

## Price index



Series 14240    Series 14340



**ESD classification:**  
Electrically conductive ESD/ATEX  
version upon request



**High torsional  
rigidity**



**Side-mounted -  
unsupported**



**Opening E-Chains®:** Remove crossbars and clips - Insert screwdriver into the slot, push down, release by lever action

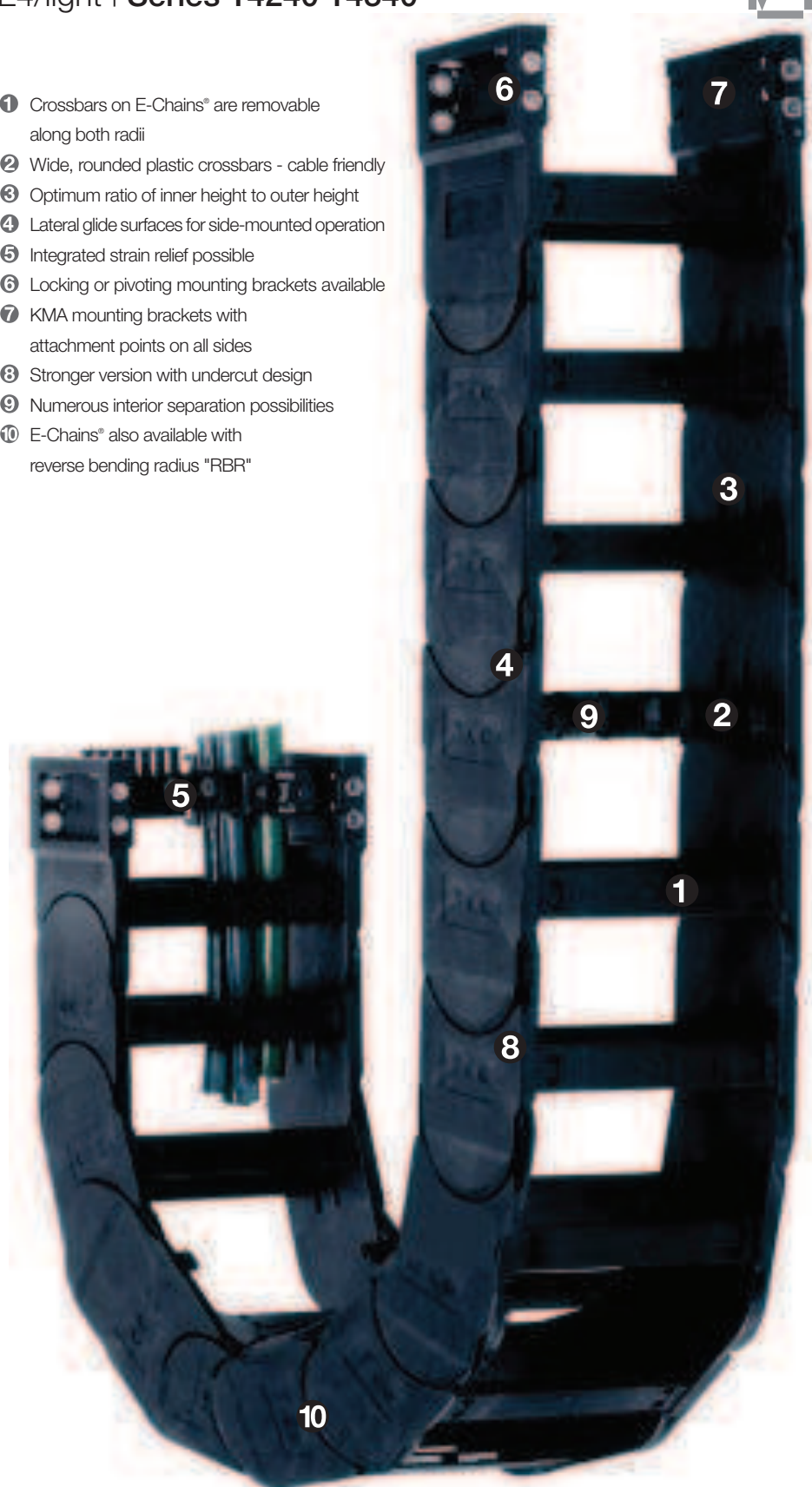
**When to use the Series 14240/14340:**

- For achieving simple, economical solutions
- For achieving the ideal ratio between internal and external dimensions
- For use if Series 400 proves too large

**When not to use it:**

- If a quieter version is required
  - ▶ Series E4.56, page 7.62
- If long side-mounted, unsupported length is required
  - ▶ Series E4.56, page 7.62
- If an increased inner height is required
  - ▶ Series 15050, page 7.144

- ❶ Crossbars on E-Chains® are removable along both radii
- ❷ Wide, rounded plastic crossbars - cable friendly
- ❸ Optimum ratio of inner height to outer height
- ❹ Lateral glide surfaces for side-mounted operation
- ❺ Integrated strain relief possible
- ❻ Locking or pivoting mounting brackets available
- ❼ KMA mounting brackets with attachment points on all sides
- ❽ Stronger version with undercut design
- ❾ Numerous interior separation possibilities
- ❿ E-Chains® also available with reverse bending radius "RBR"

