



# E6.1

## Dynamic, quiet, light and cleanroom suitable

### Advantages of the E6.1 system:

- Extremely quiet, low-vibration e-chain®
- For very high speeds and accelerations
- Ideal ratio of internal and external dimensions with thinner outer links and optimised crossbar geometry
- High push/pull forces
- Small bend radii
- Low noise 32dB(A)<sup>1)</sup> - extremely low noise and vibration
- Suitable for cleanrooms according to IPA cleanroom Class 1<sup>2)</sup>

1) Extremely low-noise - tested at the igus® lab Series E61.29.070.055.0

2) Cleanroom - E61.29.50.075.0 series

### When to use another e-chain® series:

- For side-mounted applications
  - ▶ E6, page 870 ▶ E2/000, page 374
- When a Reverse Bend Radius *RBR* is required
  - ▶ E2/000, page 374
- For longer unsupported lengths
  - ▶ E2/000, page 374
- For long travels
  - ▶ E2/000, page 374
- When an enclosed e-chain® for smooth running is required
  - ▶ R6, page 870
  - ▶ e-skin® corrugated tube SK / SKS / SKY, page 812



Attachment from any side with KMA mounting brackets

Fast assembly: crossbars removable along the inner and outer radius

**Low noise from 32dB(A)<sup>1)</sup>**: small pitch for low noise, smooth running

Dynamic: high speeds and accelerations

Long service life: low vibration, high strength

**IPA cleanroom Class 1<sup>2)</sup>**: virtually no wear or abrasion

Modular design: can be easily lengthened and shortened



**Series E61.29 special feature:** crossbar openable along inner and outer radius, from both sides

## Dynamic, quiet, light and cleanroom suitable - E6.1

The E6.1 series is a development of the E6 series. It incorporates all the advantages of the E6 such as strength, cleanroom-compatibility and low weight in addition to even quieter operation at higher maximum speeds. In addition, its accessibility to the interior and the assembly and handling have been improved.

- Quiet - from a noise level of 32dB(A)<sup>1)</sup>
- Weight savings approx. 30% compared to the E6 system
- Highly dynamic
- Extremely low vibration
- Cleanroom-compatible due to principle of low-abrasion for connectors, without pin and bore connection
- Virtually no polygon effect, smooth rolling operation
- Smooth interior design for a long lifetime for cables and hoses
- Crossbars removable along the inner and outer radius
- Option without camber (NC) simply by turning the inner link

1) Extremely low-noise - tested at the igus® lab Series E61.29.070.055.0

2) Cleanroom - E61.29.50.075.0 series

### Typical industries and applications

- Semiconductor industry
- Studio equipment and camera tracking systems
- Printer/plotter industry
- In applications with extremely high accelerations
- When noise reduction and a low level of abrasion are important



32dB(A)<sup>1)</sup> - level determined at the igus® test-lab,  $v = 1.0\text{m/s}$  unsupported, series E61.29.070.055.0

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 $\leq$ [m]	Page
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**E6.1 e-chains®**  
openable along inner and outer radius, from both sides

E61.29	29	30 - 140	44 - 154	35	055 - 150	≈ 1.75	840
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**E6.1 e-chains®**  
crossbars removable along the inner and outer radius

EF61.29*	29	30 - 140	44 - 154	35	055 - 150	≈ 1.75	840
E61.35	35	30 - 140	46 - 156	42	055 - 150	≈ 1.90	846
E61.40	40	40 - 300	56 - 316	54	063 - 200	≈ 2.50	850
E61.52	52	40 - 300	64 - 324	65	075 - 200	≈ 3.00	856
E61.62	62	50 - 400	82 - 432	84	115	≈ 4.00	860
E61.80	80	50 - 600	78 - 628	108	150	≈ 5.25	864

\*EF61.29 series - available at an even lower price without the pivoting function of the crossbars



Available from stock. Ready to ship in 72hrs.\*

\*Average time before the ordered goods are dispatched.



Further information about igus® cleanroom e-chains® and the new, unique igus® cleanroom laboratory for IPA cleanroom Class 1 components ► From page 145

### Next e-chain® generation for highest cleanroom suitability ISO cleanroom Class 1; C6

- Optimised design without any measurable abrasion
  - Parts that contact the cables are made of tribo-optimised igulen CR1
- Samples available upon request ► Please consult igus®.







Lean separators enable extremely fast cable filling in several layers



Series E61.29 with openable mechanism, openable on left or right



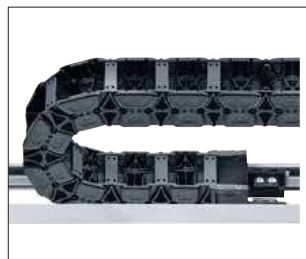
KMA mounting brackets with attachment options from any side



Strain relief e.g. clamps, tie-wrap plates, nuggets, etc. ▶ From page 1392



Pivoting KMA mounting brackets - pivot angle corresponds to the bend radius



Aluminium and steel support trays for support of the lower run ▶ From page 1354



The interior of the E6.1 has been designed to be extremely cable-friendly to increase the service life of cables and hoses even more. The crossbars are very smooth and rounded as is the transition from e-chain® link to crossbar, and all markings have been moved outside of the e-chain® cross section.

**Cleanroom qualification of igus® system E6.1 e-chains®**

By using a special material, the already low abrasion behaviour of the e-chain® can be reduced even further. In many applications where cumbersome special solutions are required, a simple standard e-chain® can be used instead. IPA tests confirm that the standard e-chains® from igus® meet the requirements in cleanrooms and have been "Tested and certified as very good!". Cleanroom applications demand very high wear resistance of moving parts. e-chains®, for example, must be very wear-resistant, in order to meet the normal requirements for such a sensitive environment.

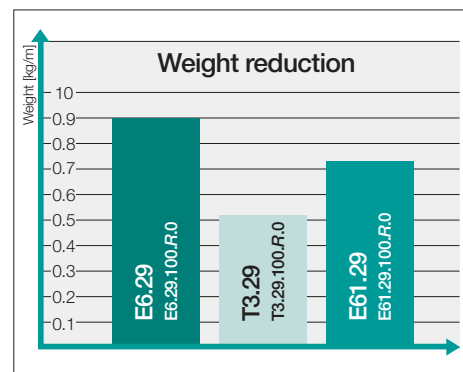


IPA Qualification Certificate® - Report IG 1303-640-1: ISO Class 1, according to DIN EN ISO 14644-1 for system E6.1, series E61.29.50.075.0 at v = 0.5m/s, 1m/s, 2m/s

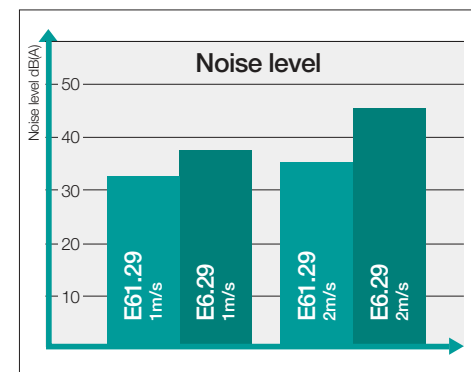


**clean-room** Further information about igus® cleanroom e-chains® and the new, unique igus® cleanroom laboratory for IPA cleanroom Class 1 components ▶ From page 145

**System E6.1 tests in the igus® lab**



The E6.1 generation can take up higher accelerations, due to a weight reduction, making it a highly dynamic yet still extremely quiet e-chain®



The results of the E61.29 series noise-measurement tests in the igus® test laboratory showed noise levels below the already very low values for the E6.29 series. 32dB(A) - level determined at the igus® test-lab, v = 1.0m/s unsupported, series E61.29.070.055.0

Technical data

	Speed gliding <sup>1)</sup> / acceleration gliding <sup>1)</sup>	upon request
	Speed $FL_G$ / acceleration $FL_G$	$\leq 20$ [m/s] / $\leq 200$ [m/s <sup>2</sup> ]
	Speed $FL_B$ / acceleration $FL_B$	$\leq 3$ [m/s] / $\leq 6$ [m/s <sup>2</sup> ]
	e-chain® link material, igumid G - permitted temperature °C	upon request
	Scalable crossbar material, igumid TE - permitted temperature °C	upon request
	Flammability class, igumid G	VDE 0304 IIC UL94-HB

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

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

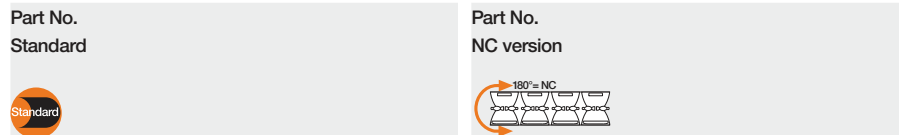
Installation types, maximum travels

Series					
	Unsupported	Gliding <sup>1)</sup>	Vertical hanging	Vertical standing	Side mounted unsupported
EF61.29/E61.29	$\leq 3.50m$	upon request	$\leq 25m$	$\leq 2.0m$	upon request
E61.35	$\leq 3.80m$	upon request	$\leq 30m$	$\leq 2.0m$	upon request
E61.40	$\leq 5.00m$	upon request	$\leq 30m$	$\leq 2.0m$	upon request
E61.52	$\leq 6.00m$	upon request	$\leq 50m$	$\leq 2.0m$	upon request
E61.62	$\leq 8.00m$	upon request	$\leq 60m$	$\leq 3.0m$	upon request
E61.80	$\leq 10.0m$	upon request	$\leq 60m$	$\leq 4.0m$	upon request

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

Options with order keys | Examples based on series E61.52

**Standard** Simply turn outer side link, no additional rework



**E61.52.100.R.0** **E61.52.100.R.0.NC**

**Ready to ship in 72hrs.\*** **Ready to ship in 72hrs.\***

\*Average time before the ordered goods are dispatched.

