



E2 R100

e-tubes for cost-effective protection against dirt and swarf



Advantages of the E2 R100 series:

- High level of protection against swarf (including hot swarf)
- Lids openable along the inner or outer radius, from both sides
- Robust and sealed
- Space-efficient with optimised ratio of inner to outer dimensions
- Light, easy to install and cost-effective
- Recommended for short travels and unsupported applications



When to use another e-tube:

- When larger interior heights are required ► **R2.1 e-tubes**, page 478
- When even higher strength is required ► **R4.1L e-tubes**, page 524
- When no swarf protection is required ► **Series E2/000**, page 360
- For extremely swarf-resistant e-tubes ► **RX system**, page 502
- When a particularly quiet operation is required using a smaller pitch ► **E2 R e-tubes**, page 454

Attachment from any side:
with KMA mounting
brackets

Swarf protection:
smooth, swarf-
resistant exterior

Long service life:
lateral gliding
surfaces

Fast assembly:
lids openable
along the inner
or outer radius,
from both sides

Space-saving:
optimised ratio of inner
to outer dimensions

Strong:
double stop-dog
system for long
unsupported lengths

Protected:
covered pin/bore
connection


Protection against dirt and swarf, cost-effective - E2 R100 e-tubes


Cost-effective, for applications with low and medium speeds. E2 R100 e-tubes work in hot swarf areas, in areas of dirt and dust generated by woodworking, steel-mills, pulp and paper, textile, agriculture, coal-fired plants and many other hostile environments.


- High level of protection against swarf (including hot swarf)
- Robust and sealed
- Space-efficient with optimised ratio of inner to outer dimensions
- Modular interior separation
- Universal KMA mounting brackets with attachment options from any side

Typical industries and applications

- Machine tools ● Wood processing machines
- General mechanical engineering ● In all areas with dirt and swarf

 e-tubes with igumid HT-Material for hot swarf up to +850°C available upon request

 Electrically conductive ESD e-tubes upon request

 UL94-V0 classifications upon request

 **iF product design award**
2000 series R117/R118

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 R100 e-tubes -
lids openable along the inner
radius, from both sides

R117	21	20 - 100	32 - 112	28	063 - 180	1.20	434
R157	40	40 - 200	56 - 216	50	100 - 250	2.25	440
R167	50	50 - 250	68 - 268	64	100 - 300	2.50	448



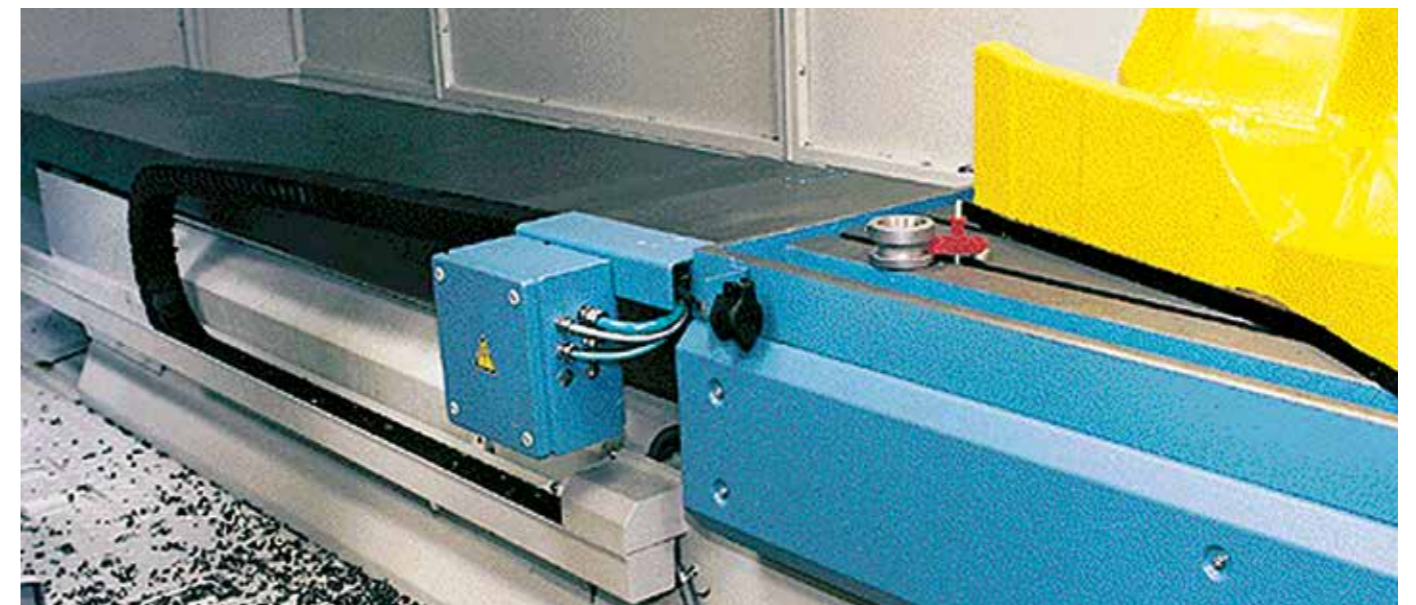
E2 e-tubes R100 -
lids openable along the outer
radius, from both sides

R118	21	25 - 80	37 - 92	28	063 - 180	1.20	434
R158	40	40 - 200	56 - 216	50	100 - 250	2.25	440
R168	50	50 - 200	68 - 218	64	100 - 300	2.50	448








Available from stock. Ready to ship in 24 - 48hrs.*

*The delivery times indicated correspond to the average time until the ordered goods are dispatched.



igus® e-tubes provide safe protection for cables and can easily be opened





Technical data

	Speed gliding ¹⁾ / acceleration gliding ¹⁾	upon request
	Speed FL_G / acceleration FL_G	≤ 10 [m/s] / ≤ 100 [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




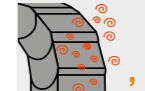



■ FL_G = unsupported with straight upper run ■ FL_B = unsupported with permitted sag

1) Gliding applications for long travels are available upon request, please consult igus®.

Installation types, maximum travels


Series	 Unsupported	 Vertical hanging	 Vertical standing	 Side mounted unsupported
R117 / R118	≤ 2.5 m	≤ 20 m	≤ 2.0 m	≤ 0.7 m
R157 / R158	≤ 4.5 m	≤ 40 m	≤ 3.0 m	≤ 1.0 m
R167 / R168	≤ 5.0 m	≤ 50 m	≤ 3.0 m	≤ 1.0 m

Options with order keys | Examples based on series R167


	Standard	NC version - (No Camber) without pretension	No burning-in of hot swarf up to +850°C (+1562° F)	ESD - electrically conductive material
Part No. Standard	Part No. NC version	Part No. igumid HT	Part No. igumid ESD	
				
	168.100.R.0	168.100.R.0.NC	168.100.R.0.HT	168.100.R.0.ESD
	Ready to ship* in 24 - 48hrs.	Delivery time* 2-5 business days	Delivery time* 7-10 business days	Delivery time* 10 business days

*The delivery times indicated correspond to the average time until the ordered goods are dispatched.





Order example | Order key and colour examples | Examples based on series R168

 Order example for complete e-tube (1.0m), colour black, with mounting brackets and interior separation:








e-tube (1.0m)	Please indicate e-tube length or number of links: 1.0m or 17 links	168.100.100.0
+ Mounting brackets	KMA - 1 set	1680.100.12
Interior separation	with 2 separators assembled every 2 nd link	2 x 1686.01
Order text:	1 m 168.100.100.0 + 1680.100.12 + 2 x 1686.01	

 Order key

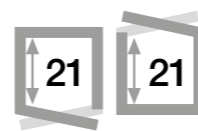
e-tube openable along the outer radius **168.100.100.0**
 e-tube openable along the inner radius **167.100.100.0**

Series / Type 
 Width index (depends on B_i) 
 Bend radius R 
 Colour index (standard black) 

Order index for colour options

Colour	Order index	Colour	Order index
 Black	Standard .0	 Orange	Special colour .2
 Silver-grey	Special colour .31	 Yellow	Special colour .4
 White	Special colour .1	 Light grey	Special colour .14
 Grey-white	Special colour .1S		

Black e-tubes available from stock.
 Above special colours upon request.



e-tubes | Series R117 | Lids openable along the inner radius, from both sides
 e-tubes | Series R118 | Lids openable along the outer radius, from both sides

Part No. e-tubes openable along the inner radius	Part No. e-tubes openable along the outer radius	Bi [mm]	Ba [mm]	R Available bend radii [mm]	R117 [kg/m]	R118 [kg/m]
117.020.R.0	118.020.R.0*	20	32	063 075 100 110 125 145 180	≈ 0.43	≈ 0.43
117.025.R.0	118.025.R.0	25	37	063 075 100 110 125 145 180	≈ 0.46	≈ 0.46
117.038.R.0	118.038.R.0*	38	50	063 075 100 110 125 145 180	≈ 0.56	≈ 0.56
117.048.R.0	118.048.R.0	48	60	063 075 100 110 125 145 180	≈ 0.66	≈ 0.66
117.063.R.0	118.063.R.0*	63	75	063 075 100 110 125 145 180	≈ 0.76	≈ 0.76
117.080.R.0	118.080.R.0	80	92	063 075 100 110 125 145 180	≈ 0.89	≈ 0.89
117.100.R.0	118.100.R.0*	100	112	063 075 100 110 125 145 180	≈ 1.06	≈ 1.06

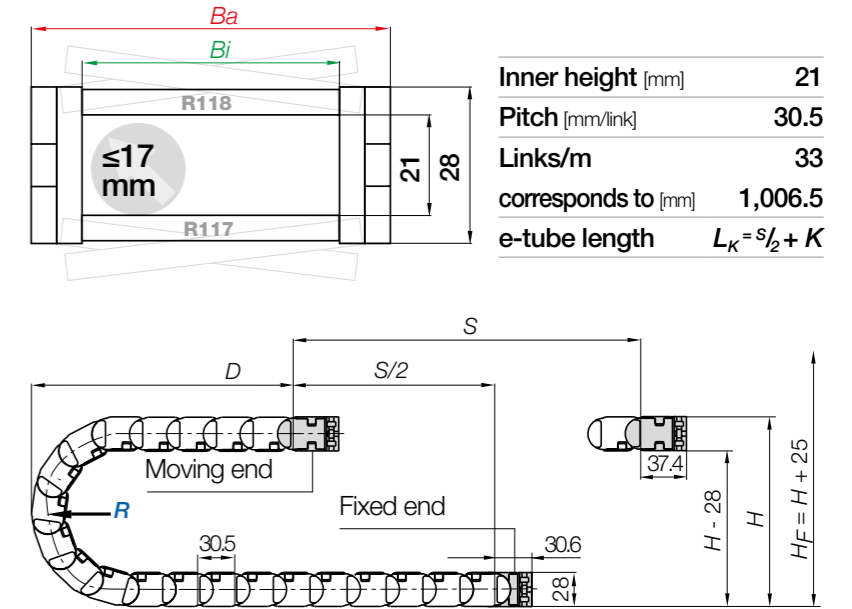
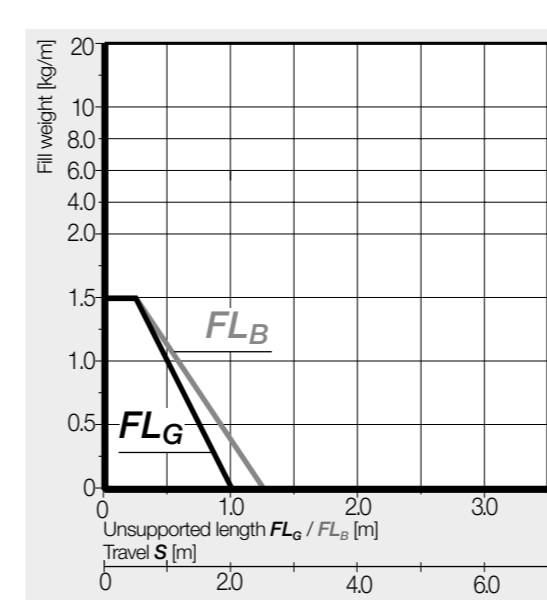
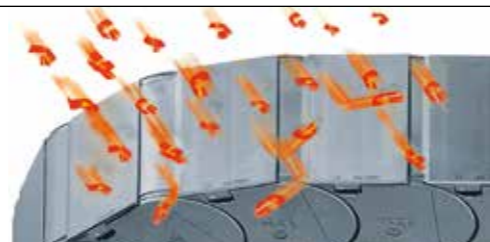
*Width available upon request. Please consult igus® for delivery time.

Complete Part No. with required radius (R). Example: 118.080.100.0.

Hot swarf up to +850°C

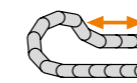
- e-tubes to withstand 850°C swarf, as a special option
- No hot swarf melting or embedding into the chain
- igus® igumid HT material

More information ► www.igus.eu/HT

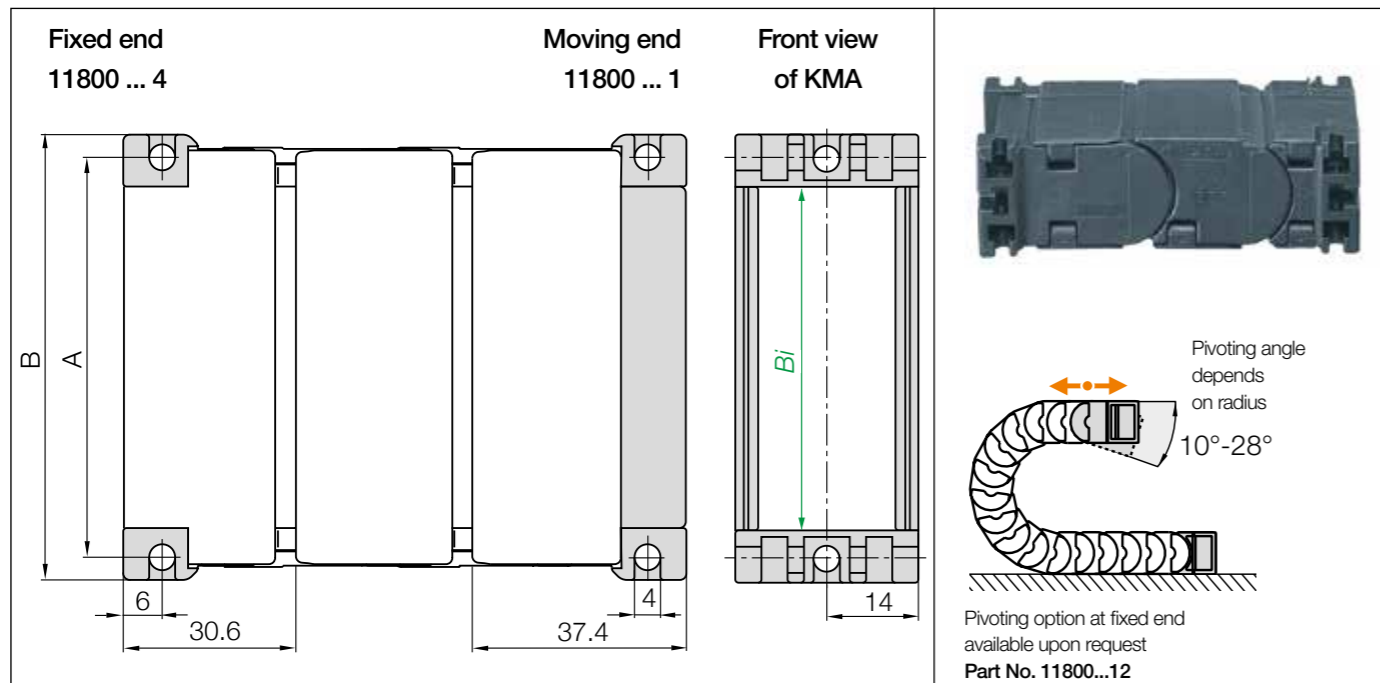


R	063	075	100	110	125	145	180
H	154	178	228	248	278	318	388
D	123	135	160	170	185	205	240
K	260	300	380	410	455	520	630

The required clearance height: $H_F = H + 25\text{mm}$ (with 1.0kg/m fill weight)



i If a gliding application is required for a long travel, please consult igus®.



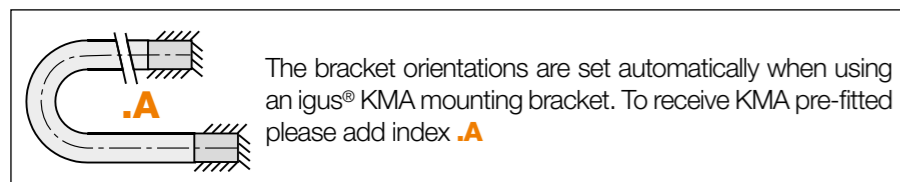
KMA, one end pivoting | Recommended for unsupported applications

Width index	Part No. full set KMA one end pivoting	Part No. full set KMA locking	A [mm]	B [mm]	Bi [mm]
020. ▶	11800.020.14	-	29	36	20
025. ▶	11800.025.14	-	34	41	25
038. ▶	11800.038.14	-	47	54	38
048. ▶	11800.048.14	-	57	64	48
063. ▶	11800.063.14	-	72	79	63
080. ▶	11800.080.14	-	89	96	80
100. ▶	11800.100.14	-	109	116	100

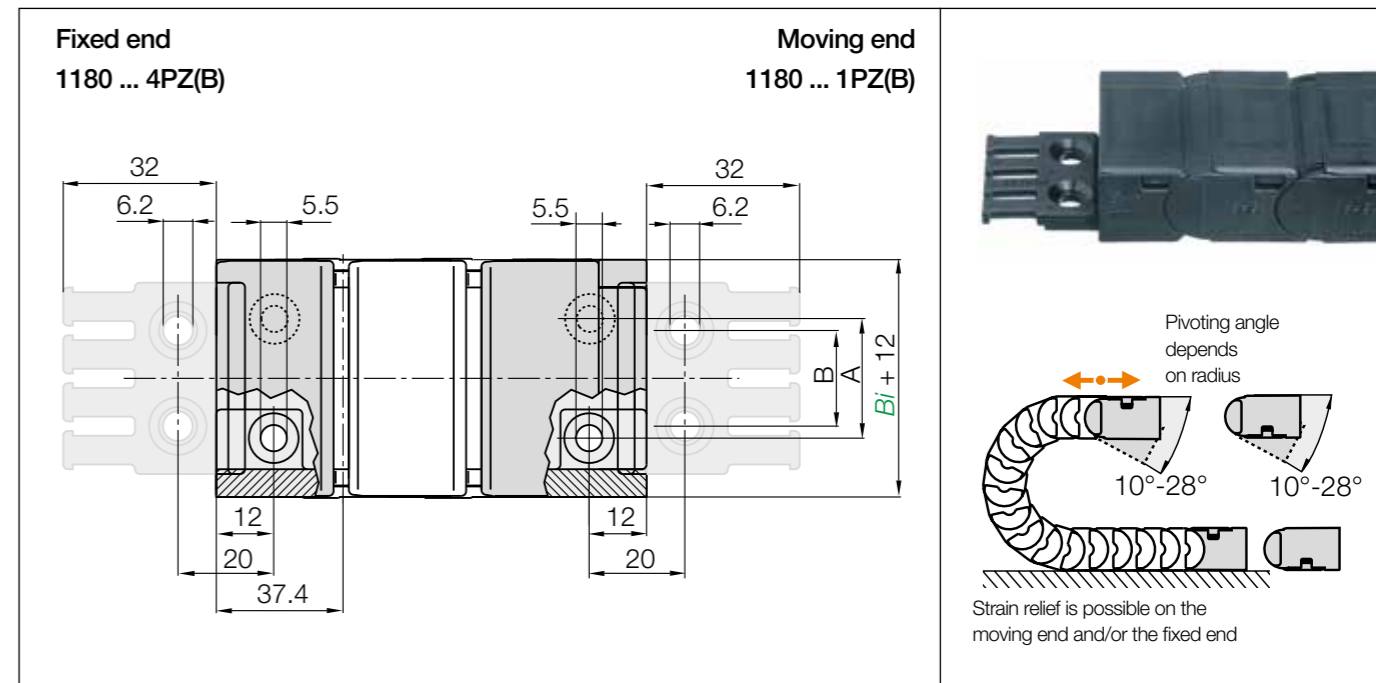
(KMA = polymer metal mounting bracket)

The mounting brackets are supplied with hexagon nuts and can be attached with M4 bolts,

or the mounting brackets may also be attached with M4 hexagon socket DIN 912 cap bolts.



Strain relief e.g. clamps, tiwrap plates, nuggets and plug-in clips are available from stock. The complete chainfix range with ordering options ▶ From page 1300

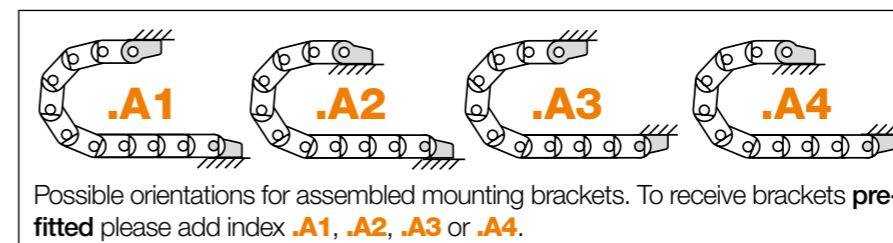


Angled polymer bracket one end pivoting | Recommended for unsupported applications

Width index	Part No. full set with tiwrap plates	Part No. full set without tiwrap plates	A [mm]	B [mm]	Bi [mm]	Number of teeth
025. ▶	1180.025.14PZB	1180.025.14PZ	12	15	25	3
038. ▶	1180.038.14PZB	1180.038.14PZ	25	20	38	4
048. ▶	1180.048.14PZB	1180.048.14PZ	35	30	48	5
063. ▶	1180.063.14PZB	1180.063.14PZ	50	40	63	6
080. ▶	1180.080.14PZB	1180.080.14PZ	67	60	80	8
100. ▶	1180.100.14PZB	1180.100.14PZ	87	80	100	10

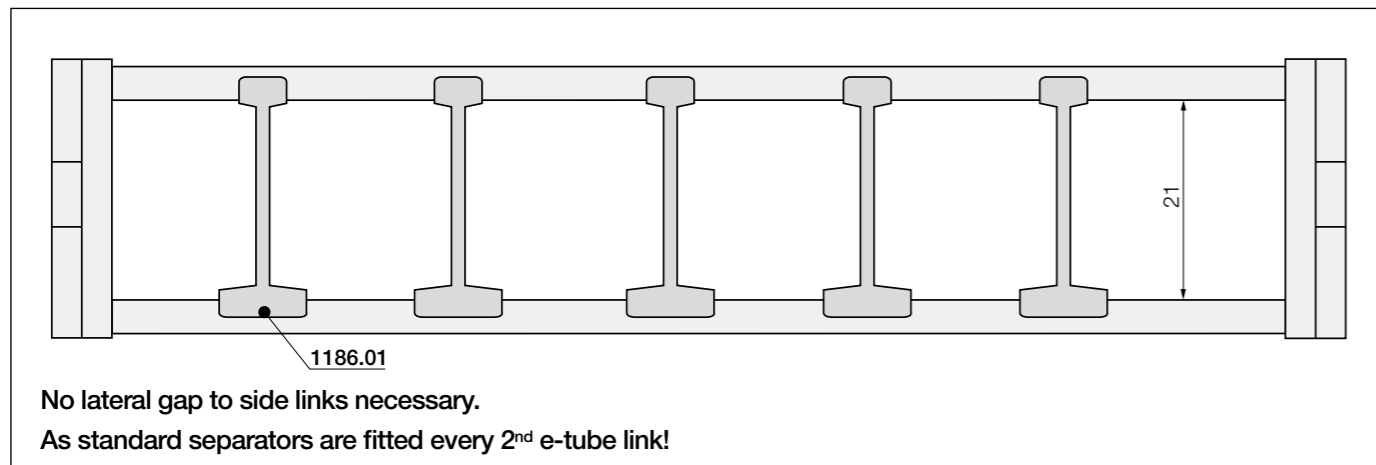
The following parts are required for attachment of the mounting brackets:

● Countersunk bolt M5 DIN 912-8.8 Length depends on the thickness of the attachment base ● Hexagon nut M5 DIN 7991 ● Washer 5.3 DIN 125-ST



Strain relief e.g. clamps, tiwrap plates, nuggets and plug-in clips are available from stock. The complete chainfix range with ordering options ▶ From page 1300

Interior separation



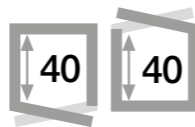
		Standard separator	
		unassembled	1185.01
		assembled	1186.01

Standard separator

For simple vertical subdivision. Offers security due to its wide base design, also when used with large cables or hoses.



Typical use of igus® E2 R100 e-tubes - standing application in a machine tool



e-tubes | Series R157 | Lids openable along the inner radius, from both sides
 e-tubes | Series R158 | Lids openable along the outer radius, from both sides

Part No. e-tubes openable along the inner radius	Part No. e-tubes openable along the outer radius	Bi [mm]	Ba [mm]	R Available bend radii [mm]	R157 [kg/m]	R158 [kg/m]
157.040.R.0 ¹⁾	158.040.R.0 ¹⁾	40	56	100 125 150 175 200 250	≈ 1.21	≈ 1.21
157.050.R.0	158.050.R.0	50	66	100 125 150 175 200 250	≈ 1.30	≈ 1.30
157.075.R.0	158.075.R.0	75	91	100 125 150 175 200 250	≈ 1.50	≈ 1.50
157.088.R.0	158.088.R.0	88	104	100 125 150 175 200 250	≈ 1.57	≈ 1.57
157.090.R.0 ²⁾	158.090.R.0 ²⁾	88	104	100 125 150 175 200 250	≈ 1.63	≈ 1.63
157.100.R.0	158.100.R.0	100	116	100 125 150 175 200 250	≈ 1.71	≈ 1.71
157.125.R.0	158.125.R.0	125	141	100 125 150 175 200 250	≈ 1.92	≈ 1.92
157.135.R.0	158.135.R.0	135	150	100 125 150 175 200 250	≈ 2.10	≈ 2.10
157.150.R.0	158.150.R.0	150	166	100 125 150 175 200 250	≈ 2.13	≈ 2.13
157.175.R.0	158.175.R.0	175	191	100 125 150 175 200 250	≈ 2.34	≈ 2.34
157.200.R.0	158.200.R.0	200	216	100 125 150 175 200 250	≈ 2.55	≈ 2.55

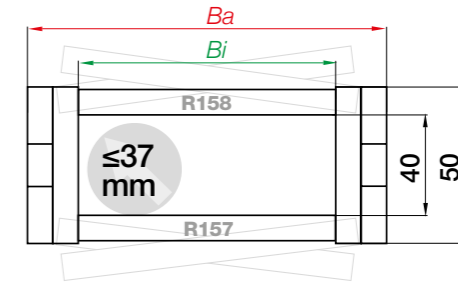
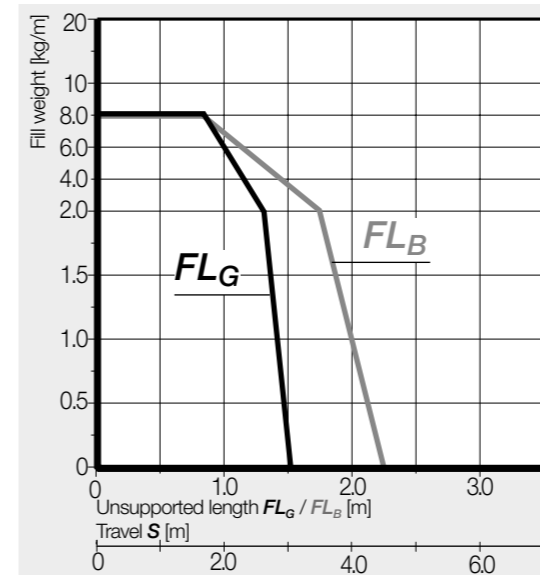
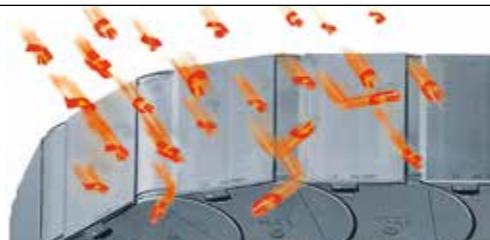
1) Lid removable only, not hinged 2) Same dimensions as 157.088 - less recent design, no hinged option

Complete Part No. with required radius (R). Example: 158.100.100.0.

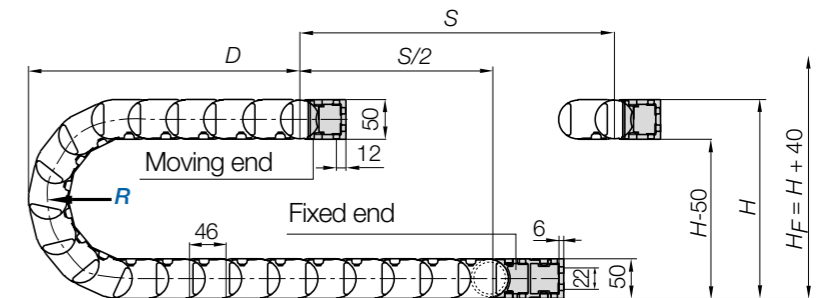
Hot swarf up to +850°C

- e-tubes to withstand 850°C swarf, as a special option
- No hot swarf melting or embedding into the chain
- igus® igumid HT material

More information ► www.igus.eu/HT

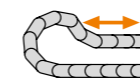


Inner height [mm]	40
Pitch [mm/link]	46
Links/m	22
corresponds to [mm]	1,012
e-tube length	$L_K = S/2 + K$

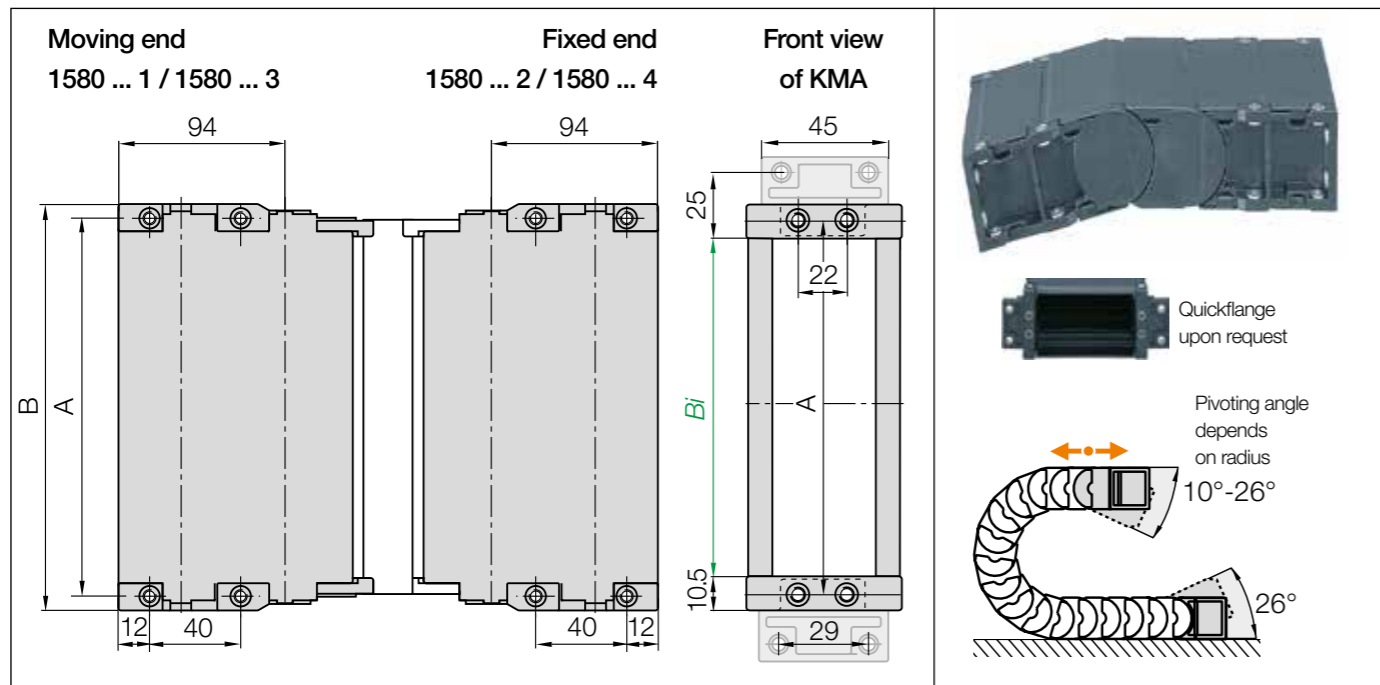


R	100	125	150	175	200	250
H	250	300	350	400	450	550
D	194	219	244	269	294	344
K	410	485	565	645	725	880

The required clearance height: $H_F = H + 40\text{mm}$ (with 1.0kg/m fill weight)



i If a gliding application is required for a long travel, please consult igus®.



