

All-sides attachment

Optional with noise dampening pads  $\leq 50$  dB(A)

Chip protection

Gliding surfaces, long travels

Very high capacity due to the undercut design

25% faster assembly with QuickLock system

NC without pretension

Straight run due to the inner/outer link principle

Low noise operation due to integrated "brake"

Notch crossbar with backside scaling

### **+** Stable due to undercut design, medium inner height

#### When to use Series E4.42:

- If a robust e-chain®/e-tube with an inner height of 42 mm is required
- If inner widths up to 400 mm are required
- For unsupported lengths up to 4,0 m and fill weights up to 37 kg/m
- For long travels up to 300 m
- Also suitable for side-mounted, vertical standing or hanging applications
- If many options and accessories are desired



#### When to use a different igus® Series

- If an extremely **low-noise** and low-vibration e-chain® is required ( $\leq 46$  dB(A))
  - ▶ **Series E6.40, page 8.56**
- If the e-chain® shall be used in **cleanroom applications** (ISO class 1)
  - ▶ **Series E6.40, page 8.56**
- If a less stable e-chain® can be used for economical reasons
  - ▶ **Series 3400/3450/3500/3480, page 5.204**



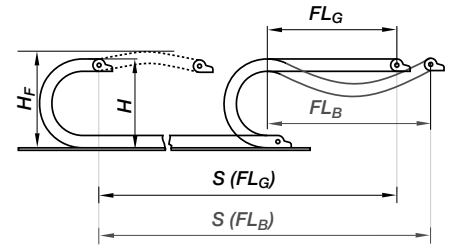
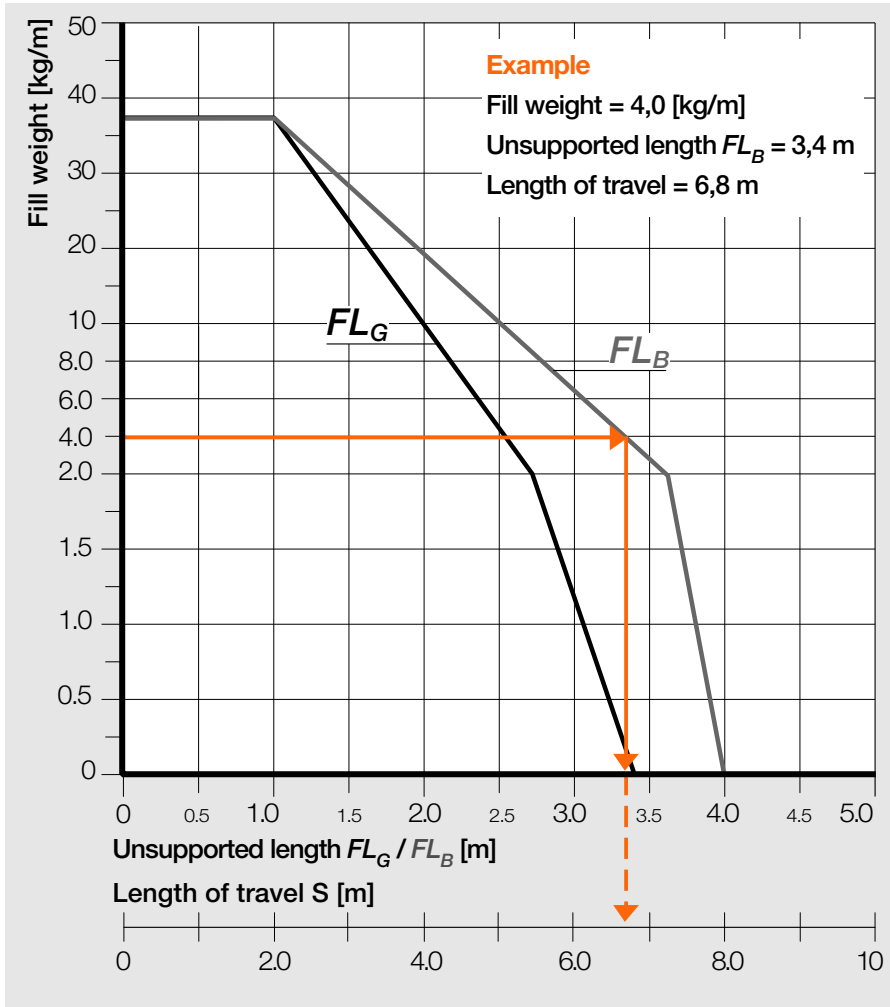
**Available from stock. Delivery in 24h or today!\***

\*Delivery time means time until shipping of goods



3D-CAD files, configurators, PDF ▶ [www.igus.de/en/E4.42](http://www.igus.de/en/E4.42)

# E4.1 | Series E4.42 | Dimensions | Unsupported

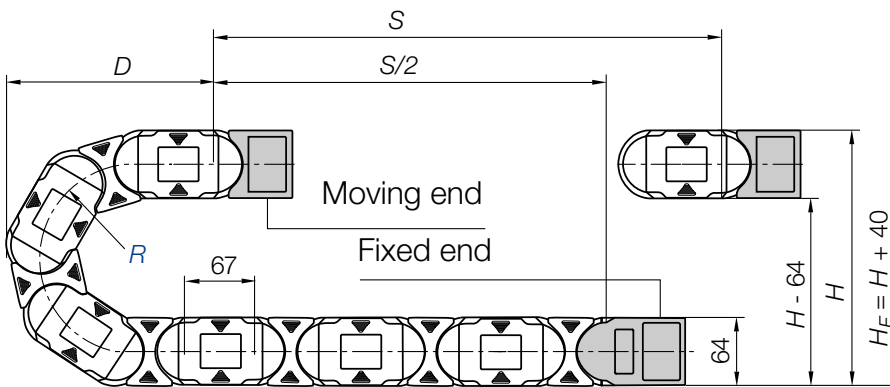


## Standard e-chains Unsupported applications

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. More information ► **Design, page 1.8**

## Gliding applications

Travels up to 300 m.  
 More information ► **page 7.74**



## Technical Data

Speed, material, temperature and flammability class ► **page 7.16**

**Pitch** = 67 mm/link  
**Links/m** = 15 (1005 mm)  
**Chain length** =  $S/2 + K$

R	075	100	115	125	150	160	175	200	250	300	350
$H_{-0}^{+25}$	214	264	294	314	364	389	414	464	564	664	764
D	174	199	214	224	249	261,5	274	299	349	399	449
K	370	450	500	530	610	645	685	765	920	1080	1235

The required clearance height:  $H_F = H + 40$  mm (with 3,0 kg/m fill weight)

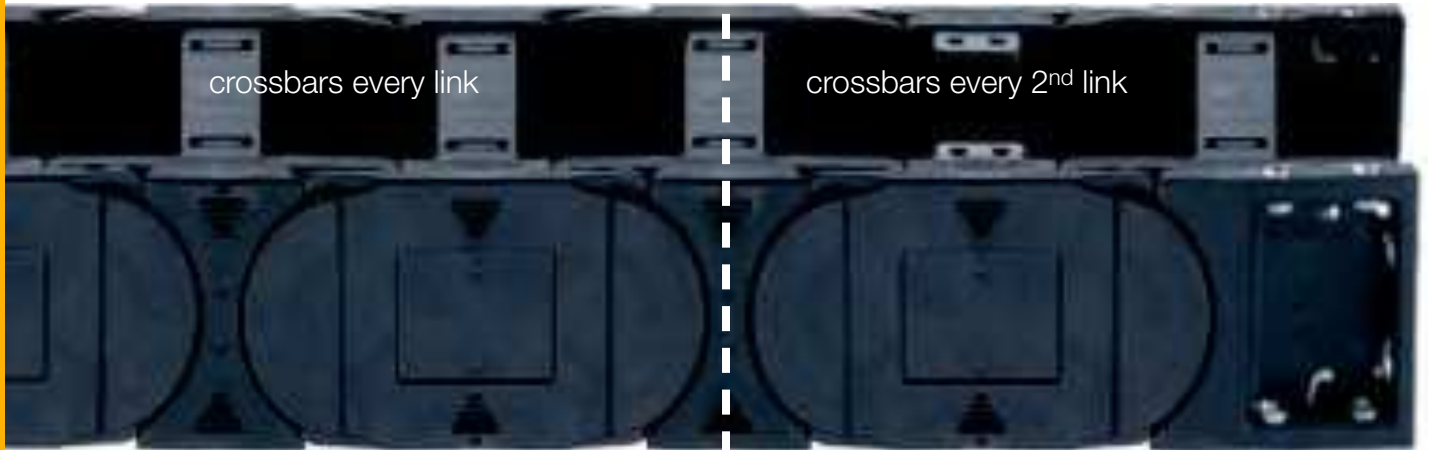


$FL_G$  = with straight upper run  
 $FL_B$  = with permitted sag

S = Length of travel  
 R = Bending radius

H = Nominal clearance height  
 $H_F$  = Required clearance height

D = Overlength e-chain®, radius in final position  
 $K = \pi \cdot R + \text{"safety"}$



e-chains® | Series **E4.42** crossbars every link | Series **H4.42** crossbars every 2<sup>nd</sup> link

Part No.		<i>Bi</i>	<i>Ba</i>	E4.42	H4.42		
crossbars every link	crossbars every 2 <sup>nd</sup> link	[mm]	[mm]	[kg/m]	[kg/m]		
E4.42.	H4.42.	05.	R.0	50	76	1,923	1,804
E4.42.	H4.42.	06.	R.0	68	94	2,031	1,858
E4.42.	H4.42.	07.	R.0	75	101	2,059	1,872
E4.42.	H4.42.	087.	R.0	87	114	2,119	1,903
E4.42.	H4.42.	09.	R.0	97	120	2,135	1,919
E4.42.	H4.42.	10.	R.0	100	126	2,188	1,973
E4.42.	H4.42.	11.	R.0	108	134	2,235	1,960
E4.42.	H4.42.	112.	R.0	112	139	2,247	1,966
E4.42.	H4.42.	12.	R.0	125	151	2,341	2,014
E4.42.	H4.42.	137.	R.0	137	164	2,385	2,035
E4.42.	H4.42.	15.	R.0	150	176	2,460	2,073
E4.42.	H4.42.	162.	R.0	162	189	2,484	2,085
E4.42.	H4.42.	17.	R.0	168	194	2,553	2,119
E4.42.	H4.42.	18.	R.0	175	201	2,571	2,128
E4.42.	H4.42.	187.	R.0	187	214	2,610	2,148
E4.42.	H4.42.	20.	R.0	200	226	2,715	2,200