Order example | Order key and colour examples | Examples based on series E61.52

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

**e-chain® (1.0m)** Please indicate e-chain® length or number of links: 1.0m or 34 links **E61.52.100.075.0**

**+ Mounting brackets** KMA pivoting - 1 set **E61.520.100.12**

**Interior separation** with 2 separators assembled every 2<sup>nd</sup> link **2 x E6.52.1.1**

**Order text:** 1m E61.52.100.075.0 + E61.520.100.12 + 2 x E6.52.1.1

**Order key**

Crossbars removable **E61.52.100.075.0** **Order index for colour options**

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

**Black e-chains® ready to ship in 72hrs.\***  
Above special colours upon request.

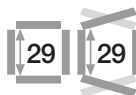
Series / Type

Width index (depends on B)

Bend radius R

Colour index (standard black)

Dynamic, quiet, light, cleanroom suitable and easy to open



**EF61.29** | Crossbars removable along the inner and outer radius  
**E61.29** | Crossbars openable along the inner and outer radius, from both sides

Part No.	Part No.	<i>B<sub>i</sub></i>	<i>B<sub>a</sub></i>	EF61.29	E61.29	Part No.	Part No.	<i>B<sub>i</sub></i>	<i>B<sub>a</sub></i>	EF61.29	E61.29
Crossbars removable	Openable from both sides	[mm]	[mm]	[kg/m]	[kg/m]	Crossbars removable	Openable from both sides	[mm]	[mm]	[kg/m]	[kg/m]
EF61.29.030.R.0	E61.29.030.R.0	30	44	≈ 0.558	≈ 0.558	EF61.29.090.R.0	E61.29.090.R.0	90	104	≈ 0.707	≈ 0.707
EF61.29.040.R.0	E61.29.040.R.0	40	54	≈ 0.583	≈ 0.583	EF61.29.100.R.0	E61.29.100.R.0	100	114	≈ 0.732	≈ 0.732
EF61.29.050.R.0	E61.29.050.R.0	50	64	≈ 0.608	≈ 0.608	EF61.29.110.R.0	E61.29.110.R.0	110	124	≈ 0.757	≈ 0.757
EF61.29.060.R.0	E61.29.060.R.0	60	74	≈ 0.633	≈ 0.633	EF61.29.120.R.0	E61.29.120.R.0	120	134	≈ 0.782	≈ 0.782
EF61.29.070.R.0	E61.29.070.R.0	70	84	≈ 0.657	≈ 0.657	EF61.29.140.R.0	E61.29.140.R.0	140	154	≈ 0.807	≈ 0.807
EF61.29.080.R.0	E61.29.080.R.0	80	94	≈ 0.682	≈ 0.682						

Available bend radii

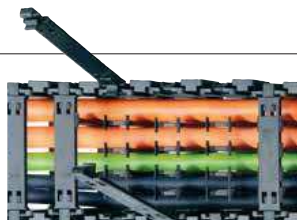
*R* [mm] | 055 | 075 | 100 | 125 | 150 |

Complete Part No. with required radius (*R*). Example: EF61.29.050.100.0 / E61.29.050.100.0

Series E61.29 special feature: openable crossbars

Crossbar openable along inner and outer radius, from both sides

An assembly video is available online at ► [www.igus.eu/E61\\_assembly](http://www.igus.eu/E61_assembly)



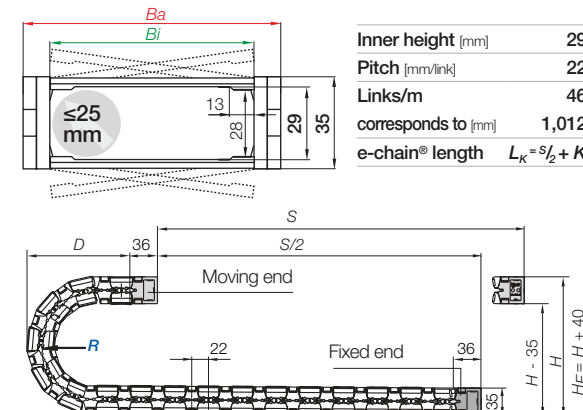
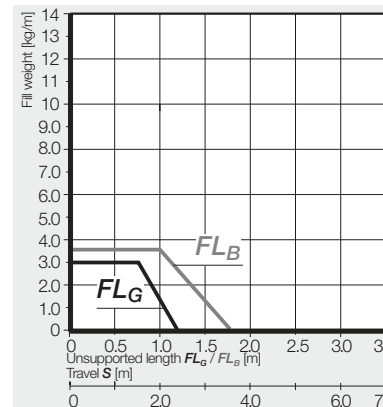
Cost-effective - Series EF61.29

- Series EF61.29 - 29mm inner height
- Available at an even lower price without the pivoting function of the crossbars
- Crossbars removable from both sides
- Otherwise, technically the same as the E61.29 series.

More information ► [www.igus.eu/EF61.29](http://www.igus.eu/EF61.29)



Unsupported applications | Short travels



Inner height [mm]	29
Pitch [mm/link]	22
Links/m	46
corresponds to [mm]	1,012
e-chain® length $L_K = S/2 + K$	

<i>R</i>	055	075	100	125	150
<i>H</i>	175	215	265	315	365
<i>D</i>	105.5	125.5	150.5	175.5	200.5
<i>K</i>	220	280	360	440	520

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®.

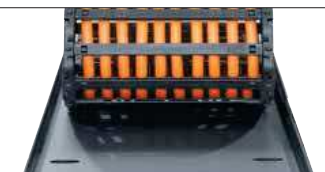
Aluminium support tray

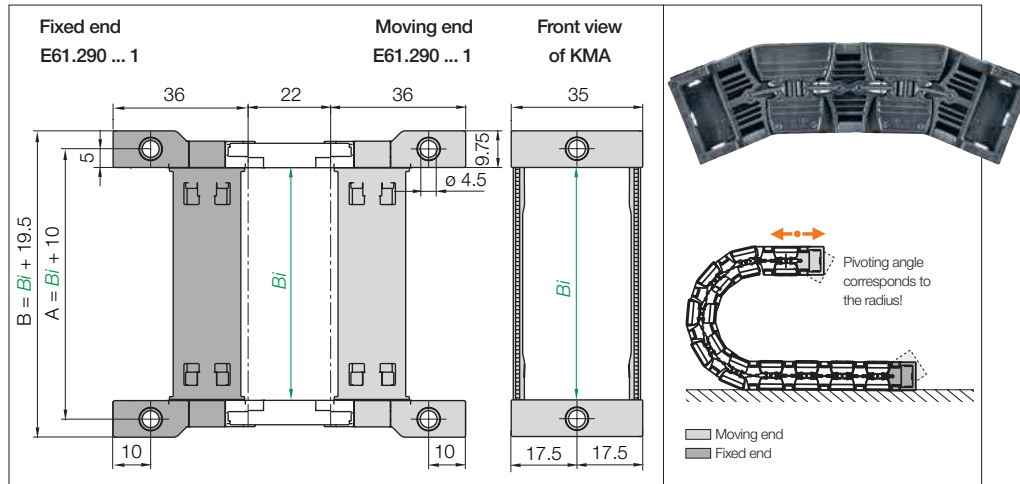
- Corrosion-resistant and seawater-resistant aluminium rails with adjustable width
  - Noise-reducing glide strip integrated as standard
  - Easy installation and connection of the e-chain®
  - Open design - dirt and debris fall through
- More information ► From page 1362



Steel support tray for support of the lower run

- Simple one-piece support trays for the lower run
  - To your requirements and specification
  - 4 options available
- More information ► From page 1356

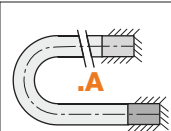




KMA pivoting | Recommended for unsupported applications

Width index	Part No. Full set KMA pivoting	A [mm]	B [mm]	Bi [mm]	Width index	Part No. Full set KMA pivoting	A [mm]	B [mm]	Bi [mm]
030.	E61.290.030.12	40	49.5	30	090.	E61.290.090.12	100	109.5	90
040.	E61.290.040.12	50	59.5	40	100.	E61.290.100.12	110	119.5	100
050.	E61.290.050.12	60	69.5	50	110.	E61.290.110.12	120	129.5	110
060.	E61.290.060.12	70	79.5	60	120.	E61.290.120.12	130	139.5	120
070.	E61.290.070.12	80	89.5	70	140.	E61.290.140.12	140	149.5	140
080.	E61.290.080.12	90	99.5	80					

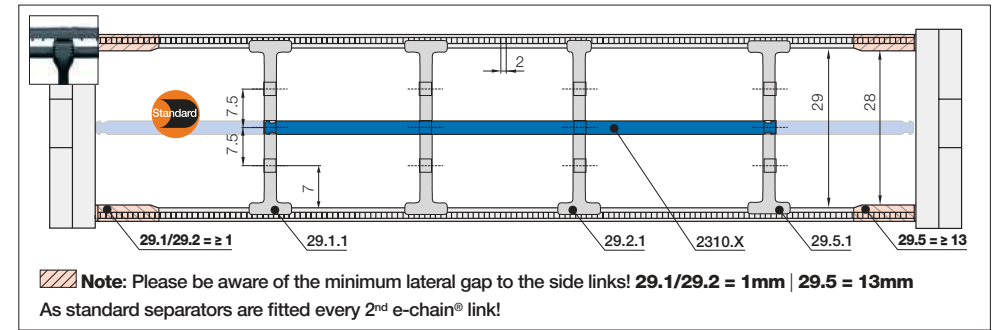
(KMA = polymer metal mounting bracket) KMA mounting brackets are only available for an odd number of links.



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



Strain relief e.g. clamps, tie-wrap plates, nuggets and clips are available from stock. The complete chainfix range with ordering options ▶ From page 1392



Standard separator, wide base

unassembled 29.1

assembled 29.1.1

Standard - for any application

Separator with a wide base for maximum holding force.

