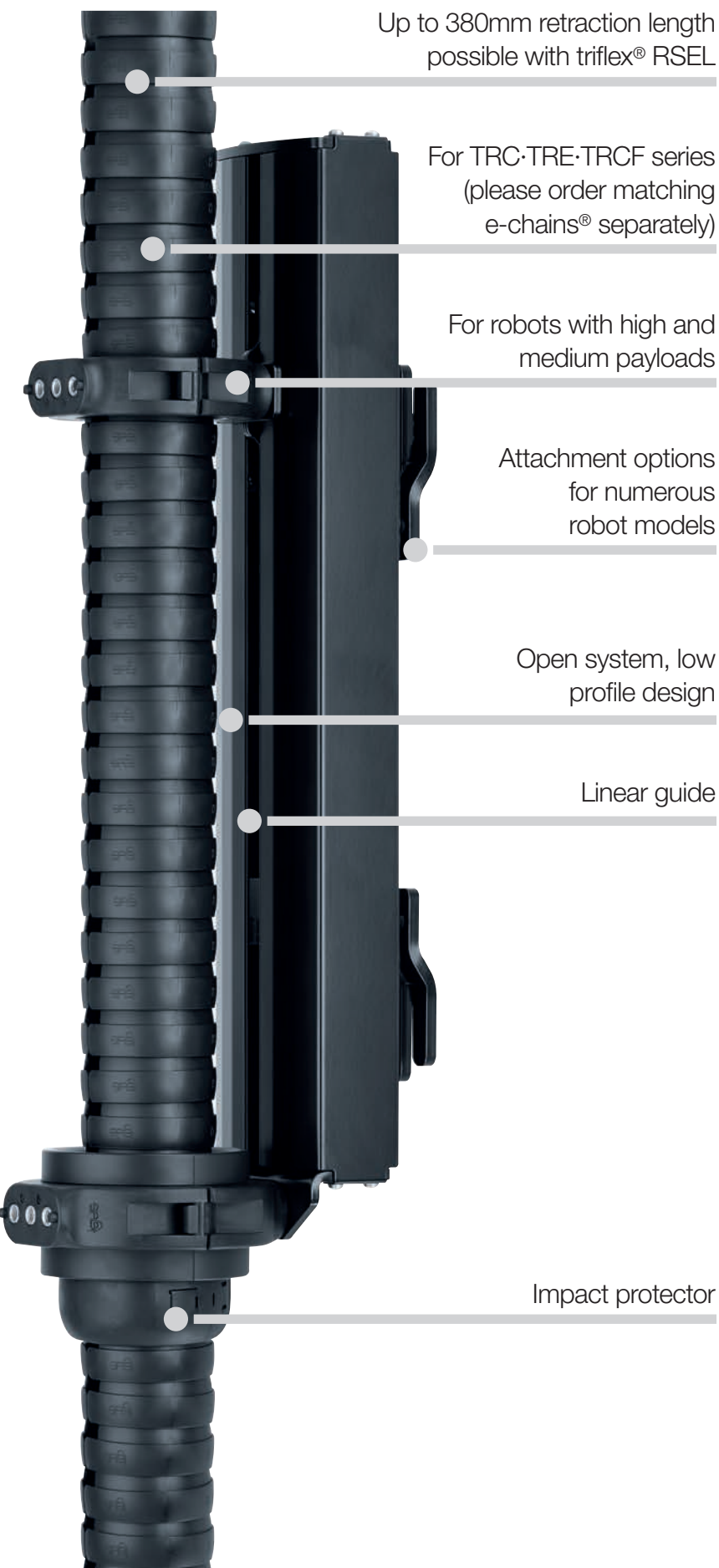


# RSEL retraction system

Cost-effective linear retraction system **New**



## Cost-effective, linear retraction system - triflex® RSEL

Avoid looping on the robot head - even more cost-effective and even for corrugated tubes, with the RSEL retraction system. Especially designed for robots with medium to high payload, the igus® triflex® RSEL retraction system offers an option to actively avoid looping in the working area of the robot by keeping the e-chain® as close as possible to the robot arm.