Part No.		<i>Bi</i>	<i>Ba</i>	E4.42	H4.42		
crossbars every link	crossbars every 2 <sup>nd</sup> link	[mm]	[mm]	[kg/m]	[kg/m]		
E4.42.	H4.42.	212.	R.0	212	239	2,757	2,221
E4.42.	H4.42.	23.	R.0	225	251	2,841	2,263
E4.42.	H4.42.	237.	R.0	237	264	2,865	2,275
E4.42.	H4.42.	25.	R.0	250	276	2,979	2,332
E4.42.	H4.42.	262.	R.0	262	289	3,048	2,367
E4.42.	H4.42.	28.	R.0	275	301	3,108	2,397
E4.42.	H4.42.	29.	R.0	287	314	3,136	2,411
E4.42.	H4.42.	30.	R.0	300	326	3,243	2,464
E4.42.	H4.42.	312.	R.0	312	339	3,262	2,474
E4.42.	H4.42.	325.	R.0	325	351	3,348	2,517
E4.42.	H4.42.	337.	R.0	337	364	3,399	2,542
E4.42.	H4.42.	350.	R.0	350	376	3,588	2,637
E4.42.	H4.42.	362.	R.0	362	389	3,669	2,677
E4.42.	H4.42.	375.	R.0	375	402	3,730	2,708
E4.42.	H4.42.	387.	R.0	387	414	3,786	2,736
E4.42.	H4.42.	400.	R.0	400	426	3,840	2,763

Available bending radii *R* [mm] 075 | 100 | 115 | 125 | 150 | 160 | 175 | 200 | 250 | 300 | 350

Supplement Part No. with required radius (*R*). Example: E4.42.30.300.0

**\*\*NEW** in this catalog

**When to use e-chains® with crossbars every link:** ● Lateral acceleration > 0,5m/s<sup>2</sup> ● High fill weights and rigid hydraulic hoses ● Humidity: > 85%, temperature: > 50°C (122° F)

**When to use e-chains® with crossbars every 2<sup>nd</sup> link:** ● Suitable for nearly all applications ● Lower price



Part No. of e-chain® links as single parts ► page 7.17



**Standard e-chains® incl. accessories from stock. Delivery in 24h or today.\***

\*Delivery time means time until shipping of goods

# E4.1 | Series E4.42 | Product range | Standard



fully enclosed

## e-tubes | Series R4.42 - fully enclosed

Part No. fully enclosed	<i>Bi</i> [mm]	<i>Ba</i> [mm]	R4.42 [kg/m]
R4.42. 05. R.0*	50	76	2,150
R4.42. 07. R.0	75	101	2,280
R4.42. 087.R.0	87	114	2,410
R4.42. 10. R.0	100	126	2,520
R4.42. 11. R.0	108	134	2,570
R4.42. 12. R.0	125	151	2,730

Part No. fully enclosed	<i>Bi</i> [mm]	<i>Ba</i> [mm]	R4.42 [kg/m]
R4.42. 15. R.0	150	176	2,980
R4.42. 17. R.0	168	194	3,150
R4.42. 20. R.0	200	226	3,450
R4.42. 25. R.0	250	276	4,250
R4.42. 30. R.0	300	326	4,890

\*Removable lid only, no hinged option

Available bending radii *R* [mm] 125 | 150 | 160 | 175 | 200 | 250 | 300 | 350

Supplement Part No. with required radius (*R*). Example: R4.42.30.300.0

**When to use fully enclosed e-tubes:** ● Excellent cable protection against dirt ● Lids along the entire inner radius are completely removable. Lids along the entire outer radius are single sided snap-open with a hinge on the other side to keep them attached to the e-chain® or completely removable ● HT-Version optional, protection against hot chips up to 850°C (1562° F)

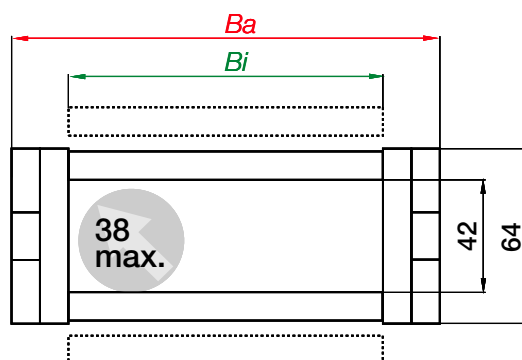


### Order key for all types

E4 .42. 30. 300. 0 e-chain® (crossbars every link)  
H4 .42. 30. 300. 0 e-chain® (crossbars every 2<sup>nd</sup> link)  
R4 .42. 30. 300. 0 Fully enclosed e-tube



### Dimensioning



E4.42.30.300.0 = e-chain® with crossbars every link, inner width *Bi* 300 mm, radius *R* 300 mm, color black  
H4.42.30.300.0 = e-chain® with crossbars every 2<sup>nd</sup> link, inner width *Bi* 300 mm, radius *R* 300 mm, color black  
R4.42.30.300.0 = Fully enclosed e-tube, inner width *Bi* 300 mm, radius *R* 300 mm, color black  
More order examples, variations and configurations ► page 7.76



**Standard e-tubes incl. accessories from stock. Delivery in 24h or today!\***

\*Delivery time means time until shipping of goods

## E4.1 | Series E4.42 | Product range | Options



**QuickLock crossbars** | Quick opening - up to 25% faster assembly

Part No.	crossbars every link	crossbars every 2 <sup>nd</sup> link	Inner radius	Outer radius	Both radii	<i>Bi</i> [mm]		
E4.42.	H4.42.	10	QZ.R.0	10	QE.R.0	10	Q.R.0	100
E4.42.	H4.42.	11	QZ.R.0	11	QE.R.0	11	Q.R.0	108
E4.42.	H4.42.	112	QZ.R.0	112	QE.R.0	112	Q.R.0	112
E4.42.	H4.42.	12	QZ.R.0	12	QE.R.0	12	Q.R.0	125
E4.42.	H4.42.	137	QZ.R.0	137	QE.R.0	137	Q.R.0	137
E4.42.	H4.42.	15	QZ.R.0	15	QE.R.0	15	Q.R.0	150
E4.42.	H4.42.	162	QZ.R.0	162	QE.R.0	162	Q.R.0	162
E4.42.	H4.42.	17	QZ.R.0	17	QE.R.0	17	Q.R.0	168
E4.42.	H4.42.	18	QZ.R.0	18	QE.R.0	18	Q.R.0	175
E4.42.	H4.42.	187	QZ.R.0	187	QE.R.0	187	Q.R.0	187
E4.42.	H4.42.	20	QZ.R.0	20	QE.R.0	20	Q.R.0	200
E4.42.	H4.42.	212	QZ.R.0	212	QE.R.0	212	Q.R.0	212
E4.42.	H4.42.	23	QZ.R.0	23	QE.R.0	23	Q.R.0	225
E4.42.	H4.42.	237	QZ.R.0	237	QE.R.0	237	Q.R.0	237
E4.42.	H4.42.	25	QZ.R.0	25	QE.R.0	25	Q.R.0	250
E4.42.	H4.42.	262	QZ.R.0	262	QE.R.0	262	Q.R.0	262

Part No.	crossbars every link	crossbars every 2 <sup>nd</sup> link	Inner radius	Outer radius	Both radii	<i>Bi</i> [mm]		
E4.42.	H4.42.	28	QZ.R.0	28	QE.R.0	28	Q.R.0	275
E4.42.	H4.42.	29	QZ.R.0	29	QE.R.0	29	Q.R.0	287
E4.42.	H4.42.	30	QZ.R.0	30	QE.R.0	30	Q.R.0	300
E4.42.	H4.42.	312	QZ.R.0	312	QE.R.0	312	Q.R.0	312
E4.42.	H4.42.	325	QZ.R.0	325	QE.R.0	325	Q.R.0	325
E4.42.	H4.42.	337	QZ.R.0	337	QE.R.0	337	Q.R.0	337
E4.42.	H4.42.	350	QZ.R.0	350	QE.R.0	350	Q.R.0	350
E4.42.	H4.42.	362	QZ.R.0	362	QE.R.0	362	Q.R.0	362
E4.42.	H4.42.	375	QZ.R.0	375	QE.R.0	375	Q.R.0	375
E4.42.	H4.42.	387	QZ.R.0	387	QE.R.0	387	Q.R.0	387
E4.42.	H4.42.	400	QZ.R.0	400	QE.R.0	400	Q.R.0	400

QuickLock crossbars: inner widths from 100 mm possible!

