

Price Index



42 Widths
10 Bending Radii



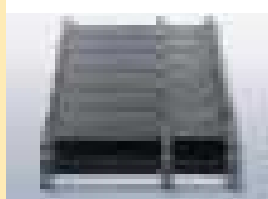
Full range of interior
separation
options



3 options for
mounting brackets



Extension links for
variable width



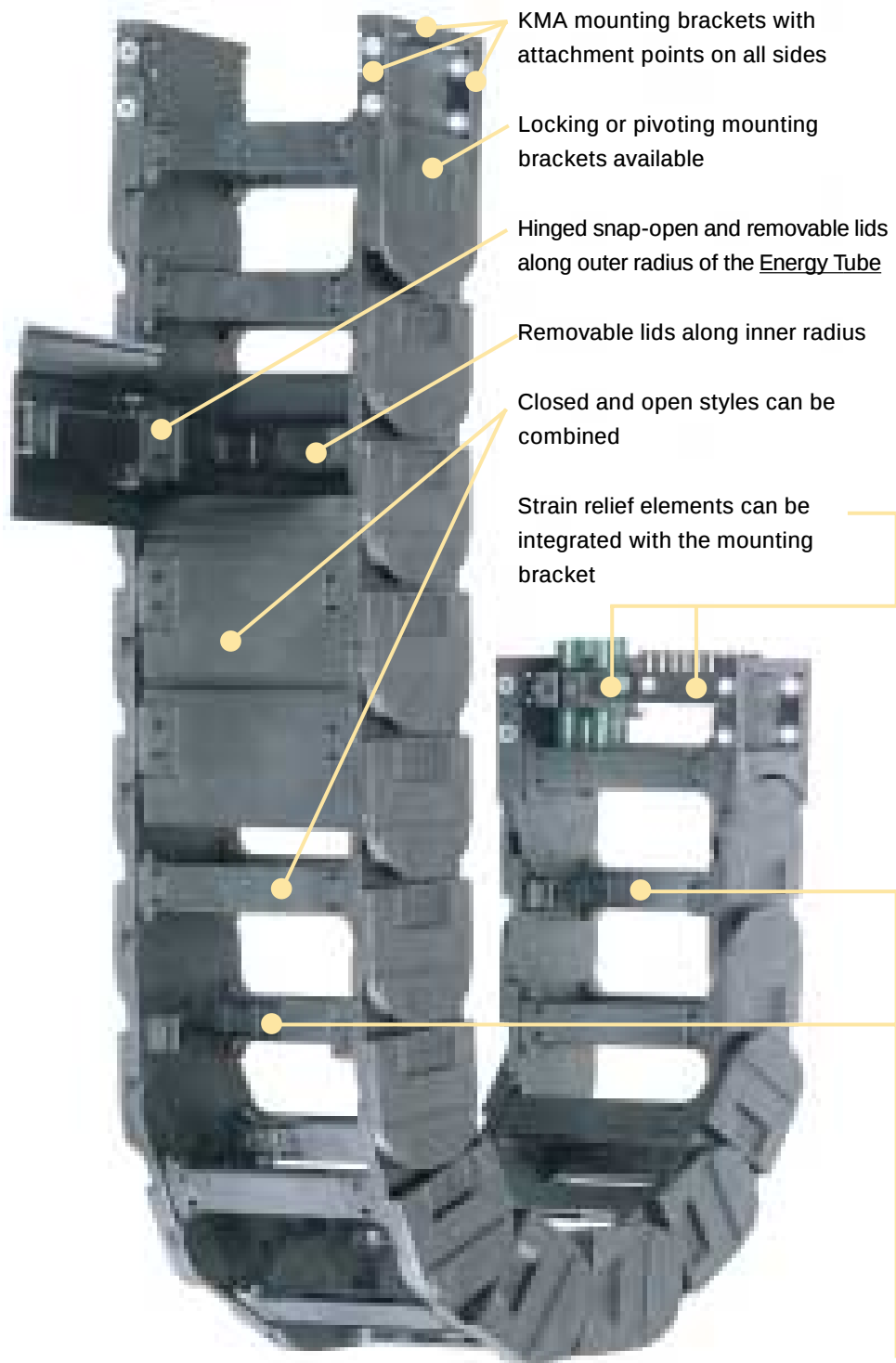
When to use the Series 40/41/R88:

- If a simpler system is required



When not to use them:

- If a quieter version is required
▶ S 400/ 410/ R880, Page 7.102
- If long side-mounted, unsupported
length is required
▶ S 4040/ 4140/ R8840, Page 7.120
- If a simpler low-cost solution
is required
▶ S 140 - R188, Page 7.138



KMA mounting brackets with
attachment points on all sides

Locking or pivoting mounting
brackets available

Hinged snap-open and removable lids
along outer radius of the Energy Tube

Removable lids along inner radius

Closed and open styles can be
combined

Strain relief elements can be
integrated with the mounting
bracket

Crossbars on Energy Chains®
removable along both radii

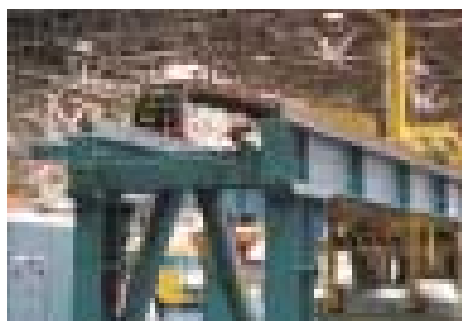
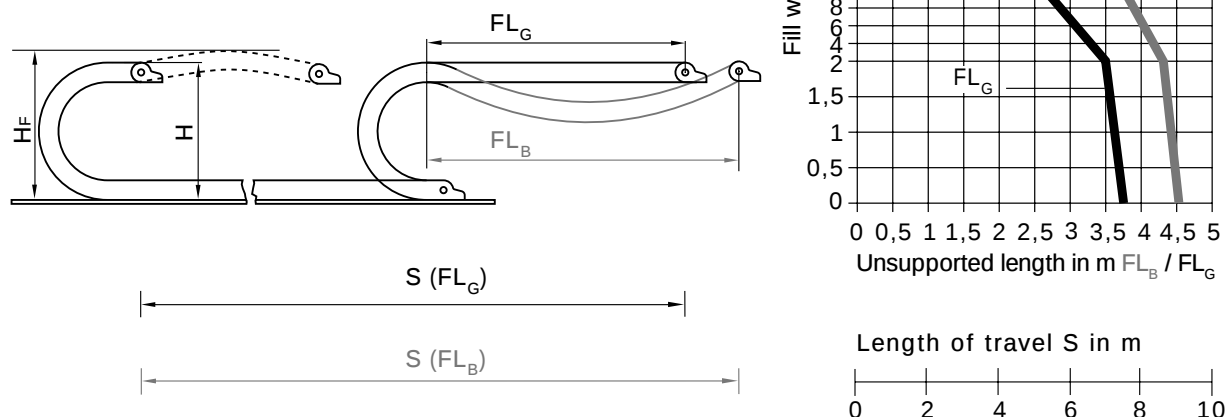
Product Range

Product Range

Inner Widths (Bi) in mm:	50 - 600 + + + (extension links)
Bending Radii (R) in mm:	135, 150, 175, 200, 240, 250, 300, 350, 400, 500
Pitch:	91 mm/link = 11 links/m (1001 mm)

Unsupported length

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



Unsupported Energy Chains® ► Design, Page 1.8, feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to Installation Dimensions for further details.



If the unsupported length is exceeded, the Energy Chain®/Tube must glide on itself. This requires a guide trough ► Design, Page 1.18 or incorporation of igus' exclusive AUTO-GLIDE System guide elements, which are available for this chain series ► AUTO-GLIDE System, Page 8.29.