Separator, narrow top

unassembled 29.2

assembled 29.2.1

For even faster installation

Wide on one side for high holding force, narrow on opposite side for easy cable fitting.

Notch separator for notched crossbar

unassembled 29.5

assembled 29.5.1

Locks securely in preset increments

Notch separator for exact positioning. Recommended for side-mounted applications.

Shelf, lockable

unassembled 2300.X

assembled 2310.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]			X [mm]			X [mm]		
	unassembled	assembled		unassembled	assembled		unassembled	assembled	
015	2300.015	2310.015		060	2300.060	2310.060	087	2300.87	2310.087
025	2300.025	2310.025		062	2300.062	2310.062	090	2300.90	2310.090
030	2300.030	2310.030		065	2300.065	2310.065	100	2300.100	2310.100
038	2300.038	2310.038		070	2300.070	2310.070	103	2300.103	2310.103
040	2300.040	2310.040		075	2300.075	2310.075	110	2300.110	2310.110
050	2300.050	2310.050		077	2300.077	2310.077	120	2300.120	2310.120
057	2300.057	2310.057		080	2300.080	2310.080	125	2300.125	2310.125

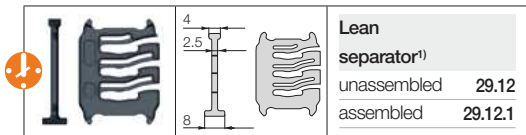
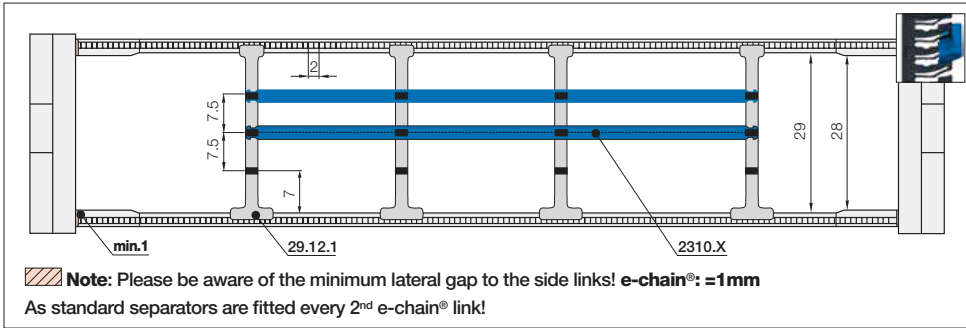
Separator with integrated strain relief teeth

- Can be integrated into the mounting bracket or placed at any point
  - Combines strain relief and interior separation, for restricted space conditions
  - Strain relief separator is easy to assemble without any screws
- Part No. E6.35.02.Z - more information ▶ From page 1428





Interior separation | To allow faster filling



**Lean separators<sup>1)</sup>**

For quick fitting of shelves in several layers. **1) Note:** Please combine maximum 4 lean separators with one shelf. Not suitable for side-mounted e-chains<sup>2)</sup>!

With the lean separator you can quickly insert several layers of cables into the e-chain<sup>®</sup> and reduce the installation time by up to 50%<sup>2)</sup>. <sup>2)</sup> Lean interior separation vs. standard interior separation - measured on a 4m long e-chain<sup>®</sup> fitted with 12 cables in the igus<sup>®</sup> lab



Cleanroom suitable E6.1 series as a harnessed readychain<sup>®</sup> system for the semiconductor industry

Dynamic, quiet, light and cleanroom suitable

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## e-chains® | Series E61.35 | Crossbars removable along the inner and outer radius

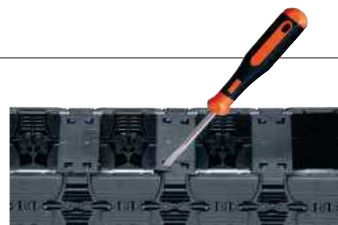
Part No.	<i>B<sub>i</sub></i>	<i>B<sub>a</sub></i>	E61.35	Part No.	<i>B<sub>i</sub></i>	<i>B<sub>a</sub></i>	E61.35
e-chains®	[mm]	[mm]	[kg/m]	e-chains®	[mm]	[mm]	[kg/m]
E61.35.030.R.0	30	46	≈ 0.653	E61.35.090.R.0	90	106	≈ 0.783
E61.35.040.R.0	40	56	≈ 0.675	E61.35.100.R.0	100	116	≈ 0.804
E61.35.050.R.0	50	66	≈ 0.696	E61.35.110.R.0	110	126	≈ 0.826
E61.35.060.R.0	60	76	≈ 0.718	E61.35.120.R.0	120	136	≈ 0.848
E61.35.070.R.0	70	86	≈ 0.739	E61.35.140.R.0	140	156	≈ 0.891
E61.35.080.R.0	80	96	≈ 0.761				

## Available bend radii

*R* [mm] | 055 | 075 | 100 | 125 | 150 |Complete Part No. with required radius (*R*). Example: E61.35.100.100.0

## Installation note - system E6.1

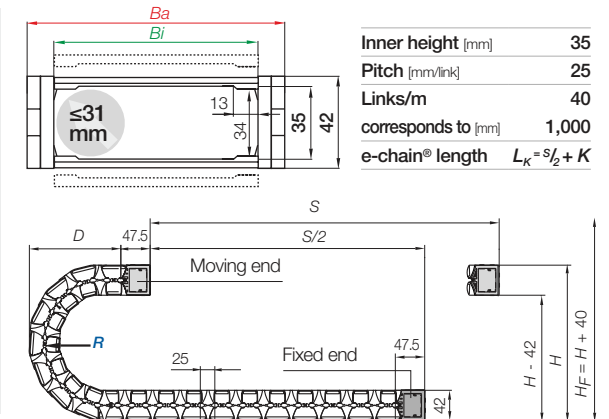
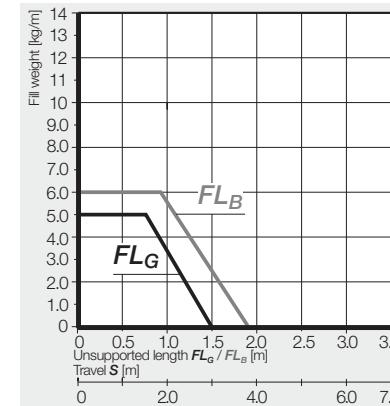
To open, insert the screwdriver into the locking mechanism and prise it open. Repeat the procedure on the other side.

An assembly video is available online at ► [www.igus.eu/E61\\_assembly](http://www.igus.eu/E61_assembly)

Unsupported applications | Short travels



► 1392



<i>R</i>	055	075	100	125	150
<i>H</i>	192	232	282	332	382
<i>D</i>	113.5	133.5	158.5	183.5	208.5
<i>K</i>	225	290	365	445	525

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-chain®
- Open design - dirt and debris fall through

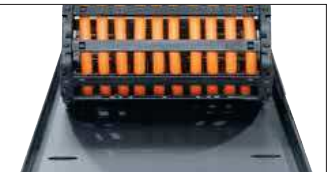
More information ► From page 1362



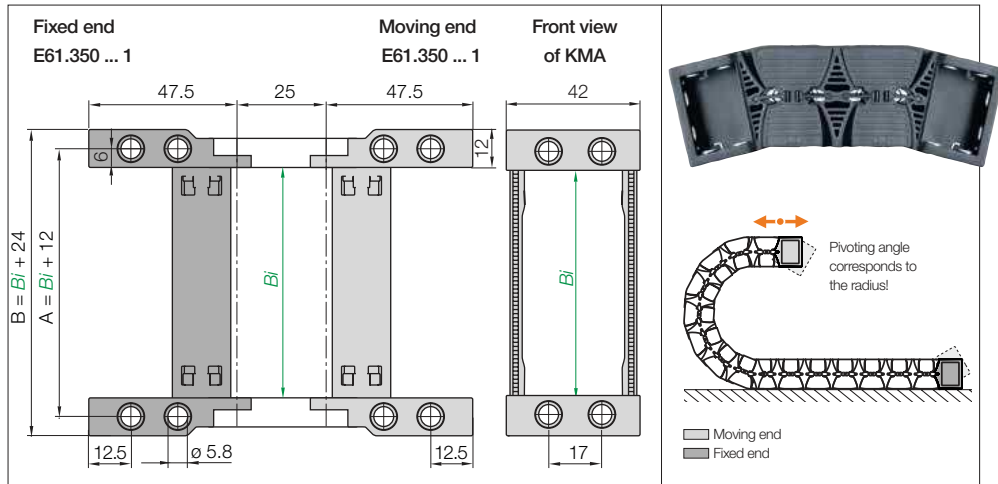
## Steel support tray for support of the lower run

- Simple one-piece support trays for the lower run
- To your requirements and specification
- 4 options available

More information ► From page 1356



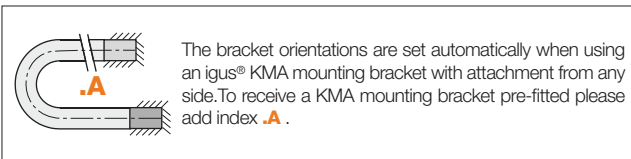




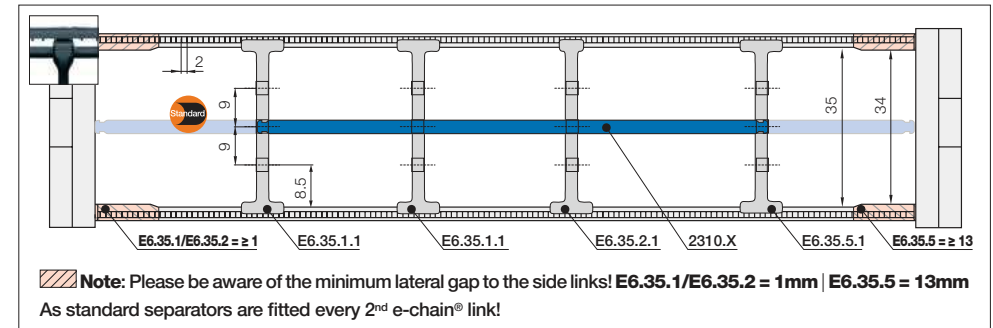
KMA pivoting | Recommended for unsupported applications

Width index	Part No. Full set KMA pivoting	A [mm]	B [mm]	$B_i$ [mm]	Width index	Part No. Full set KMA pivoting	A [mm]	B [mm]	$B_i$ [mm]
030.	E61.350.030.12	42	54	30	090.	E61.350.090.12	102	114	90
040.	E61.350.040.12	52	64	40	100.	E61.350.100.12	112	124	100
050.	E61.350.050.12	62	74	50	110.	E61.350.110.12	122	134	110
060.	E61.350.060.12	72	84	60	120.	E61.350.120.12	132	144	120
070.	E61.350.070.12	82	94	70	140.	E61.350.140.12	152	164	140
080.	E61.350.080.12	92	104	80					

(KMA = polymer metal mounting bracket) KMA mounting brackets are only available for an odd number of links.