Available bending radii *R* [mm] 075 | 100 | 115 | 125 | 150 | 160 | 175 | 200 | 250 | 300 | 350

Supplement Part No. with required radius (*R*). Example: E4.42.30QZ.300.0



For e-chains® with **QuickLock crossbar** supplement Part No. with required Index **QZ / QE / Q**

**Part No. E4.42.30QZ.300.0** = QuickLock crossbar for inner radius

**Part No. E4.42.30QE.300.0** = QuickLock crossbar for outer radius

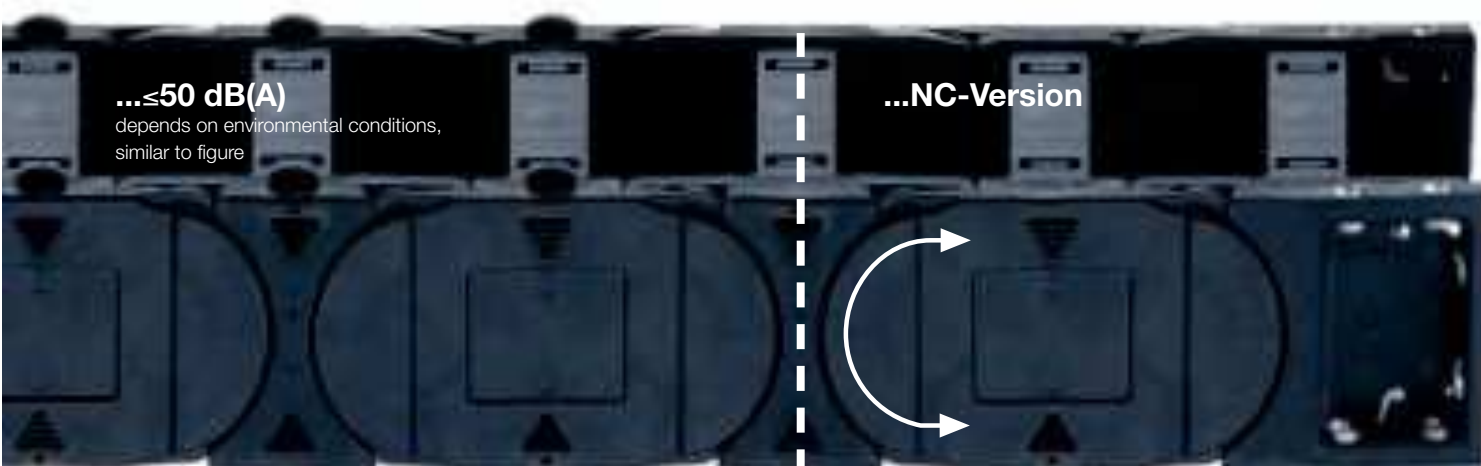
**Part No. E4.42.30Q .300.0** = QuickLock crossbar for both radii



**e-chain® with QuickLock crossbars - Delivery time: 3-5 work days.\***

\*Delivery time means time until shipping of goods

# E4.1 | Series E4.42 | Product range | Options



## Noise dampening | $\leq 50$ dB(A)

## NC-Version | Without pretension

With pads	<i>Bi</i>	With pads	<i>Bi</i>
crossbars every: link   2 <sup>nd</sup>	e-tube fully enclosed [mm]	crossbars every: link   2 <sup>nd</sup>	e-tube fully enclosed [mm]
ES4 HS4 RS4 .42.05. R.0	50	ES4 HS4- .42.212.R.0	212
ES4 HS4- .42.06. R.0	68	ES4 HS4- .42.23. R.0	225
ES4 HS4 RS4 .42.07. R.0	75	ES4 HS4- .42.237.R.0	237
ES4 HS4 RS4 .42.087.R.0	87	ES4 HS4 RS4 .42.25. R.0	250
ES4 HS4- .42.09. R.0	97	ES4 HS4- .42.262.R.0	262
ES4 HS4 RS4 .42.10. R.0	100	ES4 HS4- .42.28. R.0	275
ES4 HS4 RS4 .42.11. R.0	108	ES4 HS4- .42.29. R.0	287
ES4 HS4- .42.112.R.0	112	ES4 HS4 RS4 .42.30. R.0	300
ES4 HS4 RS4 .42.12. R.0	125	ES4 HS4- .42.312.R.0	312
ES4 HS4- .42.137.R.0	137	ES4 HS4- .42.325.R.0	325
ES4 HS4 RS4 .42.15. R.0	150	ES4 HS4- .42.337.R.0	337
ES4 HS4- .42.162.R.0	162	ES4 HS4- .42.350.R.0	350
ES4 HS4 RS4 .42.17. R.0	168	ES4 HS4- .42.362.R.0	362
ES4 HS4- .42.18. R.0	175	ES4 HS4- .42.375.R.0	375
ES4 HS4- .42.187.R.0	187	ES4 HS4- .42.387.R.0	387
ES4 HS4 RS4 .42.20. R.0	200	ES4 HS4- .42.400.R.0	400

NC-Version	<i>Bi</i>	NC-Version	<i>Bi</i>
crossbars every: link   2 <sup>nd</sup>	e-tube fully enclosed [mm]	crossbars every: link   2 <sup>nd</sup>	e-tube fully enclosed [mm]
E4 H4 R4.42.05. R.0.NC	50	E4 H4- .42.212.R.0.NC	212
E4 H4- .42.06. R.0.NC	68	E4 H4- .42.23. R.0.NC	225
E4 H4 R4.42.07. R.0.NC	75	E4 H4- .42.237.R.0.NC	237
E4 H4 R4.42.087.R.0.NC	87	E4 H4 R4.42.25. R.0.NC	250
E4 H4- .42.09. R.0.NC	97	E4 H4- .42.262.R.0.NC	262
E4 H4 R4.42.10. R.0.NC	100	E4 H4- .42.28. R.0.NC	275
E4 H4 R4.42.11. R.0.NC	108	E4 H4- .42.29. R.0.NC	287
E4 H4- .42.112.R.0.NC	112	E4 H4 R4.42.30. R.0.NC	300
E4 H4 R4.42.12. R.0.NC	125	E4 H4- .42.312.R.0.NC	312
E4 H4- .42.137.R.0.NC	137	E4 H4- .42.325.R.0.NC	325
E4 H4 R4.42.15. R.0.NC	150	E4 H4- .42.337.R.0.NC	337
E4 H4- .42.162.R.0.NC	162	E4 H4- .42.350.R.0.NC	350
E4 H4 R4.42.17. R.0.NC	168	E4 H4- .42.362.R.0.NC	362
E4 H4- .42.18. R.0.NC	175	E4 H4- .42.375.R.0.NC	375
E4 H4- .42.187.R.0.NC	187	E4 H4- .42.387.R.0.NC	387
E4 H4 R4.42.20. R.0.NC	200	E4 H4- .42.400.R.0.NC	400

Available bending radii *R* [mm] 075\* | 100\* | 115\* | 125 | 150 | 160 | 175 | 200 | 250 | 300 | 350 \*not available for e-tubes

Supplement Part No. with required radius (*R*). Example: **ES4.42.30.300.0** or **E4.42.30.300.0.NC**



For e-chains® with noise dampening pads supplement Part No. with required index "S"

Example: **Part No. ES4.42.30.300.0** = e-chain® (crossbars every link) with noise dampening

For NC-e-chains® without pretension supplement Part No. with required index "NC"

Example: **Part No. E4.42.30.300.0.NC** = e-chain® (crossbars every link) without pretension

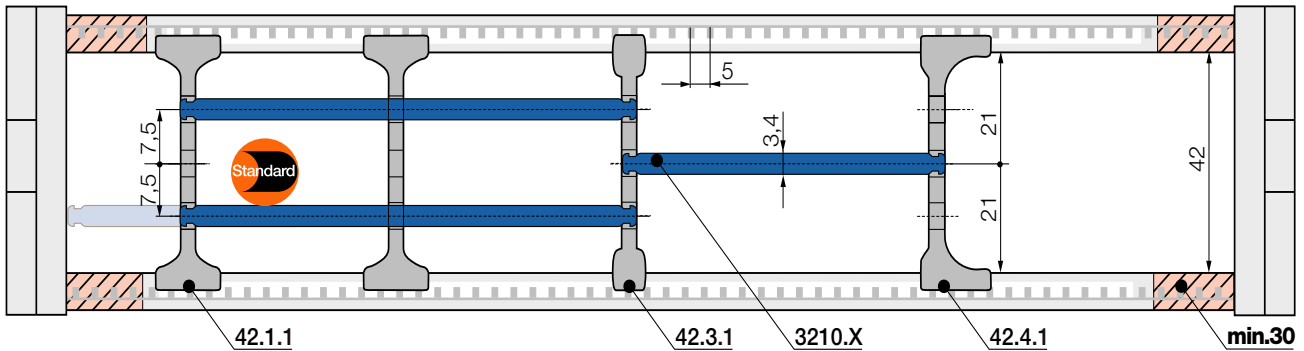


**e-chain® with noise dampening pads - Delivery time: 3-5 work days.**

**NC-Version - Delivery in 24h or today!\***

\*Delivery time means time until shipping of goods

**New generation interior separation**



**Note e-tube:** Please observe a lateral spacing of 30 mm to the side links!  
In the standard configuration separators are assembled every 2<sup>nd</sup> e-chain® link!

**Standard separator, wide base**  
unassembled **42.1**  
assembled **42.1.1**

**Standard - for all applications**

Separator with a wide base for maximum locking strength and safe standing in e-chains® and e-tubes.

**Separator, narrow base**  
unassembled **42.3**  
assembled **42.3.1**

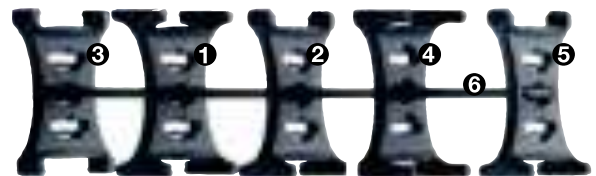
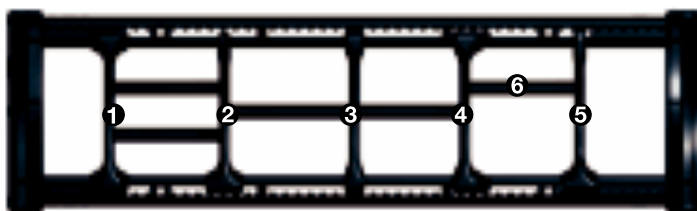
**For many thin cables**

Separator with a narrow base for a large number of thin cables side by side. Saves space in e-chains® and e-tubes. Also available for QuickLock crossbars.