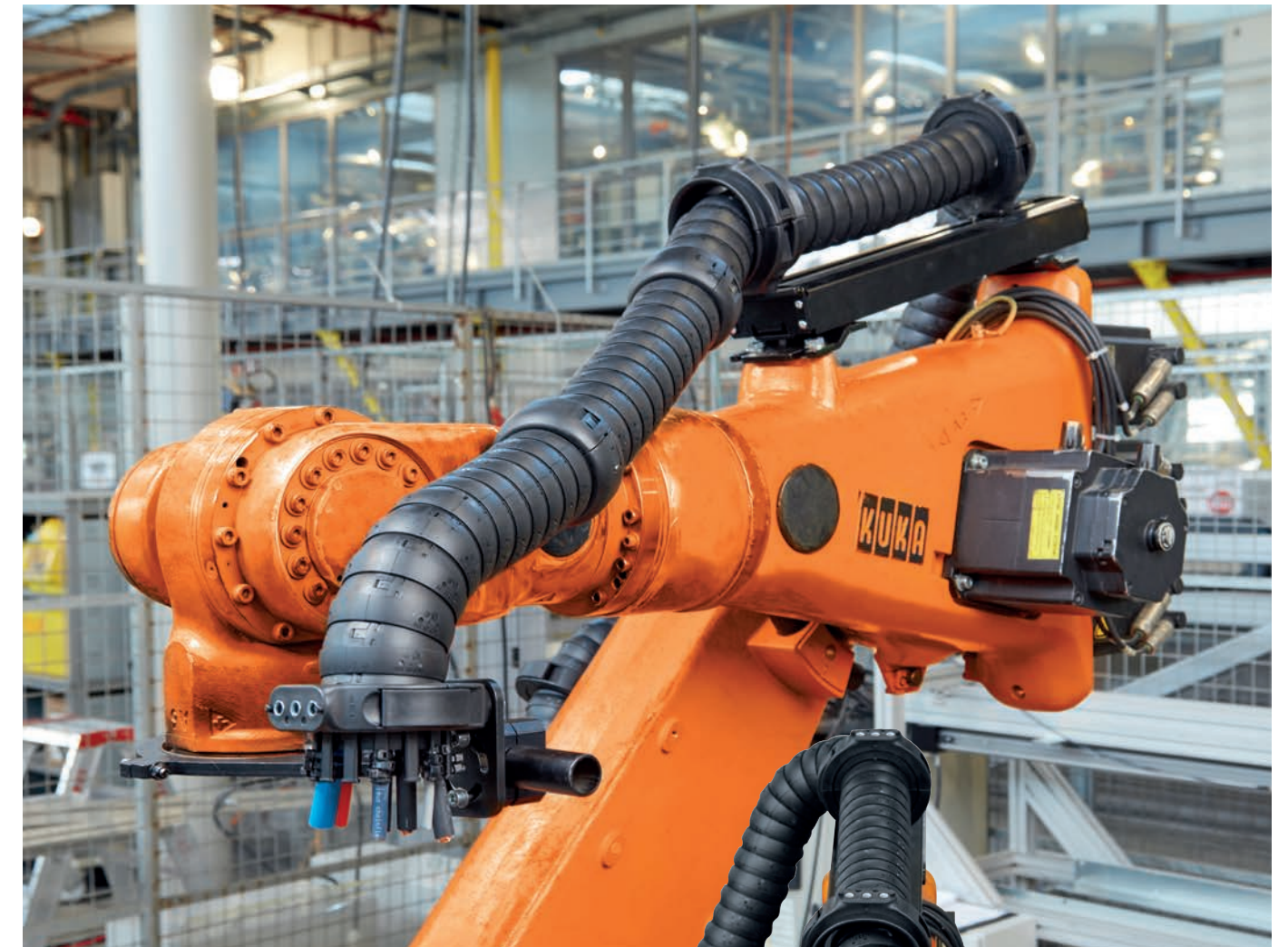
- Cost-optimised retraction system, easy to retrofit
- Due to its standard dimensions and the very compact design, the RSEL retraction system can be mounted directly on the 3rd axis of all common types of robots
- Retraction element with elastomer band
- Prevents the e-chain® from looping or blocking the motion, even in highly dynamic applications
- Short type
- Attachment options for numerous robot models
- For robots with high and medium payloads
- The fixed end of the e-chain® can be freely selected due to the linear design of the RSE retraction system