**Strain relief** e.g. clamps, tie-wrap plates, nuggets and clips are available from stock. The complete chainfix range with ordering options ▶ From page 1392



**Standard separator, wide base**

unassembled E6.35.1  
 assembled E6.35.1.1

**Standard - for any application**  
 Separator with a wide base for maximum holding force.

**Separator, narrow top**

unassembled E6.35.2  
 assembled E6.35.2.1

**For even faster installation**  
 Wide on one side for high holding force, narrow on opposite side for easy cable fitting.

**Notch separator for notched crossbar**

unassembled E6.35.5  
 assembled E6.35.5.1

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

**Shelf, lockable**

unassembled 2300.X  
 assembled 2310.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		
	015	2300.015	2310.015	060	2300.060	2310.060	087	2300.87	2310.087
025	2300.025	2310.025	062	2300.062	2310.062	090	2300.90	2310.090	
030	2300.030	2310.030	065	2300.065	2310.065	100	2300.100	2310.100	
038	2300.038	2310.038	070	2300.070	2310.070	103	2300.103	2310.103	
040	2300.040	2310.040	075	2300.075	2310.075	110	2300.110	2310.110	
050	2300.050	2310.050	077	2300.077	2310.077	120	2300.120	2310.120	
057	2300.057	2310.057	080	2300.080	2310.080	125	2300.125	2310.125	

**Separator with integrated strain relief teeth**

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

Part No. E6.35.02.Z - more information ▶ From page 1428

Dynamic, quiet, light and cleanroom suitable

40



## e-chains® | Series E61.40 | Crossbars removable along the inner and outer radius

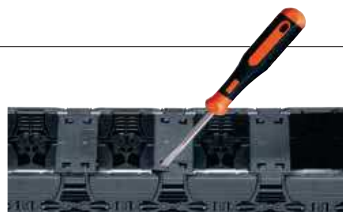
Part No.	<i>B<sub>i</sub></i>	<i>B<sub>a</sub></i>	E61.40	Part No.	<i>B<sub>i</sub></i>	<i>B<sub>a</sub></i>	E61.40
e-chains®	[mm]	[mm]	[kg/m]	e-chains®	[mm]	[mm]	[kg/m]
E61.40.040 R.0	40	56	≈ 0.913	E61.40.125 R.0	125	141	≈ 1.226
E61.40.050 R.0	50	66	≈ 0.950	E61.40.150 R.0	150	166	≈ 1.318
E61.40.052 R.0	52	68	≈ 0.957	E61.40.175 R.0	175	191	≈ 1.410
E61.40.062 R.0	62	78	≈ 0.994	E61.40.200 R.0	200	216	≈ 1.502
E61.40.070 R.0	70	86	≈ 1.023	E61.40.225 R.0	225	241	≈ 1.595
E61.40.075 R.0	75	91	≈ 1.042	E61.40.250 R.0	250	266	≈ 1.687
E61.40.087 R.0	87	103	≈ 1.086	E61.40.275 R.0	275	291	≈ 1.779
E61.40.100 R.0	100	116	≈ 1.134	E61.40.300 R.0	300	316	≈ 1.871

## Available bend radii

*R* [mm] | 063 | 075 | 100 | 125 | 150 | 200 |Complete Part No. with required radius (*R*). Example E61.40.100.100.0

## Installation note - system E6.1

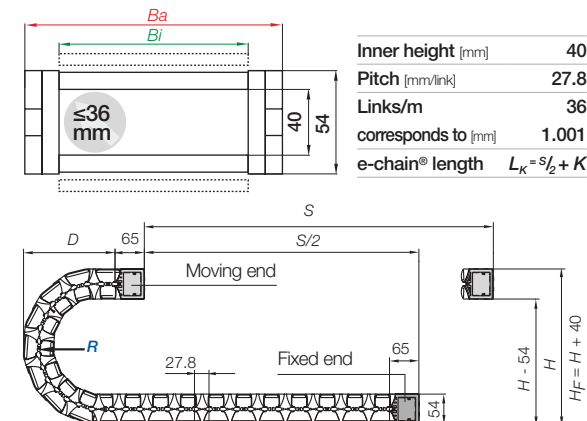
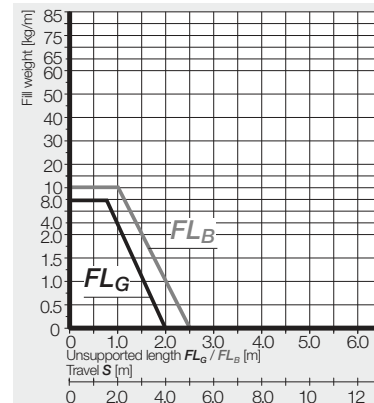
To open, insert the screwdriver into the locking mechanism and prise it open. Repeat the procedure on the other side.

An assembly video is available online at ► [www.igus.eu/E61\\_assembly](http://www.igus.eu/E61_assembly)

Unsupported applications | Short travels



► 1392



<i>R</i>	063	075	100	125	150	200
<i>H</i>	220	244	294	344	394	494
<i>D</i>	132	144	169	194	219	269
<i>K</i>	255	295	370	450	530	685

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

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-chain®
- Open design - dirt and debris fall through

More information ► From page 1362

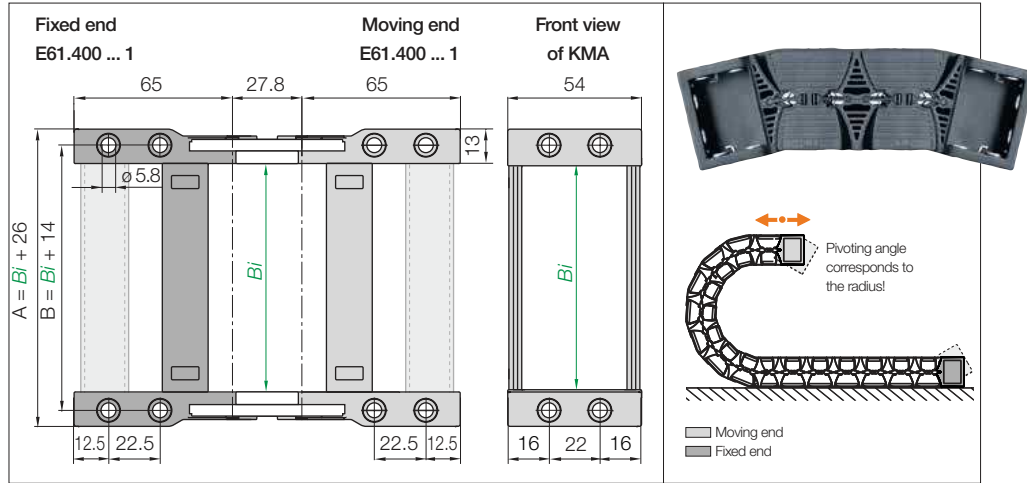


## Steel support tray for support of the lower run

- Simple one-piece support trays for the lower run
- To your requirements and specification
- 4 options available

More information ► From page 1356

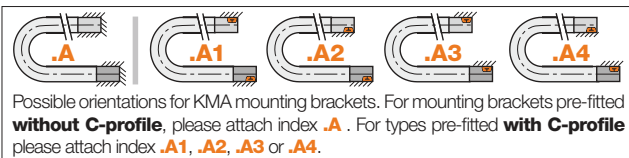




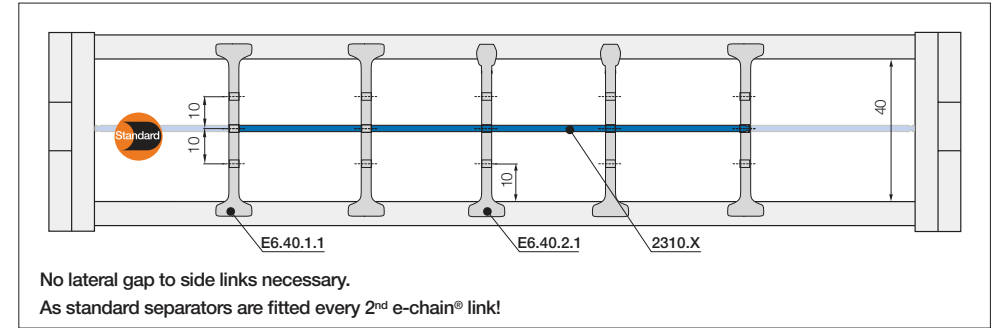
KMA pivoting | Recommended for unsupported applications

Width index	Part No. Full set KMA pivoting	A [mm]	B [mm]	Bi [mm]	Width index	Part No. Full set KMA pivoting	A [mm]	B [mm]	Bi [mm]
040.	E61.400.040.12.C	54	66	40	125.	E61.400.125.12.C	139	151	125
050.	E61.400.050.12.C	64	76	50	150.	E61.400.150.12.C	164	176	150
052.	E61.400.052.12.C	66	78	52	175.	E61.400.175.12.C	189	201	175
062.	E61.400.062.12.C	76	88	62	200.	E61.400.200.12.C	214	226	200
070.	E61.400.070.12.C	84	96	70	225.	E61.400.225.12.C	239	251	225
075.	E61.400.075.12.C	89	101	75	250.	E61.400.250.12.C	264	276	250
087.	E61.400.087.12.C	101	113	87	275.	E61.400.275.12.C	289	301	275
100.	E61.400.100.12.C	114	126	100	300.	E61.400.300.12.C	314	326	300

(KMA = polymer metal mounting bracket) For the C-profile option please add index .C. KMA mounting brackets are only available for an odd number of links.