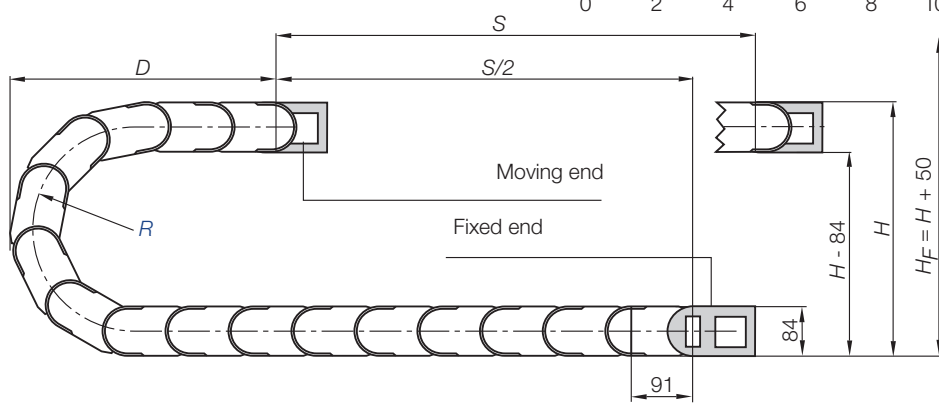
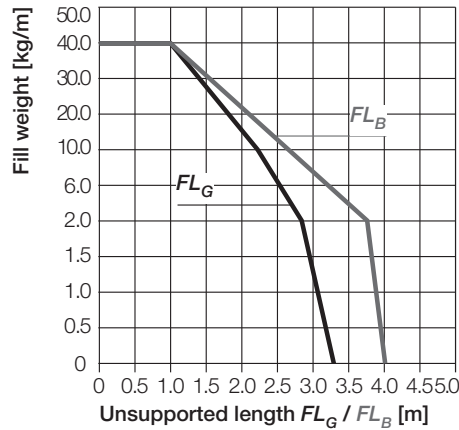
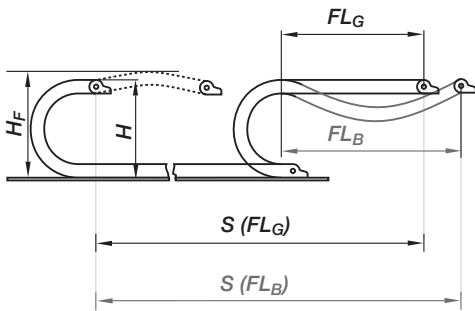
**Order example complete E-Chain®**Please indicate chain-lengths or number of links **Example: 6 m or 66 links**6 m **14240.30.300.0****E-Chain®**with 2 separators **417** assembled every 2<sup>nd</sup> link**Interior separation**1 set **142400.30.12.C****Mounting bracket**

### Unsupported length

$FL_G$  = with straight upper run

$FL_B$  = with permitted sag

Further information ► Design, page 1.12



Pitch = 91 mm/link    Links/m = 11 (1001 mm)    Chain length =  $S/2 + K$

R	135	150	175	200	250	300	400	500
$H_{+25}^0$	360	385	435	485	585	685	885	1085
D	270	285	310	335	385	435	535	635
K	650	750	825	900	1050	1225	1450	1775
$H_2$	266	266	266	266	266	266	266	266
$D_2^{+25}$	390	450	550	710	920	1120	1530	1850
$K_2$	728	819	1001	1274	1638	1911	2548	3185

- S = Length of travel
  - R = Bending radius
  - H = Nominal clearance height
  - $H_F$  = Required clearance height
  - $H_{RI}$  = Trough inner height
  - D = Overlength E-Chain® radius in final position
  - $K = \pi \cdot R + \text{"safety"}$
  - $D_2$  = Over length - long travels, gliding
  - $K_2$  = \*Further add-on
  - $H_2$  = \*Mounting height
- \*if the mounting bracket location is set lower

#### Other installation methods

- Vertical, hanging  $\leq 80$  m
- Vertical, standing  $\leq 6$  m
- Side mounted, un supp.  $\leq 2$  m
- Rotary requires further calculation
- Unsupported length of upper run = upon request



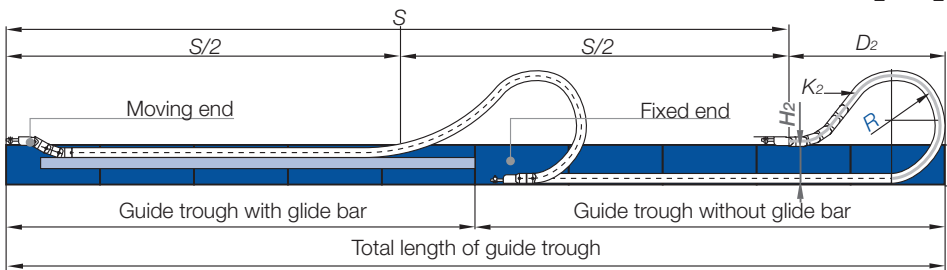
#### Short travels - unsupported

Unsupported E-Chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height  $H_F$ . Please consult igus® if space is particularly restricted.

The required clearance height:

$H_F = H + 50$  mm  
(with 2,0 kg/m fill weight)

Long travel lengths from 10 m to max. 150 m    Chain length =  $S/2 + K_2$



In case of travels between 4 and 10 m we recommend a longer unsupported length.



#### Gliding, long travel applications (max. 150 m)

In this case the E-Chain® upper run will be introduced in a guide trough on the lower run. We recommend to realize the engineering of such a plant by our technicians.