KMA, long pivoting | Recommended for unsupported applications
KMA, long locking | Recommended for vertical hanging and standing applications

Width index	Part no. full set KMA pivoting	Part No. full set KMA locking	A [mm]	B [mm]	<i>Bi</i> [mm]
040.	15801.040.12	15801.040.34	50	61	40
050.	15800.050.12	15800.050.34	60	71	50
075.	15800.075.12	15800.075.34	85	96	75
088.	15800.088.12	15800.088.34	98	109	88
090.	15801.090.12	15801.090.34	98	109	88
100.	15800.100.12	15800.100.34	110	121	100
125.	15800.125.12	15800.125.34	135	146	125
135.	15800.135.12	15800.135.34	145	156	135
150.	15800.150.12	15800.150.34	160	171	150
175.	15800.175.12	15800.175.34	185	196	175
200.	15800.200.12	15800.200.34	210	221	200

(KMA = polymer metal mounting bracket)

The following parts are required for attachment of the mounting brackets:

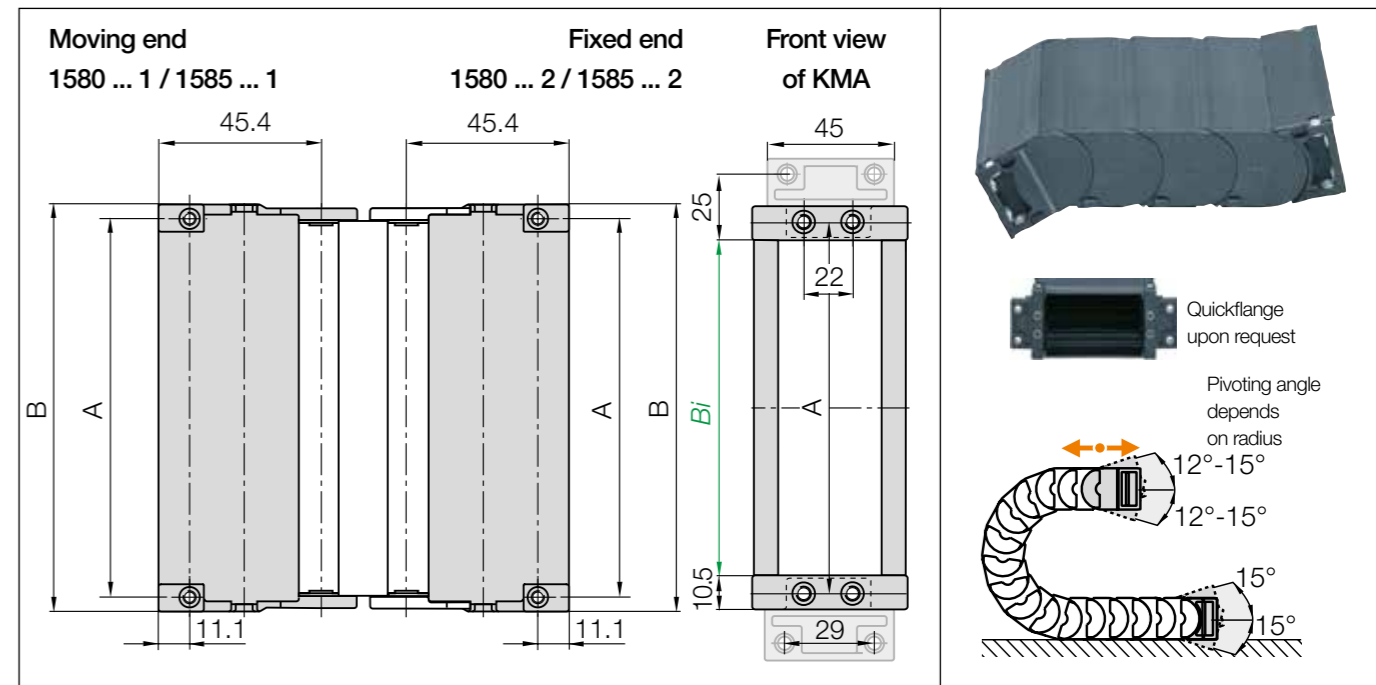
● Socket head cap bolt M5 DIN 912-8.8 Length depends on the thickness of the attachment base ● Washer 5.3 DIN 125-ST ● Hexagon nut M5 DIN 934-8

To receive full sets with pre-fitted quickflange please add index QF ▶ For example: Part No. 15800.100.12.QF. Unassembled quickflange: Part No. 15800.QF



15800.100.12.A Order example
.A... to indicate option with brackets pre-fitted
 Full set
 Width index
 Series

Strain relief e.g. clamps, tiwrap plates, nuggets and plug-in clips are available from stock. The complete chainfix range with ordering options ▶ From page 1300



KMA, short pivoting | Recommended for unsupported applications
KMA, short locking | Recommended for vertical hanging and standing applications

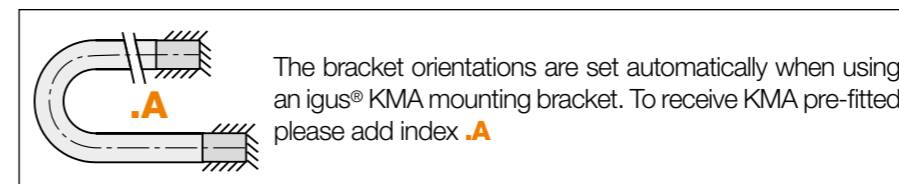
Width index	Part no. full set KMA pivoting	Part No. full set KMA locking	A [mm]	B [mm]	<i>Bi</i> [mm]
040.	1580.040.12	1585.040.12	50	61	40
050.	1580.050.12	1585.050.12	60	71	50
075.	1580.075.12	1585.075.12	85	96	75
088.	1580.088.12	1585.088.12	98	109	88
090.	1580.090.12	1585.090.12	98	109	88
100.	1580.100.12	1585.100.12	110	121	100
125.	1580.125.12	1585.125.12	135	146	125
135.	1580.135.12	1585.135.12	145	156	135
150.	1580.150.12	1585.150.12	160	171	150
175.	1580.175.12	1585.175.12	185	196	175
200.	1580.200.12	1585.200.12	210	221	200

(KMA = polymer metal mounting bracket)

The following parts are required for attachment of the mounting brackets:

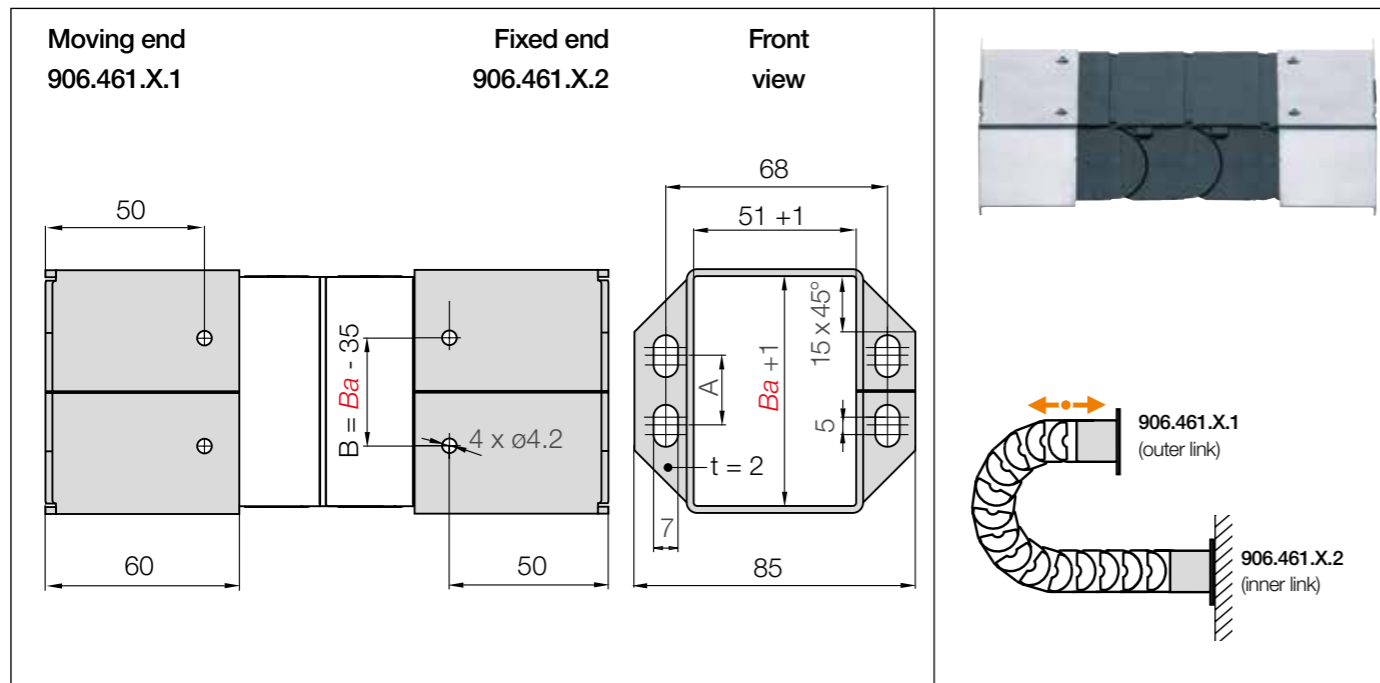
● Socket head cap bolt M5 DIN 912-8.8 Length depends on the thickness of the attachment base ● Washer 5.3 DIN 125-ST ● Hexagon nut M5 DIN 934-8

To receive full sets with pre-fitted quickflange please add index QF ▶ For example: Part No. 15800.100.12.QF. Unassembled quickflange: Part No. 15800.QF



1580.100.12.A Order example
.A... to indicate option with brackets pre-fitted
 Full set
 Width index
 Series

Strain relief e.g. clamps, tiwrap plates, nuggets and plug-in clips are available from stock. The complete chainfix range with ordering options ▶ From page 1300

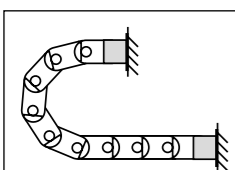


Steel flange, locking | Recommended for unsupported applications

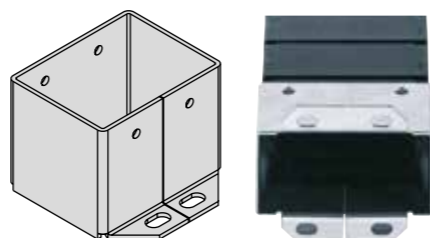
Width index	Hole pattern	Part No. full set steel flange	Bi [mm]	Ba [mm]	A [mm]	B [mm]
050. ▶	58.05	906.461.1.12*	50	66	20	31
075. ▶	58.1	906.461.2.12*	75	91	30	57

Mounting only with hexagon socket DIN 912 M6 and washer DIN 125, 6.3mm

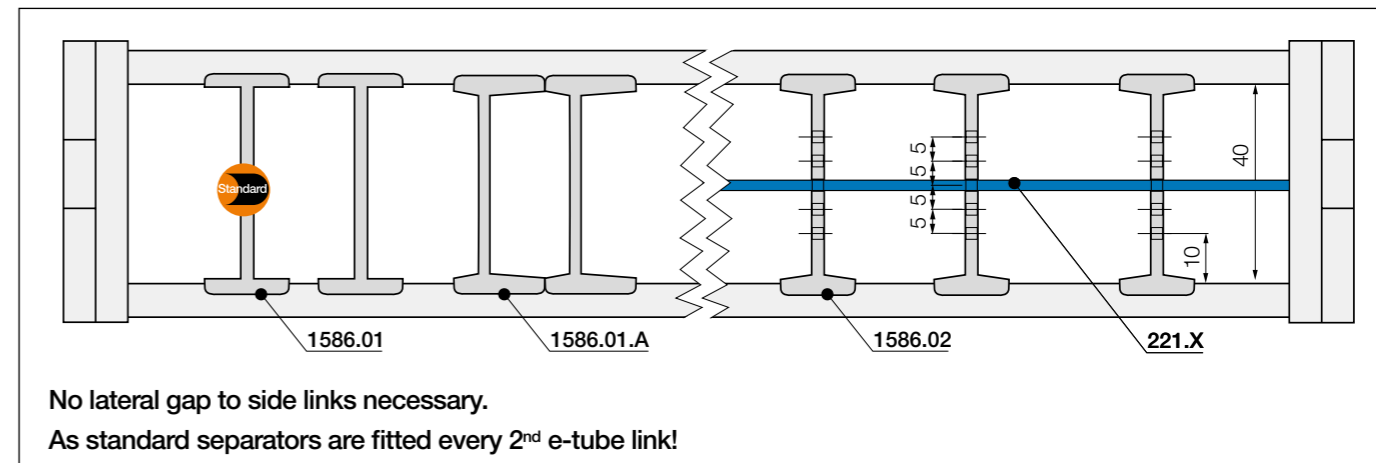
*Available upon request. Please consult igus® for delivery time.



Metallic flange brackets with common hole patterns can easily replace alternatives, without having to alter the hole pattern. Flush attachment possibilities at both ends of the e-tube using flange mounting brackets made of steel.



Strain relief e.g. clamps, tiewrap plates, nuggets and plug-in clips are available from stock. The complete chainfix range with ordering options ▶ From page 1300



No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-tube link!

		Standard separator
		unassembled 1585.01 assembled 1586.01

Option 1 | Separators
Standard separator

For simple vertical subdivision. Offers security due to its wide base design, also when used with large cables or hoses.

		Separator, asymmetrical
		unassembled 1585.01.A assembled 1586.01.A

Separator, asymmetrical

For side-mounted applications. Asymmetrical separator, no additional spacers necessary.

		Slotted separator
		unassembled 1585.02 assembled 1586.02

Option 2 | Full-width shelves
Slotted separator for full-width shelves

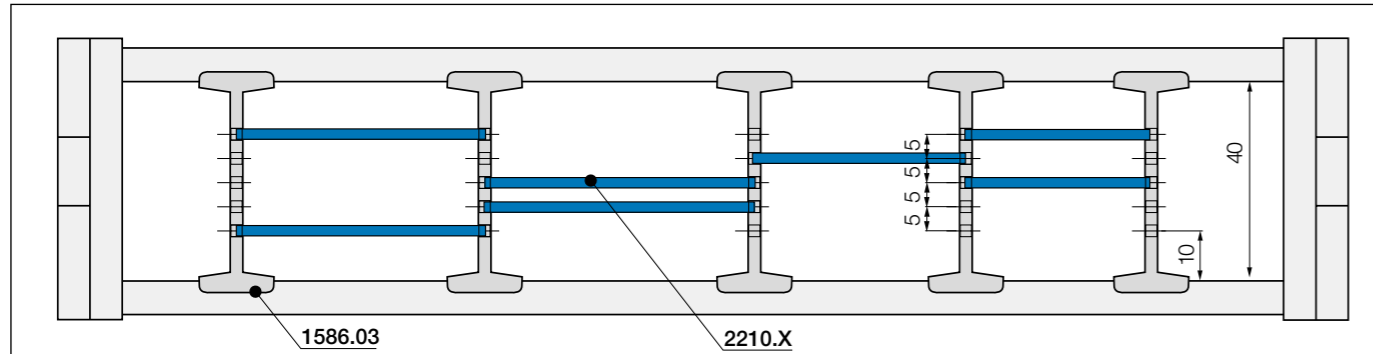
Vertical separation in e-tubes. The slot allows basic vertical/horizontal shelving arrangements.

		Full-width shelf for e-tubes
		unassembled 220.X assembled 221.X

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
	040	220.40	221.40	100	220.100	221.100	175	220.175	221.175
050	220.50	221.50	125	220.125	221.125	200	220.200	221.200	
075	220.75	221.75	135	220.135	221.135				
088	220.88	221.88	150	220.150	221.150				



No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-tube link!

	<p>Slotted separator</p> <p>unassembled 1585.03</p> <p>assembled 1586.03</p>
--	---

Option 3 | Partial shelves
Slotted separator for partial shelves

Allows modular shelving arrangements.

	<p>Shelf for e-tubes</p> <p>unassembled 2200.X</p> <p>assembled 2210.X</p>
--	---

Shelf

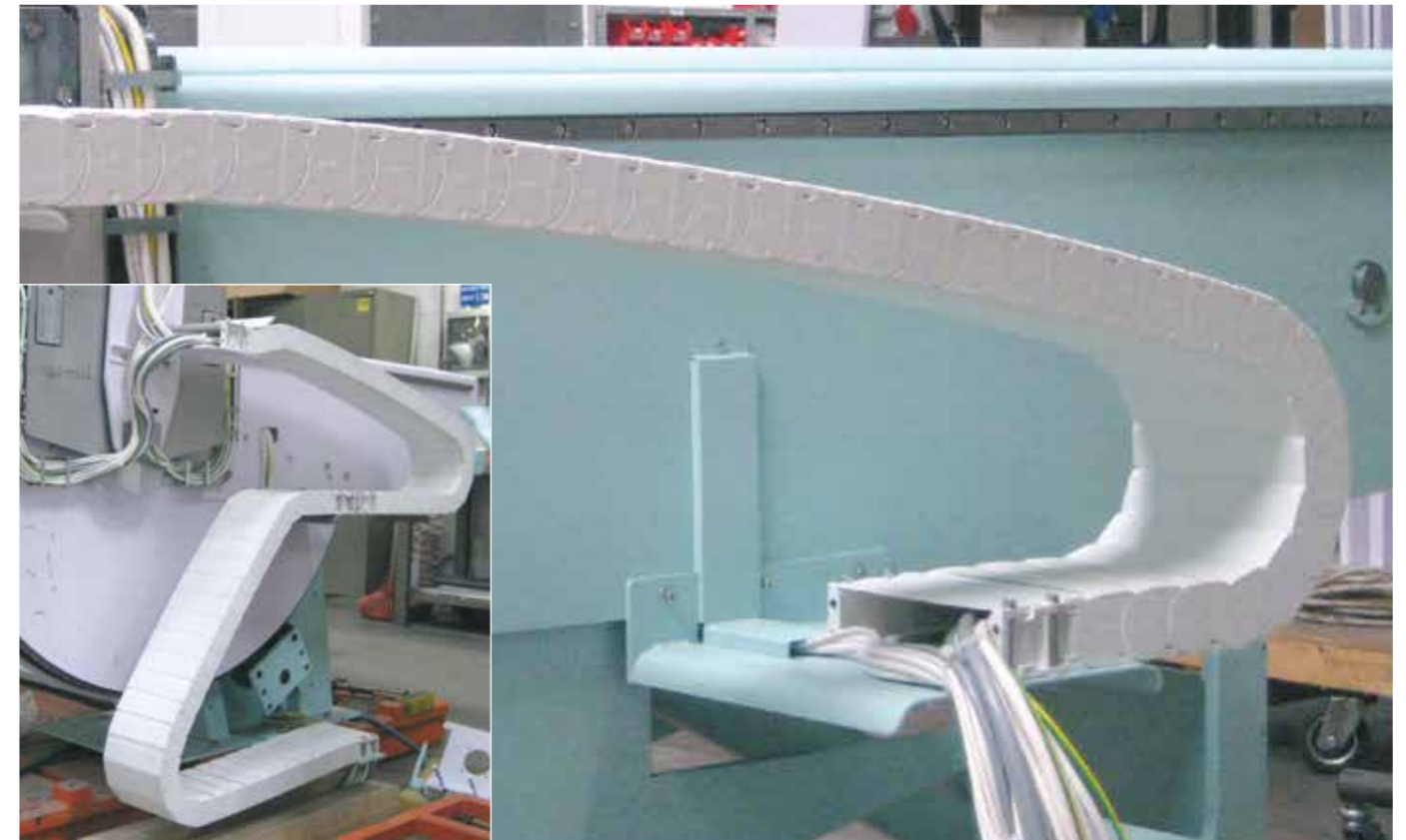
For applications involving many cables with different diameters, shelves can be fitted at different heights.

Shelves	X [mm]	unassembled	assembled	X [mm]	unassembled	assembled	X [mm]	unassembled	assembled
	018	2200.18	2210.18	043	2200.43	2210.43	088	2200.88	2210.88
	023	2200.23	2210.23	048	2200.48	2210.48	099	2200.99	2210.99
	028	2200.28	2210.28	058	2200.58	2210.58	124	2200.124	2210.124
	033	2200.33	2210.33	068	2200.68	2210.68	149	2200.149	2210.149
	038	2200.38	2210.38	073	2200.73	2210.73			

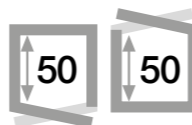
Separator with integrated strain relief teeth

- Can be integrated into the mounting bracket or placed at any point in the e-tube
- Combines strain relief and interior separation, for restricted space conditions
- Strain relief separator is easy to assemble without any screws

Part No. 1585.01.Z. More information ► From page 1326



White igus® e-tube series E2 R100 in a medical application



e-tubes | Series R167 | Lids openable along the inner radius, from both sides
 e-tubes | Series R168 | Lids openable along the outer radius, from both sides

Part No. e-tubes openable along the inner radius	Part No. e-tubes openable along the outer radius	Bi [mm]	Ba [mm]	R Available bend radii										R167 [kg/m]	R168 [kg/m]
				100	125	150	175	200	225	250	300				
167.050.R.0	168.050.R.0	50	68	100	125	150	175	200	225	250	300	≈ 1.58	≈ 1.58		
167.075.R.0	168.075.R.0	75	93	100	125	150	175	200	225	250	300	≈ 1.84	≈ 1.84		
167.100.R.0	168.100.R.0	100	118	100	125	150	175	200	225	250	300	≈ 2.09	≈ 2.09		
167.115.R.0	168.115.R.0	115	133	100	125	150	175	200	225	250	300	≈ 2.24	≈ 2.24		
167.125.R.0	168.125.R.0*	125	143	100	125	150	175	200	225	250	300	≈ 2.35	≈ 2.35		
167.150.R.0	168.150.R.0	150	168	100	125	150	175	200	225	250	300	≈ 2.60	≈ 2.60		
167.175.R.0	168.175.R.0	175	193	100	125	150	175	200	225	250	300	≈ 2.86	≈ 2.86		
167.200.R.0	168.200.R.0	200	218	100	125	150	175	200	225	250	300	≈ 3.11	≈ 3.11		
167.225.R.0	168.225.R.0*	225	243	100	125	150	175	200	225	250	300	≈ 3.37	≈ 3.37		
167.250.R.0	168.250.R.0*	250	268	100	125	150	175	200	225	250	300	≈ 3.62	≈ 3.62		

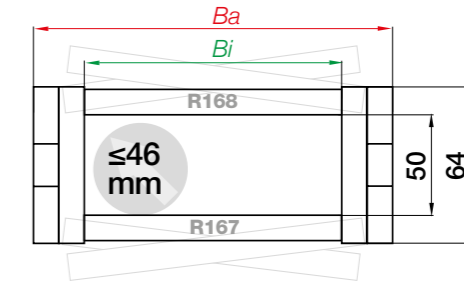
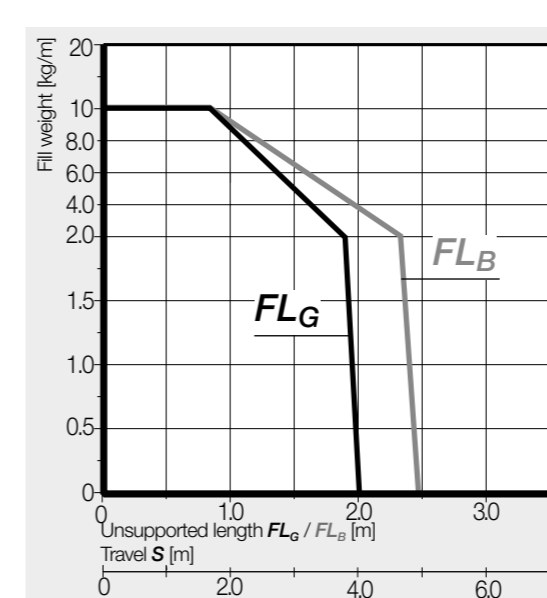
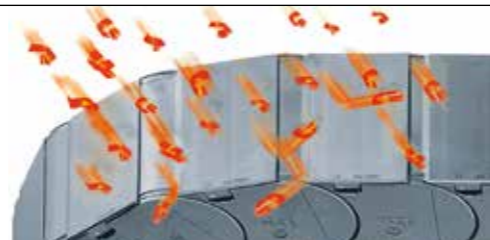
*Width available upon request. Please consult igus® for delivery time.

Complete Part No. with required radius (R). Example: 168.100.100.0.

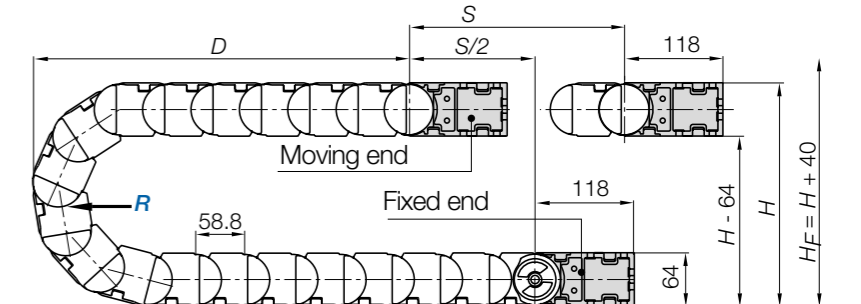
Hot swarf up to +850°C

- e-tubes to withstand 850°C swarf, as a special option
- No hot swarf melting or embedding into the chain
- igus® igumid HT material

More information ► www.igus.eu/HT

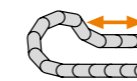


Inner height [mm]	50
Pitch [mm/link]	58.8
Links/m	17
corresponds to [mm]	999.6
e-tube length	$L_K = S/2 + K$

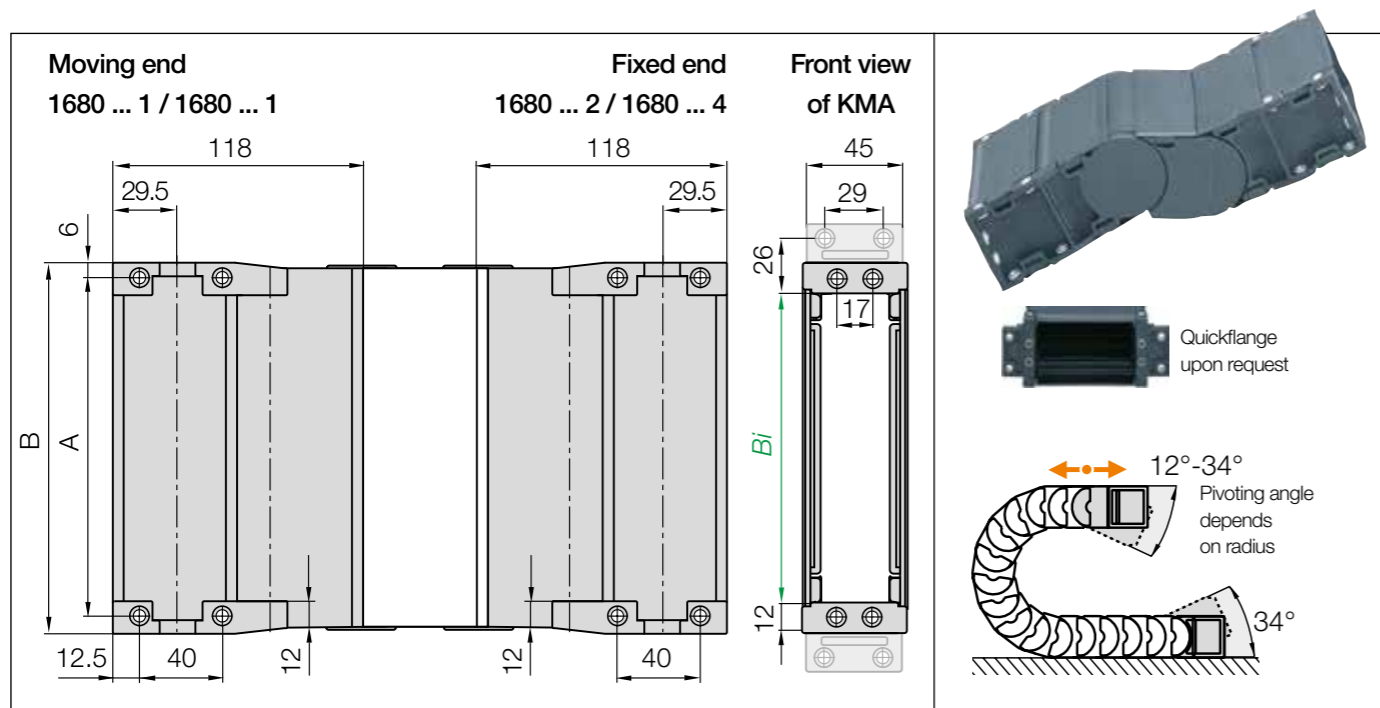


R	100	125	150	175	200	225	250	300
H	264	314	364	414	464	514	564	664
D	220	245	270	295	320	345	370	420
K	435	515	590	670	750	825	905	1,065

The required clearance height: $H_F = H + 40\text{mm}$ (with 2.0kg/m fill weight)



i If a gliding application is required for a long travel, please consult igus®.



KMA, pivoting | Recommended for unsupported applications
KMA, locking | Recommended for vertical hanging and standing applications

Width index	Part no. full set KMA pivoting	Part No. full set KMA fixed end locking*	A [mm]	B [mm]	Bi [mm]
050.	1680.050.12	1680.050.14	62	74	50
075.	1680.075.12	1680.075.14	87	99	75
100.	1680.100.12	1680.100.14	112	124	100
115.	1680.115.12	1680.115.14	127	139	115
125.	1680.125.12	1680.125.14	137	149	125
150.	1680.150.12	1680.150.14	162	174	150
175.	1680.175.12	1680.175.14	187	199	175
200.	1680.200.12	1680.200.14	212	224	200
225.	1680.225.12	1680.225.14	237	249	225
250.	1680.250.12	1680.250.14	262	274	250

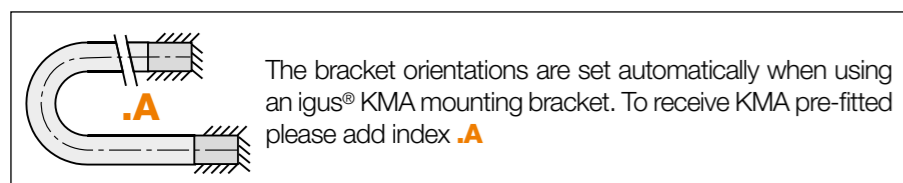
(KMA = polymer metal mounting bracket)

*only the fixed end is locking, the moving end is pivoting

The following parts are required for attachment of the mounting brackets:

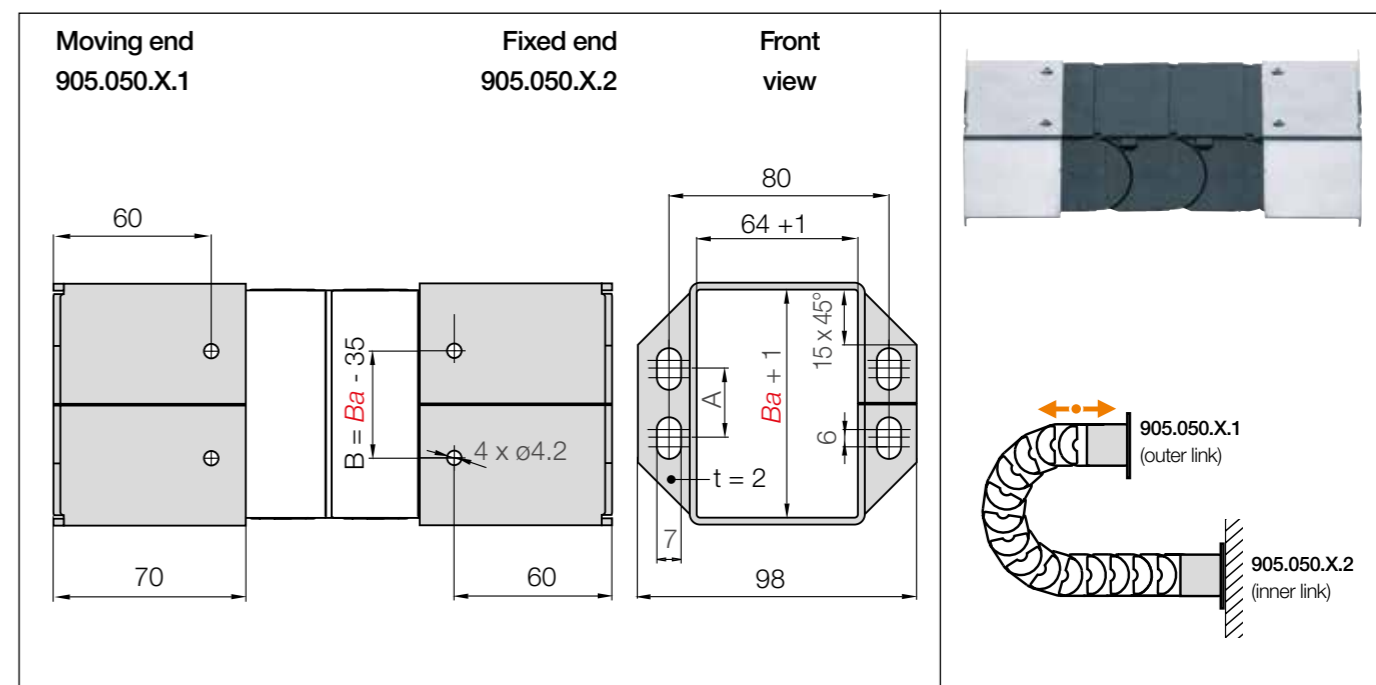
● Socket head cap bolt M5 DIN 912-8.8 Length depends on the thickness of the attachment base ● Washer 5.3 DIN 125-ST ● Hexagon nut M5 DIN 934-8

To receive full sets with pre-fitted quickflange please add index QF ▶ For example: Part No. 1680.100.12.QF. Unassembled quick flange: Part No. 16800.QF



1680.100.12.A Order example
.A... to indicate option with brackets pre-fitted
 Full set
 Width index
 Series

Strain relief e.g. clamps, tiewrap plates, nuggets and plug-in clips are available from stock. The complete chainfix range with ordering options ▶ From page 1300



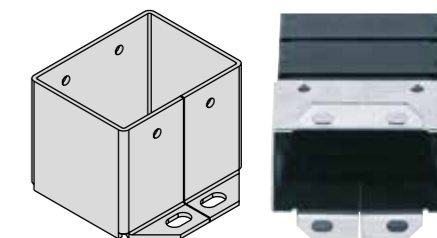
Steel flange, locking | Recommended for unsupported applications

Width index	Hole pattern	Part No. full set steel flange	Bi [mm]	Ba [mm]	A [mm]	B [mm]
075.	68.01	905.050.1.12*	75	93	30	58
115.	68.02	905.050.2.12*	115	133	50	98
175.	68.03	905.050.3.12*	175	193	100	158

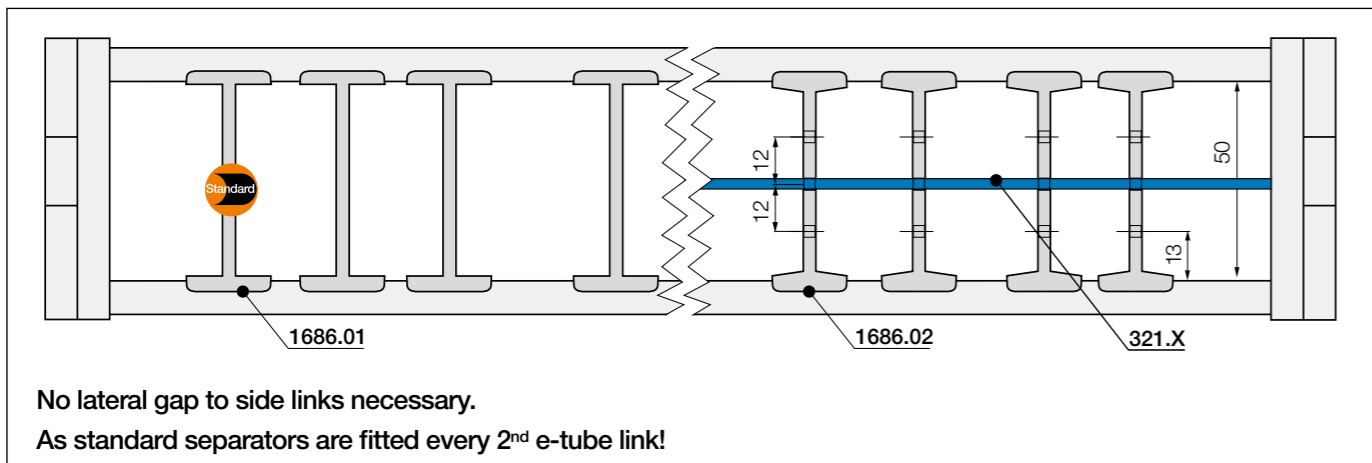
Mounting only with hexagon socket DIN 912 M6 and washer DIN 125, 6.3mm

*Available upon request. Please consult igus® for delivery time.