**Strain relief** e.g. clamps, tiwrap plates, nuggets and clips are available from stock. The complete chainfix range with ordering options ▶ From page 1392



**Standard separator, wide base**  
unassembled E6.40.1  
assembled E6.40.1.1

**Standard - for any application**  
Separator with a wide base for maximum holding force.

**Separator, narrow top**  
unassembled E6.40.2  
assembled E6.40.2.1

**For even faster installation**  
Wide on one side for high holding force, narrow on opposite side for easy cable fitting.

**Shelf, lockable**  
unassembled 2300.X  
assembled 2310.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
015	2300.015	2310.015	060	2300.060	2310.060	087	2300.87	2310.087
025	2300.025	2310.025	062	2300.062	2310.062	090	2300.90	2310.090
030	2300.030	2310.030	065	2300.065	2310.065	100	2300.100	2310.100
038	2300.038	2310.038	070	2300.070	2310.070	103	2300.103	2310.103
040	2300.040	2310.040	075	2300.075	2310.075	110	2300.110	2310.110
050	2300.050	2310.050	077	2300.077	2310.077	120	2300.120	2310.120
057	2300.057	2310.057	080	2300.080	2310.080	125	2300.125	2310.125

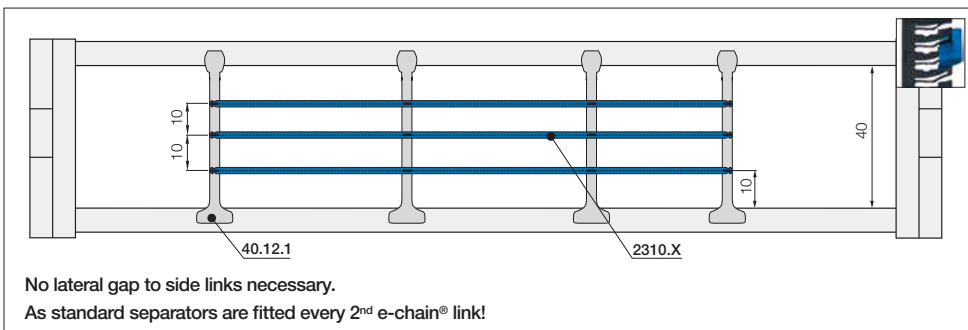
**Separator with integrated strain relief teeth**

- Can be integrated into the mounting bracket or placed at any point
  - Combines strain relief and interior separation, for restricted space conditions
  - Strain relief separator is easy to assemble without any screws
- Part No. E6.40.02.Z - more information ▶ From page 1428



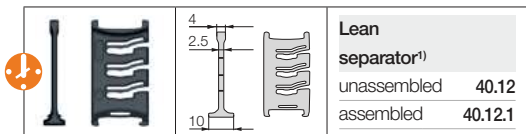


## Interior separation | To allow faster filling



No lateral gap to side links necessary.

As standard separators are fitted every 2<sup>nd</sup> e-chain® link!

Lean separators<sup>1)</sup>

For quick fitting of shelves in several layers. **1) Note:** Please combine maximum 4 lean separators with one shelf. Not suitable for side-mounted e-chains®!

With the lean separator you can quickly insert several layers of cables into the e-chain® and reduce the installation time by up to 50%<sup>2)</sup>. 2) Lean interior separation vs. standard interior separation - measured

on a 4m long e-chain® fitted with 12 cables in the igus® lab



Very small bend radii are possible with chainflex® CF98 control cable in this E6.1 readychain® system. It offers smooth operation and is suitable for cleanrooms

Dynamic, quiet, light and cleanroom suitable



## e-chains® | Series E61.52 | Crossbars removable along the inner and outer radius

Part No.	Bi	Ba	E61.52	Part No.	Bi	Ba	E61.52
e-chains®	[mm]	[mm]	[kg/m]	e-chains®	[mm]	[mm]	[kg/m]
E61.52.040 R.0	40	64	≈ 1.679	E61.52.125 R.0	125	149	≈ 2.060
E61.52.050 R.0	50	74	≈ 1.724	E61.52.150 R.0	150	174	≈ 2.172
E61.52.052 R.0	52	76	≈ 1.733	E61.52.175 R.0	175	199	≈ 2.283
E61.52.062 R.0	62.5	86.5	≈ 1.780	E61.52.200 R.0	200	224	≈ 2.395
E61.52.070 R.0	70	94	≈ 1.814	E61.52.225 R.0	225	249	≈ 2.507
E61.52.075 R.0	75	99	≈ 1.836	E61.52.250 R.0	250	274	≈ 2.619
E61.52.087 R.0	87.5	111.5	≈ 1.892	E61.52.275 R.0	275	299	≈ 2.731
E61.52.100 R.0	100	124	≈ 1.948	E61.52.300 R.0	300	324	≈ 2.843

## Available bend radii

R [mm] | 075 | 100 | 125 | 150 | 175 | 200 |

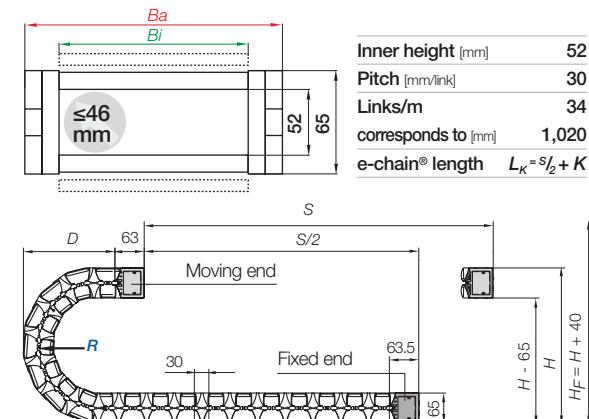
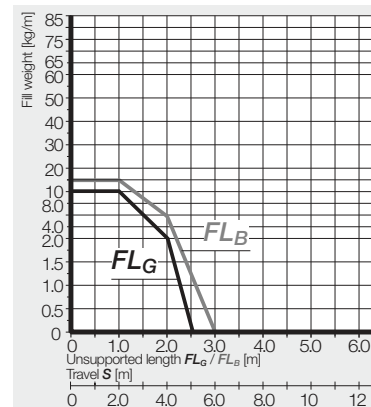
Complete Part No. with required radius (R). Example: E61.52.100.100.0

## Installation note - system E6.1

To open, insert the screwdriver into the locking mechanism and prise it open. Repeat the procedure on the other side.

An assembly video is available online at ► [www.igus.eu/E61\\_assembly](http://www.igus.eu/E61_assembly)

Unsupported applications | Short travels



R	075	100	125	150	175	200
H	265	315	365	415	465	515
D	153	178	203	228	253	278
K	300	375	455	535	610	690

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

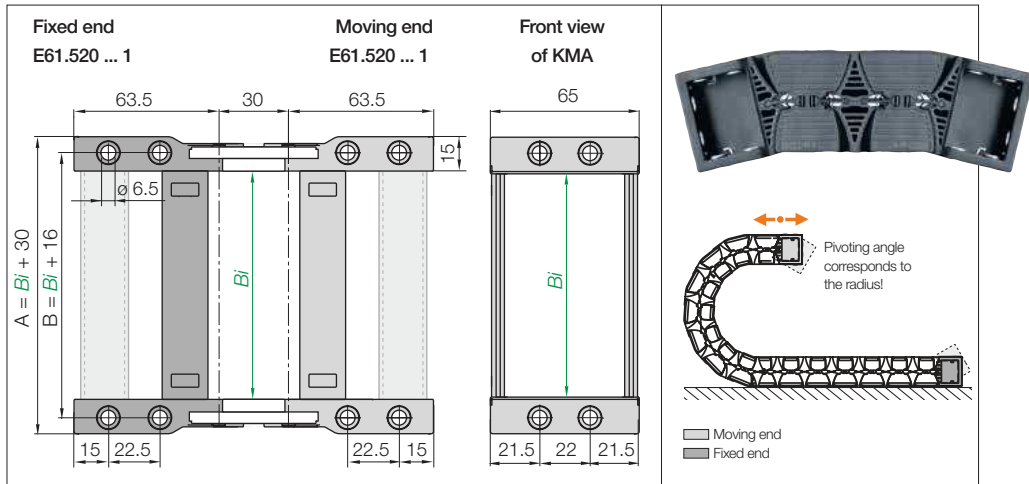
**i** If a gliding application is required for a long travel, please consult igus®.