#### Technical Data

Speed / acceleration $FL_G$	max. 20 [m/s] / max. 200 [m/s <sup>2</sup> ]
Speed / acceleration $FL_B$	max. 3 [m/s] / max. 6 [m/s <sup>2</sup> ]
Gliding speed / acceleration (maximum)	max. 10 [m/s] / max. 50 [m/s <sup>2</sup> ]
Material - permitted temperature °C	igumid G / -40° up to +120° C
Flammability class, igumid G	VDE 0304 IIC UL94 HB



Details of material properties  
► page 1.38

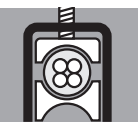


For support of the lower run - Support Tray tool kit available ► page 9.70

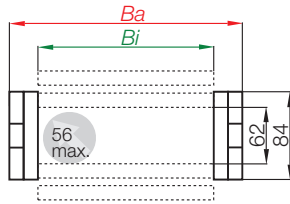


System E4/light  
Inner height: 62 mm

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► page 7.123

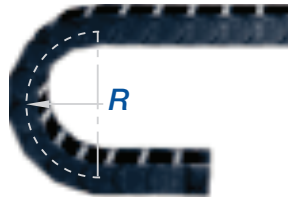


Part No. structure

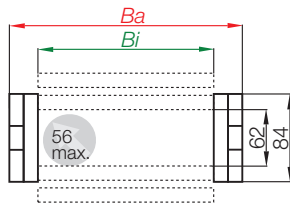
14240.12.250.0



Series 14240 - E-Chain® with crossbars every link



- Crossbars every link
- For rigid hydraulic hoses
- For applications particularly demanding
- Can be opened from two sides

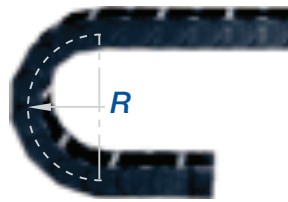


Part No. structure

14340.12.250.0



Series 14340 - E-Chain® with crossbars every 2<sup>nd</sup> link



- Crossbars every 2<sup>nd</sup> link = Standard
- For nearly every situation
- Can be opened from two sides
- Easy assembly
- Stable
- Attractive price



Part No.	<i>Bi</i> [mm]	<i>Ba</i> [mm]	14240 [kg/m]	14340 [kg/m]
14240/14340.05. <input type="text"/> .0	50	76	≈ 2,37	≈ 2,32
14240/14340.06. <input type="text"/> .0	68	94	≈ 2,40	≈ 2,33
14240/14340.07. <input type="text"/> .0	75	101	≈ 2,42	≈ 2,34
14240/14340.087. <input type="text"/> .0	87	114	≈ 2,47	≈ 2,36
14240/14340.10. <input type="text"/> .0	100	126	≈ 2,52	≈ 2,39
14240/14340.11. <input type="text"/> .0	108	134	≈ 2,55	≈ 2,40
14240/14340.112. <input type="text"/> .0	112	139	≈ 2,55	≈ 2,41
14240/14340.12. <input type="text"/> .0	125	151	≈ 2,62	≈ 2,44
14240/14340.137. <input type="text"/> .0	137	164	≈ 2,66	≈ 2,46
14240/14340.15. <input type="text"/> .0	150	176	≈ 2,72	≈ 2,49
14240/14340.162. <input type="text"/> .0	162	189	≈ 2,73	≈ 2,49
14240/14340.17. <input type="text"/> .0	168	194	≈ 2,79	≈ 2,52
14240/14340.18. <input type="text"/> .0	175	201	≈ 2,82	≈ 2,53
14240/14340.187. <input type="text"/> .0	187	214	≈ 2,84	≈ 2,55
14240/14340.20. <input type="text"/> .0	200	226	≈ 2,89	≈ 2,58
14240/14340.212. <input type="text"/> .0	212	239	≈ 2,95	≈ 2,60
14240/14340.23. <input type="text"/> .0	225	251	≈ 3,01	≈ 2,63
14240/14340.237. <input type="text"/> .0	237	264	≈ 3,04	≈ 2,65
14240/14340.25. <input type="text"/> .0	250	276	≈ 3,10	≈ 2,68
14240/14340.262. <input type="text"/> .0	262	289	≈ 3,11	≈ 2,69
14240/14340.28. <input type="text"/> .0	275	301	≈ 3,19	≈ 2,72
14240/14340.29. <input type="text"/> .0	287	314	≈ 3,20	≈ 2,73
14240/14340.30. <input type="text"/> .0	300	326	≈ 3,30	≈ 2,78
14240/14340.312. <input type="text"/> .0	312	339	≈ 3,31	≈ 2,79
14240/14340.325. <input type="text"/> .0	325	351	≈ 3,37	≈ 2,81
14240/14340.337. <input type="text"/> .0	337	364	≈ 3,40	≈ 2,83
14240/14340.350. <input type="text"/> .0	350	376	≈ 3,56	≈ 2,91
14240/14340.362. <input type="text"/> .0	362	389	≈ 3,61	≈ 2,93
14240/14340.375. <input type="text"/> .0	375	401	≈ 3,64	≈ 2,95
14240/14340.387. <input type="text"/> .0	387	414	≈ 3,69	≈ 2,97
14240/14340.400. <input type="text"/> .0	400	426	≈ 3,73	≈ 2,99

Available bending radii

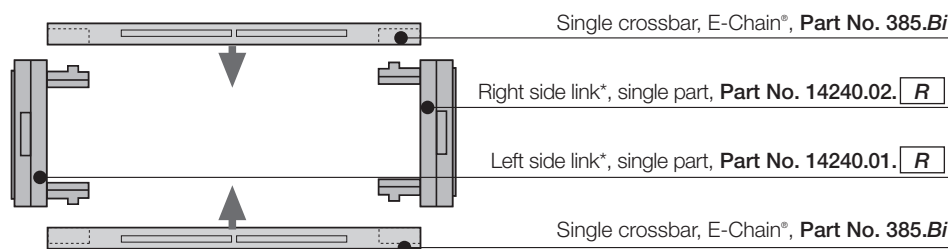
R [mm]