Metallic flange brackets with common hole patterns can easily replace alternatives, without having to alter the hole pattern. Flush attachment possibilities at both ends of the e-tube using flange mounting brackets made of steel.



Strain relief e.g. clamps, tiewrap plates, nuggets and plug-in clips are available from stock. The complete chainfix range with ordering options ▶ From page 1300



Standard separator

unassembled	1685.01
assembled	1686.01

Option 1 | Separators

Standard separator

For simple vertical subdivision. Offers security due to its wide base design, also when used with large cables or hoses.

Slotted separator

unassembled	1685.02
assembled	1686.02

Option 2 | Full-width shelves

Slotted separator for full-width shelves

Vertical separation in e-tubes. The slot allows basic vertical and horizontal shelving arrangements.

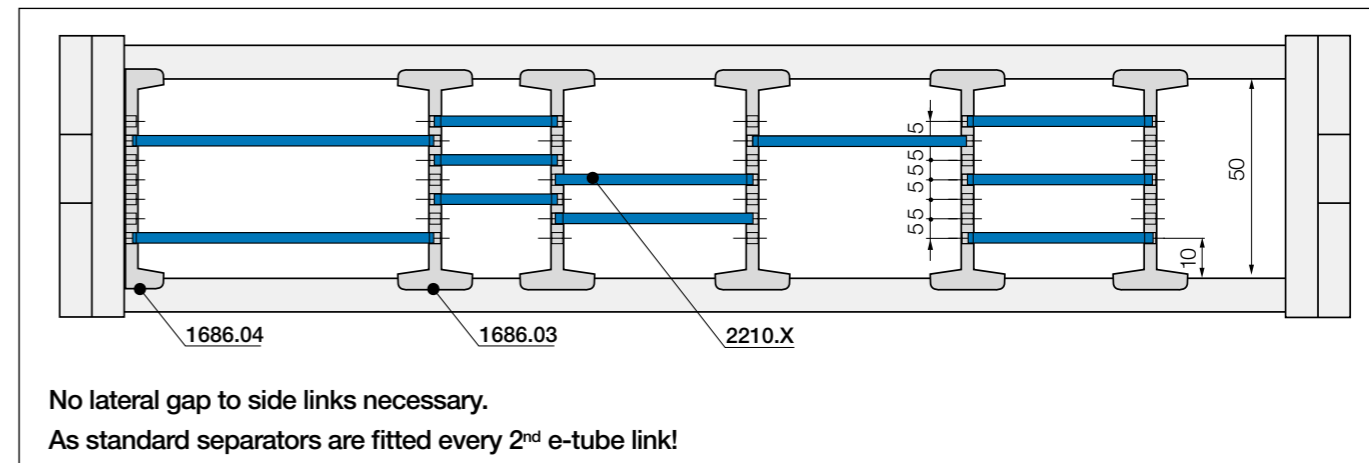
Full-width shelf for e-tubes

unassembled	320.X
assembled	321.X

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]		X [mm]		X [mm]			
	unassembled	assembled	unassembled	assembled	unassembled	assembled		
050	320.050	321.050	150	320.150	321.150	250	320.250	321.250
075	320.075	321.075	175	320.175	321.175			
115	320.115	321.115	200	320.200	321.200			
125	320.125	321.125	225	320.225	321.225			



Slotted separator

unassembled	1685.03
assembled	1686.03

Option 3 | Partial shelves

Slotted separator for partial shelves

Allows modular shelving arrangements.

Slotted side plate

unassembled	1685.04
assembled	1686.04

Slotted side plate

Allows modular shelving right up to the side links. No clearance required!

Shelf for e-tubes

unassembled	2200.X
assembled	2210.X

Shelf

For applications involving many cables with different diameters, shelves can be fitted at different heights.

Shelves Width = X [mm]	X [mm]		X [mm]		X [mm]			
	unassembled	assembled	unassembled	assembled	unassembled	assembled		
018	2200.18	2210.18	043	2200.43	2210.43	088	2200.88	2210.88
023	2200.23	2210.23	048	2200.48	2210.48	099	2200.99	2210.99
028	2200.28	2210.28	058	2200.58	2210.58	124	2200.124	2210.124
033	2200.33	2210.33	068	2200.68	2210.68	149	2200.149	2210.149
038	2200.38	2210.38	073	2200.73	2210.73			

Separator with integrated strain relief teeth

- Can be integrated into the mounting bracket or placed at any point in the e-tube
 - Combines strain relief and interior separation, for restricted space conditions
 - Strain relief separator is easy to assemble without any screws
- Part No.1685.01.Z. More information ► From page 1326





E2 R

e-tubes for swarf protection at higher speeds and smooth running



Advantages of the E2 R series:

- Strong e-tubes with small pitch for low noise, smooth running
- High level of protection against swarf (including hot swarf)
- Lids removable along the outer radius
- Robust and sealed
- Space-efficient with optimised ratio of inner to outer dimensions



When to use another e-tube:

- When a particularly cost-effective solution is required
 - ▶ R2.1 e-tubes, page 478
- When no swarf protection is required
 - ▶ E2/000 e-chains®, page 360
- For extremely swarf-resistant e-tubes
 - ▶ RX system, page 502
- When even higher strength is required
 - ▶ R4.1L e-tubes, page 524



Attachment from any side: with KMA mounting brackets

Swarf protection: smooth, swarf-resistant exterior

Fast assembly: lids removable along the outer radius

High strength: large pin/bore and lids with high locking force

Smooth running: small pitch for low noise, smooth running

Strong: double stop-dog system for long unsupported lengths


Swarf protection at higher speeds and smooth running - E2 R e-tubes


E2 R e-tubes - small pitch for higher speeds and smooth motion. igus® e-tubes work in hot swarf areas, in areas of dirt and dust generated by woodworking, steel mills, pulp and paper, textile, agriculture, coal plant and many other hostile environments.


- High level of protection against swarf (including hot swarf)
- Robust and sealed
- Space-efficient with optimised ratio of inner to outer dimensions
- Modular interior separation
- Universal KMA mounting brackets with attachment options from any side

Typical industries and applications

- Machine tools ● Wood processing machines
- General mechanical engineering ● In all areas with dirt and swarf

 e-tubes with igumid HT-Material for hot swarf up to +850°C available upon request

 Electrically conductive ESD e-tubes upon request

 UL94-V0 classifications upon request

 **iF product design award**
1987 igus® series R68

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
R48	25	25 - 130	36 - 141	36	060 - 250	1.50	460
R58	35	50 - 200	66 - 216	50	075 - 250	2.30	466
R68	45	50 - 250	68 - 268	64	100 - 300	2.50	472



E2 R e-tubes - lids removable along the outer radius

 Available from stock. Ready to ship in 24 - 48hrs.*

*The delivery times indicated correspond to the average time until the ordered goods are dispatched.



E2 e-tubes in swarf area of a machine tool. Resistant to swarf up to +850°C with special igumid HT material

Technical data

	Speed gliding ¹⁾ / acceleration gliding ¹⁾	≤ 3 [m/s] / ≤ 10 [m/s ²]
	Speed FL_G / acceleration FL_G	≤ 10 [m/s] / ≤ 100 [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

1) Gliding applications for long travels are available upon request, please consult igus®.

Installation types, maximum travels

Series	Unsupported	Gliding ¹⁾	Vertical hanging	Vertical standing	Side mounted unsupported	Zig-zag	Unsupported lower run
R48	≤ 3.00m	≤ 50m	≤ 50m	≤ 4.0m	≤ 1.5m	upon request	upon request
R58	≤ 4.50m	≤ 75m	≤ 50m	≤ 4.0m	≤ 2.0m	upon request	upon request
R68	≤ 5.00m	≤ 100m	≤ 60m	≤ 4.0m	≤ 2.0m	upon request	upon request

1) For gliding applications, please consult igus®.

Options with order keys | Examples based on series R58

	Standard	NC version - (No Camber) without pretension	No burning-in of hot swarf up to +850°C (+1562° F)	ESD - electrically conductive material
Part No. Standard	Part No. NC version	Part No. igumid HT	Part No. igumid ESD	
	58.100.R.0	58.100.R.0.NC	58.100.R.0.HT	58.100.R.0.ESD
	Ready to ship* in 24 - 48hrs.	Delivery time* 2-5 business days	Delivery time* 7-10 business days	Delivery time* 10 business days

*The delivery times indicated correspond to the average time until the ordered goods are dispatched.

Order example | Order key and colour examples | Examples based on series R58

	Order example for complete e-tube (1.0m), colour black, with mounting brackets and interior separation:	
e-tube (1.0m)	Please indicate e-tube length or number of links: 1.0m or 28 links	58.100.100.0
+ Mounting brackets	KMA - 1 set	580.100.12
Interior separation	with 2 separators assembled every 2 nd link	2 x 582
Order text:	1 m 58.100.100.0 + 580.100.12 + 2 x 582	

Order key

e-tube - lids removable along the outer radius

58.100.100.0

Series / Type	
Width index (depends on B)	
Bend radius R	
Colour index (standard black)	

Order index for colour options

Colour	Order index	Colour	Order index
Black	Standard .0	Orange	Special colour .2
Silver-grey	Special colour .31	Yellow	Special colour .4
White	Special colour .1	Light grey	Special colour .14
Grey-white	Special colour .1S		

Black e-tubes available from stock. Above special colours upon request.



e-tubes | Series R48 | Lids removable along the outer radius

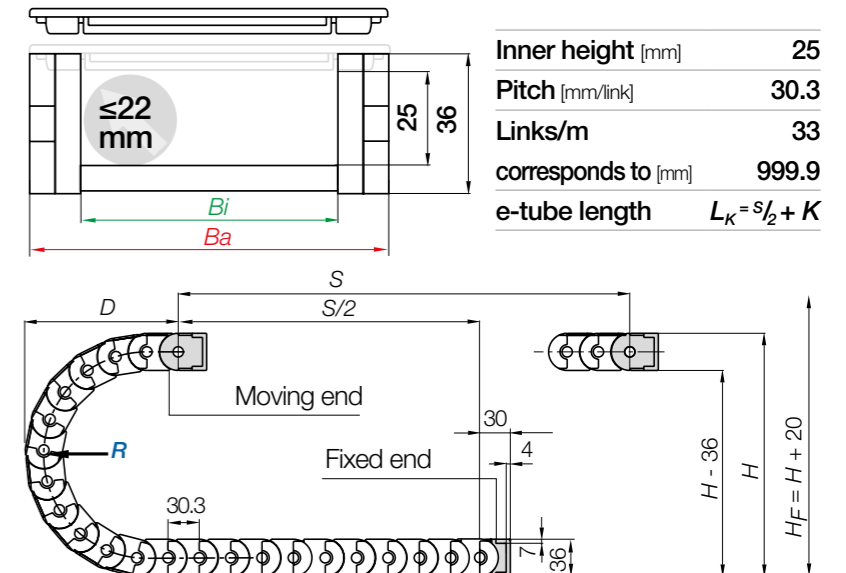
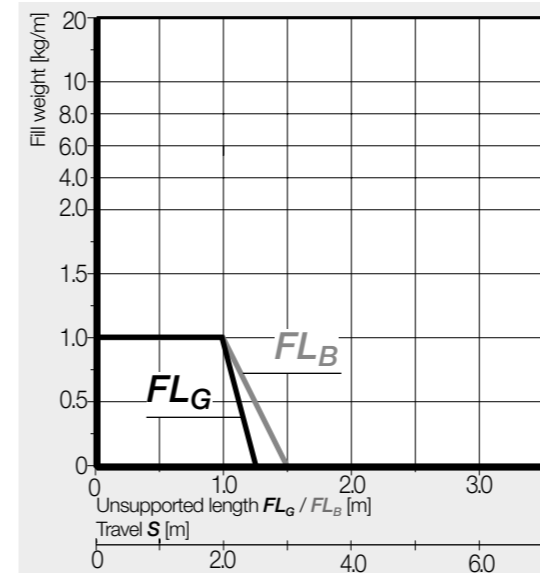
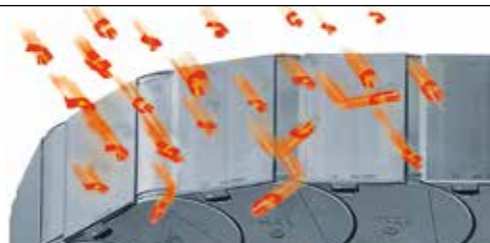
Part No. e-tubes	Bi [mm]	Ba [mm]	R Available bend radii [mm]	R48 [kg/m]
48.025.R.0	25	36	060 075 100 125 150 175 200 250	≈ 0.64
48.050.R.0	50	61	060 075 100 125 150 175 200 250	≈ 0.84
48.075.R.0	75	86	060 075 100 125 150 175 200 250	≈ 1.03
48.100.R.0	100	111	060 075 100 125 150 175 200 250	≈ 1.23
48.130.R.0	130	141	060 075 100 125 150 175 200 250	≈ 1.46

Complete Part No. with required radius (R). Example: 48.100.100.0

Hot swarf up to +850°C

- e-tubes to withstand 850°C swarf, as a special option
- No hot swarf melting or embedding into the chain
- igus® igumid HT material

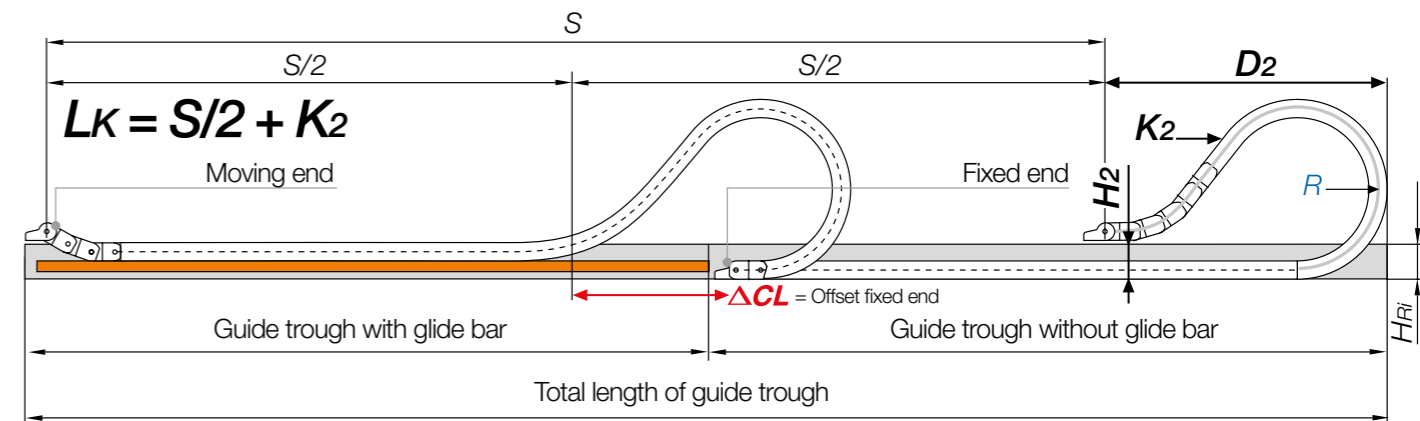
More information ► www.igus.eu/HT



R	060	075	100	125	150	175	200	250
H	156	186	236	286	336	386	436	536
D	123	138	163	188	213	238	263	313
K	250	300	375	455	535	615	690	850

The required clearance height: $H_F = H + 20\text{mm}$ (with 0.5kg/m fill weight)

Gliding applications | For long travels from 5m to max. 50m



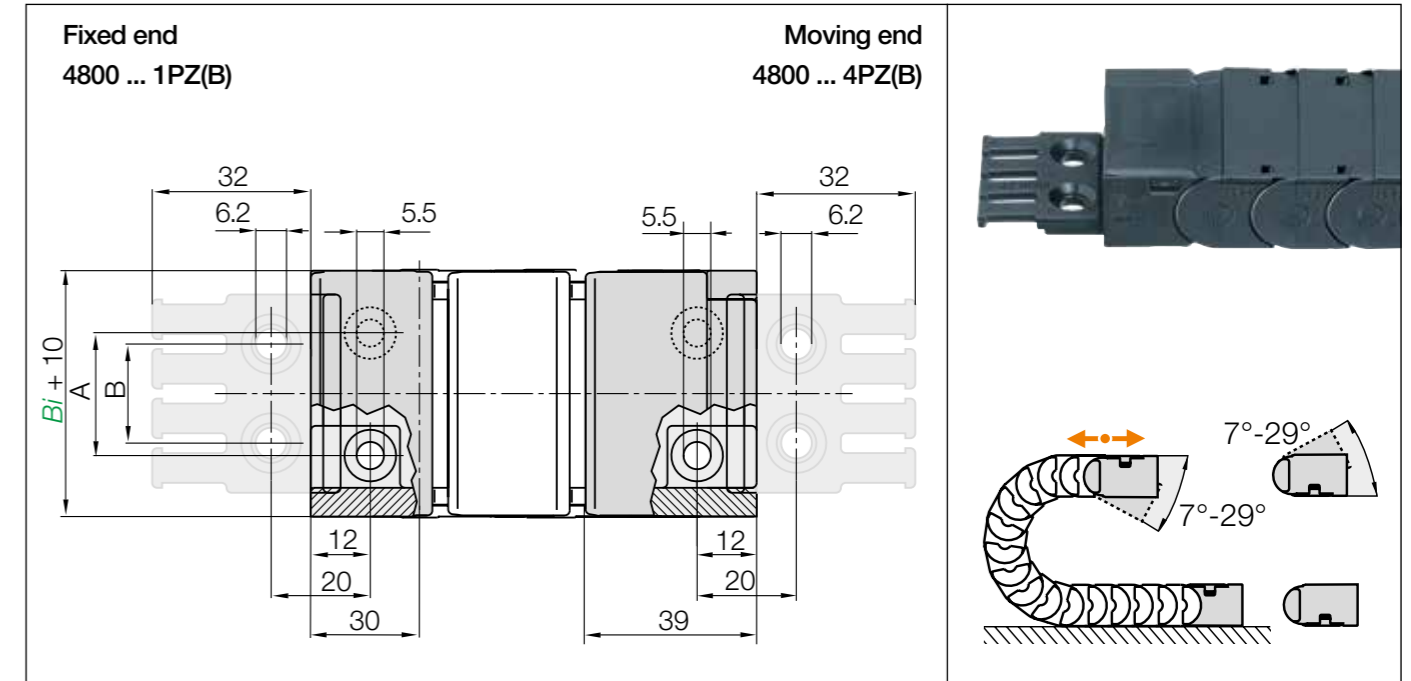
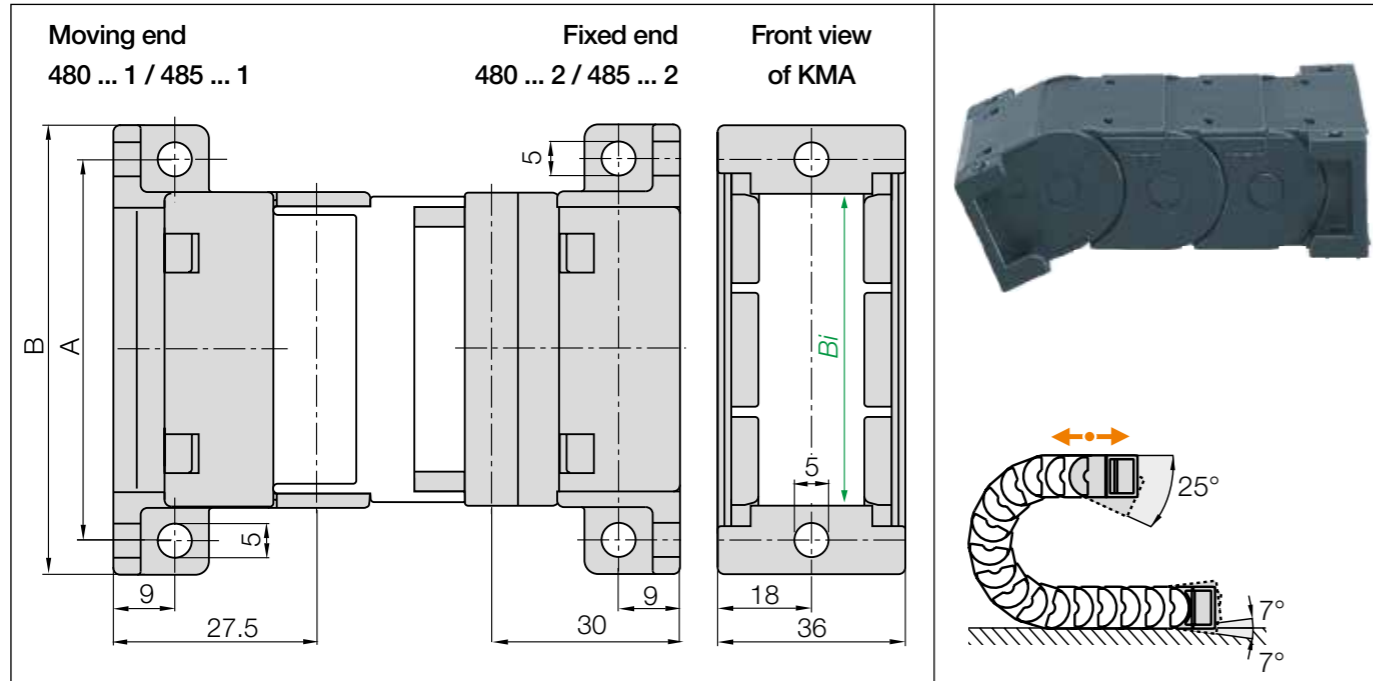
Note: We recommend the project planning of such a system to be carried out by igus®.

In case of travels between 2 and 5m we recommend an e-tube with a longer unsupported length.

If a gliding application is required for a long travel, please consult igus®.

R	060	075	100	125	150	175	200	250
H ₂	156	186	176	176	176	176	176	*
D ₂	110	125	330	450	610	730	690	*
K ₂	250	300	545	758	970	1,151	1,182	*
ΔCL	*	*	170	270	380	470	*	*

*Values upon request



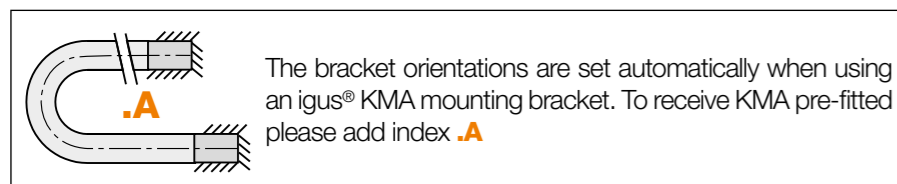
KMA pivoting | Recommended for unsupported applications
KMA locking | Recommended for vertical hanging and standing applications

Width index	Part no. full set KMA pivoting	Part No. full set KMA locking	A [mm]	B [mm]	Bi [mm]
025. ▶	480.025.12	485.025.12	45	55	25
050. ▶	480.050.12	485.050.12	70	80	50
075. ▶	480.075.12	485.075.12	95	105	75
100. ▶	480.100.12	485.100.12	120	130	100
130. ▶	480.130.12	485.130.12	150	160	130

(KMA = polymer metal mounting bracket)

The following parts are required for attachment of the mounting brackets:

- Socket head cap bolt M5 DIN 912-8.8 Length depends on the thickness of the attachment base
- Washer 5.3 DIN 125-ST
- Hexagon nut M5 DIN 934-8



480.100.12.A Order example
 .A... to indicate option with brackets pre-fitted
 Full set
 Width index
 Series

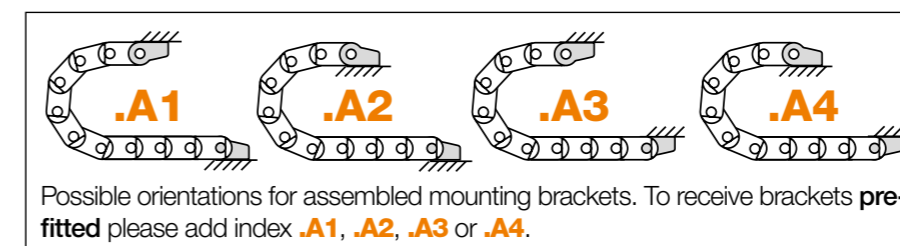
Strain relief e.g. clamps, tie-wrap plates, nuggets and plug-in clips are available from stock. The complete chainfix range with ordering options ▶ From page 1300

Angled polymer bracket | One end pivoting
 Recommended for unsupported applications

Width index	Part No. full set with tie-wrap plates	Part No. full set without tie-wrap plates	A [mm]	B [mm]	Number of teeth
025. ▶	4800.025.12PZB	4800.025.12	12	15	3
050. ▶	4800.050.12PZB	4800.050.12	37	30	5
075. ▶	4800.075.12PZB	4800.075.12	62	60	8
100. ▶	4800.100.12PZB	4800.100.12	87	80	10
130. ▶	—	4800.130.12	117	—	—

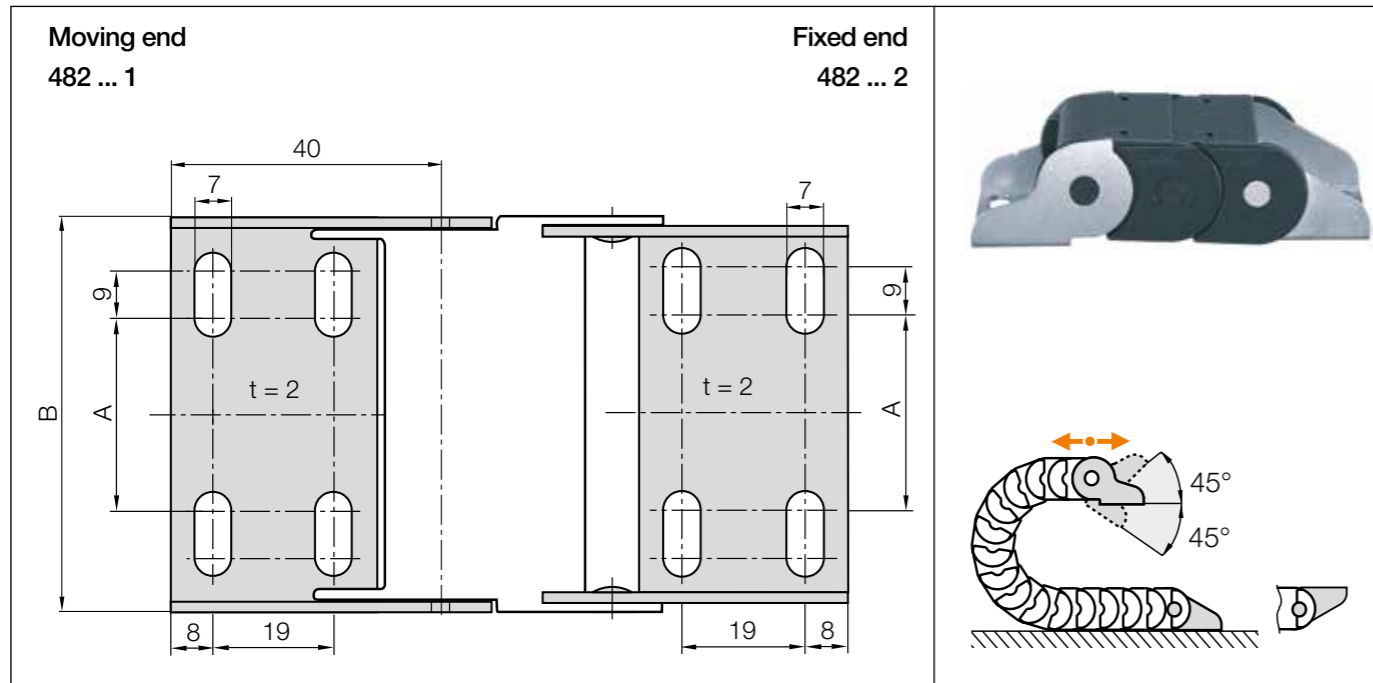
The following parts are required for attachment of the mounting brackets:

- Socket head cap bolt M5 DIN 912-8.8 Length depends on the thickness of the attachment base
- Hexagon nut M5 DIN 7991
- Washer 5.3 DIN 125-ST



4800.100.12PZB.A1 Order example
 .A... to indicate option with brackets pre-fitted
 With integrated strain relief tie-wrap plates
 Full set
 Width index
 Series

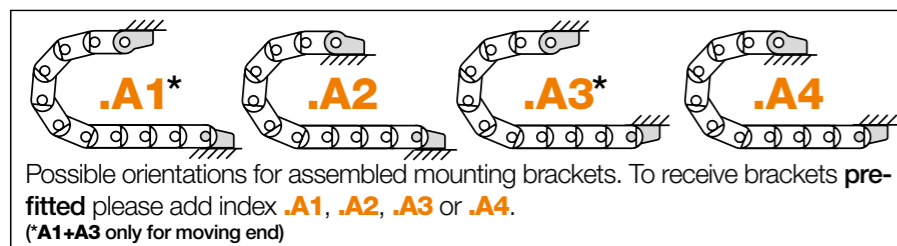
Strain relief e.g. clamps, tie-wrap plates, nuggets and plug-in clips are available from stock. The complete chainfix range with ordering options ▶ From page 1300



Steel mounting brackets | One end pivoting

Recommended for unsupported, vertical hanging, standing applications

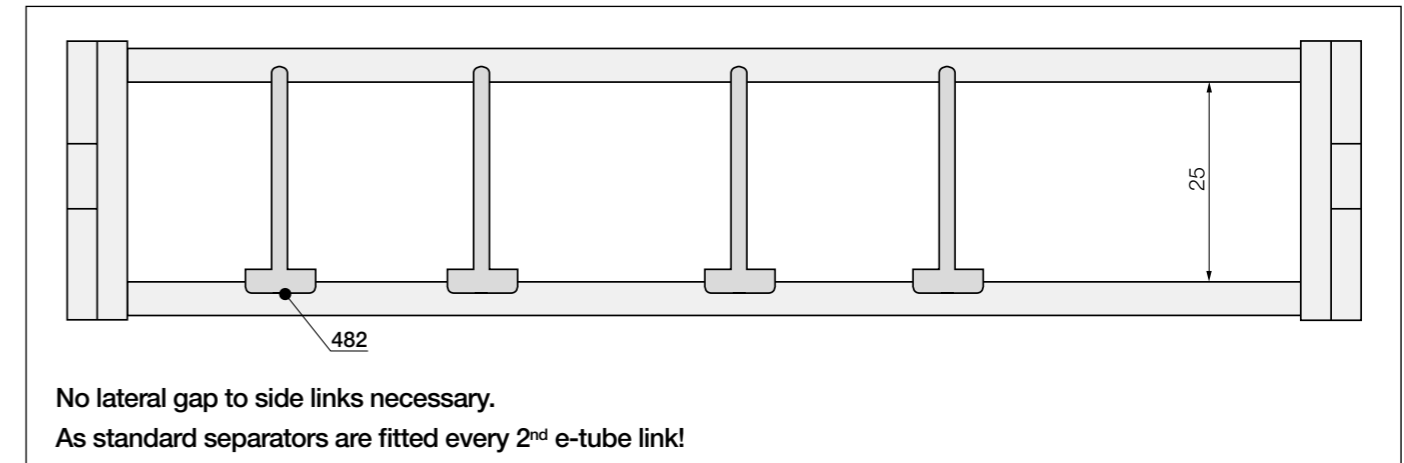
Width index	Part No. full set Steel one end pivoting	A [mm]	B [mm]
025. ▶	482.025 .12	-	35
050. ▶	482.050 .12	22	60
075. ▶	482.075 .12	47	85
100. ▶	482.100 .12	72	110
130. ▶	482.130 .12	102	140



482.100.12.A1 Order example

- .A... to indicate option with brackets pre-fitted
- Full set
- Width index
- Series

 **Strain relief** e.g. clamps, tiwrap plates, nuggets and plug-in clips are available from stock. The complete chainfix range with ordering options ▶ From page 1300



Standard separator	
unassembled	481
assembled	482

Standard separator
For simple vertical subdivision. Offers security due to its wide base design, also when used with large cables or hoses.