## Steel support tray for support of the lower run

- Simple one-piece support trays for the lower run
- To your requirements and specification
- 4 options available

More information ► From page 1356

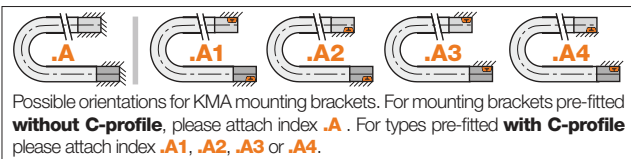




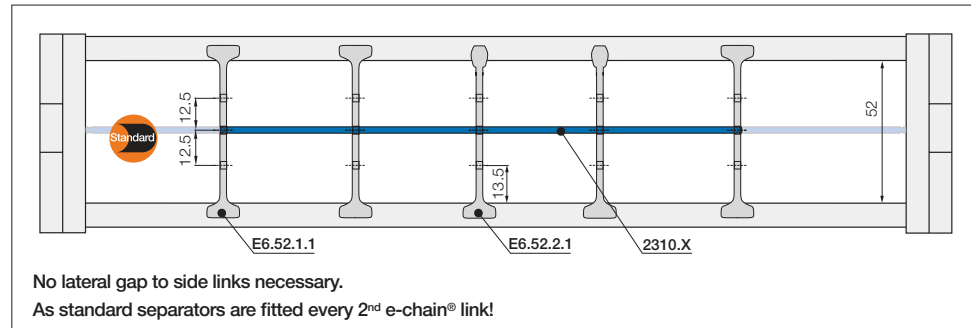
KMA pivoting | Recommended for unsupported applications

Width index	Part No. Full set KMA pivoting	A [mm]	B [mm]	Bi [mm]	Width index	Part No. Full set KMA pivoting	A [mm]	B [mm]	Bi [mm]
040.	E61.520.040.12.C	70	56	40	125.	E61.520.125.12.C	155	141	125
050.	E61.520.050.12.C	80	66	50	150.	E61.520.150.12.C	180	166	150
052.	E61.520.052.12.C	82	68	52	175.	E61.520.175.12.C	205	191	175
062.	E61.520.062.12.C	92.5	78.5	62.5	200.	E61.520.200.12.C	230	216	200
070.	E61.520.070.12.C	100	86	70	225.	E61.520.225.12.C	255	241	225
075.	E61.520.075.12.C	105	91	75	250.	E61.520.250.12.C	280	266	250
087.	E61.520.087.12.C	117.5	103.5	87.5	275.	E61.520.275.12.C	300	291	275
100.	E61.520.100.12.C	130	116	100	300.	E61.520.300.12.C	330	316	300

(KMA = polymer metal mounting bracket) For the C-profile option please add index .C. KMA mounting brackets are only available for an odd number of links.



Strain relief e.g. clamps, tie-wrap plates, nuggets and clips are available from stock. The complete chainfix range with ordering options ▶ From page 1392



	2.5 10		<b>Standard separator, wide base</b> unassembled E6.52.1 assembled E6.52.1.1
	4 2.5 10		<b>Separator, narrow top</b> unassembled E6.52.2 assembled E6.52.2.1
	2.5 X-1		<b>Shelf, lockable</b> unassembled 2300.X assembled 2310.X

Standard - for any application

Separator with a wide base for maximum holding force.

For even faster installation

Wide on one side for high holding force, narrow on opposite side for easy cable fitting.

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
015	2300.015	2310.015	060	2300.060	2310.060	087	2300.87	2310.087
025	2300.025	2310.025	062	2300.062	2310.062	090	2300.90	2310.090
030	2300.030	2310.030	065	2300.065	2310.065	100	2300.100	2310.100
038	2300.038	2310.038	070	2300.070	2310.070	103	2300.103	2310.103
040	2300.040	2310.040	075	2300.075	2310.075	110	2300.110	2310.110
050	2300.050	2310.050	077	2300.077	2310.077	120	2300.120	2310.120
057	2300.057	2310.057	080	2300.080	2310.080	125	2300.125	2310.125



Dynamic, quiet, light and cleanroom suitable

62



## e-chains® | Series E61.62 | Crossbars removable along the inner and outer radius

Part No.	<i>Bi</i>	<i>Ba</i>	E61.62	Part No.	<i>Bi</i>	<i>Ba</i>	E61.62
e-chains®	[mm]	[mm]	[kg/m]	e-chains®	[mm]	[mm]	[kg/m]
E61.62. 05. <i>R.0</i>	50	82	≈ 2.514	E61.62. 212. <i>R.0</i>	212	244	≈ 3.076
E61.62. 06. <i>R.0</i>	68	100	≈ 2.577	E61.62. 23. <i>R.0</i>	225	257	≈ 3.121
E61.62. 07. <i>R.0</i>	75	107	≈ 2.601	E61.62. 237. <i>R.0</i>	237	269	≈ 3.162
E61.62. 087. <i>R.0</i>	87	119	≈ 2.642	E61.62. 25. <i>R.0</i>	250	282	≈ 3.207
E61.62. 097. <i>R.0</i>	97	129	≈ 2.673	E61.62. 262. <i>R.0</i>	262	294	≈ 3.249
E61.62. 10. <i>R.0</i>	100	132	≈ 2.687	E61.62. 28. <i>R.0</i>	275	307	≈ 3.294
E61.62. 11. <i>R.0</i>	108	140	≈ 2.715	E61.62. 29. <i>R.0</i>	287	319	≈ 3.336
E61.62. 112. <i>R.0</i>	112	144	≈ 2.729	E61.62. 30. <i>R.0</i>	300	332	≈ 3.381
E61.62. 12. <i>R.0</i>	125	157	≈ 2.774	E61.62. 312. <i>R.0</i>	312	344	≈ 3.422
E61.62. 137. <i>R.0</i>	137	169	≈ 2.816	E61.62. 325. <i>R.0</i>	325	357	≈ 3.467
E61.62. 15. <i>R.0</i>	150	182	≈ 2.861	E61.62. 337. <i>R.0</i>	337	369	≈ 3.509
E61.62. 162. <i>R.0</i>	162	194	≈ 2.902	E61.62. 350. <i>R.0</i>	350	382	≈ 3.554
E61.62. 17. <i>R.0</i>	168	200	≈ 2.923	E61.62. 362. <i>R.0</i>	362	394	≈ 3.596
E61.62. 18. <i>R.0</i>	175	207	≈ 2.947	E61.62. 375. <i>R.0</i>	375	407	≈ 3.641
E61.62. 187. <i>R.0</i>	187	219	≈ 2.989	E61.62. 387. <i>R.0</i>	387	419	≈ 3.682
E61.62. 20. <i>R.0</i>	200	232	≈ 3.034	E61.62. 400. <i>R.0</i>	400	432	≈ 3.782

## Available bend radii

*R* [mm] | 115 |Complete Part No. with required radius (*R*). Example: E61.62.100.115.0

## Installation note - system E6.1

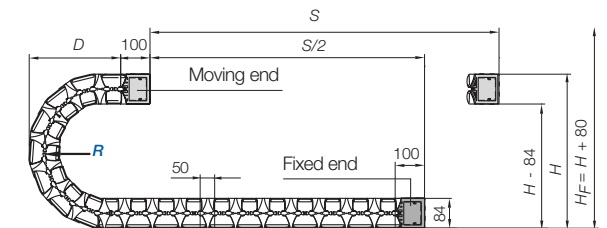
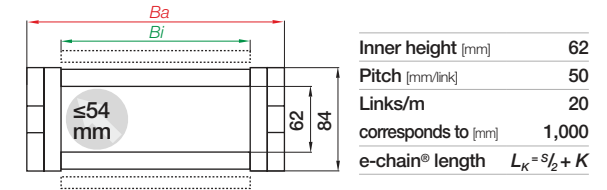
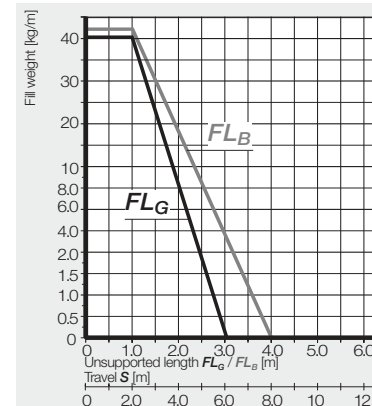
To open, insert the screwdriver into the locking mechanism and prise it open. Repeat the procedure on the other side.

An assembly video is available online at ► [www.igus.eu/E61\\_assembly](http://www.igus.eu/E61_assembly)

Unsupported applications | Short travels



► 1392



<i>R</i>	115
<i>H</i>	384
<i>D</i>	232
<i>K</i>	465

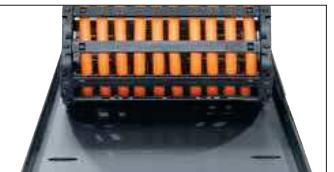
The required clearance height:  $H_F = H + 80\text{mm}$  (with 2.0kg/m fill weight)

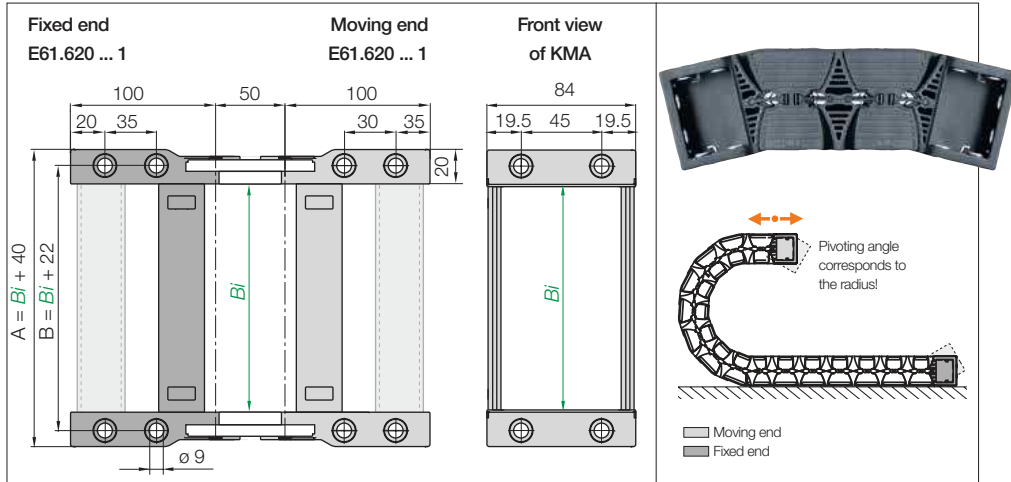
If a gliding application is required for a long travel, please consult igus®.