Supplement Part No. with required radius. Example: 14240.12. .0

0 = standard color, other colors ▶ page 1.39 · Pitch = 91 mm/link - Links/m = 11



Extender crossbar for large diameter hoses ▶ page 7.140



Part No. E-Chain®-links, single parts

\*View from the fixed point

System E4/light  
Inner height: 62 mm

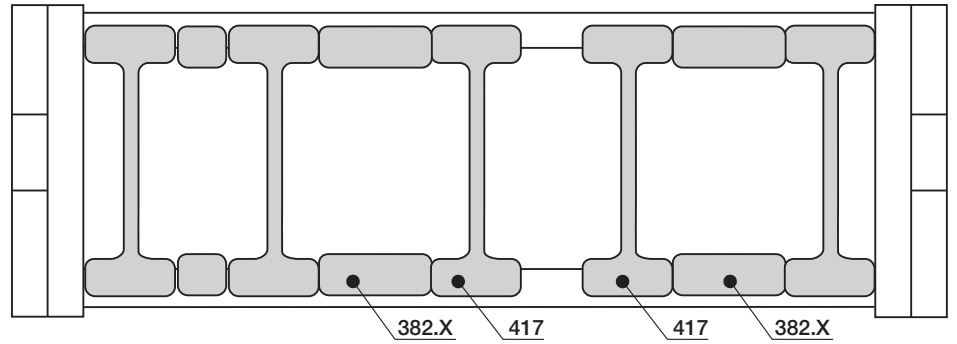
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▶ page 7.123

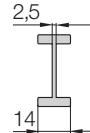


Vertical separators are used if a vertical subdivision is required. In the standard configuration, a separator is mounted at every second link.



Vertical separator  
407

Vertical separator for E-Chains®	
unassembled	407
assembled	417



Spacer  
381.XX

Spacer* for E-Chains®	
unassembled	381.XX
assembled	382.XX



\*For side-mounted applications

**Option 1: Vertical separators and spacers**

● **Standard separator 407 for E-Chains®** offers safe stability due to its wide base design, also when used with thick cables or hoses.

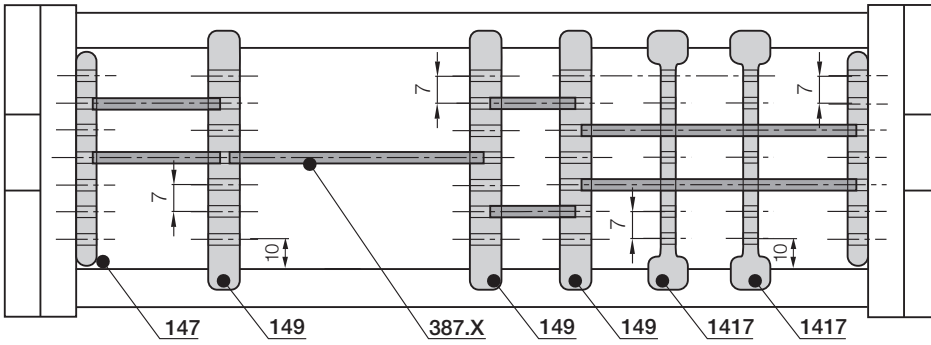
● Separators (e.g. "side mounted") for E-Chains® can be fixed in their position with **Spacers 381.XX**. The available inner height will be reduced by 2 mm, per spacer and side. To avoid this, the parts can be assembled on outside of the crossbar (not for long travels)

**XX = width of the spacer** (available 10, 15, 20 mm)

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igus® GmbH  
51147 Cologne

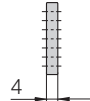
Internet: [www.igus.eu](http://www.igus.eu)  
E-mail: [info@igus.de](mailto:info@igus.de)



For use with many cables of differing diameters. E-Chains® and E-Tubes can be subdivided both vertically and horizontally. The shelves can be arranged elevator-shifted with different bottoms

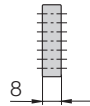
**Option 2: Shelves**

● **Side plates 146, middle plates 148 and shelves 386.X** form the basic pattern of a shelf system. Shelves of various widths can be arranged at 7 different heights (in 7 mm increments).

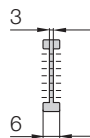


Side plate for E-Chains®	
unassembled	146
assembled	147

● **Slotted separators 1407** are used for very fine subdivisions. However, they cannot be retrofitted into an existing separation system without dismantling the interior separators first.