Separator with integrated strain relief teeth

- Can be integrated into the mounting bracket or placed at any point in the e-tube
 - Combines strain relief and interior separation, for restricted space conditions
 - Strain relief separator is easy to assemble without any screws
- Part No. 481.ZR. More information ▶ From page 1326





... R58

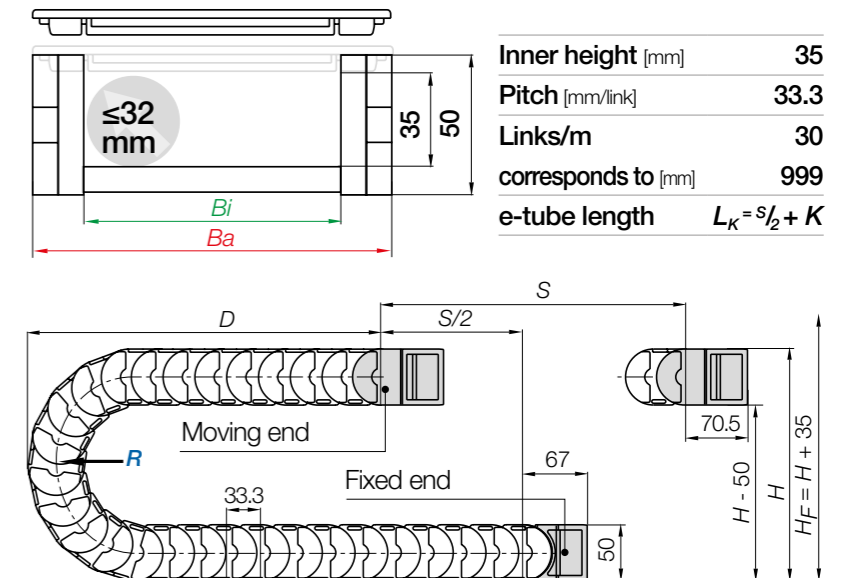
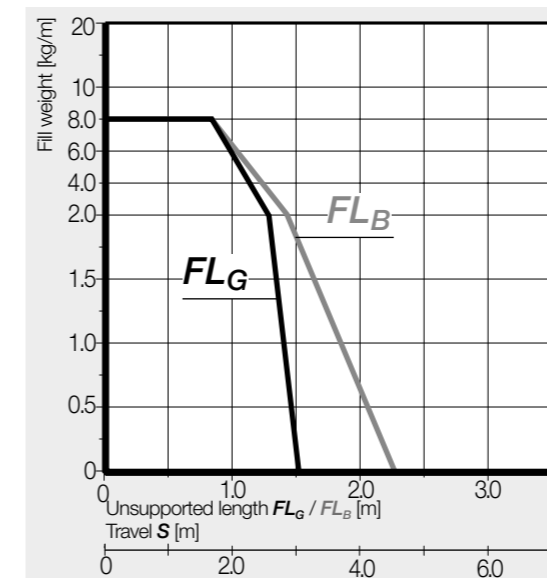
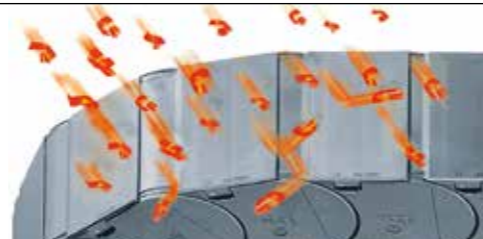
e-tubes | Series R58 | Lids removable along the outer radius

Part No. e-tubes	<i>Bi</i> [mm]	<i>Ba</i> [mm]	<i>R</i> Available bend radii [mm]	R58 [kg/m]
58.050.R.0	50	66	075 100 125 150 200 250	≈ 1.50
58.075.R.0	75	91	075 100 125 150 200 250	≈ 1.77
58.100.R.0	100	116	075 100 125 150 200 250	≈ 2.04
58.125.R.0	125	141	075 100 125 150 200 250	≈ 2.31
58.150.R.0	150	166	075 100 125 150 200 250	≈ 2.61
58.175.R.0	175	191	075 100 125 150 200 250	≈ 2.88
58.200.R.0	200	216	075 100 125 150 200 250	≈ 3.15

Complete Part No. with required radius (*R*). Example: 58.100.100.0

Hot swarf up to +850°C

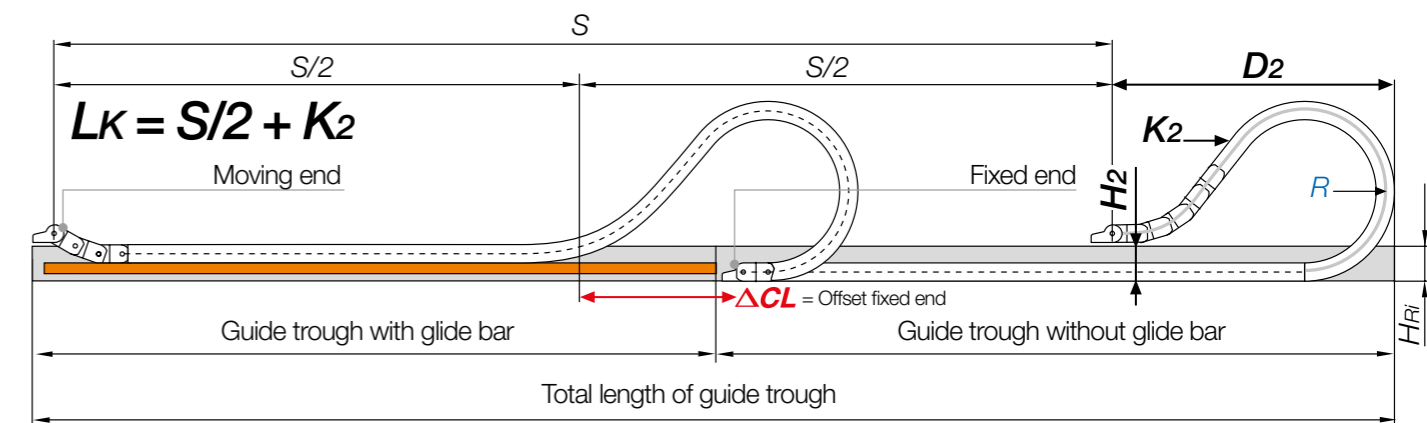
- e-tubes to withstand 850°C swarf, as a special option
- No hot swarf melting or embedding into the chain
- igus® igumid HT material

More information ► www.igus.eu/HT

<i>R</i>	075	100	125	150	200	250
<i>H</i>	200	250	300	350	450	550
<i>D</i>	150	175	200	225	275	325
<i>K</i>	305	385	460	540	695	855

The required clearance height: $H_F = H + 35\text{mm}$ (with 0.5kg/m fill weight)

Gliding applications | For long travels from 5m to max. 75m

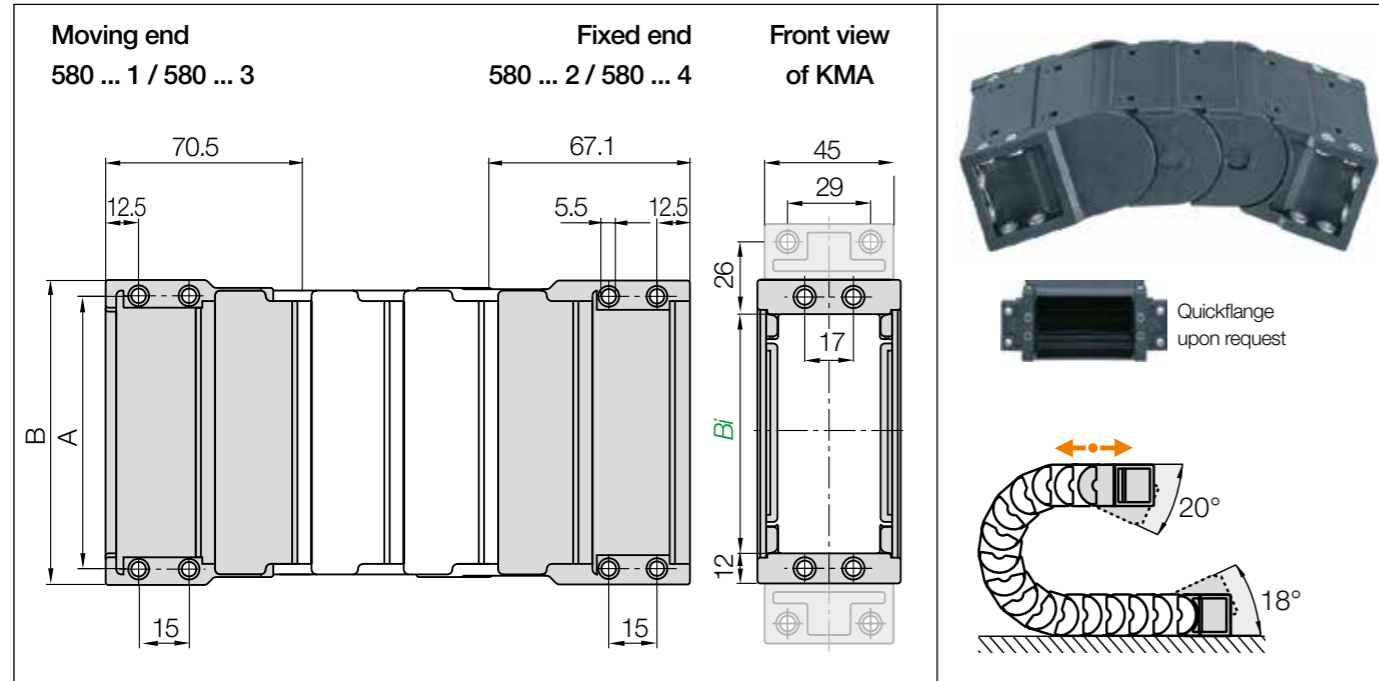
**Note:** We recommend the project planning of such a system to be carried out by igus®.

In case of travels between 3 and 5m we recommend an e-tube with a longer unsupported length.

If a gliding application is required for a long travel, please consult igus®.

<i>R</i>	075	100	125	150	200	250
<i>H</i> ₂	150	166	166	166	166	166
<i>D</i> ₂	150	310	380	480	800	1,050
<i>K</i> ₂	375	500	699	866	1,265	1,665
ΔCL	*	122	167	247	512	717

*Values upon request



KMA pivoting
KMA locking

Recommended for unsupported applications
Recommended for vertical hanging and standing applications

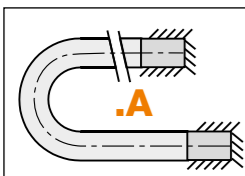
Width index	Part no. full set KMA pivoting	Part No. full set KMA locking	A [mm]	B [mm]	Bi [mm]
050.	580.050.12	580.050.34	62	74	50
075.	580.075.12	580.075.34	87	99	75
100.	580.100.12	580.100.34	112	124	100
125.	580.125.12	580.125.34	137	149	125
150.	580.150.12	580.150.34	162	174	150
175.	580.175.12	580.175.34	187	199	175
200.	580.200.12	580.200.34	212	224	200

(KMA = polymer metal mounting bracket)

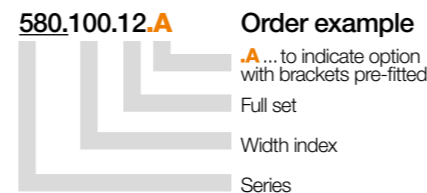
The following parts are required for attachment of the mounting brackets:

● Socket head cap bolt M5 DIN 912-8.8 Length depends on the thickness of the attachment base ● Washer 5.3 DIN 125-ST ● Hexagon nut M5 DIN 934-8

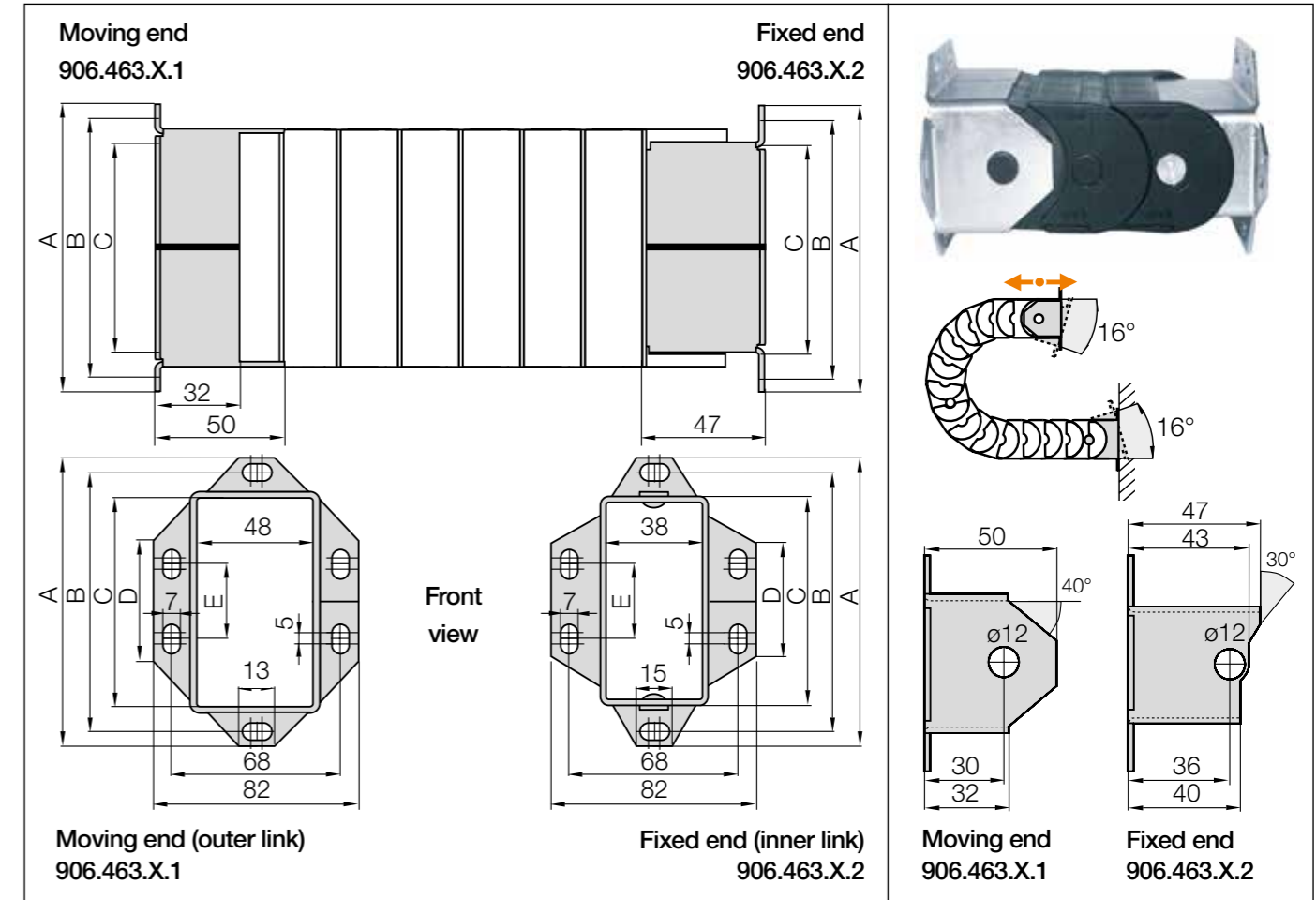
To receive full sets with pre-fitted quickflange please add index QF ▶ For example: Part No. 580.100.12.QF. Unassembled quick flange: Part No. 16800.QF



The bracket orientations are set automatically when using an igus® KMA mounting bracket. To receive KMA pre-fitted please add index **.A**



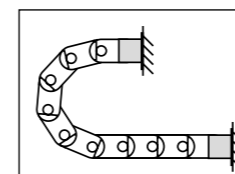
Strain relief e.g. clamps, tiwrap plates, nuggets and plug-in clips are available from stock. The complete chainfix range with ordering options ▶ From page 1300



Steel flange, pivoting | Recommended for unsupported applications

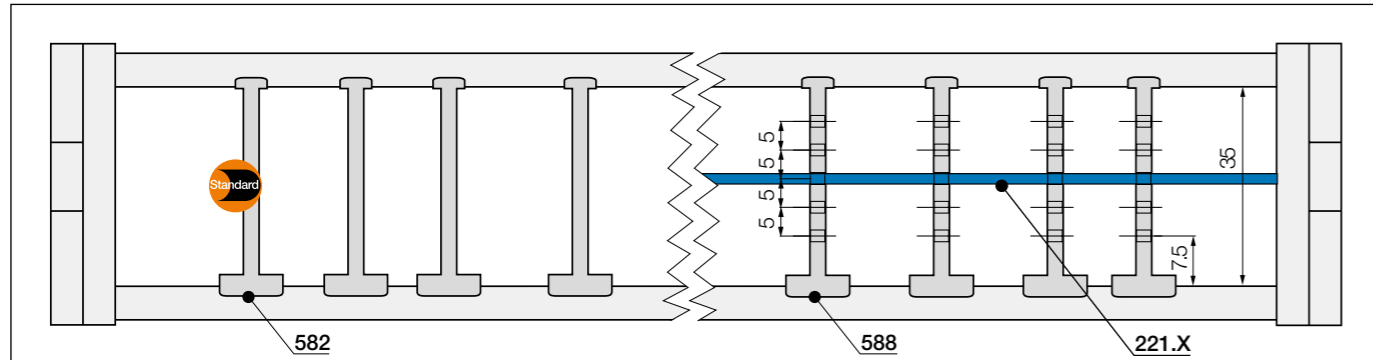
Width index	Hole pattern	Part No. moving end	Bi [mm]	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]
050.	58.05	906.463.05.1	50	90.5	78.5	58.3	24.5	20
075.	58.1	906.463.1.1	75	116	104	83.3	50	30

Width index	Hole pattern	Part No. fixed end	Bi [mm]	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]
050.	58.05	906.463.05.2	50	90.5	78.5	57.5	28	20
075.	58.1	906.463.1.2	75	116	104	82.5	45	30



Metallic flange brackets with common hole patterns can easily replace alternatives, without having to alter the hole pattern. Flush attachment possibilities at both ends of the e-tube using flange mounting brackets made of steel.

Strain relief e.g. clamps, tiwrap plates, nuggets and plug-in clips are available from stock. The complete chainfix range with ordering options ▶ From page 1300



No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-tube link!

Standard separator

unassembled	581
assembled	582

Option 1 | Separators

Standard separator

For simple vertical subdivision. Offers security due to its wide base design, also when used with large cables or hoses.

Slotted separator

unassembled	587
assembled	588

Option 2 | Full-width shelves

Slotted separator for full-width shelves

Vertical separation in e-tubes. The slot allows basic vertical and horizontal shelving arrangements.

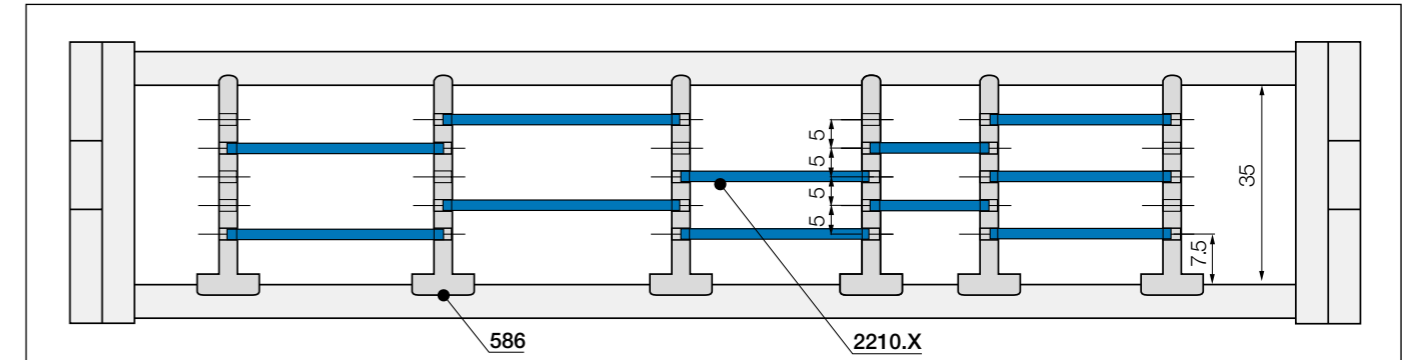
Full-width shelf for e-tubes

unassembled	220.X
assembled	221.X

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
		050	220.50	221.50	125	220.125	221.125	200	220.200
	075	220.75	221.75	150	220.150	221.150			
	100	220.100	221.100	175	220.175	221.175			



No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-tube link!

Slotted separator

unassembled	585
assembled	586

Option 3 | Partial shelves

Slotted separator for partial shelves

Allows modular shelving arrangements.

Shelf for e-tubes

unassembled	2200.X
assembled	2210.X

Shelf

For applications involving many cables with different diameters, shelves can be fitted at different heights.

Shelves Width = X [mm]	X [mm]	unassembled	assembled	X [mm]	unassembled	assembled	X [mm]	unassembled	assembled
		018	2200.18	2210.18	043	2200.43	2210.43	088	2200.88
	023	2200.23	2210.23	048	2200.48	2210.48	099	2200.99	2210.99
	028	2200.28	2210.28	058	2200.58	2210.58	124	2200.124	2210.124
	033	2200.33	2210.33	068	2200.68	2210.68	149	2200.149	2210.149
	038	2200.38	2210.38	073	2200.73	2210.73			



e-tubes | Series R68 | Lids removable along the outer radius

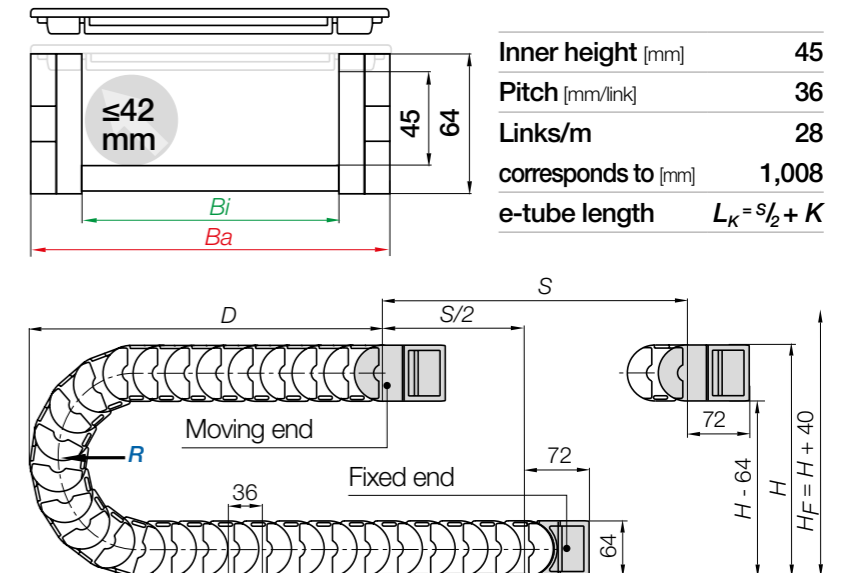
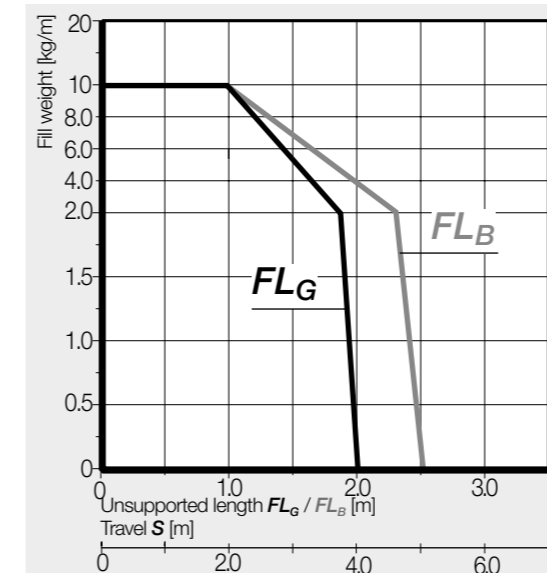
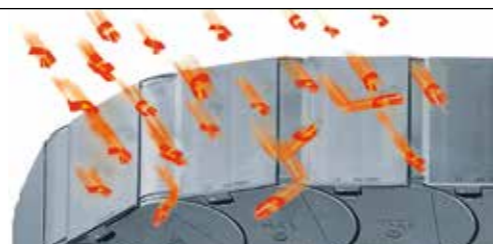
Part No. e-tubes	Bi [mm]	Ba [mm]	R Available bend radii [mm]	R68 [kg/m]
68.050.R.0	50	68	100 125 150 175 200 225 250 300	≈ 1.90
68.075.R.0	75	93	100 125 150 175 200 225 250 300	≈ 2.18
68.100.R.0	100	118	100 125 150 175 200 225 250 300	≈ 2.46
68.115.R.0	115	133	100 125 150 175 200 225 250 300	≈ 2.63
68.125.R.0	125	143	100 125 150 175 200 225 250 300	≈ 2.77
68.150.R.0	150	168	100 125 150 175 200 225 250 300	≈ 3.05
68.175.R.0	175	193	100 125 150 175 200 225 250 300	≈ 3.36
68.200.R.0	200	218	100 125 150 175 200 225 250 300	≈ 3.64
68.225.R.0	225	243	100 125 150 175 200 225 250 300	≈ 3.92
68.250.R.0	250	268	100 125 150 175 200 225 250 300	≈ 4.23

Complete Part No. with required radius (R). Example: 68.100.100.0

Hot swarf up to +850°C

- e-tubes to withstand 850°C swarf, as a special option
- No hot swarf melting or embedding into the chain
- igus® igumid HT material

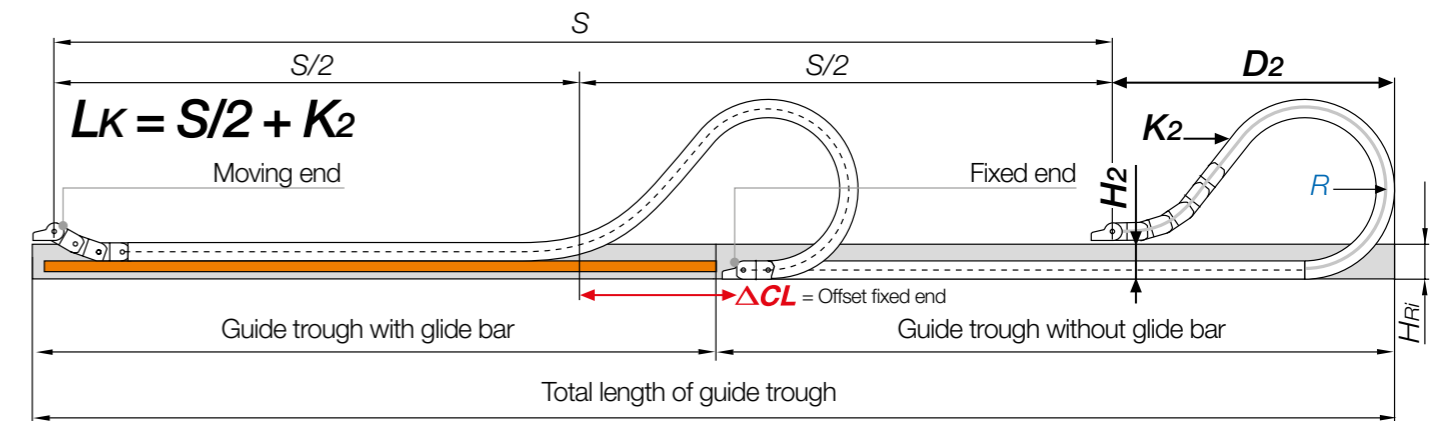
More information ► www.igus.eu/HT



R	100	125	150	175	200	225	250	300
H	264	314	364	414	464	514	564	664
D	186	211	236	261	286	311	336	386
K	390	465	545	625	705	780	860	1,015

The required clearance height: $H_F = H + 40\text{mm}$ (with 2.5kg/m fill weight)

Gliding applications | For long travels from 6m to max. 100m



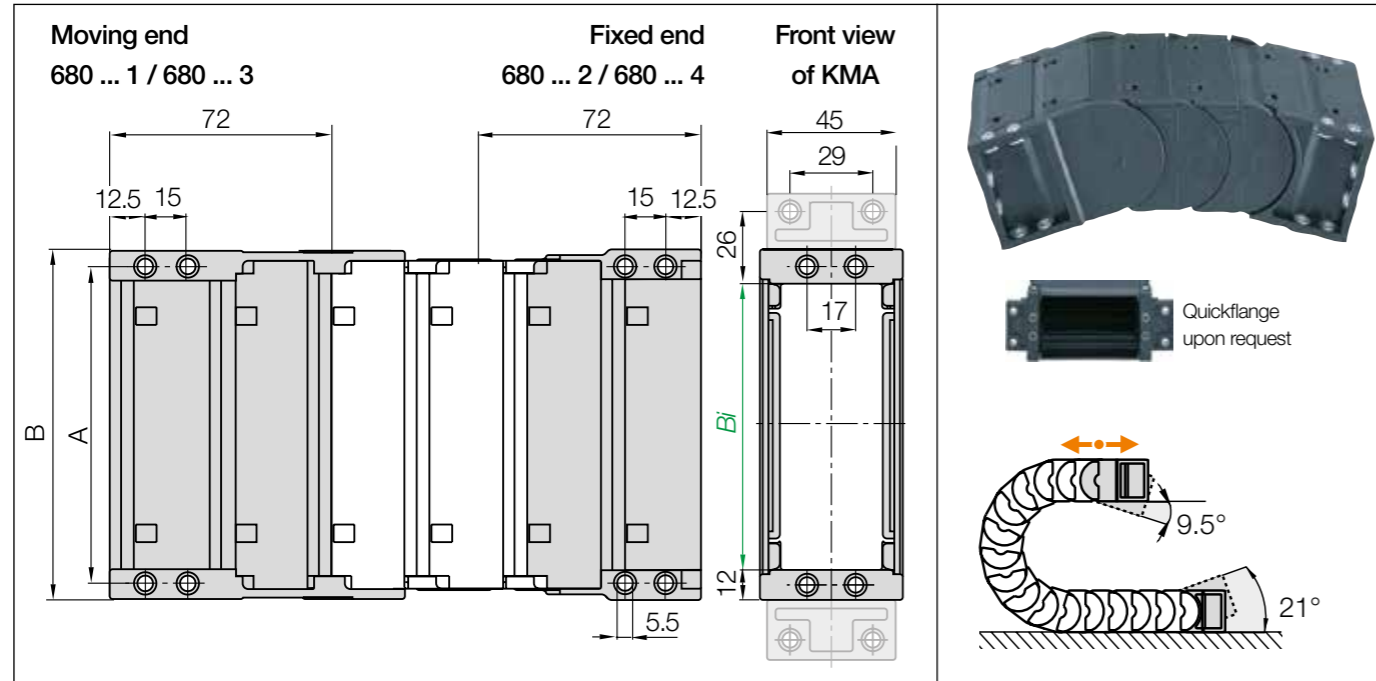
Note: We recommend the project planning of such a system to be carried out by igus®.

In case of travels between 4 and 6m we recommend an e-tube with a longer unsupported length.

If a gliding application is required for a long travel, please consult igus®.