## Steel support tray for support of the lower run

- Simple one-piece support trays for the lower run
- To your requirements and specification
- 4 options available

More information ► From page 1356

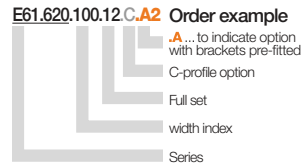
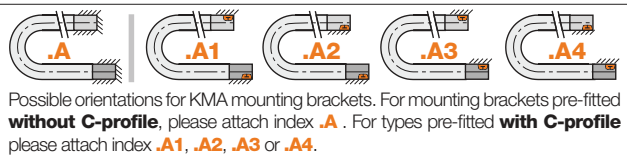




KMA pivoting | Recommended for unsupported applications

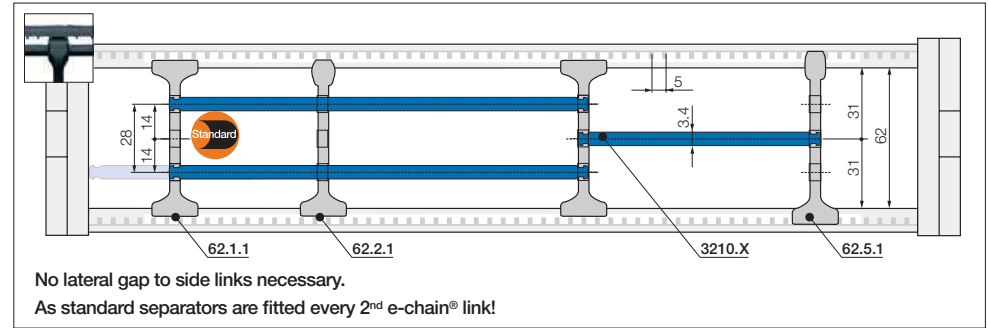
Width index	Part No. Full set KMA pivoting	A [mm]	B [mm]	Bi [mm]	Width index	Part No. Full set KMA pivoting	A [mm]	B [mm]	Bi [mm]
05.	E61.620.05. 12.C	90	72	50	212.	E61.620.212.12.C	252	234	212
06.	E61.620.06. 12.C	108	90	68	23.	E61.620.23. 12.C	265	247	225
07.	E61.620.07. 12.C	115	97	75	237.	E61.620.237.12.C	277	259	237
087.	E61.620.087.12.C	127	109	87	25.	E61.620.25. 12.C	290	272	250
097.	E61.620.097.12.C	137	119	97	262.	E61.620.262.12.C	302	284	262
10.	E61.620.10. 12.C	140	122	100	28.	E61.620.28. 12.C	315	297	275
11.	E61.620.11. 12.C	148	130	108	29.	E61.620.29. 12.C	327	309	287
112.	E61.620.112.12.C	152	134	112	30.	E61.620.30. 12.C	340	322	300
12.	E61.620.12. 12.C	165	147	125	312.	E61.620.312.12.C	352	334	312
137.	E61.620.137.12.C	177	159	137	325.	E61.620.325.12.C	365	347	325
15.	E61.620.15. 12.C	190	172	150	337.	E61.620.337.12.C	377	359	337
162.	E61.620.162.12.C	202	184	162	350.	E61.620.350.12.C	390	372	350
17.	E61.620.17. 12.C	208	190	168	362.	E61.620.362.12.C	402	384	362
18.	E61.620.18. 12.C	215	197	175	375.	E61.620.375.12.C	415	397	375
187.	E61.620.187.12.C	227	209	187	387.	E61.620.387.12.C	427	409	387
20.	E61.620.20. 12.C	240	222	200	400.	E61.620.400.12.C	440	442	400

(KMA = polymer metal mounting bracket) For the C-profile option please add index .C. KMA mounting brackets are only available for an odd number of links.



**Strain relief** e.g. clamps, tie-wrap plates, nuggets and clips are available from stock. The complete chainfix range with ordering options ▶ From page 1392

Previous generation of interior separation with other options ▶ [www.igus.eu/E61.62](http://www.igus.eu/E61.62)



**Standard separator, wide base**

unassembled **62.1**  
 assembled **62.1.1**

**Standard - for any application**  
 Separator with a wide base for maximum holding force.

**Separator, narrow top**

unassembled **62.2**  
 assembled **62.2.1**

**For even faster installation**  
 Wide on one side for high holding force, narrow on opposite side for easy cable fitting.

**Notch separator\* for notched crossbar**

unassembled **62.5**  
 assembled **62.5.1**

**Locks securely in preset increments**  
 Notch separator for exact positioning. Recommended for side-mounted applications.  
 (\*Suitable from **Bi 75**)

**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	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				

Dynamic, quiet, light and cleanroom suitable

80



## e-chains® | Series E61.80 | Crossbars removable along the inner and outer radius

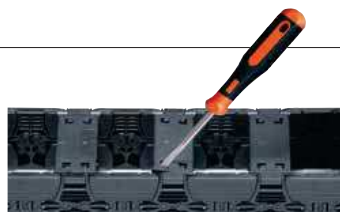
Part No.	<i>B<sub>i</sub></i>	<i>B<sub>a</sub></i>	E61.80	Part No.	<i>B<sub>i</sub></i>	<i>B<sub>a</sub></i>	E61.80
e-chains®	[mm]	[mm]	[kg/m]	e-chains®	[mm]	[mm]	[kg/m]
E61.80. 05. R.0	50	100	≈ 2.906	E61.80. 31. R.0	312	362	≈ 4.185
E61.80. 06. R.0	65	115	≈ 2.979	E61.80. 32. R.0	325	375	≈ 4.249
E61.80. 07. R.0	75	125	≈ 3.028	E61.80. 33. R.0	337	387	≈ 4.307
E61.80. 08. R.0	87	137	≈ 3.089	E61.80. 35. R.0	350	400	≈ 4.371
E61.80. 10. R.0	100	150	≈ 3.150	E61.80. 36. R.0	362	412	≈ 4.429
E61.80. 11. R.0	112	162	≈ 3.209	E61.80. 37. R.0	375	425	≈ 4.493
E61.80. 12. R.0	125	175	≈ 3.272	E61.80. 38. R.0	387	437	≈ 4.551
E61.80. 13. R.0	137	187	≈ 3.331	E61.80. 40. R.0	400	450	≈ 4.615
E61.80. 15. R.0	150	200	≈ 3.394	E61.80. 41. R.0	412	462	≈ 4.673
E61.80. 16. R.0	162	212	≈ 3.453	E61.80. 42. R.0	425	475	≈ 4.737
E61.80. 17. R.0	175	225	≈ 3.516	E61.80. 43. R.0	437	487	≈ 4.787
E61.80. 18. R.0	187	237	≈ 3.575	E61.80. 45. R.0	450	500	≈ 4.847
E61.80. 20. R.0	200	250	≈ 3.638	E61.80. 46. R.0	462	512	≈ 4.907
E61.80. 21. R.0	212	262	≈ 3.697	E61.80. 47. R.0	475	525	≈ 4.967
E61.80. 22. R.0	225	275	≈ 3.760	E61.80. 48. R.0	487	537	≈ 5.027
E61.80. 23. R.0	237	287	≈ 3.819	E61.80. 50. R.0	500	550	≈ 5.087
E61.80. 25. R.0	250	300	≈ 3.882	E61.80. 51. R.0	512	562	≈ 5.147
E61.80. 26. R.0	262	312	≈ 3.941	E61.80. 52. R.0	525	575	≈ 5.207
E61.80. 27. R.0	275	325	≈ 4.004	E61.80. 53. R.0	537	587	≈ 5.267
E61.80. 28. R.0	287	337	≈ 4.063	E61.80. 55. R.0	550	600	≈ 5.327
E61.80. 30. R.0	300	350	≈ 4.127	E61.80. 60. R.0	600	650	≈ 5.557

## Available bend radii

*R* [mm] | 150 |Complete Part No. with required radius (*R*). Example: E61.80.100.150.0

## Installation note - system E6.1

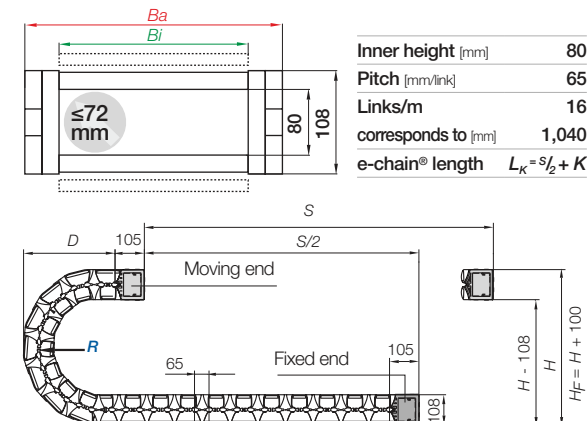
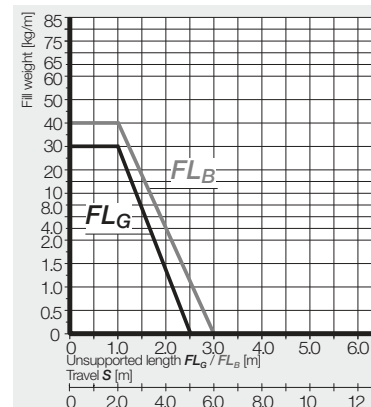
To open, insert the screwdriver into the locking mechanism and prise it open. Repeat the procedure on the other side.