- Long travel
Max: 350 m

Other Installation Methods

Vertical, hanging	= max. 80 m
Vertical, standing	= max. 6 m
Side-mounted, unsupported	= max. 2 m
Rotary	= requires further calculation

- Accessories for
- Guide Troughs, Page 8.7, Page 8.19
- Further information
- Design, Page 1.1

System E4

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►



►



► Page 7.241

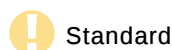


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Price Index

Series 40, Energy Chain®
(with crossbars every link)

Select Energy Chains® with crossbars every link when using rigid hydraulic hoses or if an application is particularly demanding.



Standard

Price Index

Series 41, Energy Chain®
(with crossbars every other link)

This design is the standard Energy Chain® for this size range. For almost all applications, the Series 41 offers the easiest assembly and best stability for the price.



Price Index

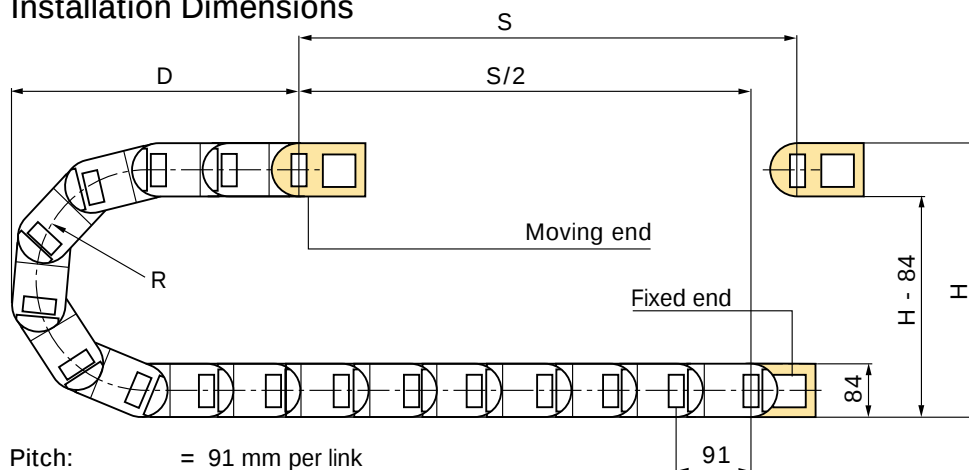


Series R88, Energy Tube (fully enclosed)

Energy Tubes offer excellent cable protection against dirt, debris and other contaminants as well as hot chips. This design offers conduit accessibility along both radii. Lids along the entire inner radius are completely removable. Lids along the entire outer radius are single sided snap-open with a hinge on the other side to keep them attached to the chain or completely removable.



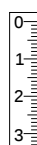
Installation Dimensions



Pitch: = 91 mm per link

Links per m: = 11 links

Tube length: = S

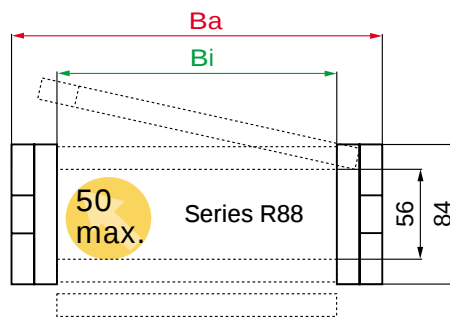
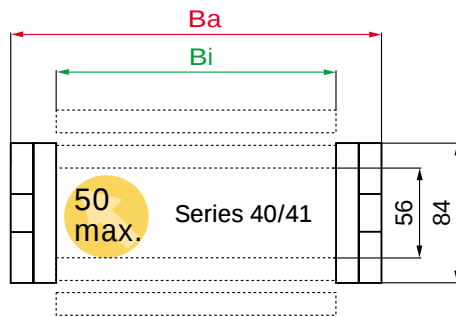
Chain length: = $\frac{S}{2} + K$ 

R	135	150	175	200	240	250	300	350	400	500
$H^*)_{-0}^{+25}$	360	385	435	485	565	585	685	785	885	1085
D	270	285	310	335	375	385	435	485	535	635
K	650	750	825	900	1020	1050	1225	1340	1450	1775

*The required clearance height is $H_F = H + 50$ (with 2 kg/m fill weight)

Please consult igus® if space is particularly restricted.