R	100	125	150	175	200	225	250	300
H ₂	201	220	220	220	220	220	220	220
D ₂	200	370	440	540	650	700	850	1,050
K ₂	500	648	792	900	1,116	1,269	1,476	1,800
ΔCL	*	164	204	294	364	439	514	664

*Values upon request



KMA pivoting
KMA locking

Recommended for unsupported applications
Recommended for vertical hanging and standing applications

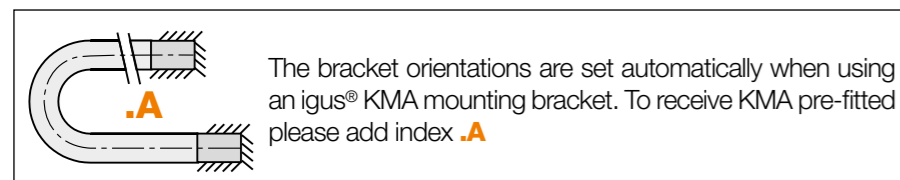
Width index	Part no. full set KMA pivoting	Part No. full set KMA locking	A [mm]	B [mm]	Bi [mm]
050.	680.050.12	680.050.34	62	74	50
075.	680.075.12	680.075.34	87	99	75
100.	680.100.12	680.100.34	112	124	100
115.	680.115.12	680.115.34	127	139	115
125.	680.125.12	680.125.34	137	149	125
150.	680.150.12	680.150.34	162	174	150
175.	680.175.12	680.175.34	187	199	175
200.	680.200.12	680.200.34	212	224	200
225.	680.225.12	680.225.34	237	249	225
250.	680.250.12	680.250.34	262	274	250

(KMA = polymer metal mounting bracket)

The following parts are required for attachment of the mounting brackets:

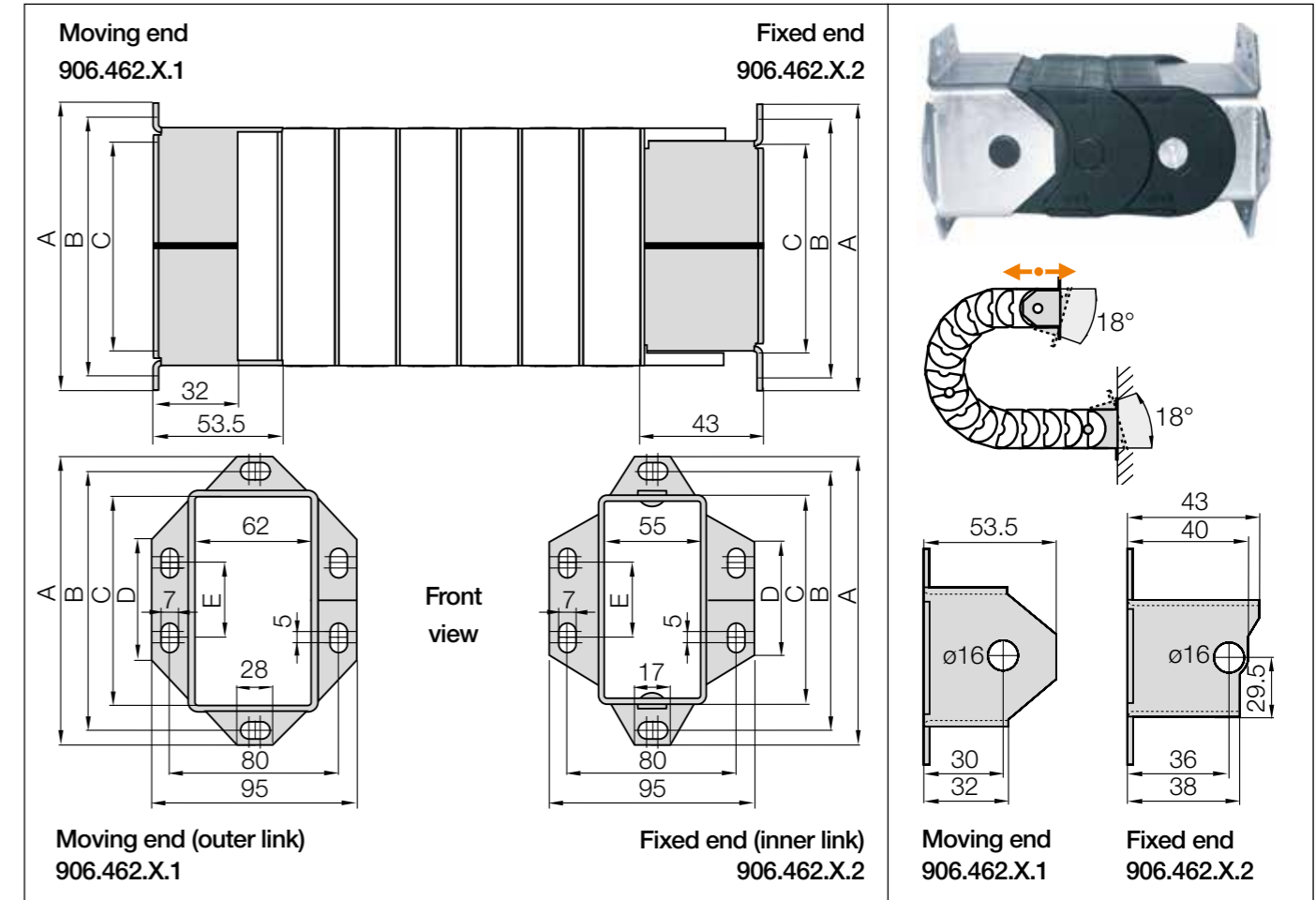
● Socket head cap bolt M5 DIN 912-8.8 Length depends on the thickness of the attachment base ● Washer 5.3 DIN 125-ST ● Hexagon nut M5 DIN 934-8

To receive full sets with pre-fitted quickflange please add index QF ▶ For example: Part No. 680.100.12.QF. Unassembled quick flange: Part No. 16800.QF



680.100.12.A Order example
 .A... to indicate option with brackets pre-fitted
 Full set
 Width index
 Series

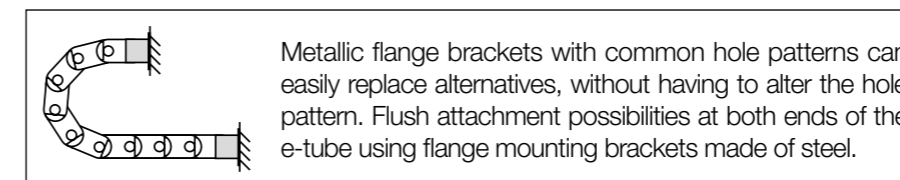
Strain relief e.g. clamps, tiwrap plates, nuggets and plug-in clips are available from stock. The complete chainfix range with ordering options ▶ From page 1300



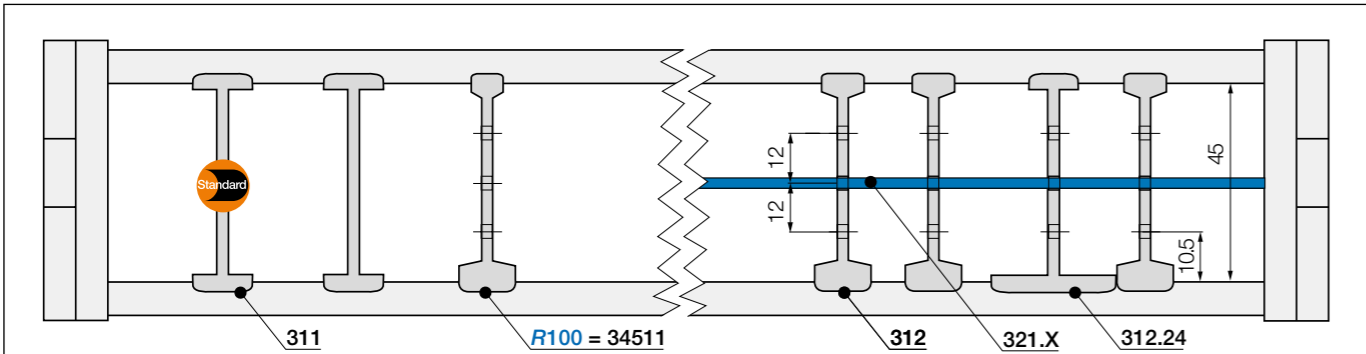
Steel flange, pivoting | Recommended for unsupported applications

Width index	Hole pattern	Part No. moving end	Bi [mm]	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]
075.	68.1	906.462.1.1	75	116	104	83.3	50	30
115.	68.2	906.462.2.1	115	156	144	123.3	90	50
175.	68.3	906.462.3.1	175	216	204	183.3	150	100

Width index	Hole pattern	Part No. fixed end	Bi [mm]	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]
075.	68.1	906.462.1.2	75	116	104	83.4	38	30
115.	68.2	906.462.2.2	115	156	144	123.4	78	50
175.	68.3	906.462.3.2	175	216	204	183.4	138	100



Strain relief e.g. clamps, tiwrap plates, nuggets and plug-in clips are available from stock. The complete chainfix range with ordering options ▶ From page 1300



No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-tube link!

Standard separator

unassembled	301
assembled	311

Option 1 | Separators

Standard separator

For simple vertical subdivision. Offers security due to its wide base design, also when used with large cables or hoses.

Not suitable for bend radius **R 100!**

Separator for radius R 100

If you select this bend radius please use this separator for a vertical subdivision.

Separator for radius R 100

unassembled	34501
assembled	34511

Slotted separator

unassembled	302
assembled	312

Option 2 | Full-width shelves

Slotted separator for full-width shelves

Vertical separation in e-tubes. The slot allows basic vertical and horizontal shelving arrangements.

Slotted separator, wide base

If a wide space between the separators has to be kept or separators have to be fixed in their position.

Standard separator, wide base

unassembled	302.24
assembled	312.24

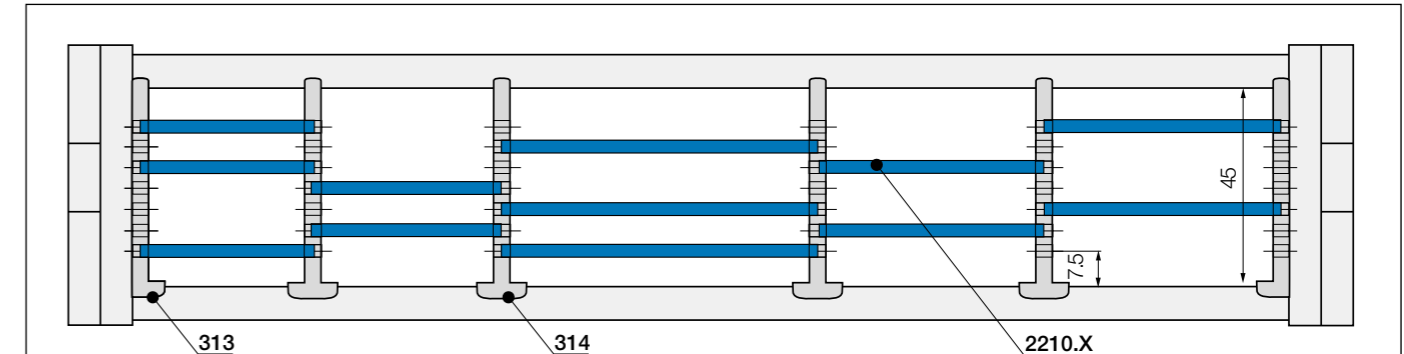
Full-width shelf for e-tubes

unassembled	320.X
assembled	321.X

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]		X [mm]		X [mm]			
	unassembled	assembled	unassembled	assembled	unassembled	assembled		
050	320.050	321.050	150	320.150	321.150	250	320.250	321.250
075	320.075	321.075	175	320.175	321.175			
115	320.115	321.115	200	320.200	321.200			
125	320.125	321.125	225	320.225	321.225			



No lateral gap to side links necessary.
As standard separators are fitted every 2nd e-tube link!

Slotted separator

unassembled	304
assembled	314

Option 3 | Partial shelves

Slotted separator for partial shelves

Allows modular shelving arrangements.

Slotted side plate

unassembled	303
assembled	313

Slotted side plate

Allows modular shelving right up to the side links. No clearance required!

Shelf for e-tubes

unassembled	2200.X
assembled	2210.X

Shelf

For applications involving many cables with different diameters, shelves can be fitted at different heights.

Shelves Width = X [mm]	X [mm]		X [mm]		X [mm]			
	unassembled	assembled	unassembled	assembled	unassembled	assembled		
018	2200.18	2210.18	043	2200.43	2210.43	088	2200.88	2210.88
023	2200.23	2210.23	048	2200.48	2210.48	099	2200.99	2210.99
028	2200.28	2210.28	058	2200.58	2210.58	124	2200.124	2210.124
033	2200.33	2210.33	068	2200.68	2210.68	149	2200.149	2210.149
038	2200.38	2210.38	073	2200.73	2210.73			



R2.1

Cost-effective swarf protection



Advantages of the R2.1 system:

- Very light, ideal for high dynamics
- Large inner height and therefore cost-effective
- Cables are protected from swarf
- Easy to fill, lids openable along the inner or outer radius, from both sides
- Low noise operation due to integrated brake
- Notch separator, recommended for side-mounted applications



When to use another e-tube:

- Extremely swarf-resistant according to IP40
 - ▶ RX e-tubes, page 502
- For higher fill weights and unsupported lengths
 - ▶ R4.1L e-tubes, page 524



reddot design award
winner 2018

Sealed and universal: enclosed KMA mounting bracket with attachment from any side

Edge-free: smooth design, swarf cannot get stuck

Fast assembly: lids openable along the inner or outer radius, from both sides

Notch separator: recommended for side-mounted applications

Protected: covered pin/bore connection

Quiet operation: due to integrated brake

Light with a large inner height: good ratio of outer to inner dimensions

Strong: double stop-dog system for long unsupported lengths


Cost-effective swarf protection - R2.1 e-tubes


Cost-effective, strong e-tubes with 26, 40, 48 and 75mm inner height. Openable and removable lids along inner or outer radius, openable from both sides. Very sealed design and strong double stop-dogs for high fill weights and unsupported lengths.


- Large inner height and therefore cost-effective
- Cables are protected from swarf
- Easy to fill, lids openable along the inner or outer radius, from both sides
- Low noise operation due to integrated brake
- Notch separator, recommended for side-mounted applications

Typical industries and applications

- Machine tools ● Wood processing machines
- Textile machines ● General mechanical engineering
- In all areas with dirt and swarf

 e-tubes with igumid HT-Material for hot swarf up to +850°C available upon request

 Electrically conductive ESD e-tubes upon request

 UL94-V0 classifications upon request

 **reddot design award**
winner 2018

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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R2i.1 e-tubes - lids openable along the inner radius, from both sides

R2i.26	26	50 - 75	66 - 91	36	060 - 250	2.00	486
R2i.40	40	50 - 75	66.2 - 91.2	54	080 - 250	2.75	490
R2i.48 <i>New</i>	48	115	135	64	100 - 250	2.75	494



R2.1 e-tubes - lids openable along the outer radius, from both sides

R2.26	26	50	66	36	060 - 250	2.00	486
R2.40	40	75	91.2	54	080 - 250	2.75	490
R2.48 <i>New</i>	48	115	135	64	100 - 250	2.75	494
R2.75	75	111 - 200	135 - 224	90	130 - 250	3.00	498

 Available from stock. Ready to ship in 24 - 48hrs.*

*The delivery times indicated correspond to the average time until the ordered goods are dispatched.



Ideal for areas with swarf - R2.1 e-tubes are extremely tightly sealed



R2.1 e-tubes - lids with integrated separator notches openable along the inner and outer radius, either both sides



Pivoting and locking KMA mounting brackets for strong connection of the e-tube to the machine



Ideal for areas with swarf - R2.1 e-tubes are extremely tightly sealed



Special brake in the stop-dogs reduces noise level by up to 3dB(A)



Aluminium support tray for support of the lower run available upon request



Lean separators enable extremely fast cable filling in several layers

Technical data

Speed gliding¹⁾ / acceleration gliding¹⁾ upon request

Speed FL_G / acceleration FL_G ≤ 10 [m/s] / ≤ 100 [m/s²]
 Speed FL_B / acceleration FL_B ≤ 3 [m/s] / ≤ 6 [m/s²]

Material - permitted temperature °C, igumid G $-40^\circ\text{C} / +120^\circ\text{C}$

Flammability class, igumid G **VDE 0304 IIC UL94-HB**








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

¹⁾ Gliding applications for long travels are available upon request, please consult igus®.

Installation types, maximum travels


Series	Unsupported	Vertical hanging	Vertical standing	Side mounted unsupported
R2.26 / R2i.26	$\leq 4.0\text{m}$	$\leq 30\text{m}$	$\leq 2.0\text{m}$	$\leq 0.7\text{m}$
R2.40 / R2i.40	$\leq 5.5\text{m}$	$\leq 40\text{m}$	$\leq 3.0\text{m}$	$\leq 1.0\text{m}$
R2.48 / R2i.48	$\leq 5.5\text{m}$	$\leq 50\text{m}$	$\leq 3.0\text{m}$	$\leq 1.0\text{m}$
R2.75	$\leq 6.0\text{m}$	$\leq 50\text{m}$	$\leq 5.0\text{m}$	$\leq 2.0\text{m}$

Options with order keys | Examples based on series R2.75


 Standard	<i>NC version - (No Camber) without pretension</i>	<i>No burning-in of hot swarf up to +850°C (+1562° F)</i>	<i>ESD - electrically conductive material</i>
Part No. Standard	Part No. NC version	Part No. igumid HT	Part No. igumid ESD
			
 R2.75.111.R.0	R2.75.111.R.0.NC	R2.75.111.R.0.HT	R2.75.111.R.0.ESD
 Ready to ship* in 24 - 48hrs.	Delivery time* 2-5 business days	Delivery time* 7-10 business days	Delivery time* 10 business days

*The delivery times indicated correspond to the average time until the ordered goods are dispatched.

Order example | Order key and colour examples | Examples based on series R2.75






 **Order example for complete e-tube (1.0m), colour black, with mounting brackets and interior separation:**

e-tube (1.0m)	Please indicate e-tube length or number of links: 1.0m or 17 links	R2.75.111.130.0
+ Mounting brackets	KMA - 1 set	R2.750.111.12
Interior separation	with 2 separators assembled every 2 nd link	2 x 75.1.1
Order text:	1 m R2.75.111.130.0 + R2.750.111.12 + 2 x 75.1.1	








 **Order key**

Openable along the outer radius, from both sides

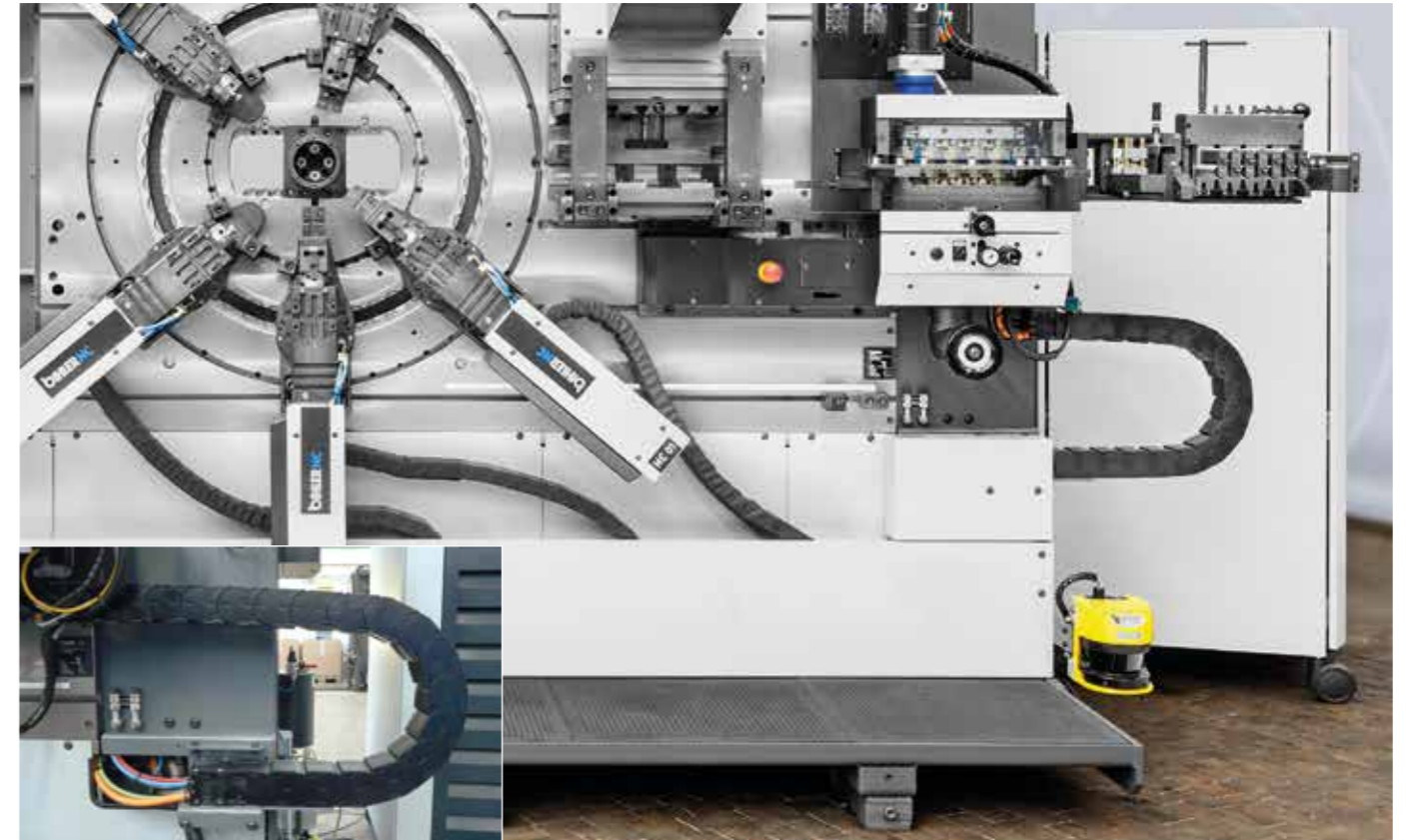
R2.75.111.130.0

Series / Type	
Inner height	
Width index (depends on B)	
Bend radius R	
Colour index (standard black)	

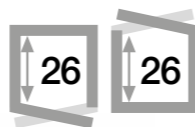
Order index for colour options

Colour	Order index	Colour	Order index
 Black	Standard .0	 Orange	Special colour .2
 Silver-grey	Special colour .31	 Yellow	Special colour .4
 White	Special colour .1	 Light grey	Special colour .14
 Grey-white	Special colour .1S		

Black e-tubes available from stock.
Above special colours upon request.



igus® R2.1 e-tube in operation in a fast stamping and bending machine to guide servo and encoder cables



e-tubes | Series R2i.26 | Lids openable along the inner radius, from both sides
 e-tubes | Series R2.26 | Lids openable along the outer radius, from both sides

Part No. e-tubes openable along the inner radius	Part No. e-tubes openable along the outer radius	Bi [mm]	Ba [mm]	R Available bend radii [mm]	R2i.26 [kg/m]	R2.26 [kg/m]
R2i.26.025.R.0**	R2.26.025.R.0**	25	41	060 075 100 125 150 175 200 250	≈ 0.870	≈ 0.870
R2i.26.038.R.0**	R2.26.038.R.0**	38	54	060 075 100 125 150 175 200 250	≈ 0.957	≈ 0.957
R2i.26.050.R.0	R2.26.050.R.0	50	66	060 075 100 125 150 175 200 250	≈ 1.044	≈ 1.044
R2i.26.075.R.0	R2.26.075.R.0**	75	91	060 075 100 125 150 175 200 250	≈ 1.218	≈ 1.218
R2i.26.100.R.0**	R2.26.100.R.0**	100	116	060 075 100 125 150 175 200 250	≈ 1.392	≈ 1.392
R2i.26.130.R.0**	R2.26.130.R.0**	130	146	060 075 100 125 150 175 200 250	≈ 1.600	≈ 1.600

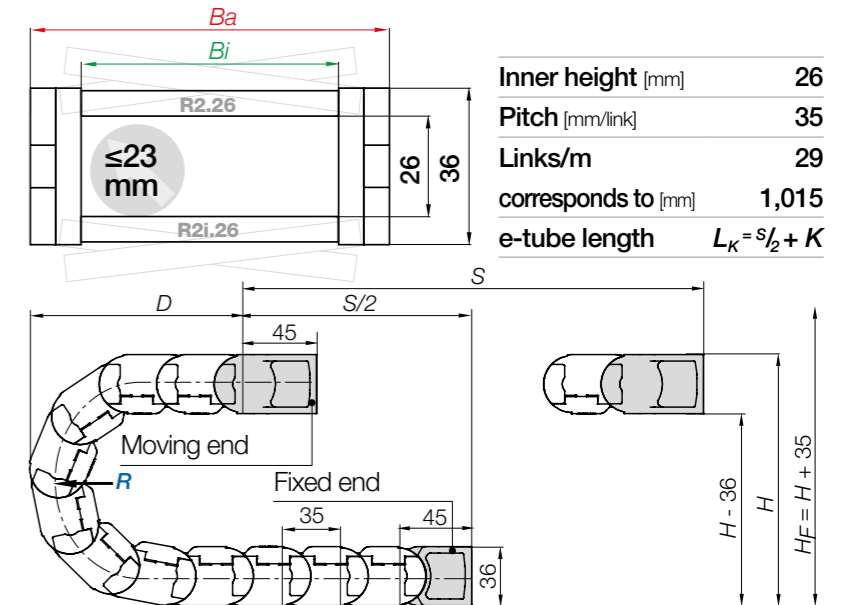
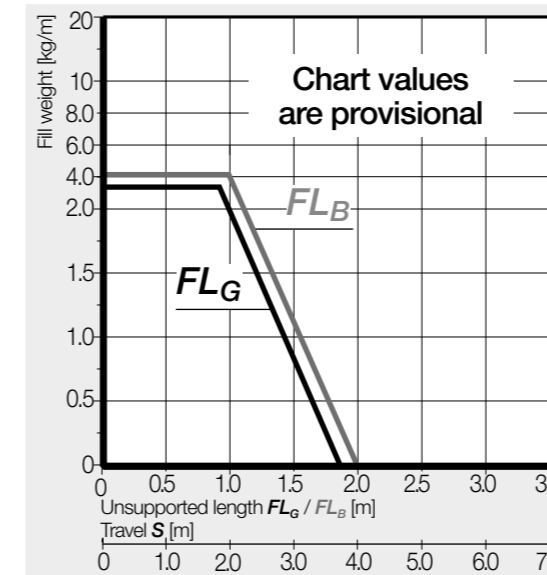
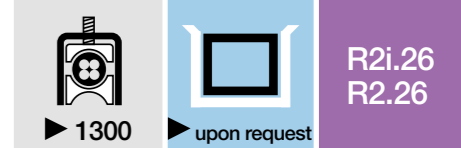
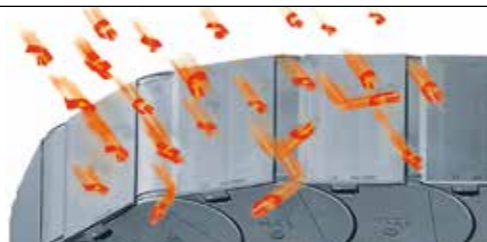
**Width available upon request. Please consult igus® for delivery time.

Complete Part No. with required radius (R). Example: R2i.26.050.060.0

Hot swarf up to +850°C

- e-tubes to withstand 850°C swarf, as a special option
- No hot swarf melting or embedding into the chain
- igus® igumid HT material

More information ► www.igus.eu/HT



R	060	075	100	125	150	175	200	250
H	156	186	236	286	336	386	436	536
D	130.5	145.5	170.5	195.5	220.5	245.5	270	320.5
K	260	310	385	465	545	620	700	860

The required clearance height: $H_F = H + 35\text{mm}$ (with 1.5kg/m fill weight)

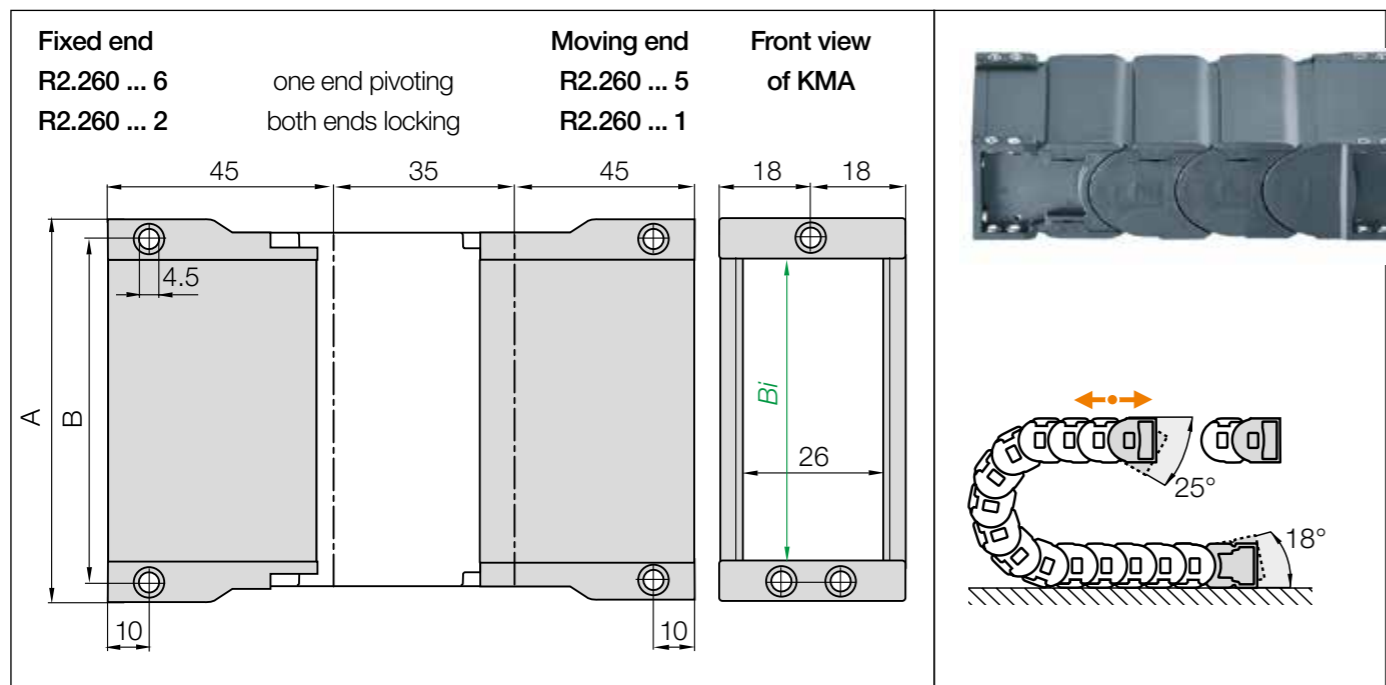
i If a gliding application is required for a long travel, please consult igus®.

Aluminium support tray

- Corrosion-resistant and seawater-resistant aluminium rails with adjustable width
- Noise-reducing glide strip integrated as standard
- Easy installation and connection of the e-tube
- Open design - dirt and debris fall through

Available upon request. Please consult igus® for delivery time.





KMA, pivoting | Recommended for unsupported applications
KMA, locking | Recommended for vertical hanging and standing applications

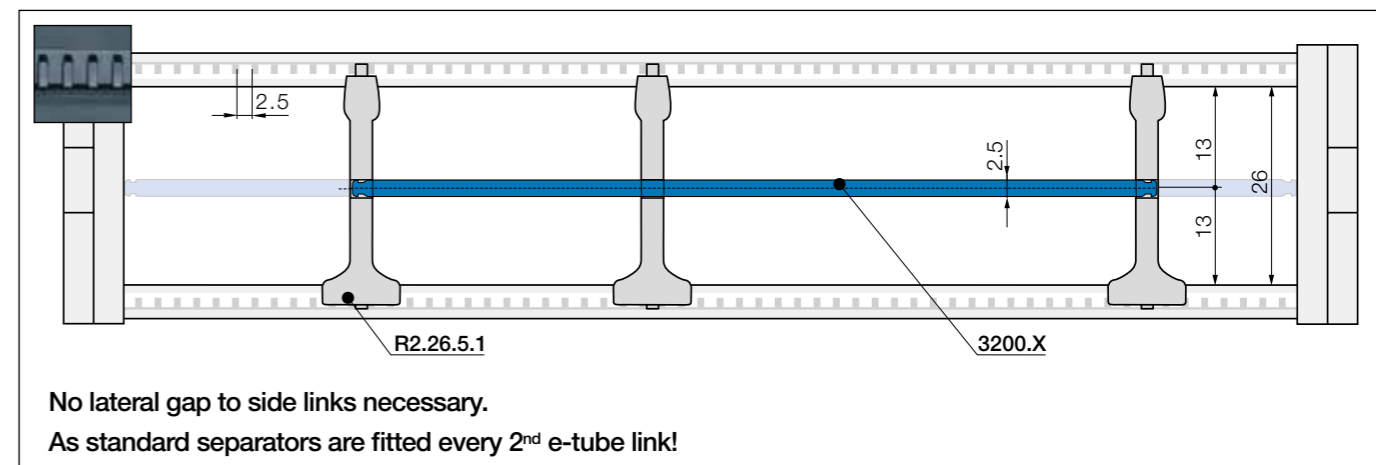
Width index	Part No. full set KMA one end pivoting	Part No. full set KMA both ends locking	A [mm]	B [mm]	Bi [mm]
025. ▶	R2.260.025.56	R2.260.025.12	34.5	43	25
038. ▶	R2.260.038.56	R2.260.038.12	47.5	56	38
050. ▶	R2.260.050.56	R2.260.050.12	59.5	68	50
075. ▶	R2.260.075.56	R2.260.075.12	84.5	93	75
100. ▶	R2.260.100.56	R2.260.100.12	109.5	118	100
130. ▶	R2.260.130.56	R2.260.130.12	139.5	148	130

(KMA = polymer metal mounting bracket)

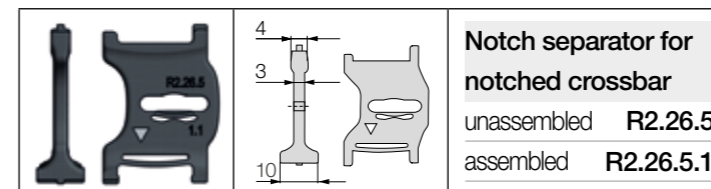


R2.260.050.12.A Order example
 .A... to indicate option with brackets pre-fitted
 Full set
 Width index
 Series

Strain relief e.g. clamps, tiwrap plates, nuggets and plug-in clips are available from stock. The complete chainfix range with ordering options ▶ From page 1300

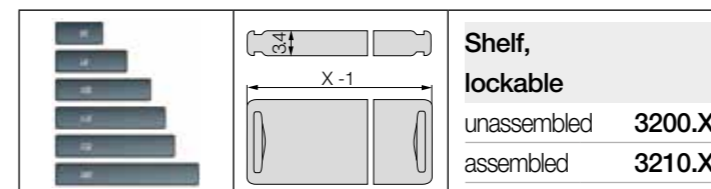


No lateral gap to side links necessary.
 As standard separators are fitted every 2nd e-tube link!



Notch separator for notched crossbar
 unassembled R2.26.5
 assembled R2.26.5.1

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



Shelf, lockable
 unassembled 3200.X
 assembled 3210.X

Horizontal separation
 Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or partial shelf.