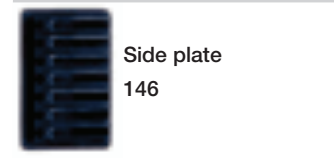
Middle plate for E-Chains®	
unassembled	148
assembled	149



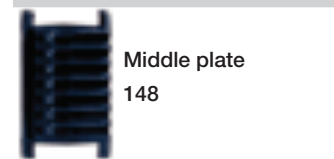
Slotted separator for E-Chains®	
unassembled	1407
assembled	1417

Width X [mm]	Part No. unassembled	Part No. assembled
018	386.18	387.18
023	386.23	387.23
025	386.25	387.25
028	386.28	387.28
033	386.33	387.33
043	386.43	387.43
050	386.50	387.50
054	386.54	387.54
062	386.62	387.62

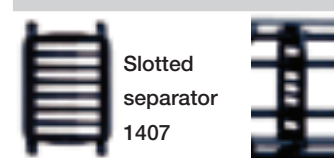
Width X [mm]	Part No. unassembled	Part No. assembled
075	386.75	387.75
087	386.87	387.87
100	386.100	387.100
108	386.108	387.108
125	386.125	387.125
150	386.150	387.150
175	386.175	387.175
200	386.200	387.200
208	386.208	387.208



Side plate 146



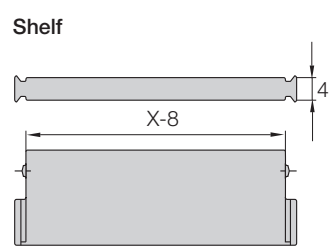
Middle plate 148



Slotted separator 1407



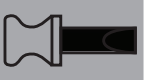
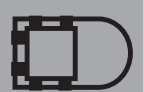
Shelf 386.X



Shelf

System E4/light  
Inner height: 62 mm

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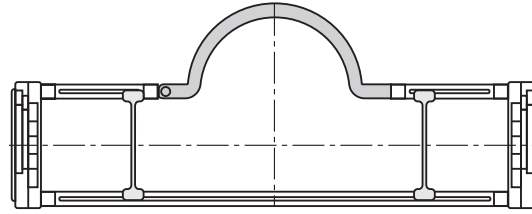




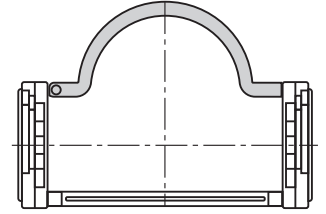
Consult igus® for your extender crossbar applications. We are happy to assist you with your design layout

### Extender crossbars - careful guide of hoses applications

- Suitable for hoses with a maximum outer diameter of 115 mm
- Gliding operation with crossbars assembled along the outer radius and a special guide trough
- Gliding operation not guaranteed with crossbars assembled along the inner radius
- The extender crossbar can either be attached to the side links directly or can be used in combination with two stranded snap-open crossbars



385.15RHD115 round extender crossbar combined with snap-open crossbars



385.18RD115 round strap attached directly on the side link

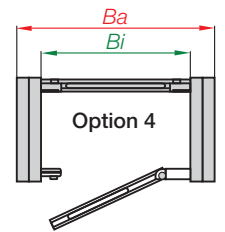
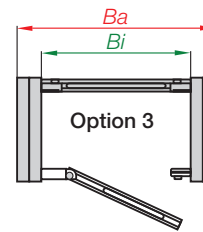
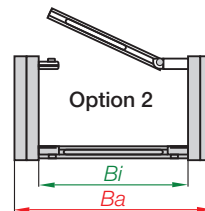
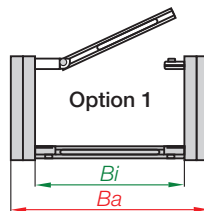
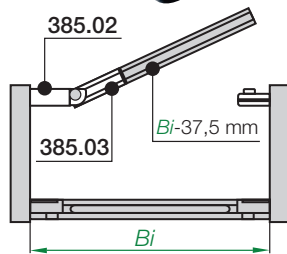
Part No.	Max Ø [mm] hose	Form	Installation side link	Combination with snap-open crossb.
385.15.RHD115	115	○	-	+
385.18.RD115	115	○	+	-

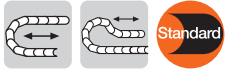
○ = round + = yes / - = no



### Hinged crossbars

- Typically E-Chain® crossbars are completely removable. In cases where the snap-open crossbars have to remain at the open link of the E-Chain®, a hinged design has been developed
- Length: 37,5 mm **Part No. 385.02** / snap-open crossbar (shortened): *Bi*-37,5 mm **Part No. 385.03**
- Please consult igus® for design assistance

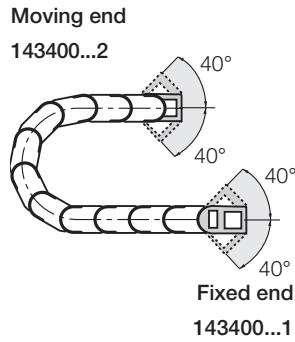




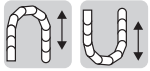
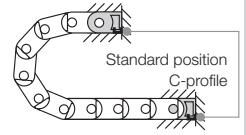
### The Standard - Option KMA\* - pivoting

- Recommended for unsupported and gliding applications
- Confined installation conditions
- Option - integrated C-profile strain relief device with Chainfix clip or strain relief tiwrap plates
- Corrosion resistant
- Universal mountable with attachment capability on all sides

\*KMA = Polymer Metal Mounting Bracket



The attachment variants arising automatically by the choice of the KMA mounting bracket

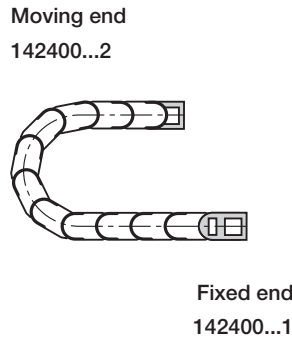


### Option KMA - locking

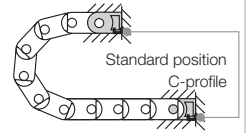
- Recommended for vertical hanging / standing applications

Additionally:

- Universal mountable
- C-profile option
- Corrosion resistant
- Locked connections
- At very high acceleration