Product Range



Part No.		Bi	Ba ⁺⁴	Bending Radii
40/ 41.05	Radius	50	86	135**150 175 200
40/ 41.06	Radius	65	101	240 250 300 350
40/ 41/ R88.07*	Radius	75	111	400 500
40/ 41/ R88.10	Radius	100	136	
40/ 41.11	Radius	112	149	These bending radii can be combined with every chain width!
40/ 41/ R88.12	Radius	125	161	
40/ 41.13	Radius	137	174	
40/ 41/ R88.15	Radius	150	186	
40/ 41.16	Radius	162	199	
40/ 41.17	Radius	175	211	
40/ 41.18	Radius	187	224	
40/ 41/ R88.20	Radius	200	236	
40/ 41.21	Radius	212	249	
40/ 41.22	Radius	225	261	
40/ 41.23	Radius	237	274	
40/ 41/ R88.25	Radius	250	286	
40/ 41.26	Radius	262	299	
40/ 41.27	Radius	275	311	
40/ 41.28	Radius	287	324	
40/ 41/ R88.30	Radius	300	336	
40/ 41.31	Radius	312	349	
40/ 41.32	Radius	325	361	
40/ 41.33	Radius	337	374	
40/ 41/ R88.35	Radius	350	386	
40/ 41.36	Radius	362	399	
40/ 41.37	Radius	375	411	
40/ 41.38	Radius	387	424	
40/ 41/ R88.40	Radius	400	436	
40/ 41.41	Radius	412	449	
40/ 41.42	Radius	425	461	
40/ 41.43	Radius	437	474	
40/ 41.45	Radius	450	486	
40/ 41/ R88.46	Radius	462	499	
40/ 41.47	Radius	475	511	
40/ 41.48	Radius	487	524	
40/ 41.50	Radius	500	536	
40/ 41.51	Radius	512	549	
40/ 41.52	Radius	525	561	
40/ 41.53	Radius	537	574	
40/ 41.55	Radius	550	586	
40/ 41.60	Radius	600	636	

Supplement part no. with required radius
for example 40.07.150.0



Order Example



40.07.150.0

Standard color
0 = Black

Other colors

Design,
Page 1.62

* Removable lid only,
no hinged option

** Not available for
R88



Extender crossbar
for large diameter
hoses,
Page 7.107



For wider chains
Page 7.106

40
41
R88
E4/0

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3 options for
all applications

Option 1: polymer pivoting

● Standard



Option 2: polymer locking

● Locked connections

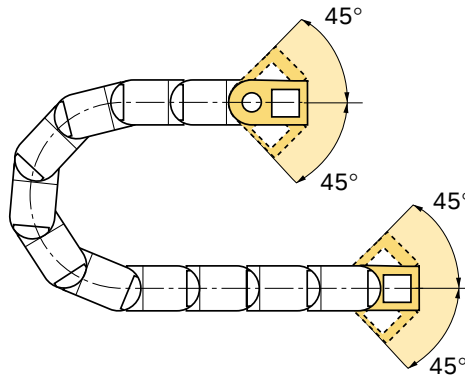


Option 3: steel

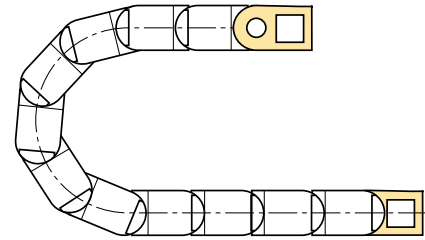
● Electrically conductive
● For all chain widths