Shelves

Width = X [mm]

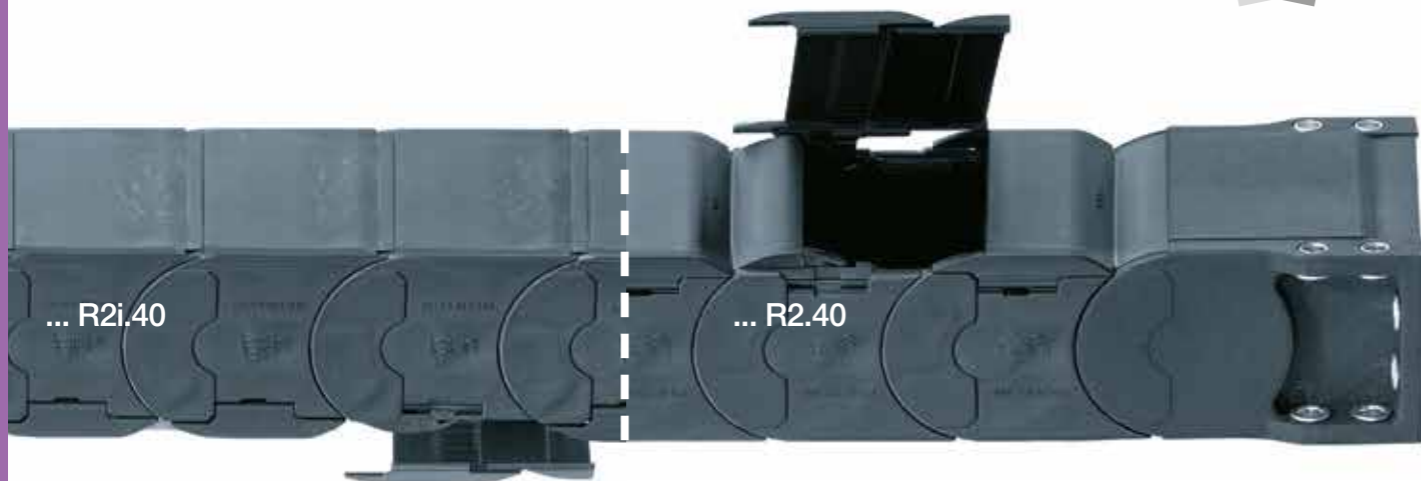
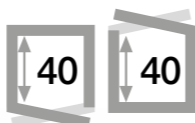


X [mm]	unassembled	assembled	X [mm]	unassembled	assembled	X [mm]	unassembled	assembled
050	3200.050	3210.050	115	3200.115	3210.115	175	3200.175	3210.175
075	3200.075	3210.075	125	3200.125	3210.125	200	3200.200	3210.200
100	3200.100	3210.100	150	3200.150	3210.150			

Separator with integrated strain relief teeth

- Can be integrated into the mounting bracket or placed at any point in the e-tube
 - Combines strain relief and interior separation, for restricted space conditions
 - Strain relief separator is easy to assemble without any screws
- Part No. R2.26.Z. More information ▶ From page 1326





e-tubes | Series R2i.40 | Lids openable along the inner radius, from both sides
 e-tubes | Series R2.40 | Lids openable along the outer radius, from both sides

Part No. e-tubes openable along the inner radius	Part No. e-tubes openable along the outer radius	Bi [mm]	Ba [mm]	R Available bend radii [mm]	R2i.40 [kg/m]	R2.40 [kg/m]
R2i.40.050.R.0	R2.40.050.R.0**	50	66.2	080 100 125 150 175 200 250	≈ 1.25	≈ 1.25
R2i.40.075.R.0	R2.40.075.R.0	75	91.2	080 100 125 150 175 200 250	≈ 1.50	≈ 1.50
R2i.40.100.R.0**	R2.40.100.R.0**	100	116.2	080 100 125 150 175 200 250	≈ 1.75	≈ 1.75
R2i.40.125.R.0**	R2.40.125.R.0**	125	141.2	080 100 125 150 175 200 250	≈ 2.00	≈ 2.00
R2i.40.150.R.0**	R2.40.150.R.0**	150	166.2	080 100 125 150 175 200 250	≈ 2.25	≈ 2.25
R2i.40.175.R.0**	R2.40.175.R.0**	175	191.2	080 100 125 150 175 200 250	≈ 2.50	≈ 2.50
R2i.40.200.R.0**	R2.40.200.R.0**	200	216.2	080 100 125 150 175 200 250	≈ 2.75	≈ 2.75

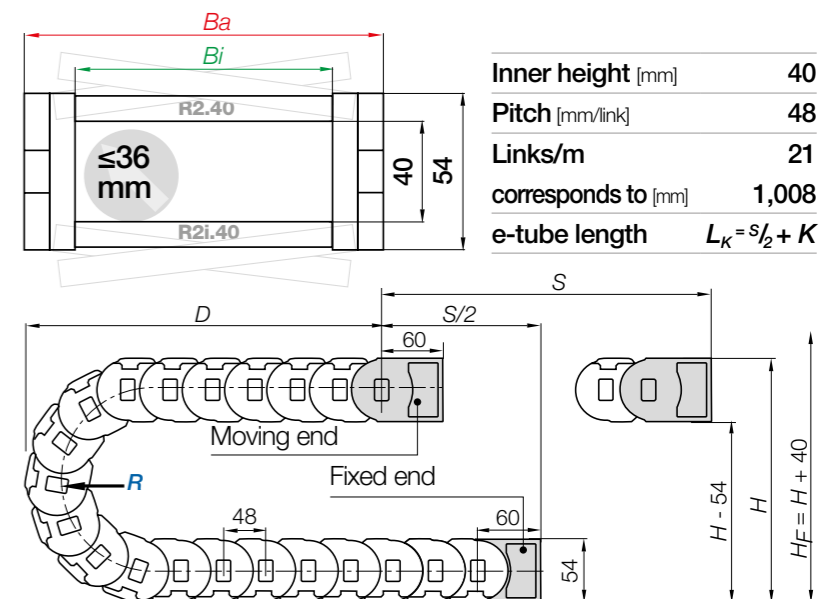
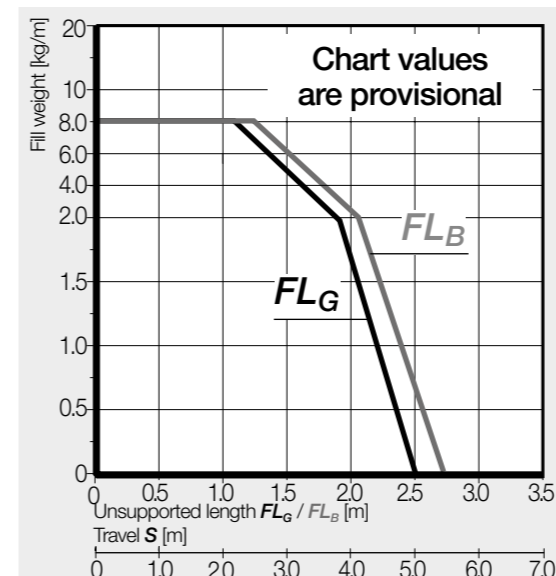
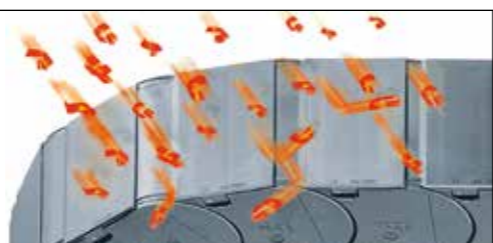
**Width available upon request. Please consult igus® for delivery time.

Complete Part No. with required radius (R). Example: R2i.40.075.080.0

Hot swarf up to +850°C

- e-tubes to withstand 850°C swarf, as a special option
- No hot swarf melting or embedding into the chain
- igus® igumid HT material

More information ► www.igus.eu/HT



R	080	100	125	150	175	200	250
H	214	254	304	354	404	454	554
D	179	199	224	249	274	299	349
K	350	415	490	570	650	725	885

The required clearance height: $H_F = H + 40\text{mm}$ (with 2.0kg/m fill weight)

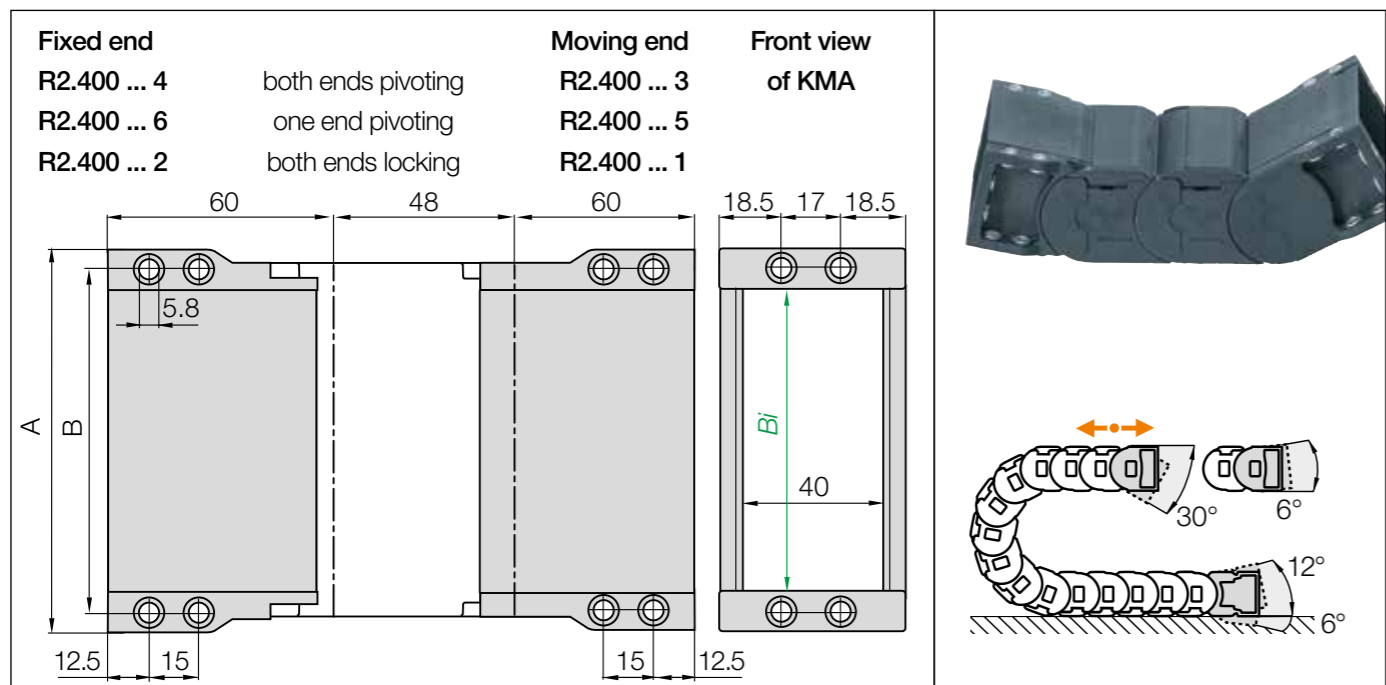
i If a gliding application is required for a long travel, please consult igus®.

Aluminium support tray

- Corrosion-resistant and seawater-resistant aluminium rails with adjustable width
- Noise-reducing glide strip integrated as standard
- Easy installation and connection of the e-tube
- Open design - dirt and debris fall through

Available upon request. Please consult igus® for delivery time.





KMA, pivoting
KMA, locking

Recommended for unsupported applications
Recommended for vertical hanging and standing applications

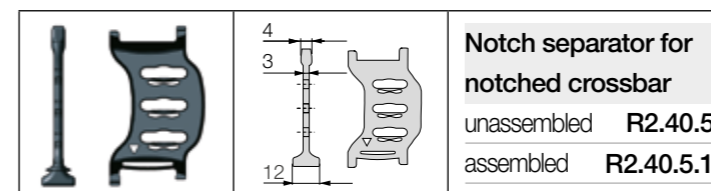
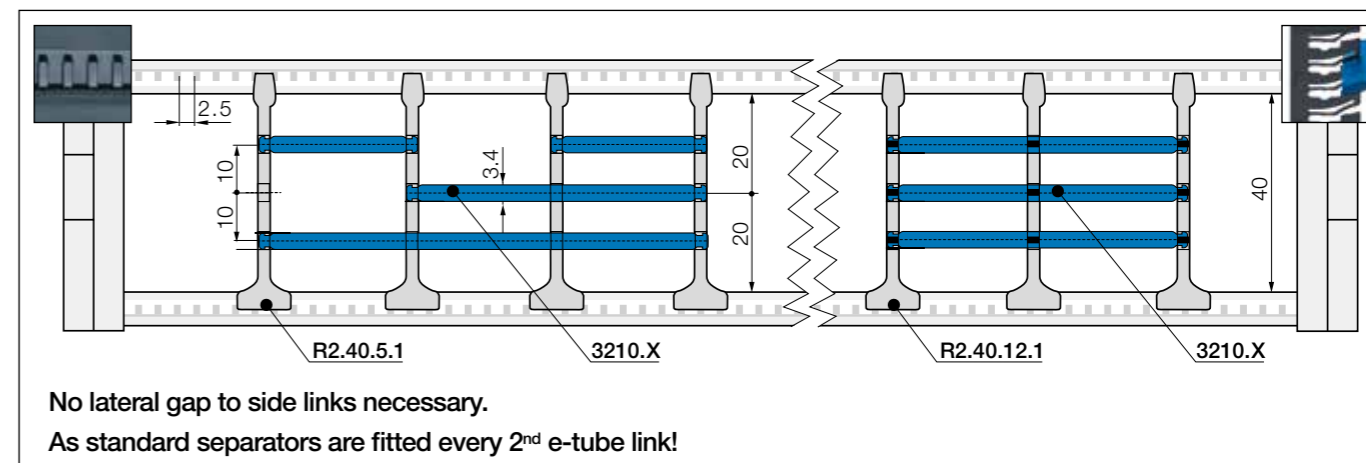
Width index	Part No. full set KMA	Part No. full set KMA	Part No. full set KMA	A [mm]	B [mm]	Bi [mm]
	both ends pivoting	one end pivoting	both ends locking			
50.	R2.400.050.34	R2.400.050.56	R2.400.050.12	74	62	50
75.	R2.400.075.34	R2.400.075.56	R2.400.075.12	99	87	75
100.	R2.400.100.34	R2.400.100.56	R2.400.100.12	124	112	100
125.	R2.400.125.34	R2.400.125.56	R2.400.125.12	149	137	125
150.	R2.400.150.34	R2.400.150.56	R2.400.150.12	174	162	150
175.	R2.400.175.34	R2.400.175.56	R2.400.175.12	199	187	175
200.	R2.400.200.34	R2.400.200.56	R2.400.200.12	224	212	200

(KMA = polymer metal mounting bracket)

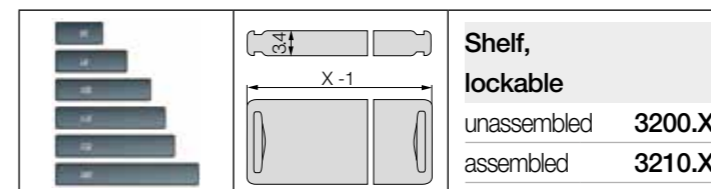


R2.400.075.56.A Order example
.A... to indicate option with brackets pre-fitted
Full set
Width index
Series

Strain relief e.g. clamps, tiwrap plates, nuggets and plug-in clips are available from stock. The complete chainfix range with ordering options ▶ From page 1300



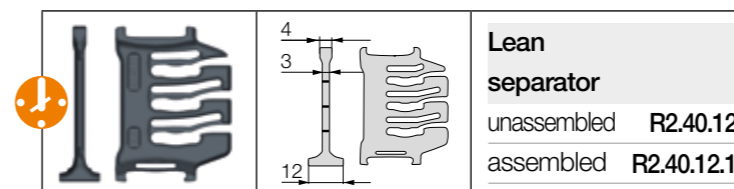
Locks securely in preset increments
Notch separator for exact positioning in e-chains®. Recommended for side-mounted applications.



Horizontal separation
Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or partial shelf.

Shelves	X [mm]	unassembled	assembled	X [mm]	unassembled	assembled	X [mm]	unassembled	assembled
Width = X [mm]	050	3200.050	3210.050	115	3200.115	3210.115	175	3200.175	3210.175
	075	3200.075	3210.075	125	3200.125	3210.125	200	3200.200	3210.200
	100	3200.100	3210.100	150	3200.150	3210.150			

Interior separation | To allow faster filling New



Lean separators
New design allows extremely fast fitting of shelves in several layers, which significantly reduces assembly time. Enables extremely fast replacement of individual cables in a very full e-tubes.

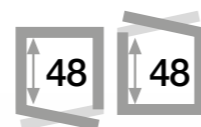
Lean separator design - several layers of cables fitted quickly, save up to 50%* assembly time
(*Lean separator vs. standard separator - measured on a 4m long e-chain® fitted with 12 cables in the igus® readychain® factory)



Separator with integrated strain relief teeth

- Can be integrated into the mounting bracket or placed at any point in the e-tube
- Combines strain relief and interior separation, for restricted space conditions
- Strain relief separator is easy to assemble without any screws

Part No. R2.40.Z. More information ▶ From page 490



e-tubes | Series R2i.48 | Lids openable along the inner radius, from both sides
 e-tubes | Series R2.48 | Lids openable along the outer radius, from both sides

Part No. e-tubes openable along the inner radius	Part No. e-tubes openable along the outer radius	<i>B_i</i> [mm]	<i>B_a</i> [mm]	<i>R</i> Available bend radii [mm]	R2i.48 [kg/m]	R2.48 [kg/m]
R2i.48.050.R.0**	R2.48.050.R.0**	50	70	100 125 150 175 200 225 250	≈ 1.92	≈ 1.92
R2i.48.075.R.0**	R2.48.075.R.0**	75	95	100 125 150 175 200 225 250	≈ 2.23	≈ 2.23
R2i.48.100.R.0**	R2.48.100.R.0**	100	120	100 125 150 175 200 225 250	≈ 2.55	≈ 2.55
R2i.48.115.R.0	R2.48.115.R.0	115	135	100 125 150 175 200 225 250	≈ 2.74	≈ 2.74
R2i.48.125.R.0**	R2.48.125.R.0**	125	145	100 125 150 175 200 225 250	≈ 2.86	≈ 2.86
R2i.48.150.R.0**	R2.48.150.R.0**	150	170	100 125 150 175 200 225 250	≈ 3.18	≈ 3.18
R2i.48.175.R.0**	R2.48.175.R.0**	175	195	100 125 150 175 200 225 250	≈ 3.49	≈ 3.49
R2i.48.200.R.0**	R2.48.200.R.0**	200	220	100 125 150 175 200 225 250	≈ 3.81	≈ 3.81
R2i.48.225.R.0**	R2.48.225.R.0**	225	245	100 125 150 175 200 225 250	≈ 4.05	≈ 4.05
R2i.48.250.R.0**	R2.48.250.R.0**	250	270	100 125 150 175 200 225 250	≈ 4.44	≈ 4.44

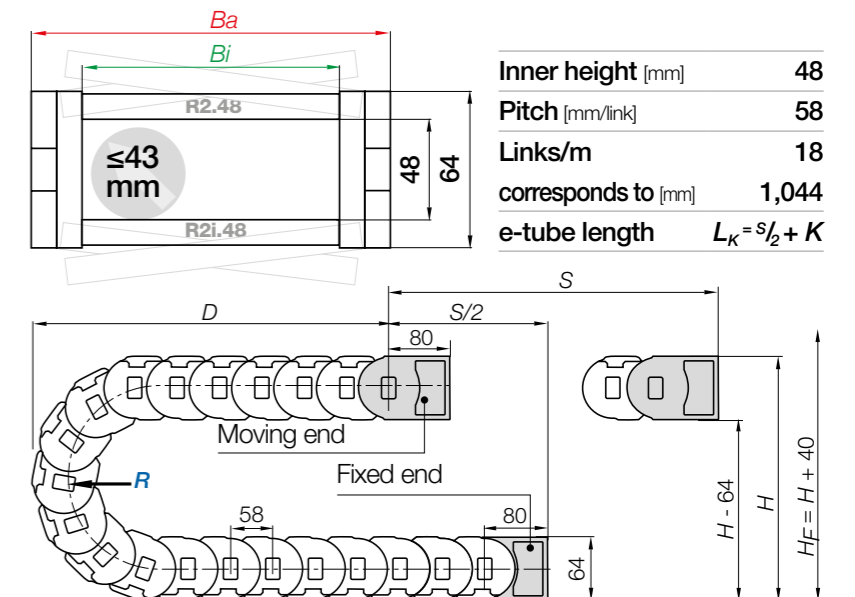
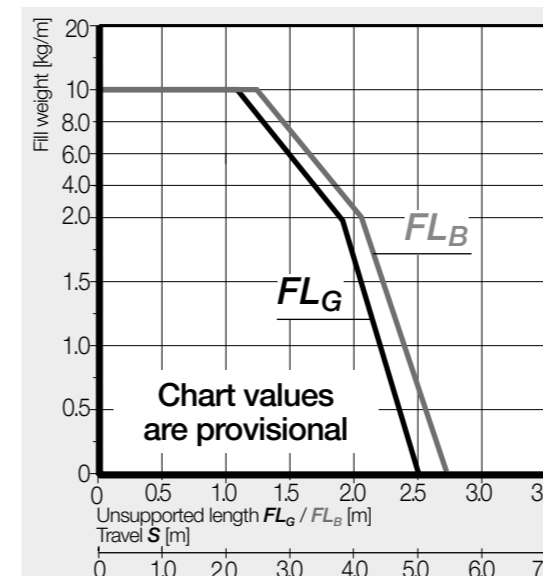
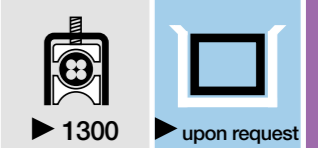
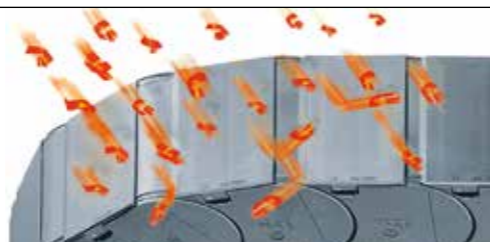
**Width available upon request. Please consult igus® for delivery time.

Complete Part No. with required radius (*R*). Example: R2i.48.115.100.0

Hot swarf up to +850°C

- e-tubes to withstand 850°C swarf, as a special option
- No hot swarf melting or embedding into the chain
- igus® igumid HT material

More information ► www.igus.eu/HT



<i>R</i>	100	125	150	175	200	225	250
<i>H</i>	264	314	364	414	464	514	564
<i>D</i>	219	244	269	294	319	344	369
<i>K</i>	435	510	590	670	745	825	905

The required clearance height: $H_F = H + 40\text{mm}$ (with 2.0kg/m fill weight)

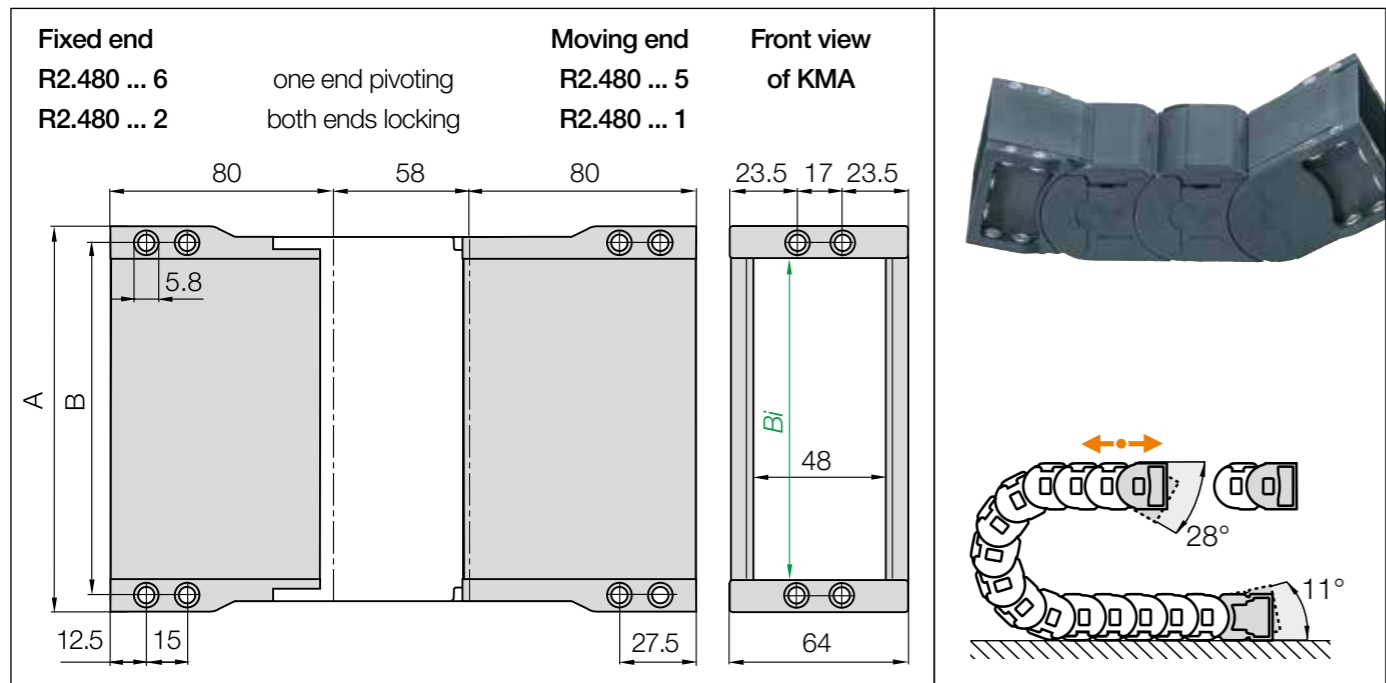
i If a gliding application is required for a long travel, please consult igus®.

Aluminium support tray

- Corrosion-resistant and seawater-resistant aluminium rails with adjustable width
- Noise-reducing glide strip integrated as standard
- Easy installation and connection of the e-tube
- Open design - dirt and debris fall through

Available upon request. Please consult igus® for delivery time.

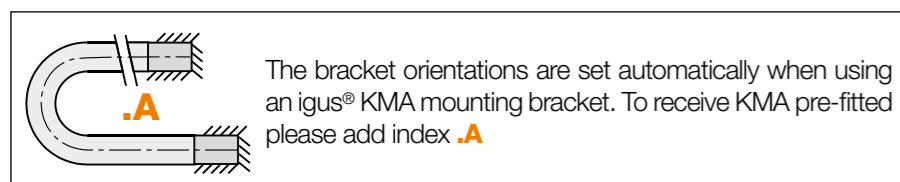




KMA, pivoting | Recommended for unsupported applications
KMA, locking | Recommended for vertical hanging and standing applications

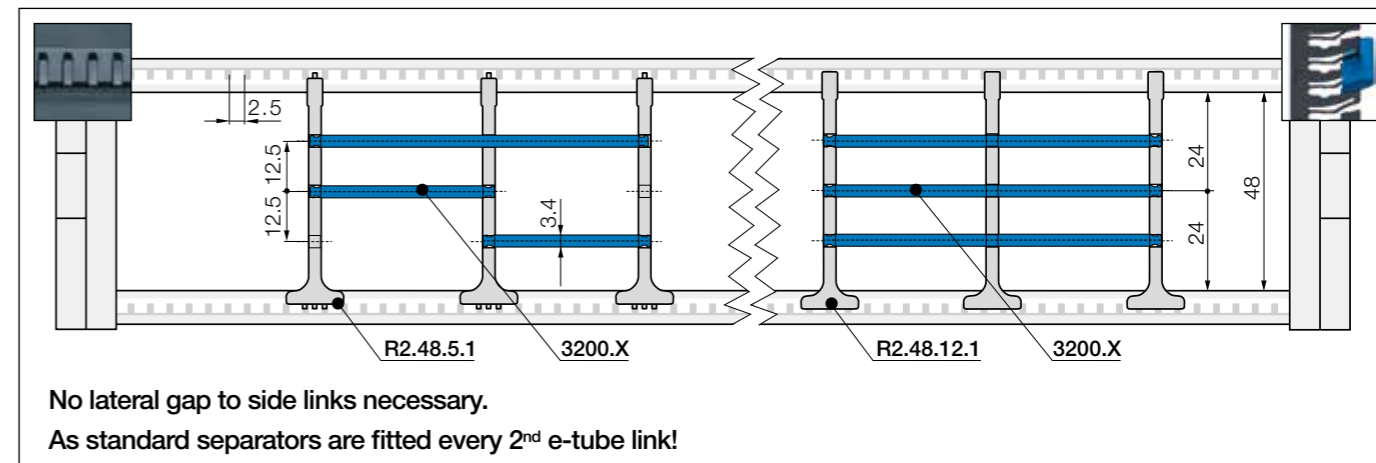
Width index	Part No. full set KMA one end pivoting	Part No. full set KMA both ends locking	A [mm]	B [mm]	Bi [mm]
050.	R2.480.050.56	R2.480.050.12	74	62	50
075.	R2.480.075.56	R2.480.075.12	99	87	75
100.	R2.480.100.56	R2.480.100.12	124	112	100
115.	R2.480.115.56	R2.480.115.12	139	127	115
125.	R2.480.125.56	R2.480.125.12	149	137	125
150.	R2.480.150.56	R2.480.150.12	174	162	150
175.	R2.480.175.56	R2.480.175.12	199	187	175
200.	R2.480.200.56	R2.480.200.12	224	212	200
225.	R2.480.225.56	R2.480.225.12	249	237	225
250.	R2.480.250.56	R2.480.250.12	274	262	250

(KMA = polymer metal mounting bracket) *Width available upon request. Please consult igus® for delivery time.

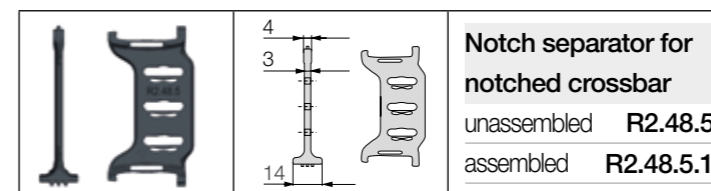


R2.480.115.56.A Order example
 .A... to indicate option with brackets pre-fitted
 Full set
 Width index
 Series

Strain relief e.g. clamps, tiwrap plates, nuggets and plug-in clips are available from stock. The complete chainfix range with ordering options ▶ From page 1300

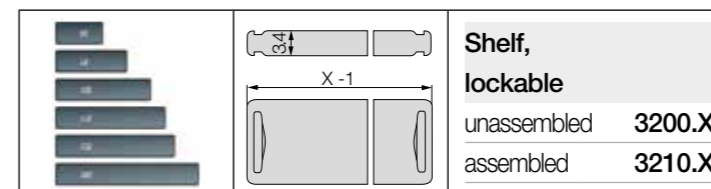


No lateral gap to side links necessary.
 As standard separators are fitted every 2nd e-tube link!



Notch separator for notched crossbar
 unassembled R2.48.5
 assembled R2.48.5.1

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

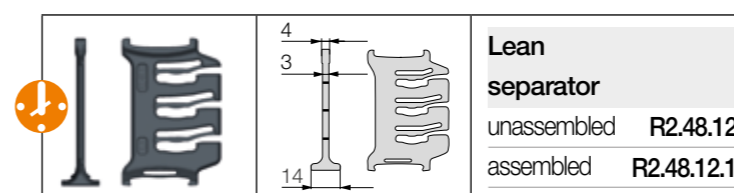


Shelf, lockable
 unassembled 3200.X
 assembled 3210.X

Horizontal separation
 Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or partial shelf.

Shelves	X [mm]	unassembled	assembled	X [mm]	unassembled	assembled	X [mm]	unassembled	assembled
Width = X [mm]	050	3200.050	3210.050	125	3200.125	3210.125	225	3200.225	3210.225
	075	3200.075	3210.075	150	3200.150	3210.150	250	3200.250	3210.250
	100	3200.100	3210.100	175	3200.175	3210.175			
	115	3200.115	3210.115	200	3200.200	3210.200			

Interior separation | To allow faster filling New



Lean separator
 unassembled R2.48.12
 assembled R2.48.12.1

Lean separators
 New design allows extremely fast fitting of shelves in several layers, which significantly reduces assembly time. Enables extremely fast replacement of individual cables in a very full e-tubes.

Lean separator design - several layers of cables fitted quickly, save up to 50%* assembly time
 (*Lean separator vs. standard separator - measured on a 4m long e-chain® fitted with 12 cables in the igus® readychain® factory)





e-tubes | Series R2.75 | Lids openable along the outer radius, from both sides

Part No. e-tubes openable along the outer radius	Bi [mm]	Ba [mm]	R Available bend radii [mm]	R2.75 [kg/m]
R2.75.111.R.0	111	135	130 150 200 250 300* 350* 400*	≈ 3.175
R2.75.163.R.0	163	187	130 150 200 250 300* 350* 400*	≈ 3.672
R2.75.200.R.0	200	224	130 150 200 250 300* 350* 400*	≈ 4.012

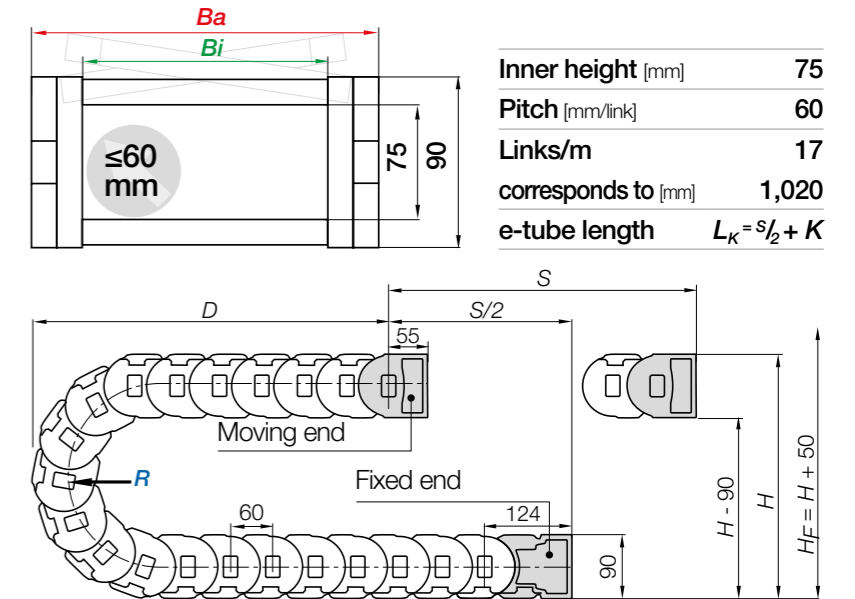
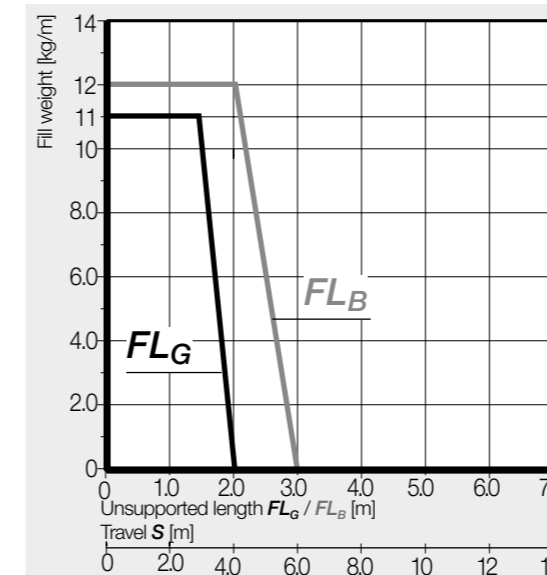
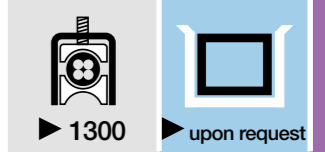
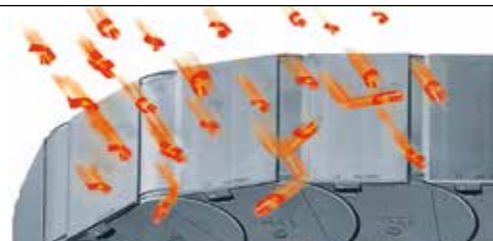
*Radius available upon request. Please consult igus® for delivery time.