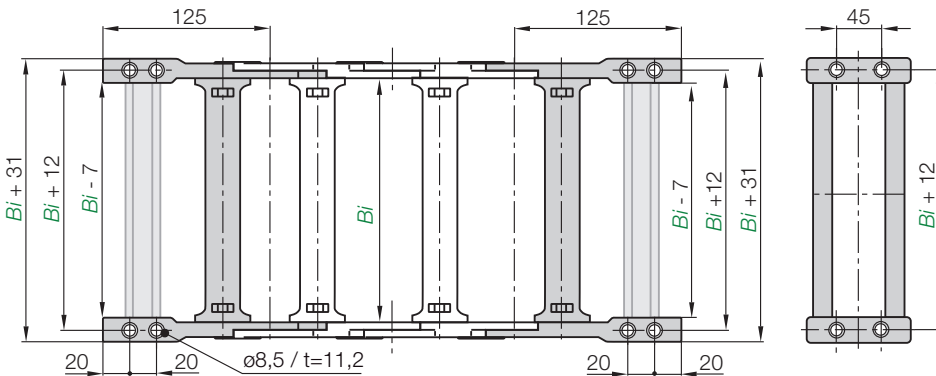


The attachment variants arising automatically by the choice of the KMA mounting bracket



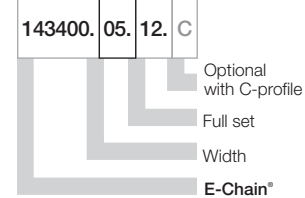
Moving end  
143400...2 (pivoting)  
142400...2 (locking)

Fixed end  
(pivoting) 143400...1  
(locking) 142400...1

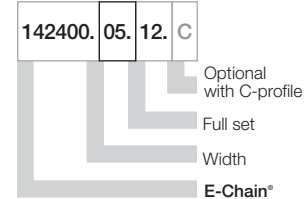


### Dimensions and order configurations

Part No. structure (pivoting)



Part No. structure (locking)



Width index	Part No. full set pivoting	Part No. full set locking	C-profile option [mm]	Width index	Part No. full set pivoting	Part No. full set locking	C-profile option [mm]
.05.	143400	142400	.05.12.C 50	.23.	143400	142400	.23.12.C 225
.06.	143400	142400	.06.12.C 68	.237.	143400	142400	.237.12.C 237
.07.	143400	142400	.07.12.C 75	.25.	143400	142400	.25.12.C 250
.087.	143400	142400	.087.12.C 87	.262.	143400	142400	.262.12.C 262
.10.	143400	142400	.10.12.C 100	.28.	143400	142400	.28.12.C 275
.11.	143400	142400	.11.12.C 108	.29.	143400	142400	.29.12.C 287
.112.	143400	142400	.112.12.C 112	.30.	143400	142400	.30.12.C 300
.12.	143400	142400	.12.12.C 125	.312.	143400	142400	.312.12.C 312
.137.	143400	142400	.137.12.C 137	.325.	143400	142400	.325.12.C 325
.15.	143400	142400	.15.12.C 150	.337.	143400	142400	.337.12.C 337
.162.	143400	142400	.162.12.C 162	.350.	143400	142400	.350.12.C 350
.17.	143400	142400	.17.12.C 168	.362.	143400	142400	.362.12.C 362
.18.	143400	142400	.18.12.C 175	.375.	143400	142400	.375.12.C 375
.187.	143400	142400	.187.12.C 187	.387.	143400	142400	.387.12.C 387
.20.	143400	142400	.20.12.C 200	.400.	143400	142400	.400.12.C 400
.212.	143400	142400	.212.12.C 212				

Full set, for both ends:

142400.05.12

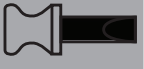
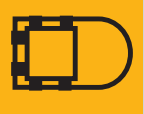
Single-part order:

142400.05.2

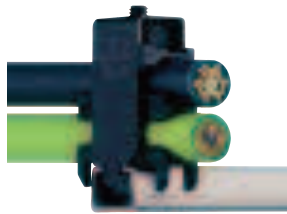
Mounting bracket moving end

142400.05.1

Mounting bracket fixed end



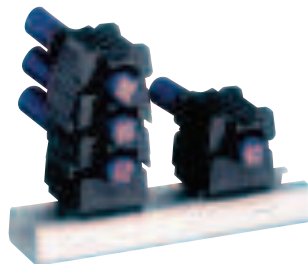




igus® Chainfix steel clamps and Chainfix stainless-steel clamps - max. pull forces, adjustable with hexagon socket. Available as single, double or triple clamps. Details ► chapter 10

### Chainfix clamps for the C-profile

Part No. single clamps		Part No. double clamps		Part No. triple clamps		Cable ø [mm]
steel	stainless steel	steel	stainless steel	steel	stainless steel	
CFX12.1	CFX12.1.E	CFX12.2	CFX12.2.E	CFX12.3	-	06 - 12
CFX14.1	CFX14.1.E	CFX14.2	CFX14.2.E	CFX14.3	-	12 - 14
CFX16.1	CFX16.1.E	CFX16.2	CFX16.2.E	CFX16.3	-	14 - 16
CFX18.1	CFX18.1.E	CFX18.2	CFX18.2.E	CFX18.3	-	16 - 18
CFX20.1	CFX20.1.E	CFX20.2	CFX20.2.E	CFX20.3	-	18 - 20
CFX22.1	CFX22.1.E	CFX22.2	CFX22.2.E	CFX22.3	-	20 - 22
CFX26.1	CFX26.1.E	CFX26.2	CFX26.2.E	-	-	22 - 26
CFX30.1	CFX30.1.E	CFX30.2	CFX30.2.E	-	-	26 - 30
CFX34.1	CFX34.1.E	CFX34.2	CFX34.2.E	-	-	30 - 34
CFX38.1	CFX38.1.E	-	-	-	-	34 - 38
CFX42.1	CFX42.1.E	-	-	-	-	38 - 42