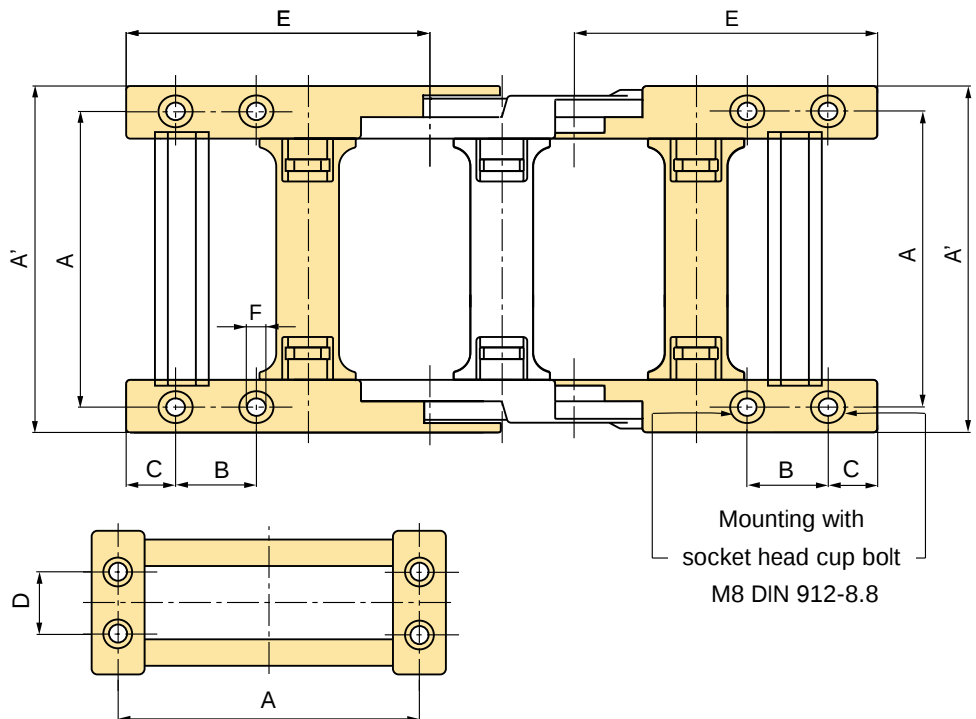
Option 1: Pivoting



Option 2: Locking



- | | |
|--|--|
| <ul style="list-style-type: none"> ! Standard + C-profile option + Universal use + Corrosion-resistant + Short and long travels + Confined installation conditions — Locked connections — Vertical hanging/standing, unsupported | <ul style="list-style-type: none"> + Universal use + C-profile option + Corrosion-resistant + Locked connections + Extreme accelerations + Vertical hanging/standing travels — Gliding applications — If the 1st chain link must pivot |
|--|--|



A	A'	B	C	D	E	F	
Bi + 23	Bi + 41	35	20	45	125	9	in mm

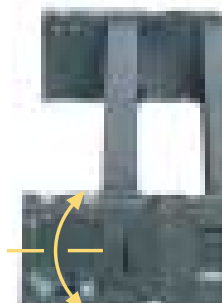
Mounting Brackets

Part No., full set
Series 40/ 41

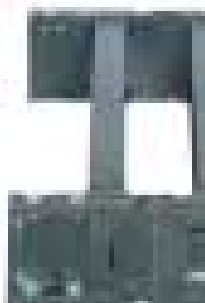
400....12 pivoting
410....12 locking

Please insert width of selected Energy Chain®.
For example 400.13.12
for Energy Chain® 40/ 41.13.....