Complete Part No. with required radius (R). Example: R2.75.111.130.0

Hot swarf up to +850°C

- e-tubes to withstand 850°C swarf, as a special option
- No hot swarf melting or embedding into the chain
- igus® igumid HT material

More information ► www.igus.eu/HT



Inner height [mm]	75
Pitch [mm/link]	60
Links/m	17
corresponds to [mm]	1,020
e-tube length	$L_K = \frac{S}{2} + K$

R	130	150	200	250	300*	350*	400*
H	350	390	490	590	690	790	890
D	265	285	335	385	435	485	535
K	530	595	750	910	1,065	1,220	1,380

The required clearance height: $H_F = H + 50\text{mm}$ (with 3.0kg/m fill weight)

*Radius available upon request. Please consult igus® for delivery time.

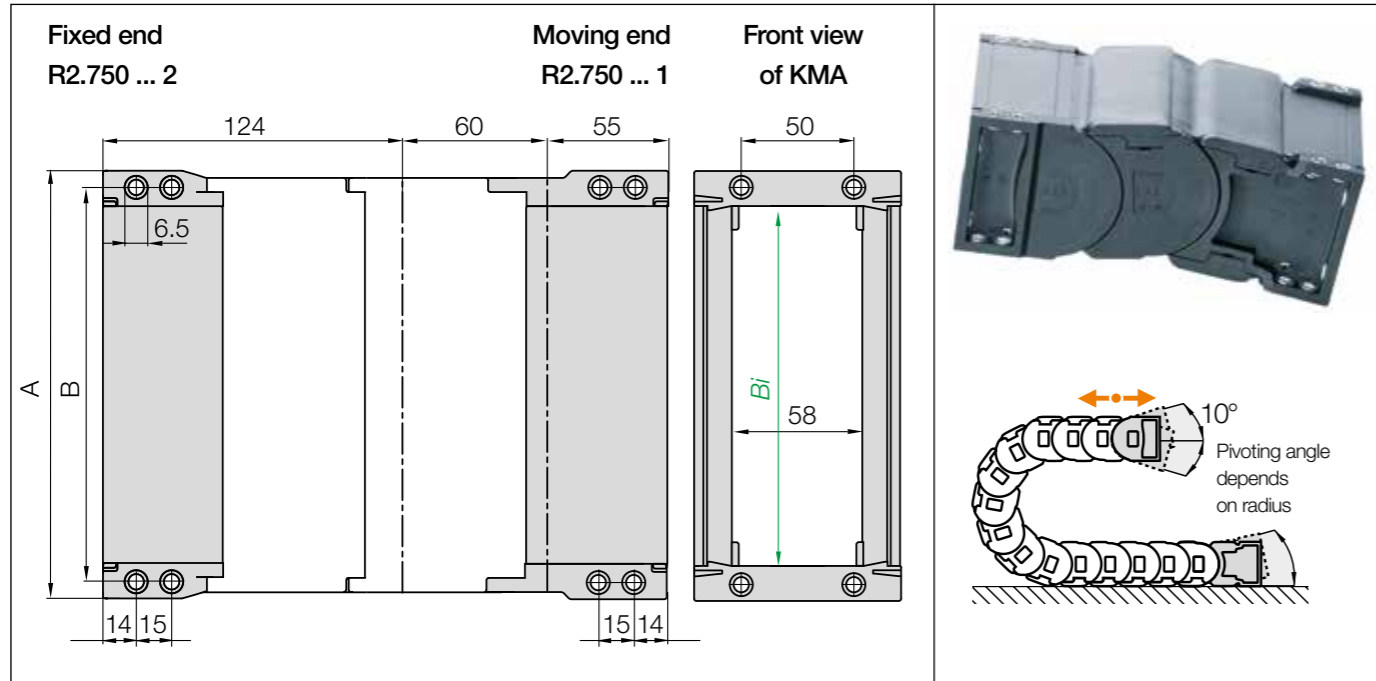
i If a gliding application is required for a long travel, please consult igus®.

Aluminium support tray

- Corrosion-resistant and seawater-resistant aluminium rails with adjustable width
- Noise-reducing glide strip integrated as standard
- Easy installation and connection of the e-tube
- Open design - dirt and debris fall through

Available upon request. Please consult igus® for delivery time.

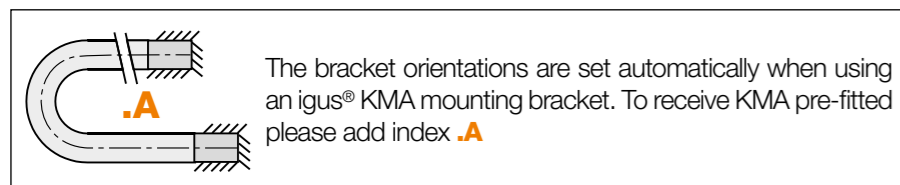




KMA pivoting | Recommended for unsupported applications

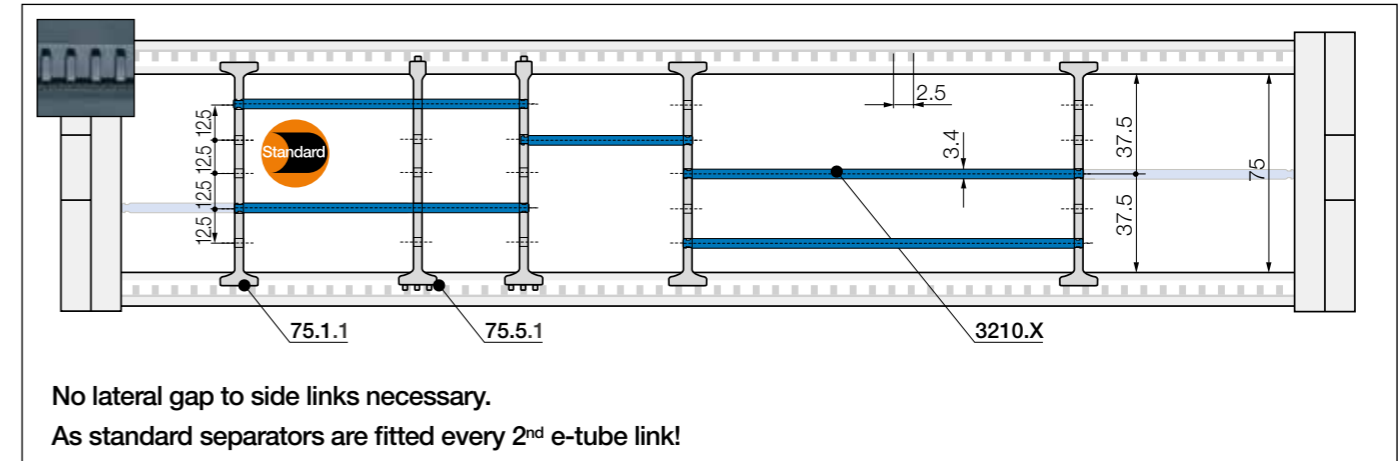
Width index	Part no. full set KMA pivoting	Part No. full set KMA locking	A [mm]	B [mm]	Bi [mm]
111 ▶	R2.750.111.12	-	141	127	111
163 ▶	R2.750.163.12	-	193	179	163
200 ▶	R2.750.200.12	-	230	216	200

(KMA = polymer metal mounting bracket)



R2.750.111.12.A Order example
.A... to indicate option with brackets pre-fitted
 Full set
 Width index
 Series

Strain relief e.g. clamps, tiewrap plates, nuggets and plug-in clips are available from stock. The complete chainfix range with ordering options ▶ From page 1300



Standard separator, wide base

unassembled	75.1
assembled	75.1.1

Standard - for any application
 Separator with a wide base for maximum holding force in the e-tube.

Notch separator for notched crossbar

unassembled	75.5
assembled	75.5.1

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

Shelf, lockable

unassembled	3200.X
assembled	3210.X

Horizontal separation
 Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or partial shelf.

Shelves
Width = X [mm]

X [mm]	unassembled	assembled	X [mm]	unassembled	assembled	X [mm]	unassembled	assembled
050	3200.050	3210.050	115	3200.115	3210.115	175	3200.175	3210.175
075	3200.075	3210.075	125	3200.125	3210.125	200	3200.200	3210.200
100	3200.100	3210.100	150	3200.150	3210.150			





RX

Extremely swarf-resistant without undercuts or edges



Advantages of the RX system:

- Openable along the outer radius
- Round contour prevents swarf accumulation
- Injection-moulded seal between links
- No holes, gaps or undercuts
- RX e-tubes - IP40 tested
- Covered pin/bore connection and stop-dogs
- Interior separation and support tray available
- **RBR** version with Reverse Bend Radius available



When to use another e-tube:

- For swarf protection on gliding applications
 - ▶ R4.1 e-tubes, page 566
- When a particularly cost-effective solution is required
 - ▶ R2.1 e-tubes, page 478



Flush attachment:
mounting bracket with
strain relief option

Smooth design:
without undercuts or edges

Keep order:
modular separation available

Fast assembly:
lids removable along
the outer radius

Safe:
covered pin/bore
connection and stop-dogs

Fast opening:
with inbuilt locking
mechanism

Swarf-resistant design:
round contour prevents
swarf accumulation

Extremely swarf-resistant e-tubes - RX system

Problem solver for energy supply systems in areas with swarf; openable along the outer radius. Swarf and dirt can significantly reduce the service life of cables and hoses. With the RX system igus® offers an extremely tough but smoothly shaped polymer e-tube.

- Openable along the outer radius
- Round contour prevents swarf accumulation
- Injection-moulded seal between links
- No holes, gaps or undercuts
- Covered pin/bore connection and stop-dogs
- Series RX40 has been tested for IP protection class (IP40) (TÜV NORD CERT GmbH)
- **RBR** version with Reverse Bend Radius available

Typical industries and applications

- Machine tools ● All applications in swarf area
- With dust and dirt ● General mechanical engineering

IP40 RX e-tubes - IP tested
► www.igus.eu/RX_tested

ESD Electrically conductive ESD e-tubes upon request

Optionally available with igumid HT-Material for hot swarf up to +850°C

UL94-V0 classifications upon request

product design award 2005
reddot design award honourable mention 2011

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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RX system - extremely swarf-resistant e-tubes
lids removable along the outer radius

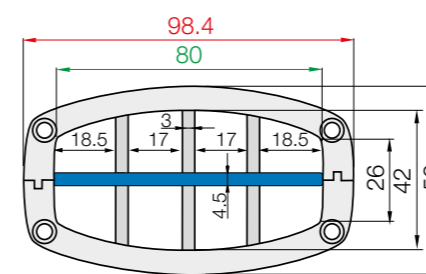
RX32	26 / 42	80	98.4	56	080 - 175	1.70	508
RX40	32 / 52	100	123.0	70	100 - 300	1.80	512
RX48	35 / 62	120	147.6	84	120 - 150	2.10	516
RX56	41 / 73	140	172.2	98	140 - 250	2.30	520



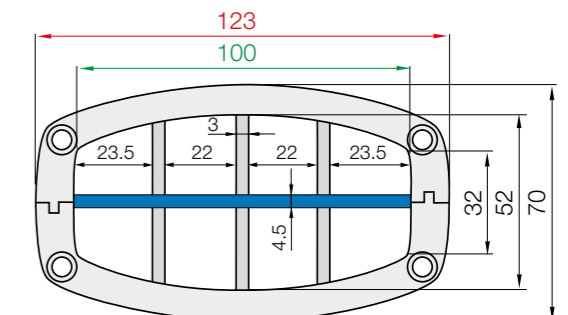
Available from stock. Ready to ship in 24 - 48hrs.*

*The delivery times indicated correspond to the average time until the ordered goods are dispatched.

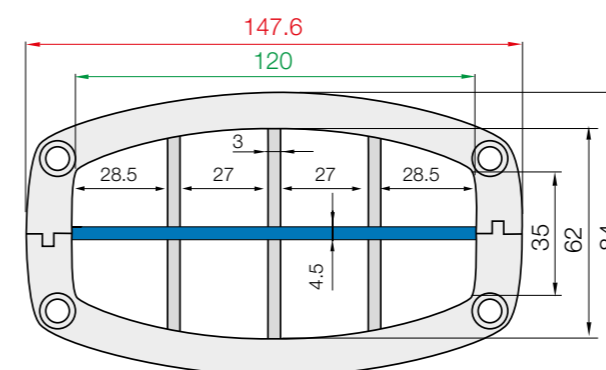
RX32



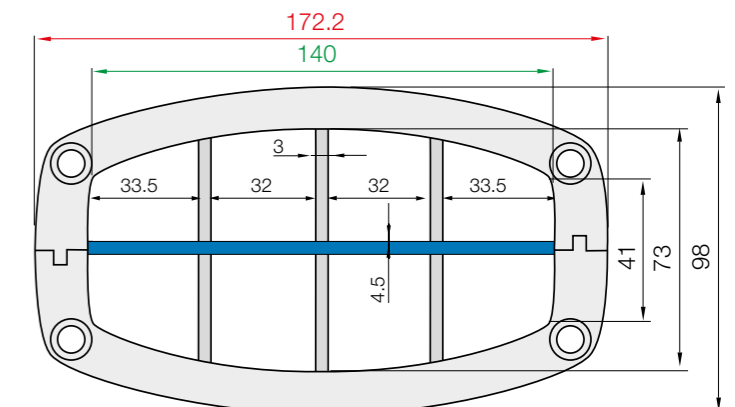
RX40







RX48



RX56



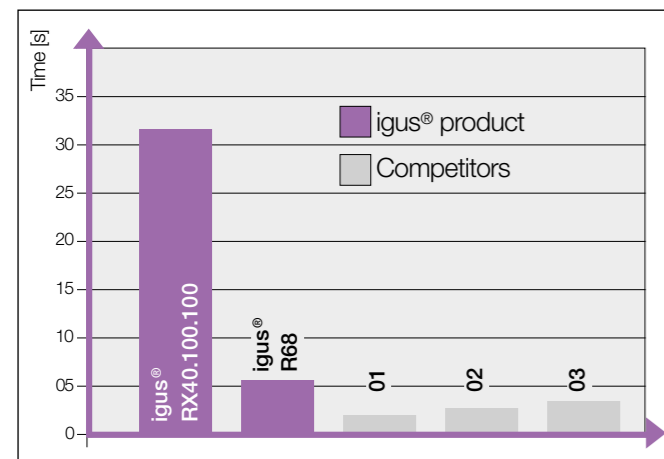
Technical data

	Speed FL_G / acceleration FL_G	≤ 10 [m/s] / ≤ 100 [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

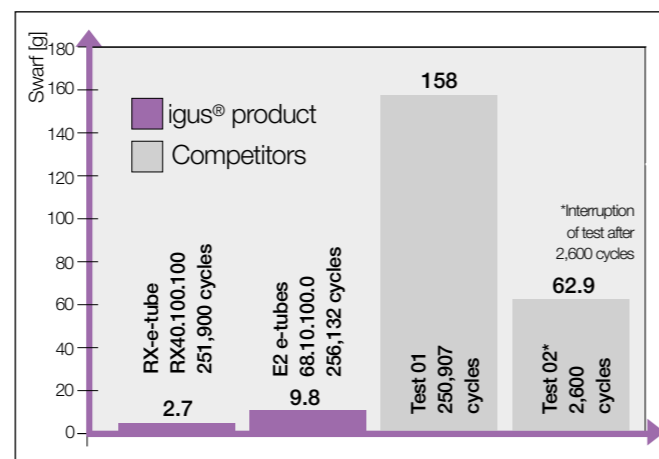
■ FL_G = unsupported with straight upper run ■ FL_B = unsupported with permitted sag

Installation types, maximum travels

Series	Unsupported	Vertical hanging	Vertical standing	Side mounted unsupported	Rotary	Zig-zag
RX32	$\leq 3.40m$	upon request	upon request	upon request	with rework	upon request
RX40	$\leq 3.80m$	upon request	upon request	upon request	with rework	upon request
RX48	$\leq 4.20m$	upon request	upon request	upon request	with rework	upon request
RX56	$\leq 4.60m$	upon request	upon request	upon request	with rework	upon request










Sealed - various tube styles were tested under water. For the RX e-tube, it takes more than 30 sec. to fill up with water




Swarf ingress - various tube styles were covered with a defined quantity of swarf. After 251,900 cycles, only 2.7g of swarf were found in the interior of the RX tube

Options with order keys | Examples based on series RX40


	Standard	Reverse Bend Radius (RBR) for circular movements	No burning-in of hot swarf up to +850°C (+1562° F)	ESD - electrically conductive material
Part No. Standard	Part No. RBR	Part No. igumid HT	Part No. igumid ESD	
				
	RX40.100.R.0	RX40.100.R1/R2.0	RX40.100.R.0.HT	RX40.100.R.0.ESD
	Ready to ship* in 24 - 48hrs.	Delivery time* 5-10 business days	Delivery time* 7-10 business days	Delivery time* 10 business days

*The delivery times indicated correspond to the average time until the ordered goods are dispatched.

Order example | Order key and colour examples | Examples based on series RX40

 Order example for complete e-tube (1.0m), colour black, with mounting brackets and interior separation:

e-tube (1.0m)	Please indicate e-tube length or number of links: 1.0m or 18 links	RX40.100.100.0
+ Mounting brackets	Set	RX401.100.12ZB
+ Interior separation	with 1 separator (central position) assembled every 2 nd link	1 x RX40.1.1
+ Interior separation	with 2 separators (lateral position) assembled every 2 nd link	2 x RX40.2.1
Order text:	1 m RX40.100.140.0 + RX401.100.12ZB + 1 x RX40.1.1 + 2 x RX40.2.1	

 Order key

e-tube - lids removable along the outer radius **RX40.100.100.0**

Series / Type: [Diagram showing L-shaped profile]

Width index (depends on B): [Diagram showing different widths]

Bend radius R: [Diagram showing different radii]

Colour index (standard black): [Diagram showing different colors]

Colour	Order index	Colour	Order index
Black	Standard .0	Orange	Special colour .2
Silver-grey	Special colour .31	Yellow	Special colour .4
White	Special colour .1	Light grey	Special colour .14
Grey-white	Special colour .1S		

Black e-tubes available from stock.
Above special colours upon request.



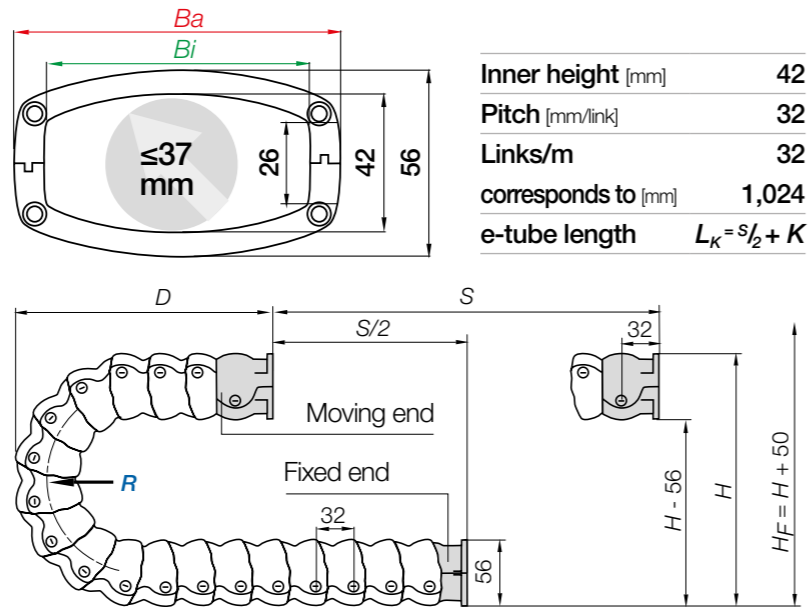
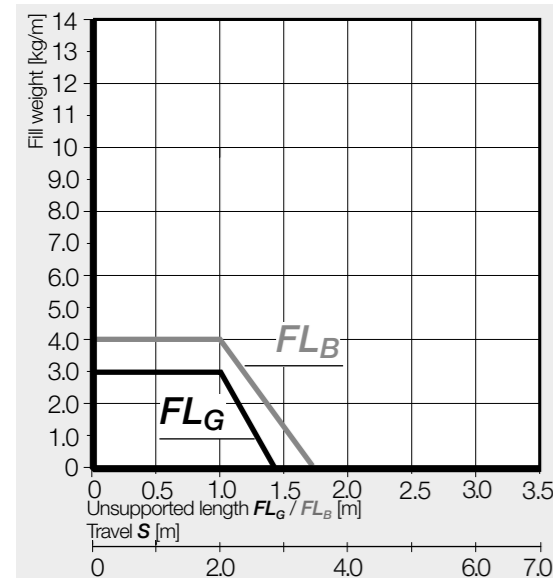
e-tubes | Series RX32 | Lids removable along the outer radius

Part No.	Bi	Ba	R Available bend radii	RX32
e-tubes	[mm]	[mm]	[mm]	[kg/m]
RX32.080.R.0	80	98.4	080 100 125 150 175 200* 225* 250*	≈ 1.23

*Radius available upon request. Please consult igus® for delivery time.

Complete Part No. with required radius (R). Example: RX32.080.080.0

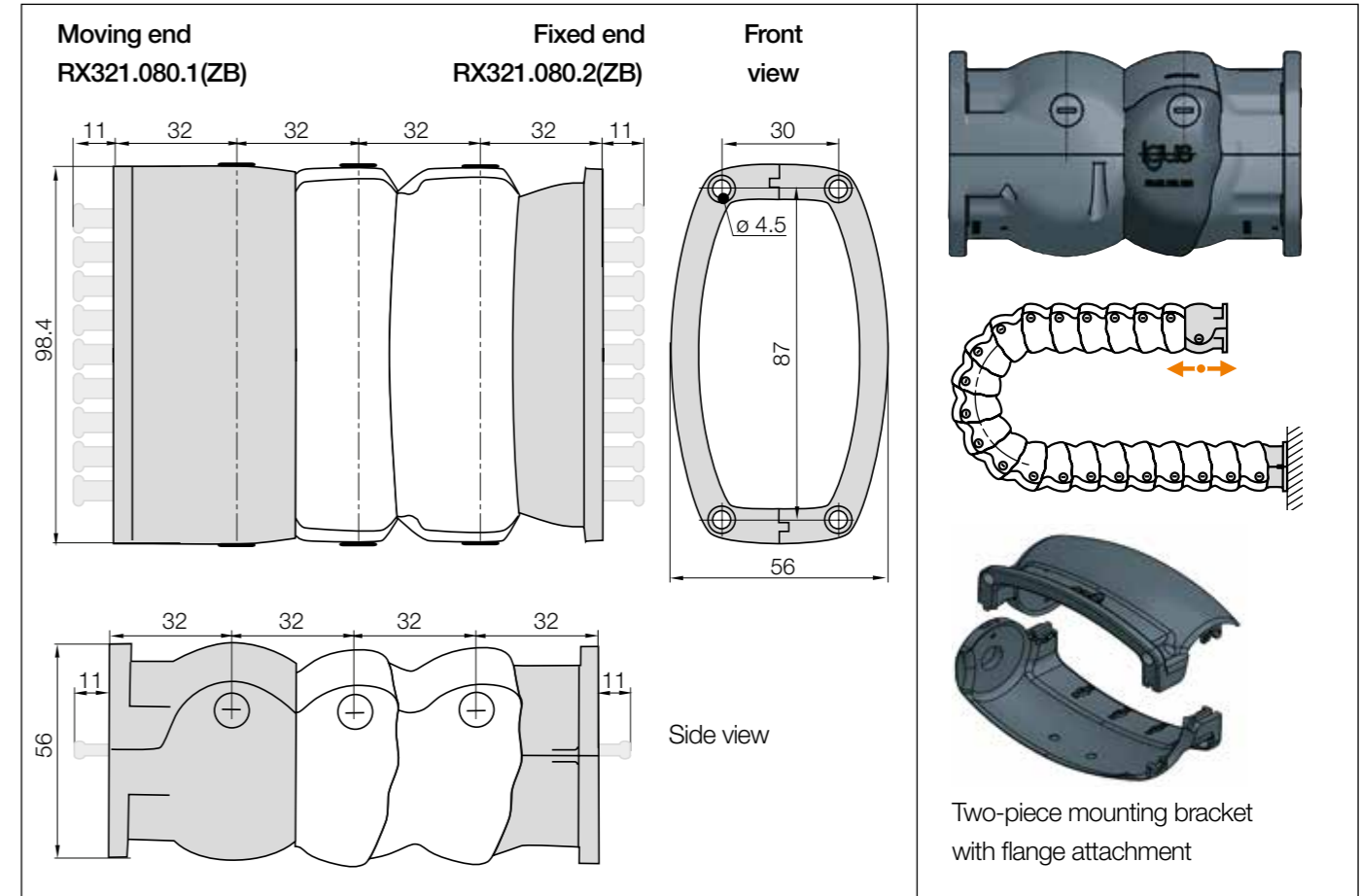
Installation dimensions



R	080	100	125	150	175	200*	225*	250*
H	216	256	306	356	406	456	506	556
D	156	176	201	226	251	276	301	326
K	320	380	460	540	615	695	775	850

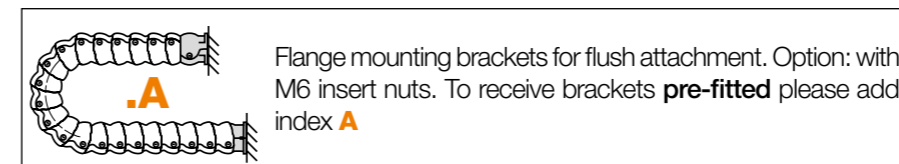
The required clearance height: $H_F = H + 50\text{mm}$ (with 0.5kg/m fill weight)

*Radius available upon request. Please consult igus® for delivery time.



Mounting brackets, flange | Locking

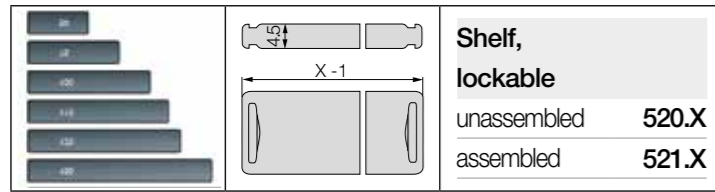
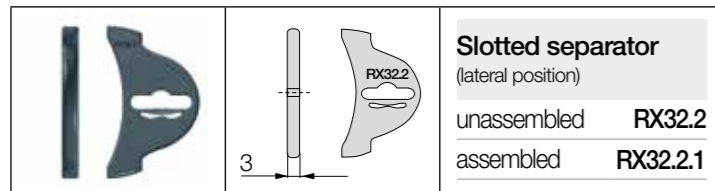
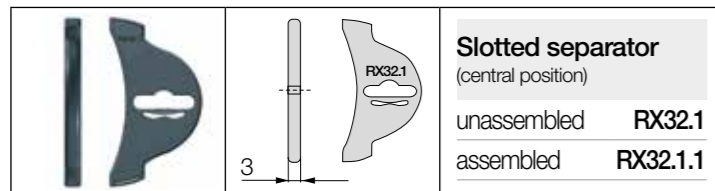
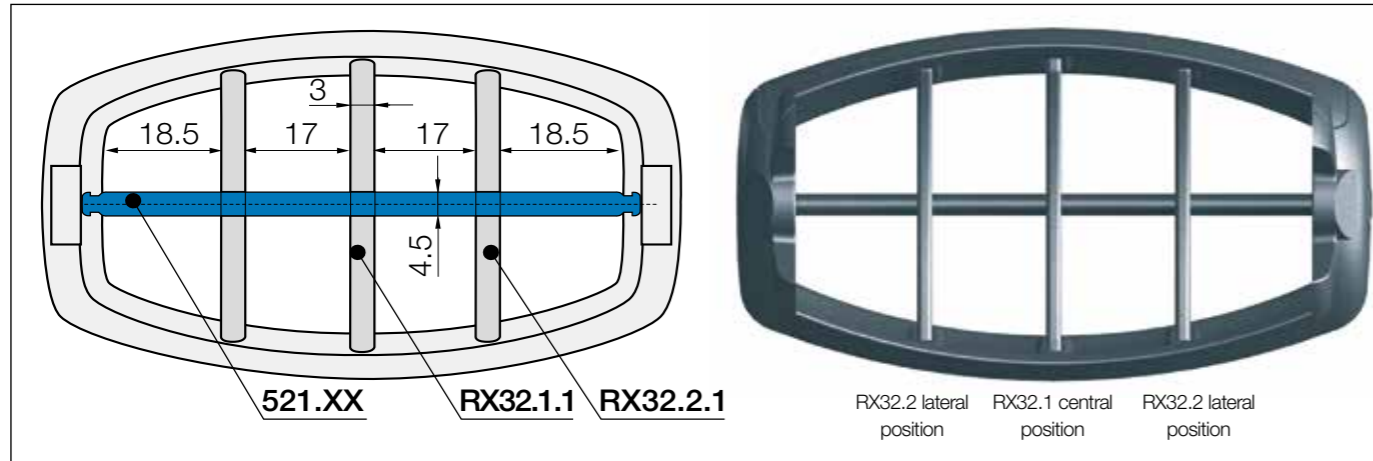
Width index	Part No. full set with tiewrap plates	Part No. full set without tiewrap plates	Number of teeth
080. ▶	RX321.080.12ZB	RX321.080.12	8



RX321.080.12ZB.A Order example
 .A... to indicate option with brackets pre-fitted
 With integrated strain relief tiewrap plates
 Full set
 Width index
 Series

Strain relief e.g. clamps, tiewrap plates, nuggets and plug-in clips are available from stock. The complete chainfix range with ordering options ▶ From page 1300

Interior separation



Vertical separation - slotted separators:

RX32.1 (central position)

RX32.2 (lateral position)

Vertical separation of the interior space using cable-friendly, polymer separators. Due to their slots, basic vertical and horizontal shelving arrangements are possible. As standard separators are fitted every 2nd e-tube link!

Horizontal separation

Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or partial shelf.