### Chainfix Clip - Modular snap-on strain relief device for C-profile

Available for all igus® E-ChainSystems® with C-profiles and also suitable for assembly in the KMA mounting brackets and clip-on strain relief for crossbars. High pull forces, plug-in modular snap-on strain relief device. Details ► chapter 10

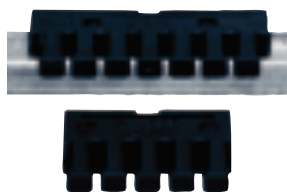
Cable ø [mm]	Part No. clamp	Part No. bottom part
04 - 08	CFC-08-M	CFC-08-C
08 - 12	CFC-12-M	CFC-12-C
12 - 16	CFC-16-M	CFC-16-C
16 - 20	CFC-20-M	CFC-20-C
20 - 24	CFC-24-M	CFC-24-C



### Chainfix Nugget for the C-Profile

Strain relief for the fixation of cables up to a diameter of Ø 30 mm. Easy to assemble, without any screws and tools. Easy strain relief due to fixation with pre-harnessed cable strap, very small space requirement. Details ► chapter 10

Part No.	ø max. conduit [mm]	Width [mm]
CFN.20	20	10,8
CFN.30.52	30	16,8
CFN.20.N35	20	20,0



### Chainfix tiewrap plates with clip-on connection for the C-profile

Can be plugged into the KMA C-profile. Easy to assemble without any screws. Easily solvable with screwdriver nevertheless safe stop. For all E-Chains® with KMA and integrated C-profile. Details ► chapter 10

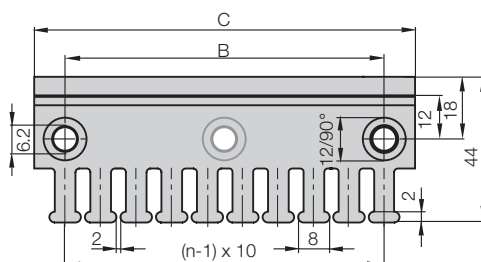
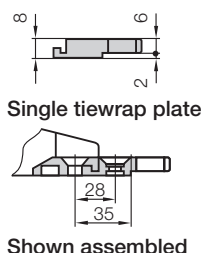
Part No.	Width of strain relief [mm]	Number of teeth
3050.ZC	50	5
3075.ZC	75	7



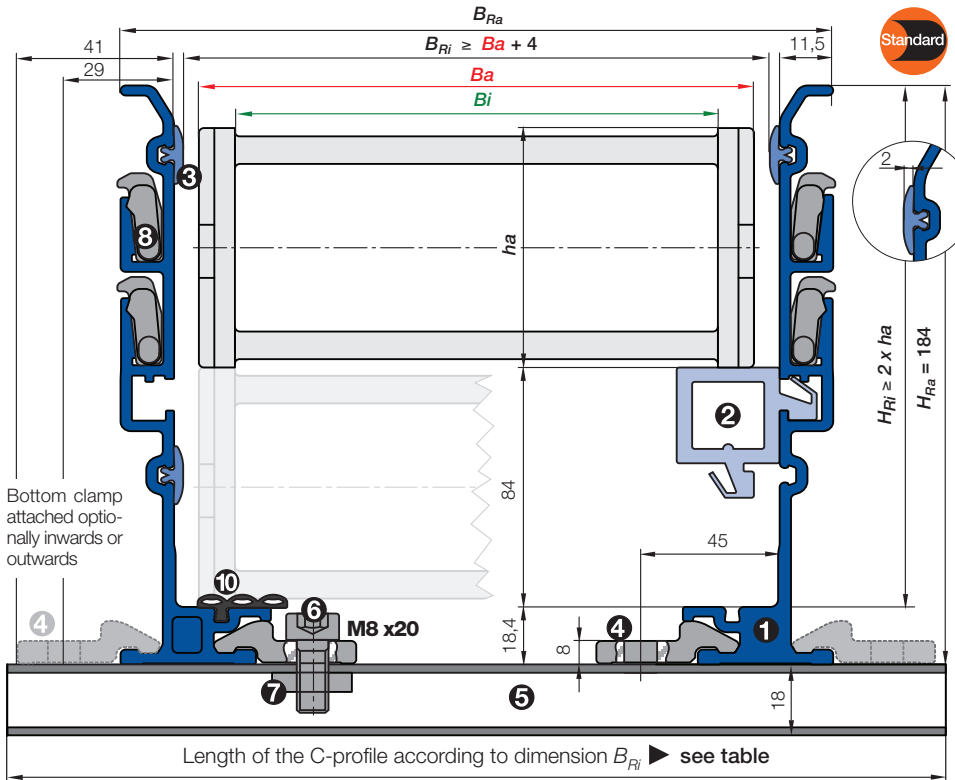
### Tiewrap plate as individual part

As individual component screwed on KMA. Can be plugged in the mounting brackets. Details ► chapter 10