An assembly video is available online at ► [www.igus.eu/E61\\_assembly](http://www.igus.eu/E61_assembly)

Unsupported applications | Short travels



► 1392



<i>R</i>	150
<i>H</i>	508
<i>D</i>	301.5
<i>K</i>	605

The required clearance height:  $H_F = H + 80\text{mm}$  (with 5.0kg/m fill weight)

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

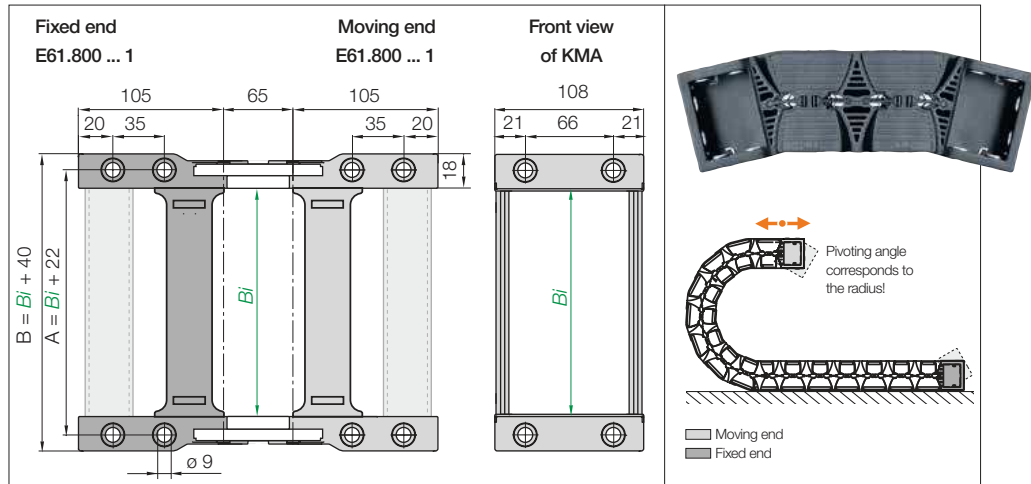
## Steel support tray for support of the lower run

- Simple one-piece support trays for the lower run
- To your requirements and specification
- 4 options available

More information ► From page 1356



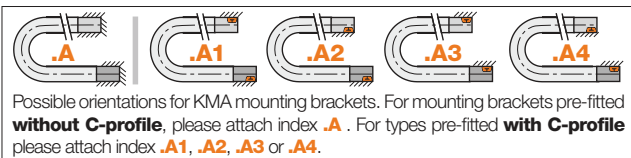




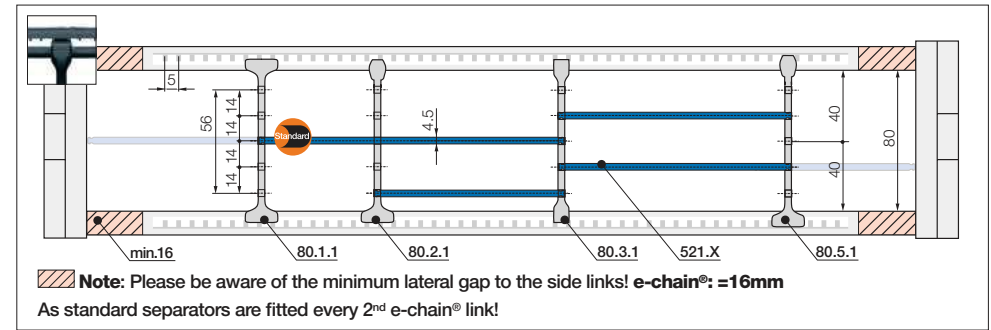
KMA pivoting | Recommended for unsupported applications

Width index	Part No. Full set KMA pivoting	A [mm]	B [mm]	Bi [mm]	Width index	Part No. Full set KMA pivoting	A [mm]	B [mm]	Bi [mm]
05.	E61.800.05.12.C	72	90	50	31.	E61.800.31.12.C	334	352	312
06.	E61.800.06.12.C	87	105	65	32.	E61.800.32.12.C	347	365	325
07.	E61.800.07.12.C	97	115	75	33.	E61.800.33.12.C	359	377	337
08.	E61.800.08.12.C	109	127	87	35.	E61.800.35.12.C	372	390	350
10.	E61.800.10.12.C	122	140	100	36.	E61.800.36.12.C	384	402	362
11.	E61.800.11.12.C	134	152	112	37.	E61.800.37.12.C	397	415	375
12.	E61.800.12.12.C	147	165	125	38.	E61.800.38.12.C	409	427	387
13.	E61.800.13.12.C	159	177	137	40.	E61.800.40.12.C	422	440	400
15.	E61.800.15.12.C	172	190	150	41.	E61.800.41.12.C	434	452	412
16.	E61.800.16.12.C	184	202	162	42.	E61.800.42.12.C	447	465	425
17.	E61.800.17.12.C	197	215	175	43.	E61.800.43.12.C	459	477	437
18.	E61.800.18.12.C	209	227	187	45.	E61.800.45.12.C	472	490	450
20.	E61.800.20.12.C	222	240	200	46.	E61.800.46.12.C	484	502	462
21.	E61.800.21.12.C	234	252	212	47.	E61.800.47.12.C	497	515	475
22.	E61.800.22.12.C	247	265	225	48.	E61.800.48.12.C	509	527	487
23.	E61.800.23.12.C	259	277	237	50.	E61.800.50.12.C	522	540	500
25.	E61.800.25.12.C	272	290	250	51.	E61.800.51.12.C	534	552	512
26.	E61.800.26.12.C	284	302	262	52.	E61.800.52.12.C	547	565	525
27.	E61.800.27.12.C	297	315	275	53.	E61.800.53.12.C	559	577	537
28.	E61.800.28.12.C	309	327	287	55.	E61.800.55.12.C	572	590	550
30.	E61.800.30.12.C	322	340	300	60.	E61.800.60.12.C	622	640	600

(KMA = polymer metal mounting bracket) For the C-profile option please add index .C. KMA mounting brackets are only available for an odd number of links.



Previous generation of interior separation with other options ► www.igus.eu/E61.80



**Standard separator, wide base**

unassembled	80.1
assembled	80.1.1

**Standard - for any application**  
Separator with a wide base for maximum holding force.

**Separator, narrow top**

unassembled	80.2
assembled	80.2.1

**For even faster installation**  
Wide on one side for high holding force, narrow on opposite side for easy cable fitting.

**Separator, narrow**

unassembled	80.3
assembled	80.3.1

**For a large number of thin cables**  
Separator with a narrow base for a large number of thin cables side by side. Saves space.

**Notch separator for notched crossbar**

unassembled	80.5
assembled	80.5.1

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

**Shelf, lockable**

unassembled	520.X
assembled	521.X

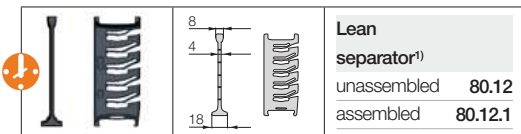
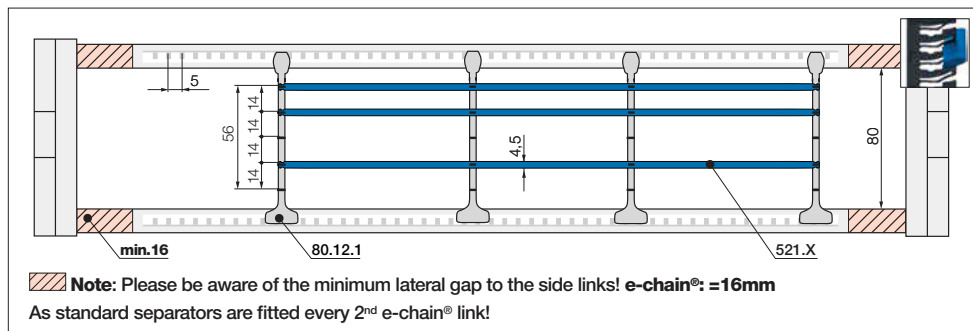
**Horizontal separation**  
Full-width shelf locks securely into separators at both ends, giving a fixed width. Can be used as full-width or partial shelf.

**Shelves**  
Width = X [mm]

X [mm]	unassembled	assembled	X [mm]	unassembled	assembled	X [mm]	unassembled	assembled
050	520.050	521.050	150	520.150	521.150	300	520.300	521.300
065	520.065	521.065	175	520.175	521.175	350	520.350	521.350
075	520.075	521.075	200	520.200	521.200	375	520.375	521.375
100	520.100	521.100	225	520.225	521.225	387	520.387	521.387
125	520.125	521.125	250	520.250	521.250	450	520.450	521.450

**Strain relief** e.g. clamps, tiewrap plates, nuggets and clips are available from stock. The complete chainfix range with ordering options ► From page 1392

## Interior separation | To allow faster filling

Lean separators<sup>1)</sup>

For quick fitting of shelves in several layers. **1) Note:** Please combine maximum 4 lean separators with one shelf. Not suitable for side-mounted e-chains<sup>2)</sup>!

With the lean separator you can quickly insert several layers of cables into the e-chain<sup>®</sup> and reduce the installation time by up to 50%<sup>2)</sup>. <sup>2)</sup> Lean interior separation vs. standard interior separation - measured on a 4m long e-chain<sup>®</sup> fitted with 12 cables in the igus<sup>®</sup> lab



Fully harnessed e-chain systems<sup>®</sup> to your requirements. E6.1 e-chain<sup>®</sup> system and chainflex<sup>®</sup> cables both cleanroom suitable in the semiconductor industry