**Asymmetrical separator**  
unassembled **42.4**  
assembled **42.4.1**

**For side-mounted applications**

Asymmetrical separator, for defined distance. No additional spacers necessary for e-chains® and e-tubes.



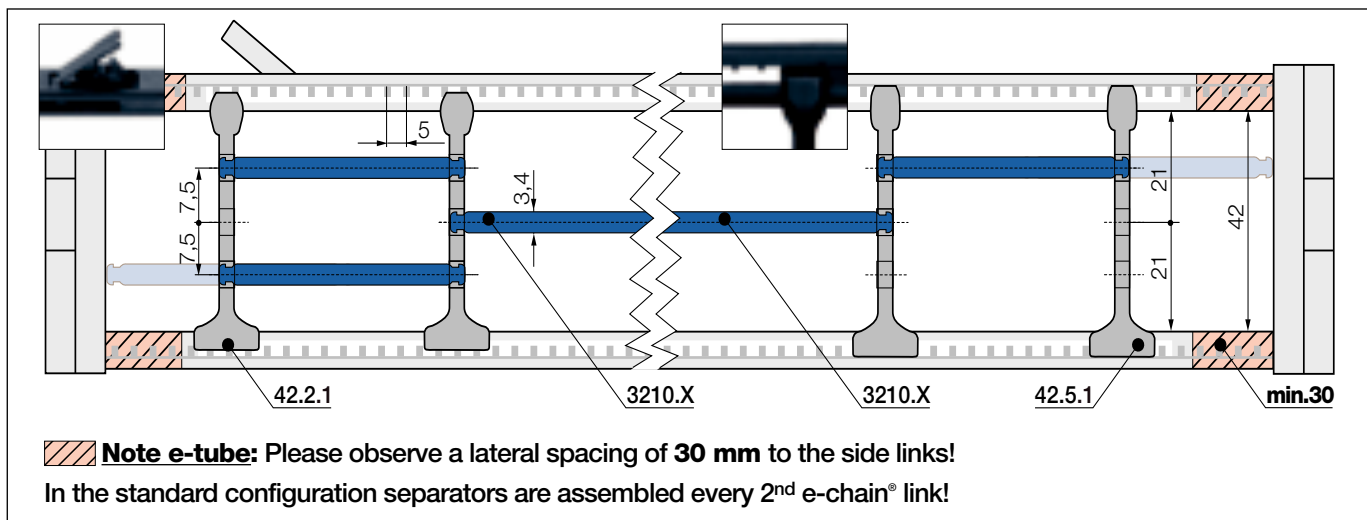
- i** ① Standard separator, wide base - Part No. 42.1    ③ Separator, narrow base - Part No. 42.3    ⑤ Notch separator - Part No. 42.5
- ② Separator for QuickLock crossbar - Part No. 42.2    ④ Separator, asymmetrical - Part No. 42.4    ⑥ Full-width self, lockable - Part No. 3200.XX

**Interior separation single-part order - Delivery in 24h or today!\***



\*Delivery time means time until shipping of goods

## New generation interior separation



**Separator for QuickLock crossbar**  
unassembled **42.2**  
assembled **42.2.1**

### For even faster installation

Separator for igus® QuickLock crossbar 385.X.Q. Firm hold to one side with a wide base, narrow on opposed side for easy cable assembly (slight grip). For e-tubes also.

**Notch separator for notch crossbar**  
unassembled **42.5**  
assembled **42.5.1**

### Locks safely onto in 5 mm increments

Notch separator for the new notch crossbar, with scaling on the notch crossbars. For exact positioning in e-chains® and e-tubes. Recommended for side-mounted applications.

**Full-width shelf, lockable**  
unassembled **3200.X**  
assembled **3210.X**

### Horizontal separation

Shelf locks safely into separators on both ends, fixed width possible. Separators can be moved freely over the shelf in horizontal direction. Usable in 3 levels.



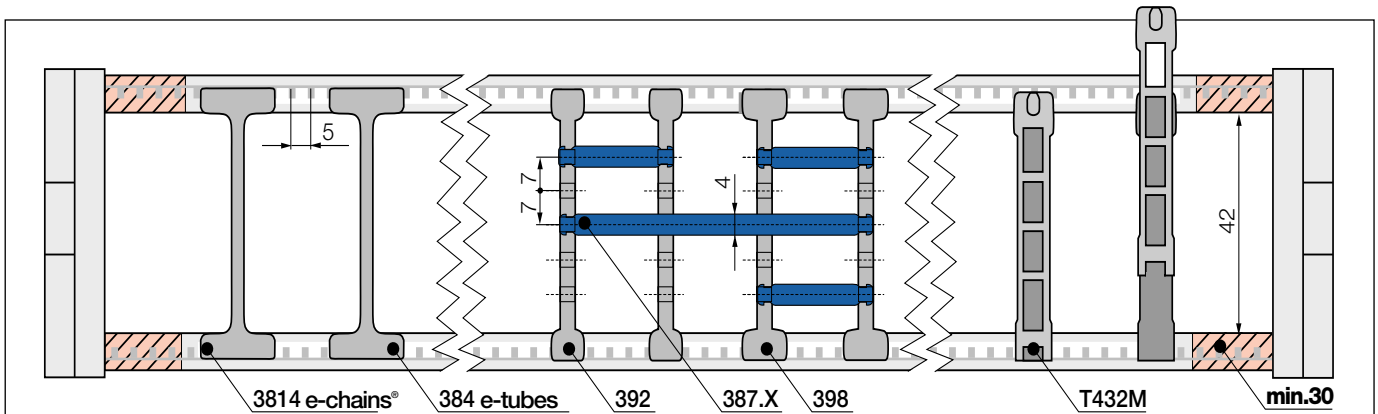
### Lockable full-width shelves - for the standard interior separation

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



# E4.1 | Series E4.42 | Interior separation | Options

**Previous interior separation** All elements can still be ordered ► [www.igus.de/en/E4.42](http://www.igus.de/en/E4.42)



**Note e-tube:** Please observe a lateral spacing of 30 mm to the side links!  
In the standard configuration separators are assembled every 2<sup>nd</sup> e-chain® link!

		<b>Open slotted separator for e-chains®/e-tubes</b> unassembled <b>397</b> assembled <b>398</b>
		<b>Slotted separator for e-chains®/e-tubes</b> unassembled <b>391</b> assembled <b>392</b>
		<b>Split separator for e-chains®</b> unassembled <b>T423</b> assembled <b>T423M</b>
		<b>Locking separator for e-chains®</b> unassembled <b>3804</b> assembled <b>3814</b>
		<b>Locking separator for e-tubes</b> unassembled <b>383</b> assembled <b>384</b>
		<b>Shelf</b> unassembled <b>386.X</b> assembled <b>387.X</b>

## Open, slotted separator 397 (unilateral open)

Fast assembly - can be retrofitted into an existing interior separation system without a need for dismantling the interior separators. During an installation of open slotted separators, the top and bottom notches cannot be occupied by shelves.

## Slotted separator 391

For very fine subdivisions. However, they cannot be retrofitted into an existing separation system without dismantling the interior separators first.

## Split separator T423 (e-chains® only)

Ideal for subsequent shelving or for the initial assembly of the e-chain® without a need for dismantling the interior separators.

## Locking separator 3804 (e-chains® only)

For applications exposed to very high humidity (> 85%). Locks with extra retention force. Tip: one locking separator per e-chain® link for better mounting.

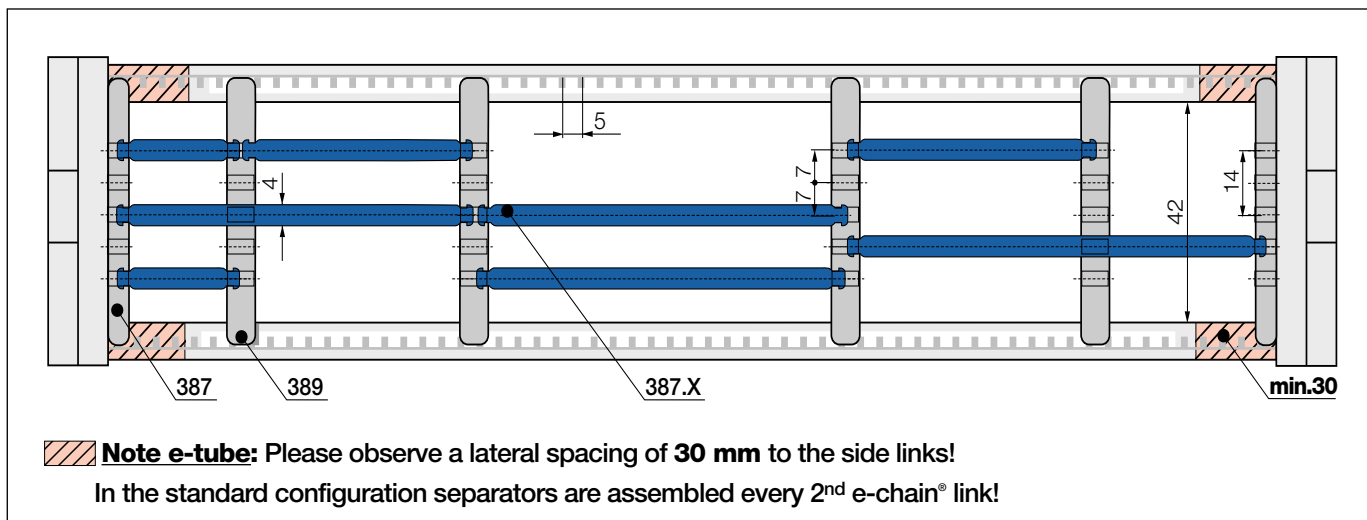
## Locking separator 383 (e-tubes only)

For e-tubes R4.42.

## Shelf 386.X

For horizontal separation. Shelves of various widths can be arranged at 5 different heights (in 7 mm increments). - see table beneath (not in combination with 3804, 383).