Tiewrap plate	No. of teeth n	Dim. C [mm]	Dim. B [mm]	Center bore
3050.ZB	5	50	30	-
3075.ZB	7	75	55	-
3100.ZB	10	100	80	-
3115.ZB	11	115	95	-
3125.ZB	12	125	105	-
3150.ZB	15	150	130	-
3175.ZB	17	175	155	-
3200.ZB	20	200	180	+
3225.ZB	22	225	205	+
3250.ZB	25	250	230	+



(- = no / + = yes)



- $Ba$  = Outer width E-Chains® / E-Tube
- $Bi$  = Inner width E-Chains® / E-Tube
- $ha$  = Outer height E-Chains® / E-Tube
- $H_{Ri}$  = Inner trough height
- $H_{Ra}$  = Outer trough height
- $B_{Ri}$  = Inner trough width ▶ depends on dim.  $Ba$
- $B_{Ra}$  = Outer trough width
- $n_{Mon}$  = Number of installation sets (left/right)
- $n_{Ri}$  = Number of troughs sets (left/right)
- !  $H_{Ri} \geq 2 \cdot ha$
- !  $B_{Ri} \geq Ba + 4$
- = Guide trough set    ● = Glide bar
- = Installation set "Basic"    ● = C-profile

**Installation set "Basic" with C-profile**

Bottom Clamp attached optionally inwards or outwards

14240.05.200.0 ▶ Order example

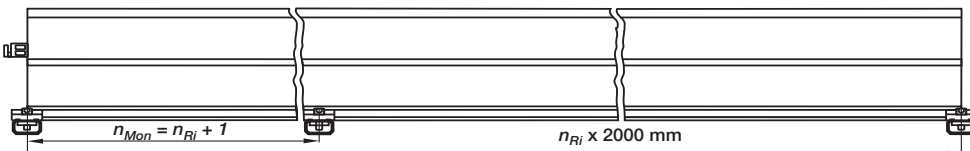
B <sub>Ri</sub> [mm]	Part No.		
	attached inwards	attached outwards	
.05	80	-	960.50.200
.06	98	-	960.50.225
.07	105	-	960.50.225
.087	118	960.50.175	960.50.250
.10	130	960.50.200	960.50.250
.11	138	960.50.200	960.50.275
.112	143	960.50.200	960.50.275
.12	155	960.50.225	960.50.275
.137	168	960.50.225	960.50.300
.15	180	960.50.250	960.50.300
.162	193	960.50.250	960.50.325
.17	198	960.50.250	960.50.325
.18	205	960.50.275	960.50.325
.187	218	960.50.275	960.50.350
.20	230	960.50.300	960.50.350
.212	243	960.50.300	960.50.375
.23	255	960.50.325	960.50.375
.237	268	960.50.325	960.50.400
.25	280	960.50.350	960.50.400
.262	293	960.50.350	960.50.425
.28	305	960.50.375	960.50.425
.29	318	960.50.375	960.50.450
.30	330	960.50.400	960.50.450
.312	343	960.50.400	960.50.475
.325	355	960.50.425	960.50.475
.337	368	960.50.425	960.50.500
.350	380	960.50.450	960.50.500
.362	393	960.50.450	960.50.525
.375	405	960.50.475	960.50.525
.387	418	960.50.475	960.50.550
.400	430	960.50.500	960.50.550



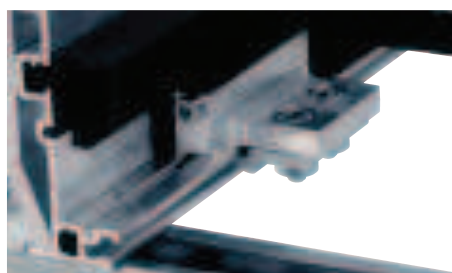
- **Components, trough "Basic":** ① Trough side parts, aluminum, 2 m ② Glide bar, plastic, 2 m ③ Glide strips, plastic, 2 m (without glide strips on request) ⑩ Optional: Silencer profile, rubber
- **Components, installation set "Basic":** ④ Bottom clamp, aluminum ⑤ C-profile, steel galvanized ⑥ Screw M8 x20 ⑦ Sliding nut M8 ⑧ Interface connector, plastic

**Order example: Length of travel 30 m - Center mounted for Series 14240.10.200.0 with B<sub>Ri</sub> = 130**

Guide trough set (set of 2 trough side parts, incl. glide strips) <b>without</b> glide bar	<b>Order text: 16 m guide trough without glide bar (8 x 2 m sections)</b>	<b>Part No. 974.30.SL</b>
Guide trough set (set of 2 trough side parts, incl. glide strips) <b>with</b> glide bar	<b>Order text: 16 m guide trough with glide bar (8 x 2 m sections)</b>	<b>Part No. 974.31.SL</b>
Installation set "Basic" complete (guide trough-sets + 1)	<b>Order text: 17 installation sets "Basic"</b>	<b>Part No. 960.50.200</b>
Module for the fixed end	<b>Order text: 1 set</b>	<b>Part No. 974.81</b>
<b>Option:</b> For an additional noise dampening with silencer profile, please add Index A - Example:		<b>Part No. 974.30.SLA</b>



Principle sketch: Number of installation sets to be installed = **Number of trough sections + 1**



**A quick fix for mounting the stationary end of an E-Chain®**

With this module for the fixed end, fast and easy mounting onto the Aluminum "SuperTrough" is now possible without any drilling. Fast mounting of the E-Chain® by clamping onto the aluminum trough

- Quick relocation of the stationary end
- No drilling necessary ▶ [page 9.16](#)

Insert for the installation set "Heavy-Duty": **974.50.XXX** instead of **(960.50.XXX)** on the right column "attached outwards"