400... pivoting



410... locking



Selected
Chain/Tube Bi

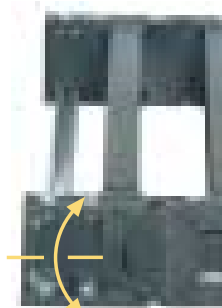
.05	50
.06	65
.07	75
.10	100
.11	112
.12	125
.13	137
.15	150

Part No., full set, with C-profile
Series 40/ 41

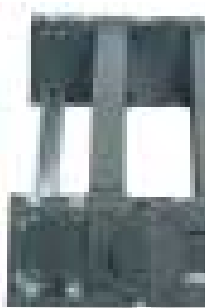
400....12C pivoting
410....12C locking

Please insert width of selected Energy Chain®.
For example 400.13.12C
for Energy Chain® 40/ 41.13.....

400... pivoting



410... locking



.16	162
.17	175
.18	187
.20	200
.21	212
.22	225
.23	237
.25	250
.26	262
.27	275
.28	287

Part No., full set
Series R88

880....12 pivoting
890....12 locking

Please insert width of selected Energy Tube.
For example 880.13.12
for Energy Tube 88.13.....

880... pivoting



890... locking



.30	300
.31	312
.32	325
.33	337
.35	350
.36	362
.37	375
.38	387
.40	400
.41	412
.42	425

Part No., full set, with C-profile
Series R88

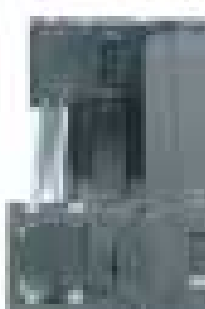
880....12C pivoting
890....12C locking

Please insert width of selected Energy Tube.
For example 880.13.12C
for Energy Tube 88.13.....

880... pivoting



890... locking

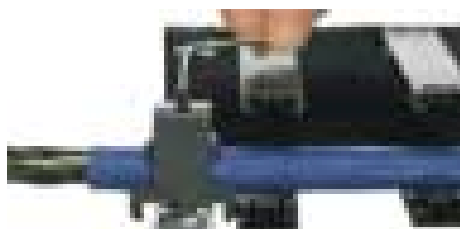


.43	437
.45	450
.46	462
.47	475
.48	487
.50	500
.51	512
.52	525
.53	537
.55	550
.60	600

400.../ 880...12 (C) = Full set, each part with pin/bore
400.../ 880...1 (C) = Mounting bracket with bore
400.../ 880...2 (C) = Mounting bracket with pin

An integrated strain relief system with C-profile
is an option.

► Strain Relief, Page 9.97



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► Page 7.241



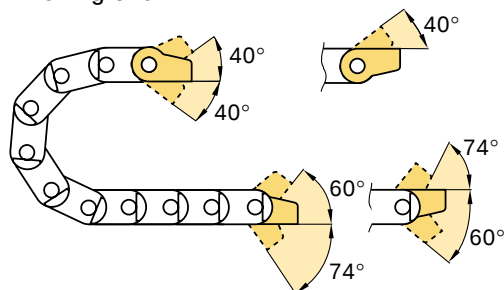
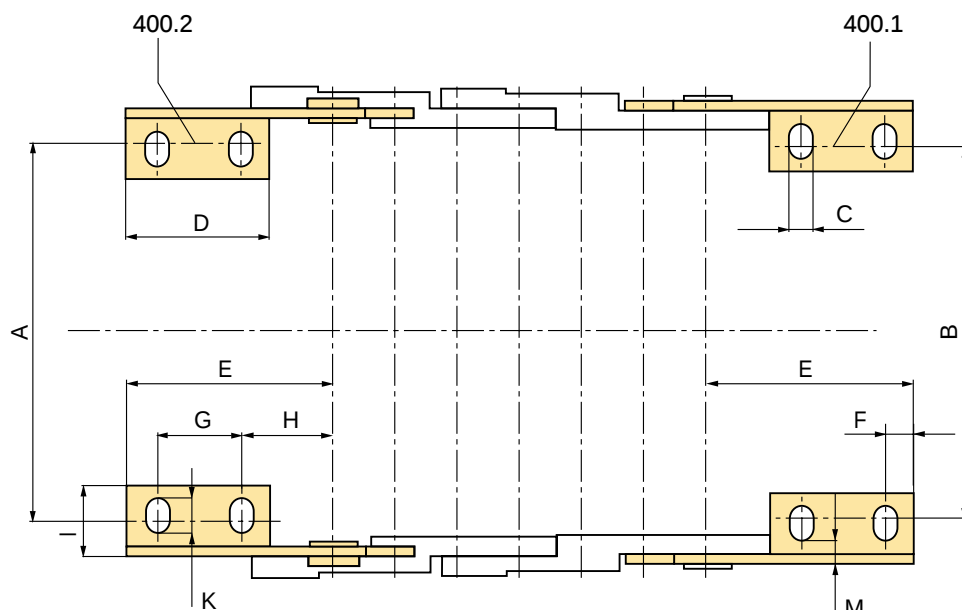
► Page 7.118