Shelves
Width = X [mm]

X [mm]	unassembled	assembled	X [mm]	unassembled	assembled
024	520.24	521.24	064	520.64	521.64
044	520.44	521.44	084	520.84	521.84

Hot swarf up to +850°C

- e-tubes to withstand 850°C swarf, as a special option
 - No hot swarf melting or embedding into the chain
 - igus® igumid HT material
- More information ► www.igus.eu/HT



Steel support tray for support of the lower run

- Simple one-piece support trays for the lower run
 - Guides the RX e-tube safely and lets the swarf pass through easily
 - Available in different lengths
- More information ► www.igus.eu/RX



Strain relief block for flange mounting brackets

- Strain relief block to match cable layout
 - Fast assembly
 - Can be integrated in the RX e-tube flange mounting bracket
- More information ► www.igus.eu/RX32



Supply of the main spindle in a tooling machine with igus® RX e-tube. The rounded contour of the energy supply repels all kinds of swarf

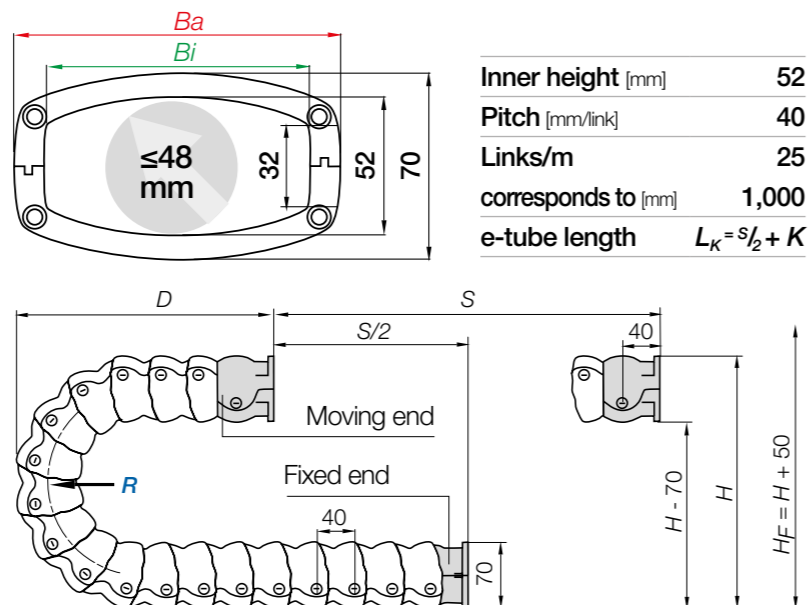
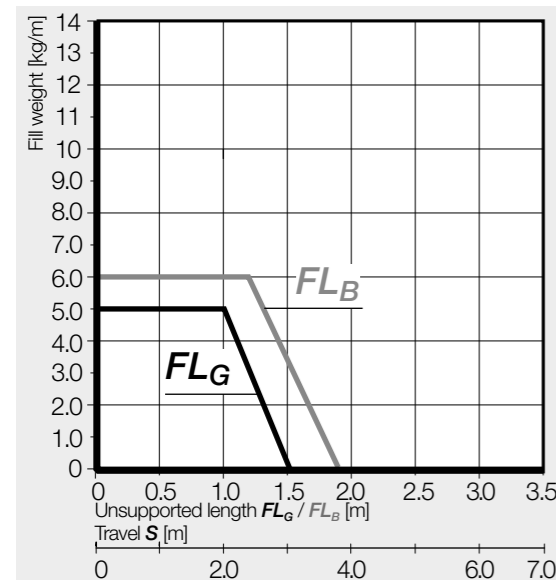


e-tubes | Series RX40 | Lids removable along the outer radius

Part No.	Bi	Ba	R Available bend radii	RX40
e-tubes	[mm]	[mm]	[mm]	[kg/m]
RX40. 100.R.0	100	123	100 125 150 175 200 225 250 275 300	≈ 1.89

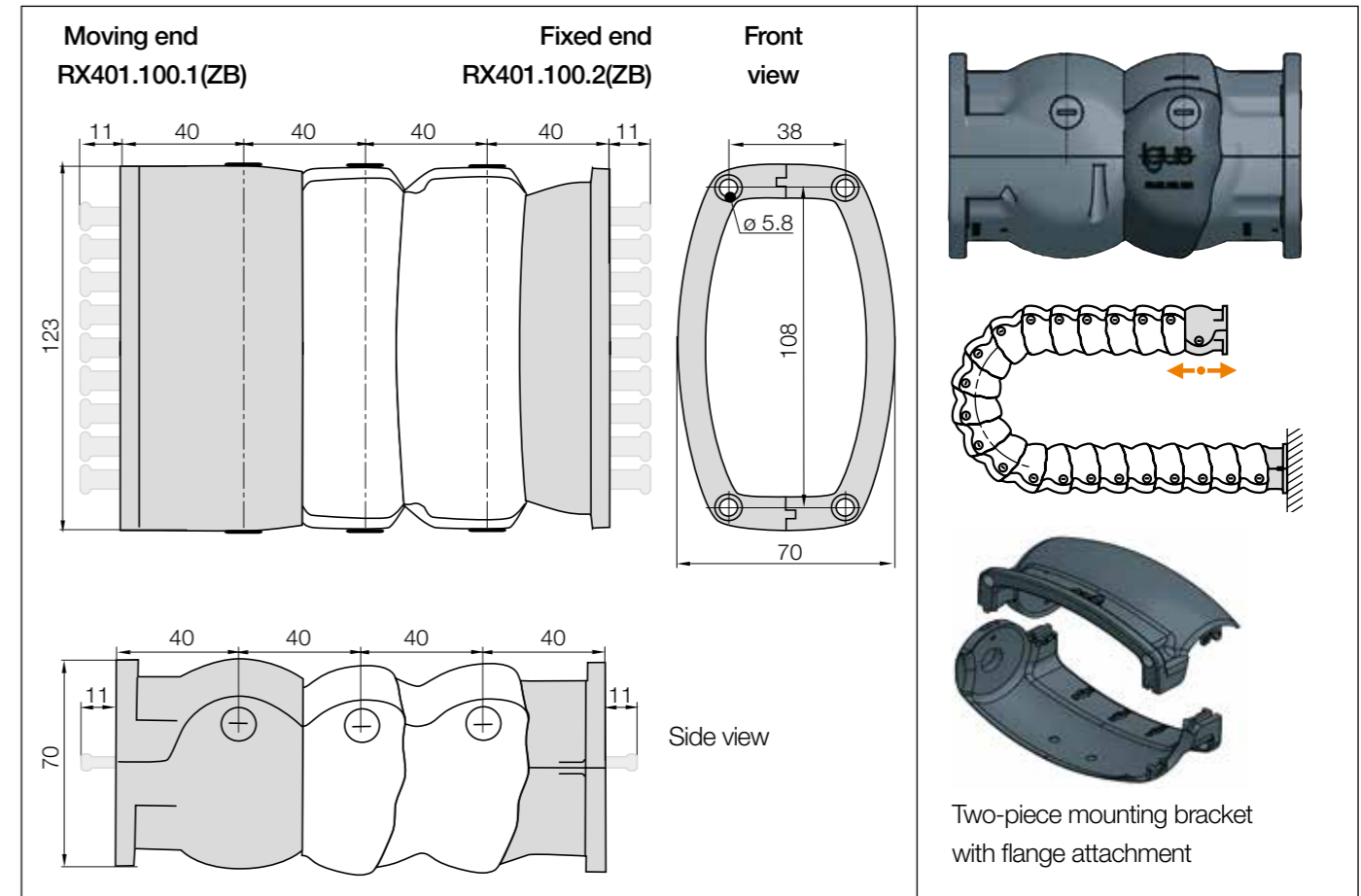
Complete Part No. with required radius (R). Example: **RX40.080.080.0**

Installation dimensions



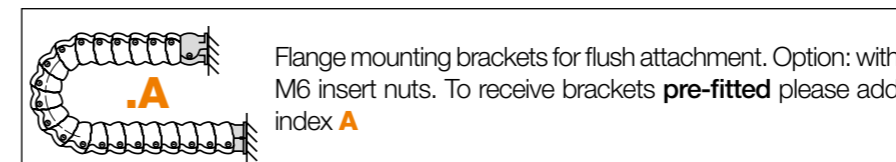
R	100	125	150	175	200	225	250	275	300
H	270	320	370	420	470	520	570	620	670
D	195	220	245	270	295	320	345	370	395
K	395	475	555	630	710	790	870	945	1,025

The required clearance height: $H_F = H + 50\text{mm}$ (with 0.5kg/m fill weight)



Mounting brackets, flange | Locking

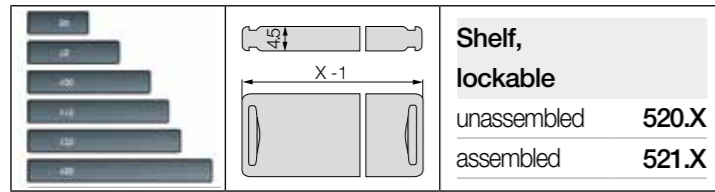
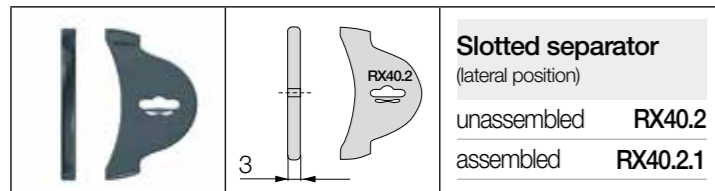
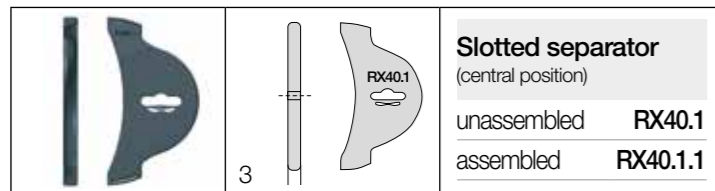
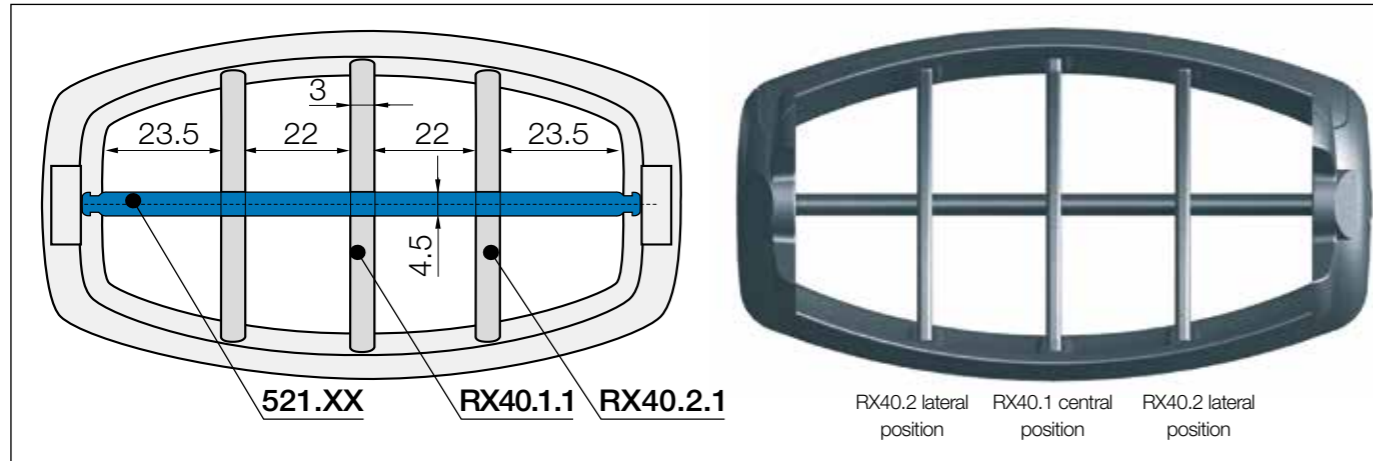
Width index	Part No. full set with tiewrap plates	Part No. full set without tiewrap plates	Number of teeth
100. ►	RX401.100.12ZB	RX401.100.12	10



RX401.100.12ZB.A Order example
 .A... to indicate option with brackets pre-fitted
 With integrated strain relief tiewrap plates
 Full set
 Width index
 Series

Strain relief e.g. clamps, tiewrap plates, nuggets and plug-in clips are available from stock. The complete chainfix range with ordering options ► From page 1300

Interior separation



Vertical separation - slotted separators:

RX40.1 (central position)

RX40.2 (lateral position)

Vertical separation of the interior space using cable-friendly, polymer separators. Due to their slots, basic vertical and horizontal shelving arrangements are possible. As standard separators are fitted every 2nd e-tube link!

Horizontal separation

Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or partial shelf.



Shelves

Width = X [mm]

X [mm]	unassembled	assembled	X [mm]	unassembled	assembled
029	520.29	521.29	079	520.79	521.79
054	520.54	521.54	104	520.104	521.104

Hot swarf up to +850°C

- e-tubes to withstand 850°C swarf, as a special option
 - No hot swarf melting or embedding into the chain
 - igus® igumid HT material
- More information ► www.igus.eu/HT



Steel support tray for support of the lower run

- Simple one-piece support trays for the lower run
 - Guides the RX e-tube safely and lets the swarf pass through easily
 - Available in different lengths
- More information ► www.igus.eu/RX



Strain relief block for flange mounting brackets

- Strain relief block to match cable layout
 - Fast assembly
 - Can be integrated in the RX e-tube flange mounting bracket
- More information ► www.igus.eu/RX40



Swarf tests at the igus® test lab prove the excellent sealing of igus® RX e-tube. Video online ► www.igus.eu/RX_tested



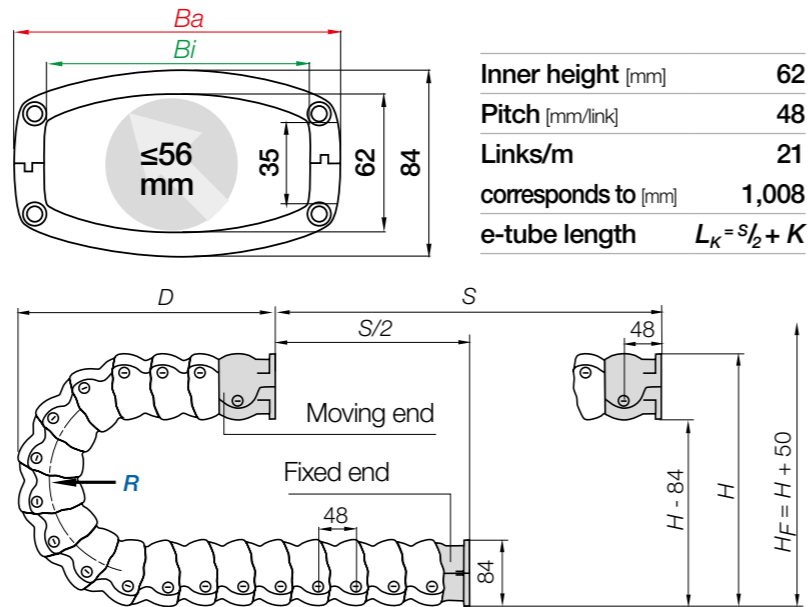
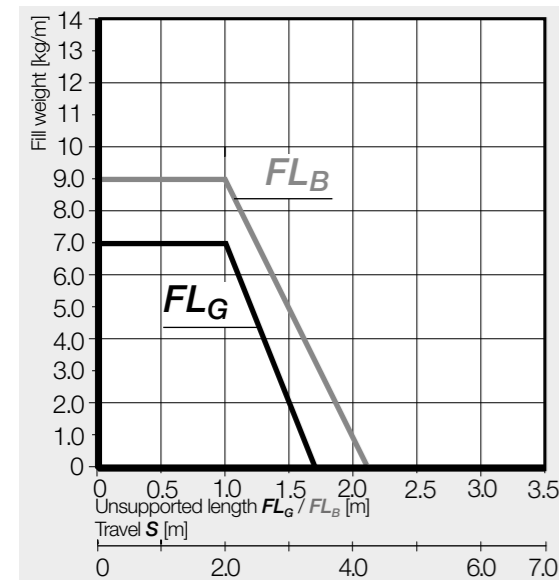
e-tubes | Series RX48 | Lids removable along the outer radius

Part No.	Bi	Ba	R Available bend radii	RX48
e-tubes	[mm]	[mm]	[mm]	[kg/m]
RX48.120.R.0	120	147.6	120 150 175* 200* 225* 250* 275* 300* 325*	≈ 2.76

*Radius available upon request. Please consult igus® for delivery time.

Complete Part No. with required radius (R). Example: RX48.120.120.0

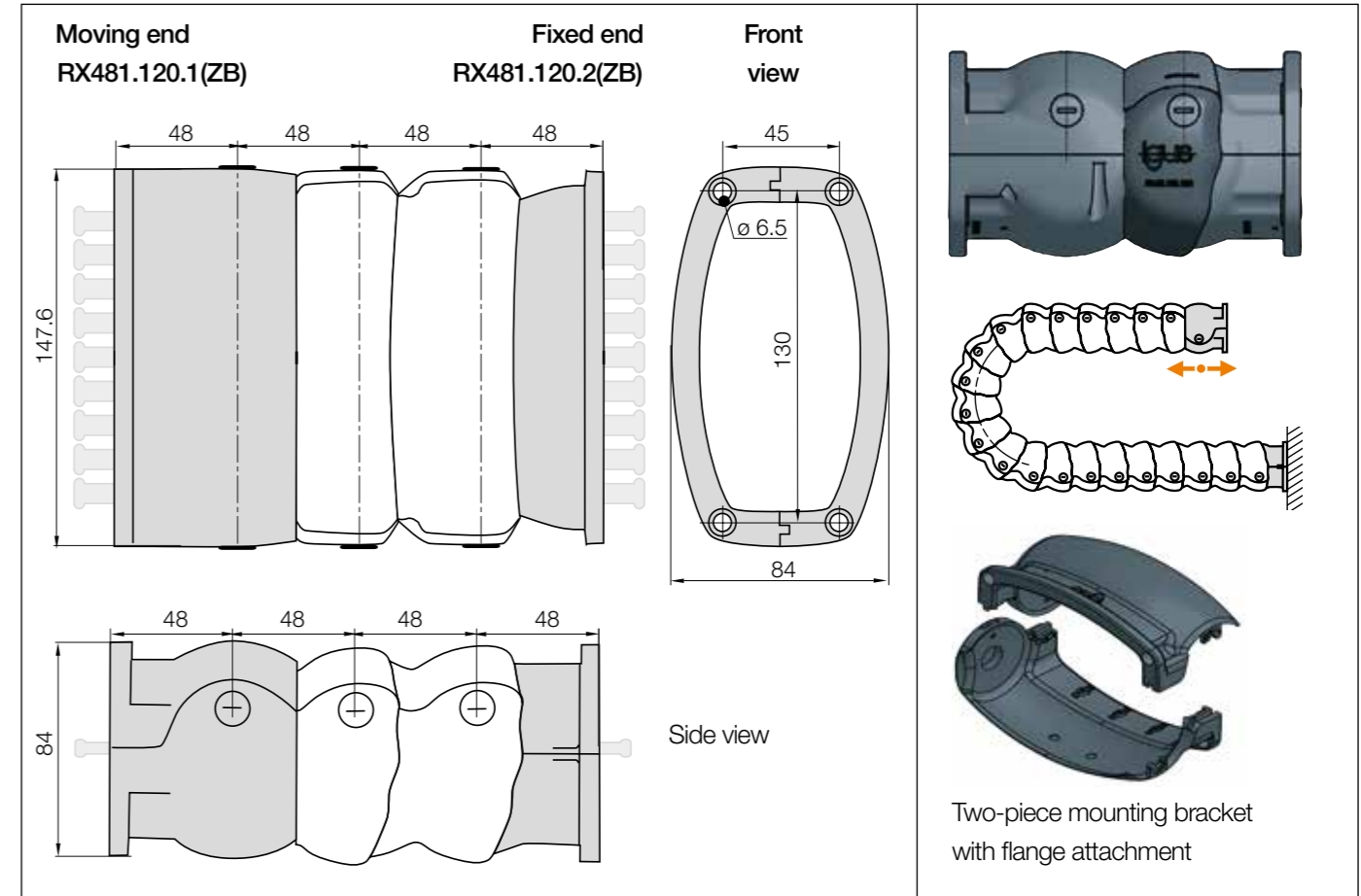
Installation dimensions



R	120	150	175*	200*	225*	250*	275*	300*	325*
H	324	384	434	484	534	584	634	684	734
D	234	264	289	314	339	364	389	414	439
K	475	570	650	725	805	885	960	1,040	1,120

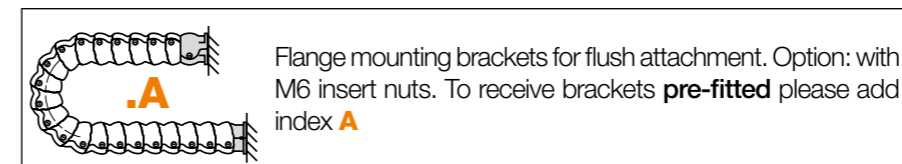
The required clearance height: $H_F = H + 50\text{mm}$ (with 0.5kg/m fill weight)

*Radius available upon request. Please consult igus® for delivery time.



Mounting brackets, flange | Locking

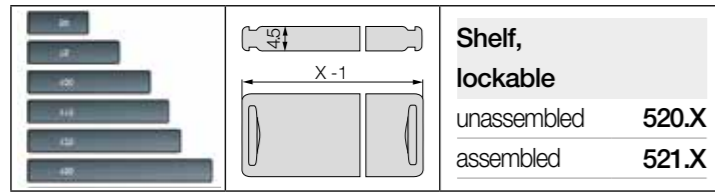
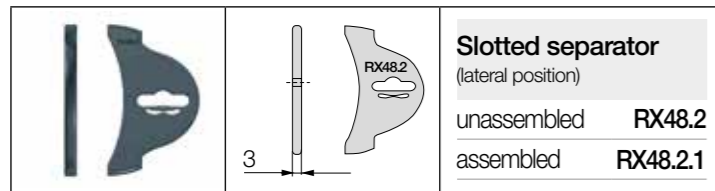
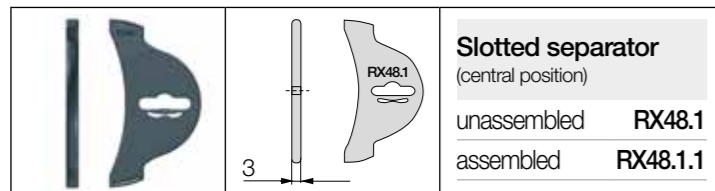
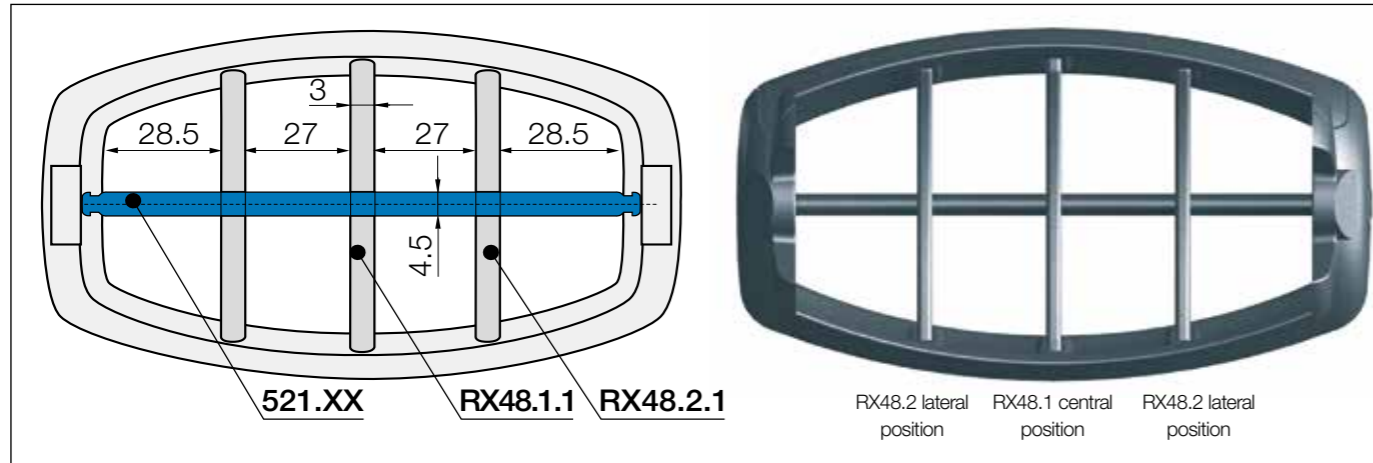
Width index	Part No. full set with tiewrap plates	Part No. full set without tiewrap plates	Number of teeth
120. ►	RX481.120.12ZB	RX481.120.12	12



RX481.120.12ZB.A Order example
 .A... to indicate option with brackets pre-fitted
 With integrated strain relief tiewrap plates
 Full set
 Width index
 Series

Strain relief e.g. clamps, tiewrap plates, nuggets and plug-in clips are available from stock. The complete chainfix range with ordering options ► From page 1300

Interior separation



Vertical separation - slotted separators:

RX48.1 (central position)

RX48.2 (lateral position)

Vertical separation of the interior space using cable-friendly, polymer separators. Due to their slots, basic vertical and horizontal shelving arrangements are possible. As standard separators are fitted every 2nd e-tube link!

Horizontal separation

Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or partial shelf.



Shelves
Width = X [mm]

X [mm]	unassembled	assembled	X [mm]	unassembled	assembled
034	520.34	521.34	094	520.94	521.94
064	520.64	521.64	124	520.124	521.124

Hot swarf up to +850°C

- e-tubes to withstand 850°C swarf, as a special option
 - No hot swarf melting or embedding into the chain
 - igus® igumid HT material
- More information ► www.igus.eu/HT



Steel support tray for support of the lower run

- Simple one-piece support trays for the lower run
 - Guides the RX e-tube safely and lets the swarf pass through easily
 - Available in different lengths
- More information ► www.igus.eu/RX



Strain relief block for flange mounting brackets

- Strain relief block to match cable layout
 - Fast assembly
 - Can be integrated in the RX e-tube flange mounting bracket
- More information ► www.igus.eu/RX48



With the extremely swarf-resistant igus® RX e-tube and harnessed chainflex® cables, the service life of this woodworking machine was considerably increased. Because of dust and dirt, previous cables failed after one month

Extremely swarf-resistant, very large size



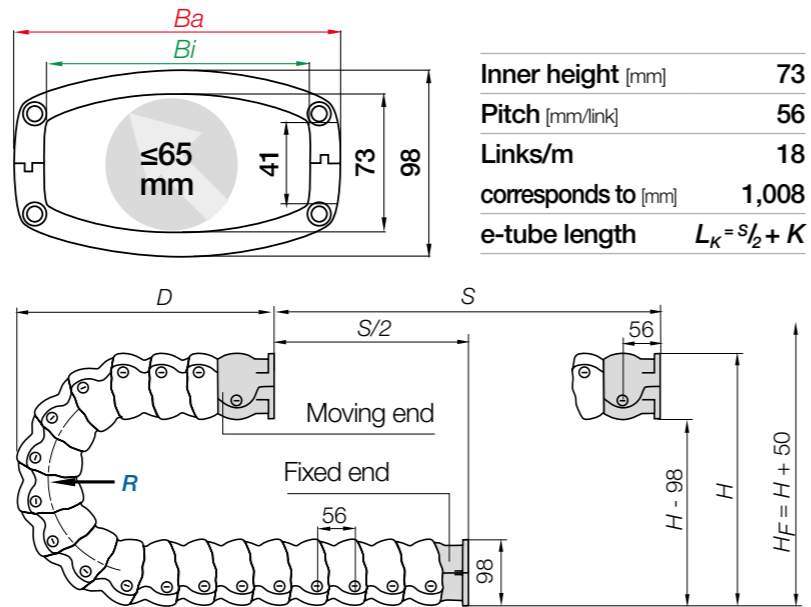
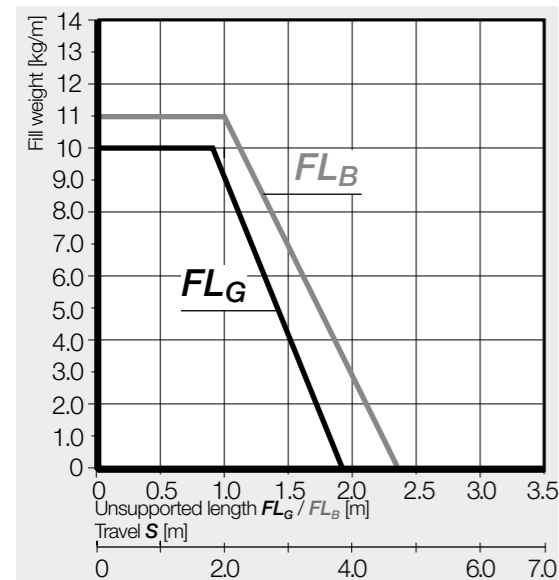
e-tubes | Series RX56 | Lids removable along the outer radius

Part No.	Bi	Ba	R Available bend radii	RX56
e-tubes	[mm]	[mm]	[mm]	[kg/m]
RX56. 140.R.0	140	172.2	140 175* 200* 225* 250 275* 300* 325* 350*	≈ 3.83

*Radius available upon request. Please consult igus® for delivery time.

Complete Part No. with required radius (R). Example: RX56.140.140.0

Installation dimensions

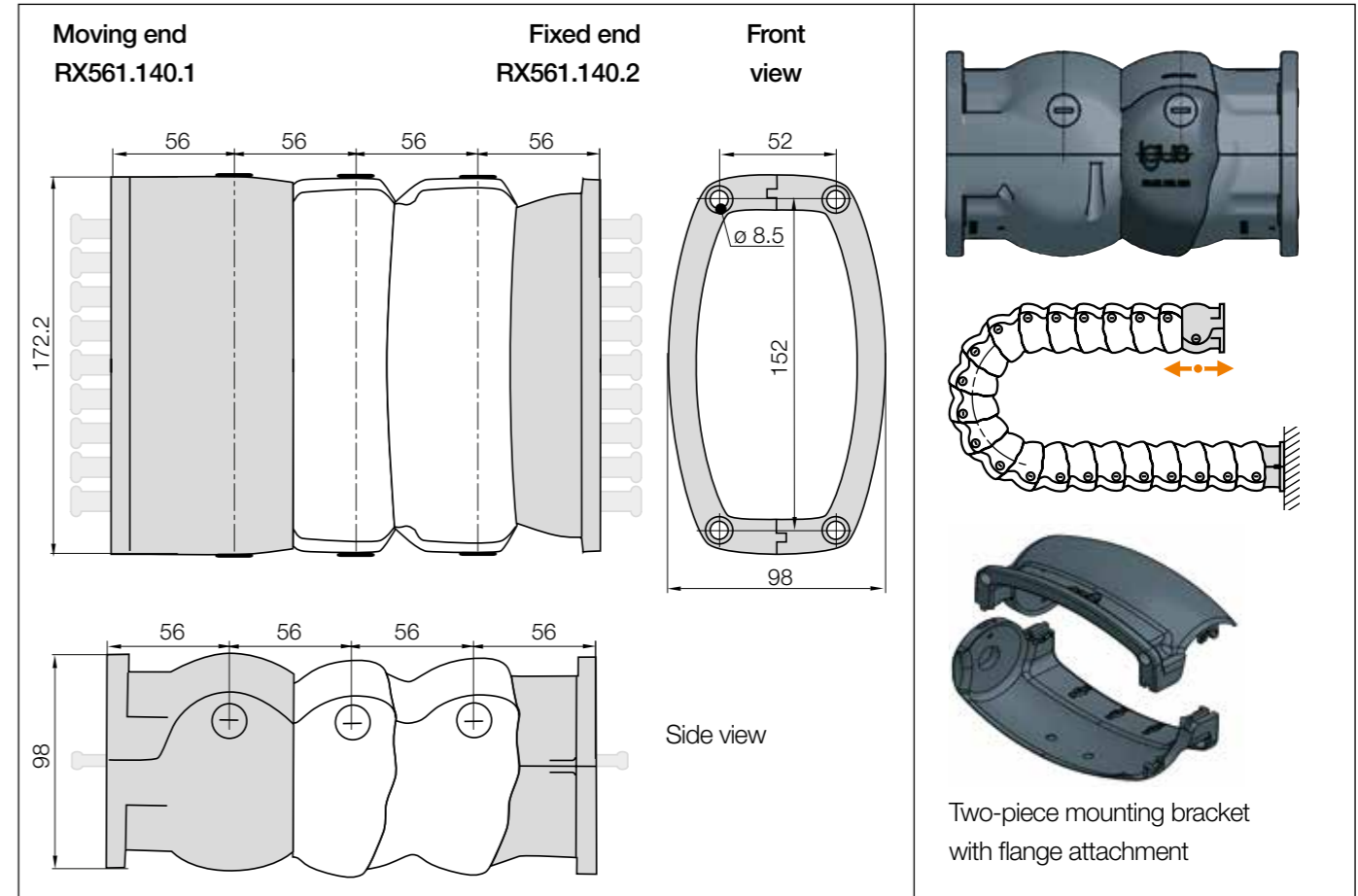


R	140	175*	200*	225*	250	275*	300*	325*	350*
H	378	448	498	548	598	648	698	748	798
D	273	308	333	358	383	408	433	458	483
K	555	665	745	820	900	980	1,055	1,135	1,215

The required clearance height: $H_F = H + 50\text{mm}$ (with 0.5kg/m fill weight)

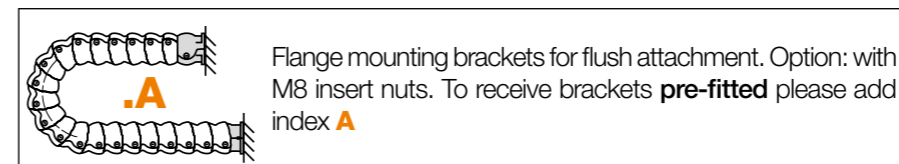
*Radius available upon request. Please consult igus® for delivery time.

Mounting brackets, flange | Polymer, two-piece | Locking



Mounting brackets, flange | Locking

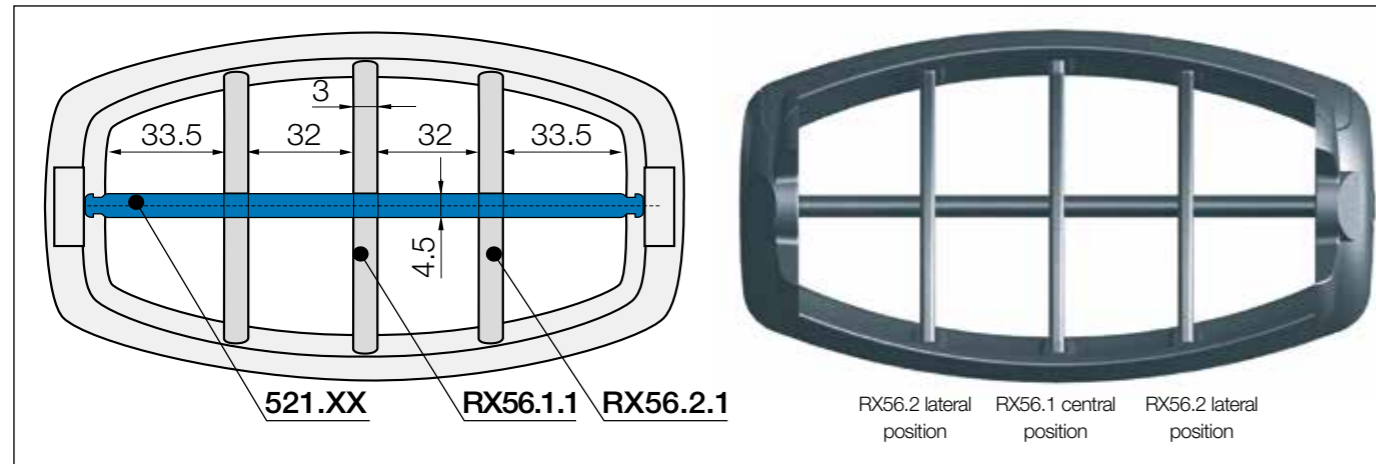
Width index	Part No. full set with tiewrap plates	Part No. full set without tiewrap plates	Number of teeth
140. ▶	upon request	RX561.140.12	upon request



RX561.140.12.A Order example
 .A... to indicate option with brackets pre-fitted
 Full set
 Width index
 Series

Strain relief e.g. clamps, tiewrap plates, nuggets and plug-in clips are available from stock. The complete chainfix range with ordering options ▶ From page 1300

Interior separation



Slotted separator (central position)

unassembled	RX56.1
assembled	RX56.1.1

Slotted separator (lateral position)

unassembled	RX56.2
assembled	RX56.2.1

Shelf, lockable

unassembled	520.X
assembled	521.X



Shelves
Width = X [mm]

X [mm]	unassembled	assembled	X [mm]	unassembled	assembled
039	520.39	521.39	109	520.109	521.109
074	520.74	521.74	144	520.144	521.144

Vertical separation - slotted separators:

RX56.1 (central position)

RX56.2 (lateral position)

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More information ► www.igus.eu/HT



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- Available in different lengths

More information ► www.igus.eu/RX



Strain relief block for flange mounting brackets

- Strain relief block to match cable layout
- Fast assembly
- Can be integrated in the RX e-tube flange mounting bracket

More information ► www.igus.eu/RX56



The RX e-tube used in this compact turning machine has Reverse Bend Radius (RBR) and operates even with the very restricted space