**Previous interior separation** All elements can still be ordered ▶ [www.igus.de/en/E4.42](http://www.igus.de/en/E4.42)



		<b>Middle plate for e-chains® / e-tubes</b> unassembled <b>388</b> assembled <b>389</b>
		<b>Side plate for e-chains® / e-tubes</b> unassembled <b>386</b> assembled <b>387</b>

### Middle plate 388

Middle plates form the basic pattern of a shelf system. Shelves 386.X (table below) can be arranged at 5 different heights (in 7 mm increments).

### Side plate 386

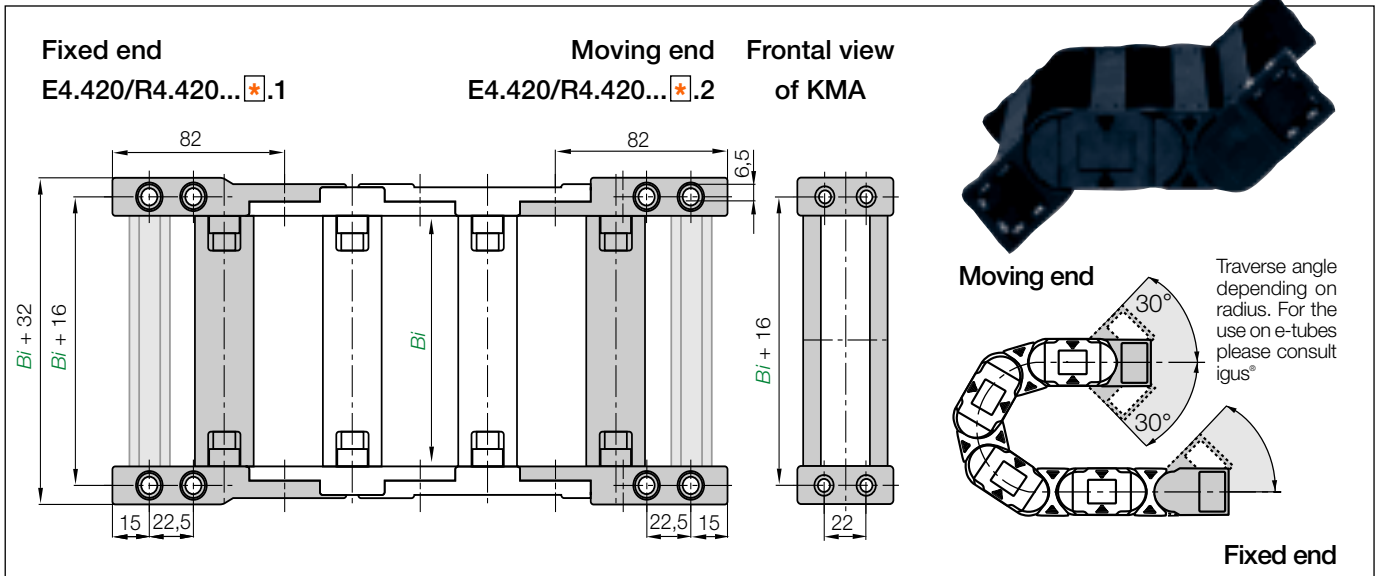
Works like middle plate.  
Allows modular shelving close to the side links.

### Shelves - interior separation options

Width X [mm]	unassembled	assembled	Width X [mm]	unassembled	assembled	Width X [mm]	unassembled	assembled
018	<b>386.18</b>	<b>387.18</b>	050	<b>386.50</b>	<b>387.50</b>	108	<b>386.108</b>	<b>387.108</b>
023	<b>386.23</b>	<b>387.23</b>	054	<b>386.54</b>	<b>387.54</b>	125	<b>386.125</b>	<b>387.125</b>
025	<b>386.25</b>	<b>387.25</b>	062	<b>386.62</b>	<b>387.62</b>	150	<b>386.150</b>	<b>387.150</b>
028	<b>386.28</b>	<b>387.28</b>	075	<b>386.75</b>	<b>387.75</b>	175	<b>386.175</b>	<b>387.175</b>
033	<b>386.33</b>	<b>387.33</b>	087	<b>386.87</b>	<b>387.87</b>	200	<b>386.200</b>	<b>387.200</b>
043	<b>386.43</b>	<b>387.43</b>	100	<b>386.100</b>	<b>387.100</b>	208	<b>386.208</b>	<b>387.208</b>

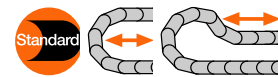
# E4.1 | Series E4.42 | KMA mounting brackets **pivoting**

For tight installation conditions, all-sides attachment



**KMA pivoting** | All-sides attachment. Recommended for unsupported and gliding applications

Width index	Part No. full set pivoting (+ C-profile option)	Bi [mm]	Width index	Part No. full set pivoting (+ C-profile option)	Bi [mm]
05.	E4.420. R4.420.05 .12.C	50	212.	E4.420. - 212.12.C	212
06.	E4.420. - 06 .12.C	68	23.	E4.420. - 23 .12.C	225
07.	E4.420. R4.420.07 .12.C	75	237.	E4.420. - 237.12.C	237
087.	E4.420. R4.420.087.12.C	87	25.	E4.420. R4.420.25 .12.C	250
09.	E4.420. - 097.12.C	97	262.	E4.420. - 262.12.C	262
10.	E4.420. R4.420.10 .12.C	100	28.	E4.420. - 28 .12.C	275
11.	E4.420. R4.420.11 .12.C	108	29.	E4.420. - 29 .12.C	287
112.	E4.420. - 112.12.C	112	30.	E4.420. R4.420.30 .12.C	300
12.	E4.420. R4.420.12 .12.C	125	312.	E4.420. - 312.12.C	312
137.	E4.420. - 137.12.C	137	325.	E4.420. - 325.12.C	325
15.	E4.420. R4.420.15 .12.C	150	337.	E4.420. - 337.12.C	337
162.	E4.420. - 162.12.C	162	350.	E4.420. - 350.12.C	350
17.	E4.420. R4.420.17 .12.C	168	362.	E4.420. - 362.12.C	362
18.	E4.420. - 18 .12.C	175	375.	E4.420. - 375.12.C	375
187.	E4.420. - 187.12.C	187	387.	E4.420. - 387.12.C	387
20.	E4.420. R4.420.20 .12.C	200	400.	E4.420. - 400.12.C	400



- Standard
- For tight installation conditions
- Option: integrated chainfix strain relief with C-profile
- Corrosion resistant
- Option: threaded sockets upon request (KMA = Polymer Metal Mounting Bracket)

Part No. structure (pivoting)

E4.420.30.2.12.C



Single-part order:

Mounting bracket **Moving end**

E4.420.30.2.2.C (even number of links)

Mounting bracket **Fixed end**

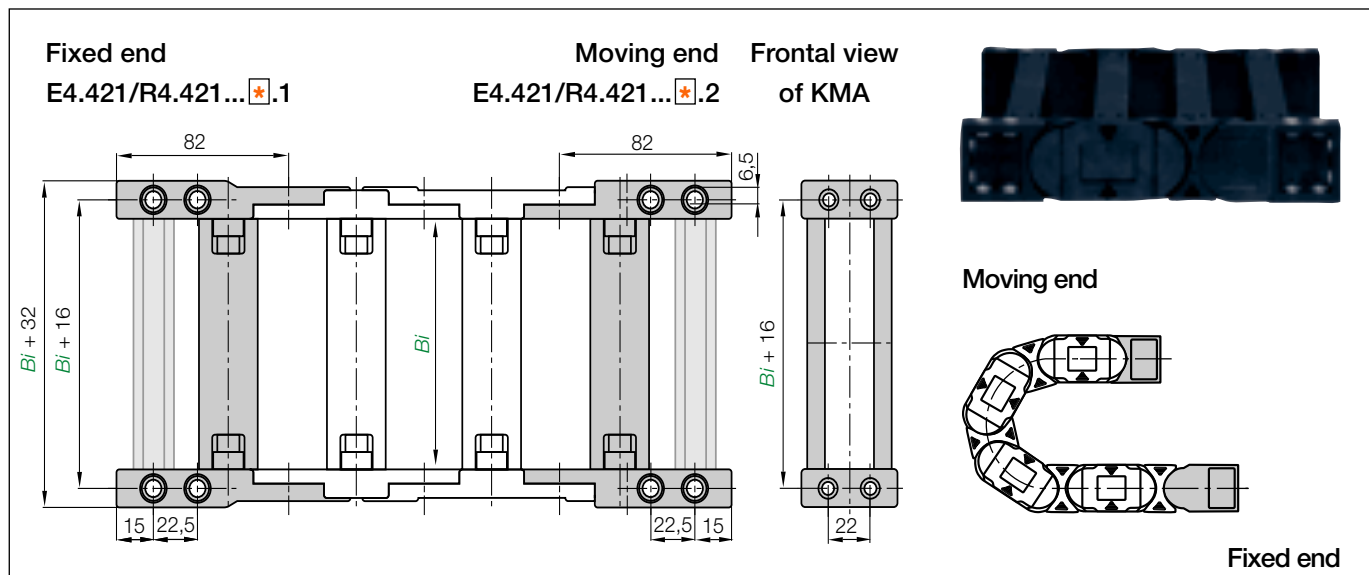
E4.420.30.2.1.C (even number of links)

**Note\***: The E4.1 System may end with either an inner or an outer side link. Keep in mind that an outer side link always forms the first e-chain® link at the moving end. The Part Nos. depend on an even or odd numbers of links. Please insert: Index **1** (for odd) or **2** (for even)!

