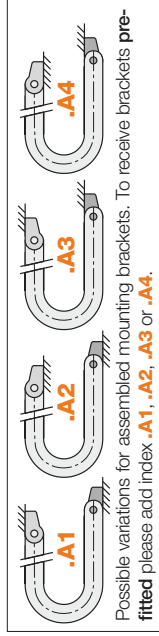


nd radii	Weight [kg/m]
48	≈ 0.23
48	≈ 0.24
48	≈ 0.25
48	≈ 0.28



Width index		Part No. full set with tiwrap plates	Part No. full set without tiwrap plates	A [mm]	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

Material mounting bracket - igumid G, temperature: -40° up to +120°C, VDE 0304 IIC UL94-HB



Order example

080.10.12PZ-A1

A... to indicate option with brackets pre-fixed

With integrated strain relief flexwrap plates

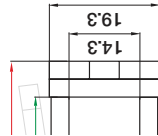
Full set

Series

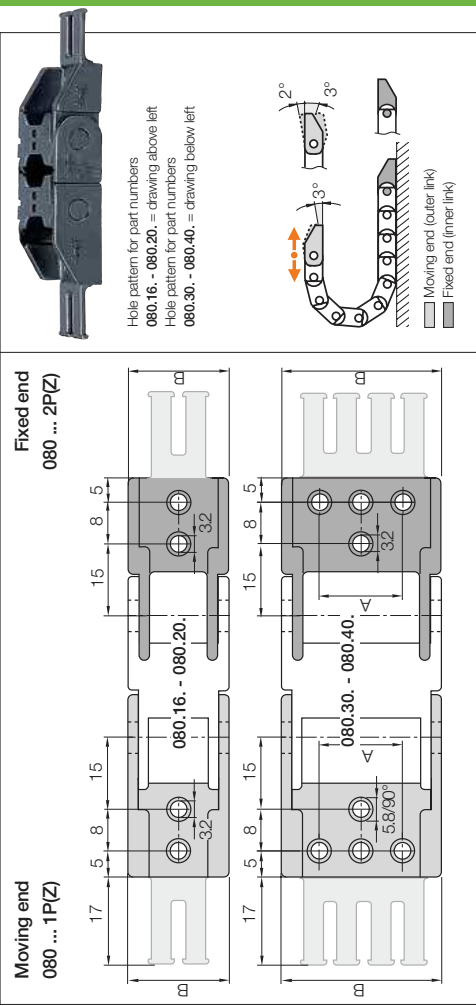
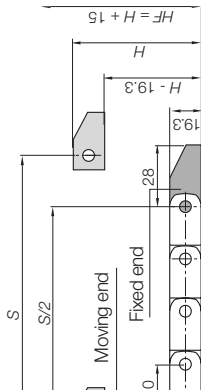


radius, from one side

nd radii	Weight [kg/m]
48	≈ 0.24
48	≈ 0.25
48	≈ 0.28
48	≈ 0.31

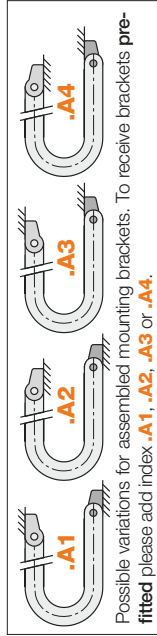


Inner height [mm]	14.3
Pitch [mm/link]	20
Links/m	50
corresponds to [mm]	1,000
e-chain® length	$L_K = s/2 + K$



Width index		Part No. full set with tiwrap plates	Part No. full set without tiwrap plates	A [mm]	B [mm]	Number of teeth
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

Material mounting bracket - igumid G, temperature: -40° up to +120°C, VDE 0304 IIC UL94-HB



Order example

A... to indicate option with brackets pre-fitted

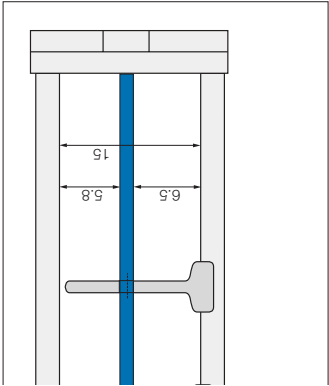
With integrated strain relief newrap plates

Full set

Series

igus 3D CAD, service life calculation, configurators and more ► www.igus.eu/E2micro

297



Width separator
The slot allows basic vertical/horizontal arrangements.

Width shelf
ion is for applications with many small cables with diameters. For full-width separation.

assembled	X (mm)	unassembled	assembled
111.20	050	110.50	111.50
111.30			
111.40			

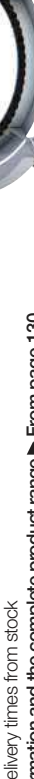


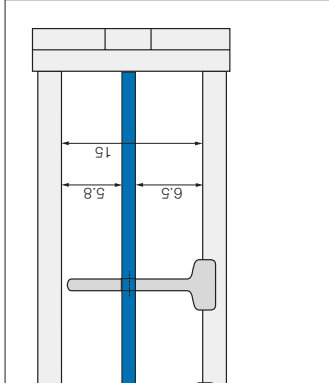
E2 micro e-chain® space-saving, zig-zag design in a mobile OP table

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 separator
The slot allows basic vertical/horizontal arrangements.

Width shelf
The shelf is for applications with many small cables with diameters. For full-width separation.

assembled	X (mm)	unassembled	assembled
111.20	050	110.50	111.50
111.30			
111.40			

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Series 03 - extremely small installation space on a paint-spraying machine



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