Selected
Chain/Tube Bi

.05	50
.06	65
.07	75
.10	100
.11	112
.12	125
.13	137
.15	150
.16	162
.17	175
.18	187
.20	200
.21	212
.22	225
.23	237
.25	250
.26	262
.27	275
.28	287
.30	300
.31	312
.32	325
.33	337
.35	350
.36	362
.37	375
.38	387
.40	400
.41	412
.42	425
.43	437
.45	450
.46	462
.47	475
.48	487
.50	500
.51	512
.52	525
.53	537
.55	550
.60	600

Option 3: Steel

- One part for all chain widths
- Electrically conductive
- Multiple mounting options
- Pre-assembled (consult igus)
- Integrated C-profile

400...1
Moving end400...2
Fixed end

A = B	C	D	E	F	G	H	I	K	M	
Bi - 20	12	70	100	15	40	45	35	18	11	in mm

- 400.12 = Full set, 4 parts, 2 with pin, 2 with bore
- 400.1 = Mounting bracket with bore, 1 part left / right
- 400.2 = Mounting bracket with pin, 1 part left / right

Strain relief package

► Strain Relief, Page 9.97

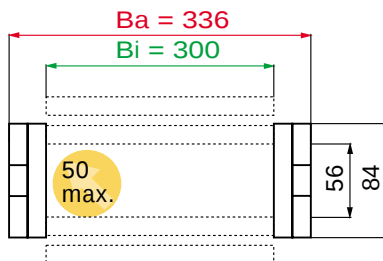


Order Example and Technical Data: Series 40/41/R88 E4/0

Order Example

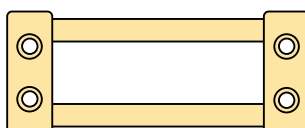
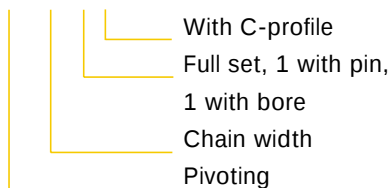
1. Chain selection:

40.30.300.0



2. Mounting brackets:

400.30.12C

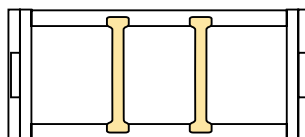


Series 400
► Page 7.117

3. Interior separation:

2 vertical separators, assembled every other chain link (Part No. 411)

Alternative interior separation configuration according to design layout possible.



For 2 m chain, color black,

with pivoting mounting brackets and integrated C-profiles:

2 m 40.30.300.0 and 400.30.12C and 2 Part No. 411 assembled every other chain link

22 links (11 links/m)



4. Other technical data on Guide Troughs for

► Series 400/410/R880, Page 7.118

Guide Troughs

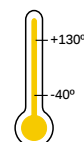


Further information on Guide Troughs, ► Page 8.7, 8.19

Technical Data

The following applies to all series listed here:

Material		igumid G
Permitted temperature	°C	-40/+130
Gliding speed (maximum)	m/s	5
Unsupported v (maximum)	m/s	10
Flammability class		VDE 0304 IIC UL94 HB



Details of material properties

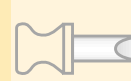
► Design, Page 1.61

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