**Strain relief**, e.g. clamps, tiwrap plates, nuggets and plug-in clips are available from stock. The complete chainfix range with order options ► from page 10.1

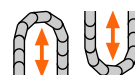
# E4.1 | Series E4.42 | KMA mounting brackets locking

For very high speed and acceleration, all-sides attachment



**KMA locking** | All-sides attachment. Recommended for vertical hanging and standing applications

Width index	Part No. full set locking (+ C-profile option)	Bi [mm]	Width index	Part No. full set locking (+ C-profile option)	Bi [mm]
05.	E4.421. R4.421.05 .12.C 50	50	212.	E4.421. - 212.12.C 212	212
06.	E4.421. - 06 .12.C 68	68	23.	E4.421. - 23 .12.C 225	225
07.	E4.421. R4.421.07 .12.C 75	75	237.	E4.421. - 237.12.C 237	237
087.	E4.421. R4.421.087.12.C 87	87	25.	E4.421. R4.421.25 .12.C 250	250
09.	E4.421. - 097.12.C 97	97	262.	E4.421. - 262.12.C 262	262
10.	E4.421. R4.421.10 .12.C 100	100	28.	E4.421. - 28 .12.C 275	275
11.	E4.421. R4.421.11 .12.C 108	108	29.	E4.421. - 29 .12.C 287	287
112.	E4.421. - 112.12.C 112	112	30.	E4.421. R4.421.30 .12.C 300	300
12.	E4.421. R4.421.12 .12.C 125	125	312.	E4.421. - 312.12.C 312	312
137.	E4.421. - 137.12.C 137	137	325.	E4.421. - 325.12.C 325	325
15.	E4.421. R4.421.15 .12.C 150	150	337.	E4.421. - 337.12.C 337	337
162.	E4.421. - 162.12.C 162	162	350.	E4.421. - 350.12.C 350	350
17.	E4.421. R4.421.17 .12.C 168	168	362.	E4.421. - 362.12.C 362	362
18.	E4.421. - 18 .12.C 175	175	375.	E4.421. - 375.12.C 375	375
187.	E4.421. - 187.12.C 187	187	387.	E4.421. - 387.12.C 387	387
20.	E4.421. R4.421.20 .12.C 200	200	400.	E4.421. - 400.12.C 400	400



- Locked connections
- At high acceleration
- Universally mountable
- C-profile option
- Corrosion resistant
- Option: threaded sockets upon request (KMA = Polymer Metal Mounting Bracket)

Part No. structure (locking)

E4.421.30.2.12.C



Single-part order:

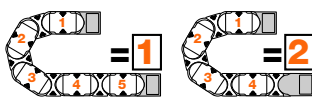
Mounting bracket **Moving end**

E4.421.30.2.2.C (even number of links)

Mounting bracket **Fixed end**

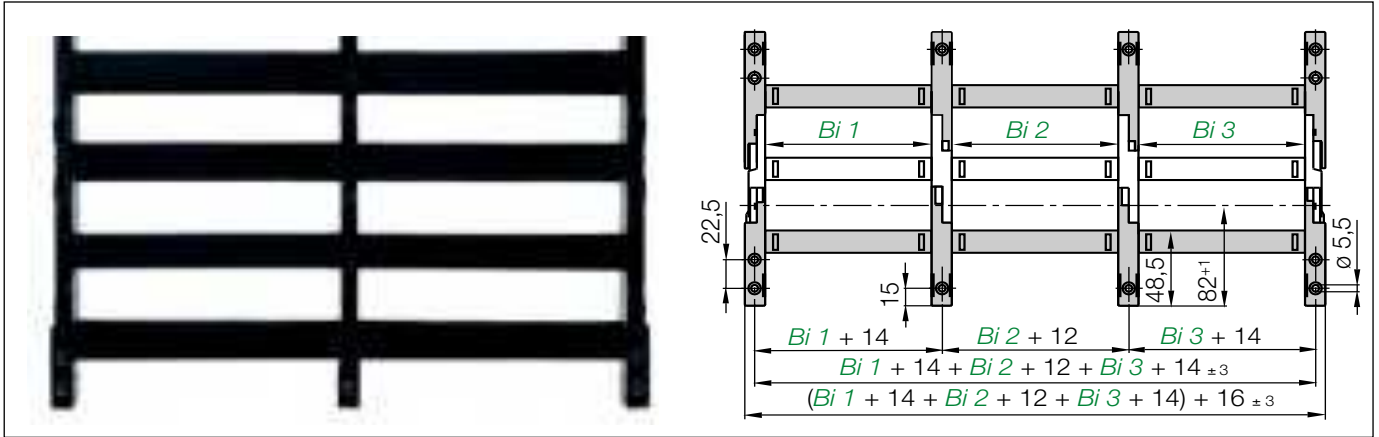
E4.421.30.2.1.C (even number of links)

**Note\***: The E4.1 System may end with either an inner or an outer side link. Keep in mind that an outer side link always forms the first e-chain® link at the moving end. The Part Nos. depend on an even or odd numbers of links. Please insert: Index **1** (for odd) or **2** (for even)!



**Strain relief**, e.g. clamps, tie-wrap plates, nuggets and plug-in clips are available from stock. The complete chainfix range with order options ▶ from page 10.1

# E4.1 | Series E4.42 | More options



## Extension links | for extremely wide e-chains® up to 3,0 m

- The extension link design allows virtually limitless side-by-side attachment
- High fill weights necessitate extremely wide e-chains® (up to 3000 mm)
- The unsupported length  $FL_G$  max. can be increased when additional loads are required
- Suitable for unsupported and gliding applications in a guide trough
- Attachment with KMA or steel mounting brackets



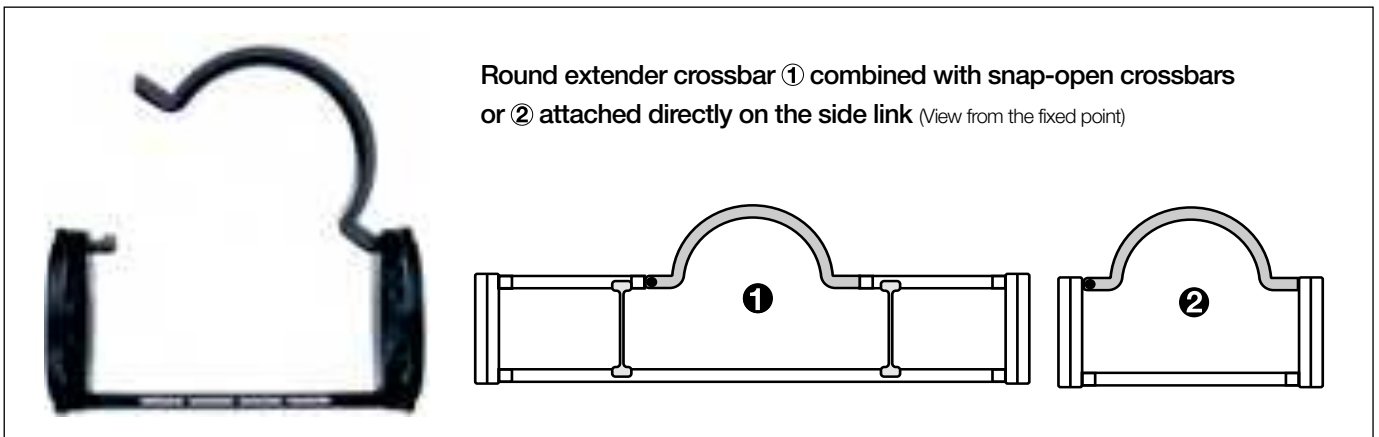
Order example - 3 chambers

E4.42.Bi1 / Bi2 / Bi3.R.0 =

E4.42.10 / 20 / 10.200.0

Extension link - single-part order

384.R. (please indicate radius)



Round extender crossbar ① combined with snap-open crossbars or ② attached directly on the side link (View from the fixed point)

## Extender crossbars | careful guide of hoses applications

- Suitable for hoses with a maximum outer diameter of 115 mm
- Gliding with crossbars assembled along outer radius and a special guide trough
- Extender crossbar ① for snap-open crossbars or ② attached directly on the side link



Order examples - extender crossbar

① Combination with snap-open crossbars

RHD115 for outer radius "E" incl. e-chain®:

E4.42.10/15RHD $\mathbf{E}$ 115/10.R.0

RHD115 for inner radius "Z" incl. e-chain®:

E4.42.10/15RHD $\mathbf{Z}$ 115/10.R.0

② Installation on side link

RD115 for outer radius "E" incl. e-chain®:

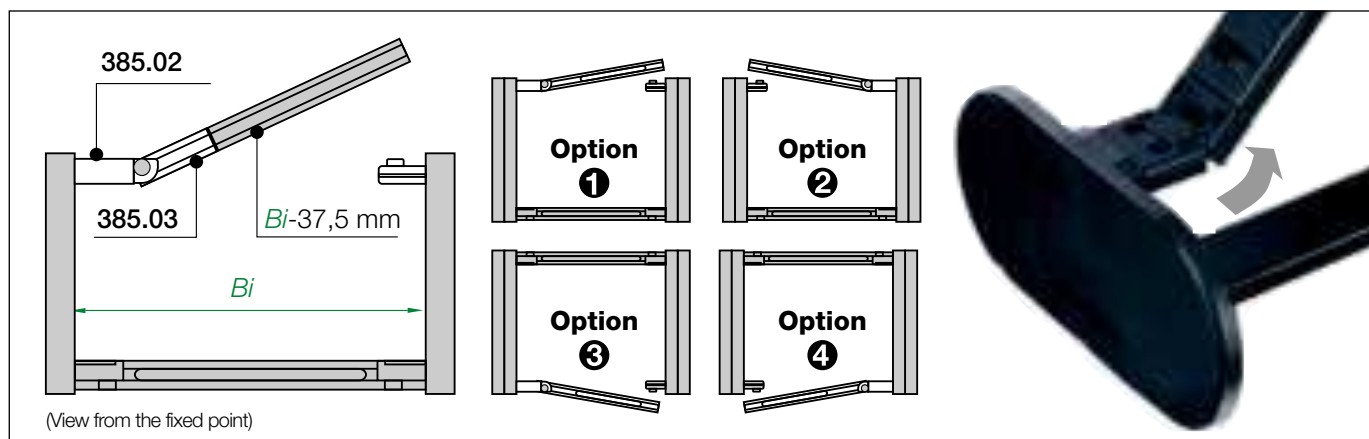
E4.42.18RD $\mathbf{E}$ 115.R.0

RD115 for inner radius "Z" incl. e-chain®:

E4.42.18RD $\mathbf{Z}$ 115.R.0

Part No.	Max Ø [mm]	Form	② Installation on side link	① Combination with snap-open crossbars
385.15.RHD115	115	○ round	no	yes
385.18.RD115	115	○ round	yes	no

## E4.1 | Series E4.42 | More options



### Hinged crossbars

- Typically e-chain® crossbars are completely removable. For cases where the snap-open crossbars have to remain at the open link of the e-chain®, a hinged design has been developed
- Please consult igus® for design assistance
- **Hinged crossbar: Part No. 385.02**  
**Snap-open crossbar (shortened): Bi-37,5 mm Part No. 385.03**  
(smallest inner width  $Bi = 87,5$ )



**Order example** (here: inner width  $Bi$  150)

E4.32.15.Z.R.0 =

E4.32.15.01.R.0

Supplement Index "Z" with required option number ①, ②, ③ or ④

## E4.1 | Series E4.42 | e-chain® accessories



### Strain relief system

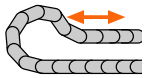
Clamps, tiwrap plates, nuggets and plug-in clips. The complete chainfix range with many order options ► **from page 10.1**



### Support tray tool kit

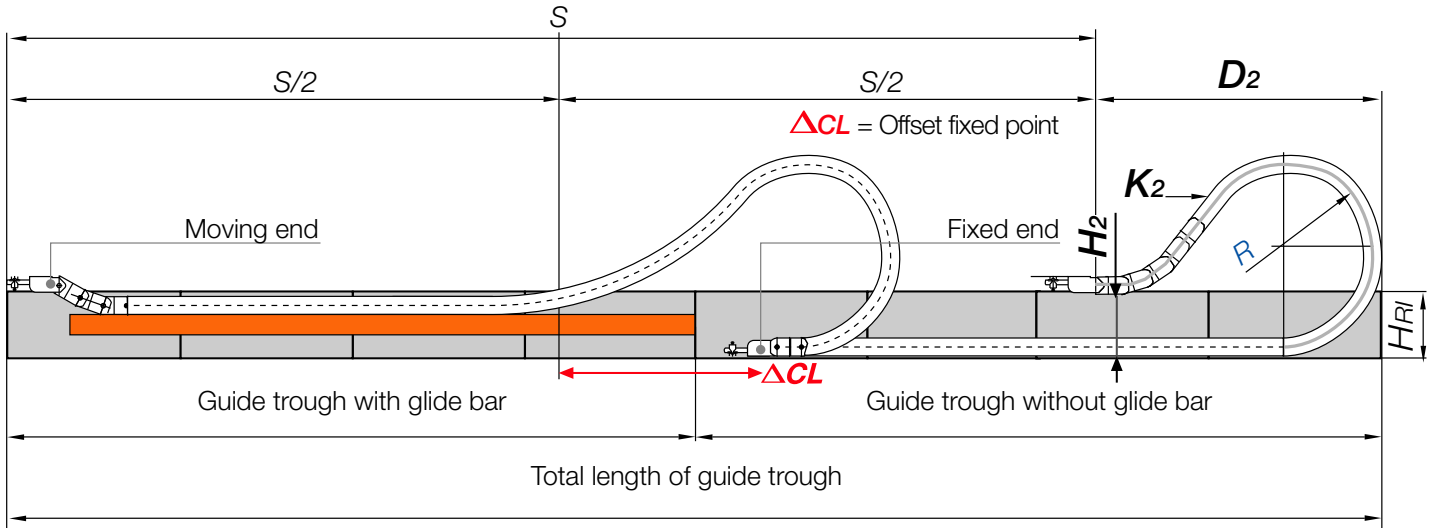
For support of the lower run. Simple one-piece support trays according to your requirements and specification ► **from page 9.70**

# E4.1 | Series E4.42 | Dimensions | Long travels



**Gliding applications** | For long travels from 12 m to max. 300 m

**Solution for long travel applications** - In this case the e-chain® upper run will be introduced in a guide trough on the lower run. For travels more than 100 m we recommend to realize the engineering of such a plant by our technicians. **In case of travels between 8 and 12 m we recommend a longer unsupported length.** More information ► **Design, from page 1.16.**



**Pitch** = 67 mm/link · **Links/m** = 15 (1005 mm) · **Chain length** =  $S/2 + K$

R	075	100	115	125	150	160	175	200	250	300	350
H <sub>2</sub>	150	200	230	186	186	186	186	186	186	186	186
D <sub>2</sub> <sup>+25</sup>	174	199	upon request	475	570	623	670	780	1030	1150	1500
K <sub>2</sub>	370	450	upon request	804	938	1072	1139	1340	1675	1943	2412
ΔCL	-	-	-	230	300	380	380	460	660	730	1030

## More solutions | for long travels

### System P4.42 - Profile rol e-chain®, low-noise

Travels up to 800 m

v<sub>max</sub> 10 m/s

Safe, maintenance-free for outdoor cranes or conveyor systems. Low-noise operation, high service life ► page 9.83

### rol e-chain® 3838R - Rolling instead of gliding

Travels up to 600 m

v<sub>max</sub> 6,0 m/s

Major reduction in drive power to less than 25 % for moving the e-chain® ► page 9.88

### autoglide E4.42.Bi.R.0.AG - Self-guiding, no guide troughs

Travels ≤ 50 m

v<sub>max</sub> 1,5 m/s

Self-guiding e-chainsystems® - No guide troughs required! ► page 9.92

## Specialty:

### guidelok horizontal - Upper run guide, unsupported

Travels ≤ 50 m

Chips cannot get stuck between upper and lower run - enormous increase of "self supporting" length of e-chains® ► page 9.97



The complete range of special solutions for long travel applications incl. order function ► from page 9.76

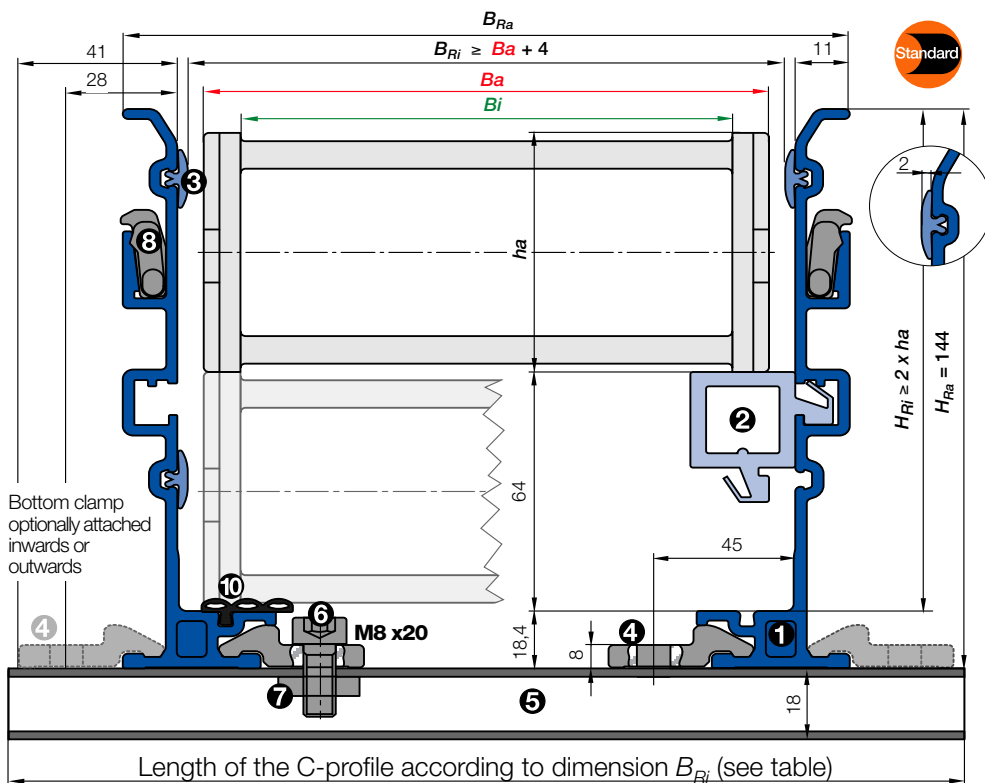


H<sub>2</sub> = Mounting height (if the moving end is set lower)  
D<sub>2</sub> = Over length - long travels, gliding

K<sub>2</sub> = Further add-on (if the moving end is set lower)  
R = Bending radius

ΔCL = Offset fixed point  
H<sub>Ri</sub> = Inner trough height

S = Length of travel  
S/2 = Half length of travel



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

Bottom clamp optionally attached inwards or outwards

E4.42.20.300.0 ▶ Order example

$B_{Ri}$ [mm]	Part No. attached inwards	Part No. attached outwards
.05	80	960.40.200
.06	98	960.40.225
.07	105	960.40.225
.087	118	960.40.175
.10	130	960.40.200
.11	138	960.40.200
.112	143	960.40.200
.12	155	960.40.225
.137	168	960.40.225
.15	180	960.40.250
.162	193	960.40.250
.17	198	960.40.250
.18	205	960.40.275
.187	218	960.40.275
.20	230	960.40.300
.212	243	960.40.300
.23	255	960.40.325
.237	268	960.40.325
.25	280	960.40.350
.262	293	960.40.350
.28	305	960.40.375
.29	318	960.40.375
.30	330	960.40.400
.312	343	960.40.400
.325	355	960.40.425
.337	368	960.40.425
.350	380	960.40.450
.362	393	960.40.450
.375	406	960.40.475
.387	418	960.40.475
.400	430	960.40.500

- **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, galvanized steel ▶ table ⑥ Screw M8 x 20 ⑦ Sliding nut M8 ⑧ Interface connector, plastic

**Order example: Length of travel 30 m - Center mounted for Series E4.42.20.300.0 with  $B_{Ri} = 230$**

Guide trough set **without** glide bar (set of 2 trough side parts, incl. glide strips)

Order text: 16 m guide trough without glide bar (8 x 2 m sections) **Part No. 973.30.SL**

Guide trough set **with** glide bar (set of 2 trough side parts, incl. glide strips)

Order text: 16 m guide trough with glide bar (8 x 2 m sections) **Part No. 973.31.SL**

Installation set "Basic" complete (guide trough-sets + 1)

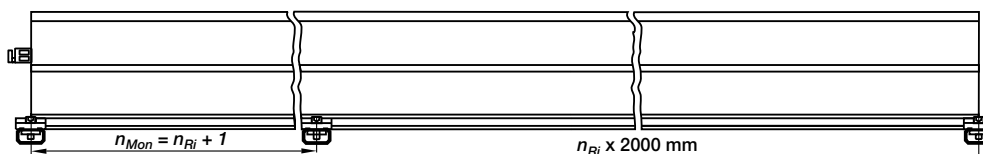
Order text: 17 installation sets **Part No. 960.40.300**

Module for the fixed end ▶ page 9.16

Order text: 1 set **Part No. 973.81**

Option: For an additional noise dampening

with silencer profile, please add Index **A** - Example: **Part No. 973.30.SLA**



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

**Details about Alu "SuperTrough" and the "Heavy Duty" version for heavy machinery ▶ from page 9.33**

- Trough set
- Installation set
- Glide bar
- C-Profile
- $B_a$  = Outer width e-chains\*
- $B_i$  = Inner width e-chains\*
- $B_{Ri}$  = Inner trough width
- $B_{Ra}$  = Outer trough width
- $H_{Ri}$  = Inner trough height
- $H_{Ra}$  = Outer trough height
- $n_{Mon}$  = Number of installation sets
- $n_{Ri}$  = Number of trough sets

Insert for the installation set "Heavy-Duty": **973.50.XXX** instead of **960.40.XXX** on the right column "attached outwards"



# E4.1 | Series E4.42 | Options and order key



Standard


Additional noise dampening with pads


QuickLock crossbar - reduce assembly time up to 25%

**Part No.**  
**Standard**  
e-chains®/e-tubes



**Part No.**  
**Low noise (with pads)**  
e-chains®/e-tubes



<b>Part No.</b> <b>QuickLock crossbar for inner radius</b>	<b>Part No.</b> <b>QuickLock crossbar for outer radius</b>	<b>Part No.</b> <b>QuickLock crossbar for both radii</b>
 QuickLock crossbars: inner widths from <i>Bi</i> 10 (100 mm)!		



**E4.42.30.R.0**  
Crossbar every link

**ES4.42.30.R.0**  
Crossbar every link

**E4.42.30QZ.R.0**  
Crossbar every link

**E4.42.30QE.R.0**  
Crossbar every link

**E4.42.30Q.R.0**  
Crossbar every link

**H4.42.30.R.0**  
Crossbar every 2<sup>nd</sup> link

**HS4.42.30.R.0**  
Crossbar every 2<sup>nd</sup> link

**H4.42.30QZ.R.0**  
Crossbar every 2<sup>nd</sup> link

**H4.42.30QE.R.0**  
Crossbar every 2<sup>nd</sup> link

**H4.42.30Q.R.0**  
Crossbar every 2<sup>nd</sup> link

**R4.42.30.R.0**  
e-tube, closed

**RS4.42.30.R.0**  
e-tube, closed



**Delivery in 24h or today!\***

**Delivery time: 3-5 work days**

**Delivery time: 3-5 work days**

**Delivery time: 3-5 work days**

**Delivery time: 3-5 work days**

## Combination possibilities | Examples

	Low-noise option	QuickLock crossbar	NC-Version	RBR-Version	XXL-Material	HT-Material*	ESD-Material
Low-noise option		<b>ES4.42.30Q.R.0</b>	<b>ES4.42.30.R.0.NC</b>	-	<b>ES4.42.30.R.0.XXL</b>	<b>RS4.42.30.R.0.HT</b>	<b>ES4.42.30.R.0.ESD</b>
QuickLock crossbar	<b>ES4.42.30Q.R.0</b>		<b>E4.42.30Q.R.0.NC</b>	<b>E4.42.30Q.R1/R2.0</b>	<b>E4.42.30Q.R.0.XXL</b>	-	<b>E4.42.30Q.R.0.ESD</b>
NC-Version	<b>ES4.42.30.R.0.NC</b>	<b>E4.42.30Q.R.0.NC</b>		-	-	<b>R4.42.30.R.0.HT.NC</b>	<b>E4.42.30.R.0.ESD.NC</b>
RBR-Version	-	<b>E4.42.30Q.R1/R2.0</b>	-		-	<b>R4.42.30.R1/R2.0.HT</b>	<b>E4.42.30.R1/R2.0.ESD</b>
XXL-Material	<b>ES4.42.30.R.0.XXL</b>	<b>E4.42.30Q.R.0.XXL</b>	-	-		-	-
HT-Material*	<b>RS4.42.30.R.0.HT</b>	-	<b>R4.42.30.R.0.HT.NC</b>	<b>R4.42.30.R1/R2.0.HT</b>	-		-
ESD-	<b>ES4.42.30.R.0.ESD</b>	<b>E4.42.30Q.R.0.ESD</b>	<b>E4.42.30.R.0.ESD.NC</b>	<b>E4.42.30.R1/R2.0.ESD</b>	-	-	

\*for gliding applications please consult igus®


# E4.1 | Series E4.42 | Options and order key

Simply turn outer side link without additional work

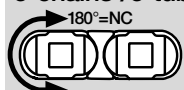
Reverse bending radius for circular movements

Unsupported lengths +25% possible


No burning-in of hot chips up to 850°C (1562° F)

ATEX/ESD classified e-chains® -  II 2 GD


**Part No.**  
**NC-Material**  
e-chains®/e-tubes




**Part No.**  
**RBR**  
e-chains®/e-tubes




**Part No.**  
**XXL-Material\*\***  
e-chains®/e-tubes



**Part No.**  
**HT-Material**  
only for e-tubes



**Part No.**  
**ESD-Material**  
e-chains®/e-tubes



**E4.42.30.R.0.NC**  
Crossbar every link

**E4.42.30.R1/R2.0**  
Crossbar every link

**E4.42.30.R.0.XXL**  
Crossbar every link

**R4.42.30.R.0.HT**  
Complete e-tube\*

**E4.42.30.R.0.ESD**  
Crossbar every link

**H4.42.30.R.0.NC**  
Crossbar every 2<sup>nd</sup> link

**H4.42.30.R1/R2.0**  
Crossbar every 2<sup>nd</sup> link

**H4.42.30.R.0.XXL**  
Crossbar every 2<sup>nd</sup> link

**R4.42.30.HT.R.0**  
Lid and bottom

**H4.42.30.R.0.ESD**  
Crossbar every 2<sup>nd</sup> link

**R4.42.30.R.0.NC**  
e-tube, closed

**R4.42.30.R1/R2.0**  
e-tube, closed

**R4.42.30.R.0.XXL**  
e-tube, closed

**R4.42.30.HTZ.R.0**  
Bottom only

**R4.42.30.R.0.ESD**  
e-tube, closed

**R4.42.30.HTE.R.0**  
Lid only

**Delivery in 24h or today!\***

**Delivery time: 10 work days**

**Delivery time: 1-2 weeks**

**Delivery time: 10 work days**

**Delivery time: 5 work days**

(2-5 work days with express surcharge)

\*\*Sidebands made from XXL-Material

\*for gliding applications please consult igus®

## Order example | Order key and color options



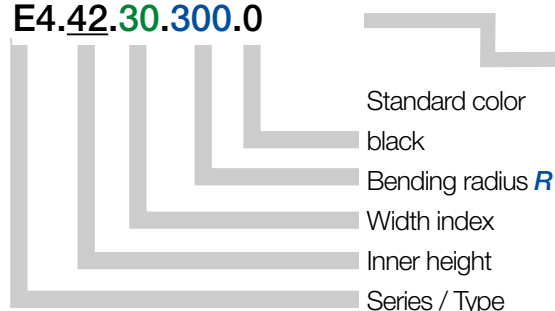
Order example for complete e-chain® (3,0 m, with crossbars every link), color black, mounting brackets with C-profiles and interior separation:

e-chain® (3,0 m)	Please indicate e-chain® length or number of links: 3,0 m or 45 links	<b>E4.42.30.300.0</b>
<b>+ Mounting brackets</b>	1 set (with odd number of links and integrated C-profiles)	<b>E4.420.30.1.12.C</b>
<b>+ Interior separation</b>	with 2 separators assembled every 2 <sup>nd</sup> link	<b>2 x 42.1.1</b>

Order text: 3,0 m E4.42.30.300.0 + E4.420.30.1.12.C + 2 x Part No. 42.1.1



**Order key**  
**E4.42.30.300.0**



### Color options for e-chains® and e-tubes

Color	Order index	Color	Order index
black	<b>.0 from stock!</b>	green*	.7
white*	.1	grey*	.3 for e-chains®
violet*	.5	dusty grey*	.3 for e-tubes
yellow*	.4	agate grey*	.11
orange*	.2	light grey*	.14
red*	.6	black grey*	.13
blue*	.8	yellow/black*	.9

**Black e-chains® from stock!** \*Colored e-chains® can be delivered in 15 work days (5 work days at an express surcharge).



**Available from stock. Delivery in 24h or today!\***

\*Delivery time means time until shipping of goods