100 More information ► [www.igus.co.uk/triflex-RSEL](http://www.igus.co.uk/triflex-RSEL)



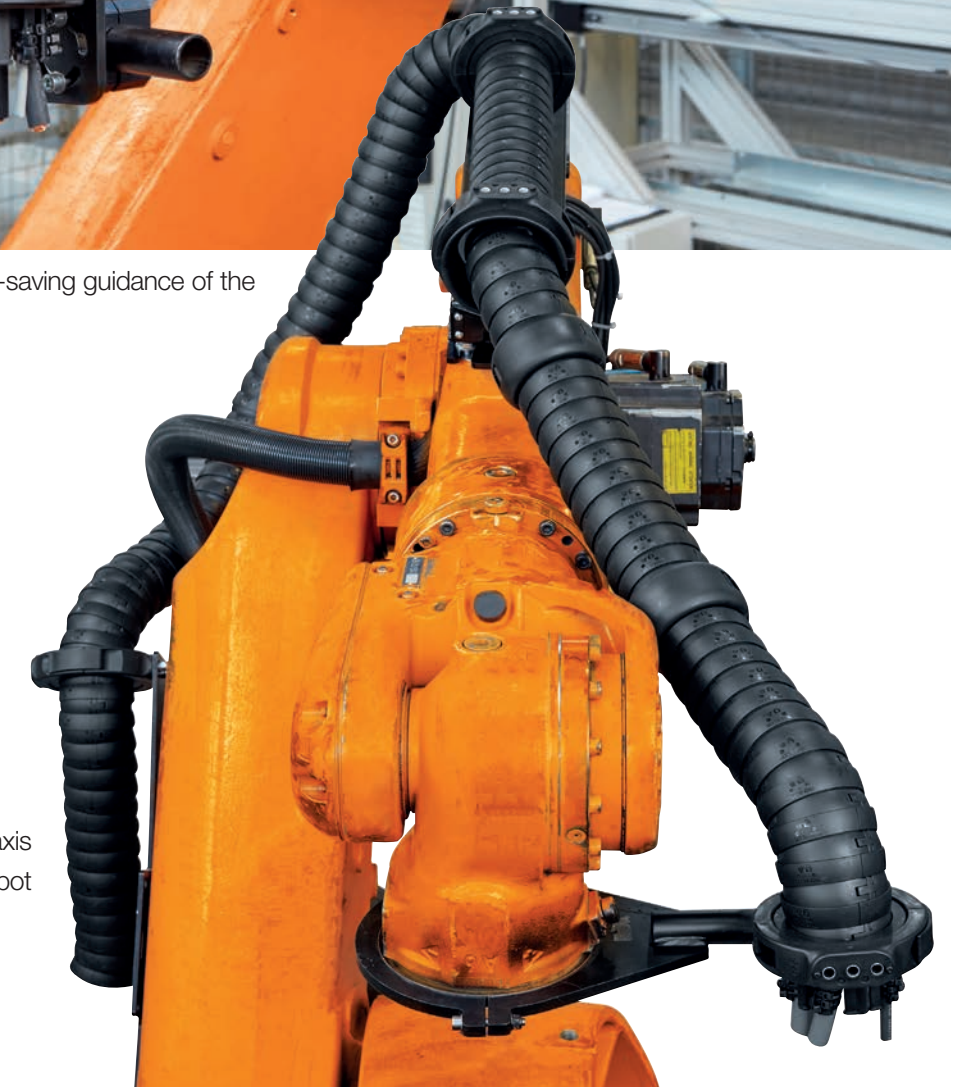
# RSEL applications

RSEL - R(etraction) S(ystem) E(lastic) L(inear)



triflex RSEL - cost-effective and space-saving guidance of the e-chain®

Cable routing from axis 2 to axis 6 on a robot



igus 3D CAD, configurators, service life calculation and more ► [www.igus.co.uk/triflexR](http://www.igus.co.uk/triflexR)

101



# RSEL retraction system

System design with matching e-chain®

Matching triflex® R e-chains® for RSEL

TRC .XX.**R**.0

TRE .XX.**R**.0.B

TRCF.XX.**R**.0



Overall e-chain® length\* =

Excess length in direction **A1** +

Dimension **A** +

Excess length in direction **A6**

Limit protector

RSEL system  
(without e-chain®) +  
mounting bracket +  
gliding feed-through =  
**TR.RSEL.XX**

\*For calculation of the overall e-chain® length: Please add the desired excess length in direction **A1** and the excess length in direction **A6** and the dimension **A**.

Complete retraction system RSEL and triflex® R e-chain® TRC series. Mounting bracket and gliding feed-through are included. Please order triflex® R e-chains®, limiting protectors separately!

# RSEL retraction system

Order examples for retraction system including e-chain®



Sample order of a complete TR.RSEL system, Ø index 85, and e-chain® (length: 2m)

System	Select Ø index	TR.RSEL.85
+ e-chain®	Insert Ø index / Insert bend radius <b>R</b> / Insert standard length in metres	2m TRCF.85. <b>135</b> .0
+ Protector	Select protector option / specify Ø index	TR.85.30
Order text:	TR.RSEL.85. + 2 m TRCF.85. <b>135</b> .0 + TR.85.30	



Order key  
retraction system

TR.RSEL.85



Order key  
e-chains®

TRC .85.**135**.0

TRE .85.**135**.0.B

TRCF.85.**135**.0



## More optional accessories | RSEL retraction system



Protectors  
with screw connections or  
quick release  
► Page 106



Adapter consoles  
For custom  
mounting options  
► Page 111



Axis 6 clamp  
For triflex® R mounting  
brackets  
► Page 114

# RSEL retraction system

## Product range



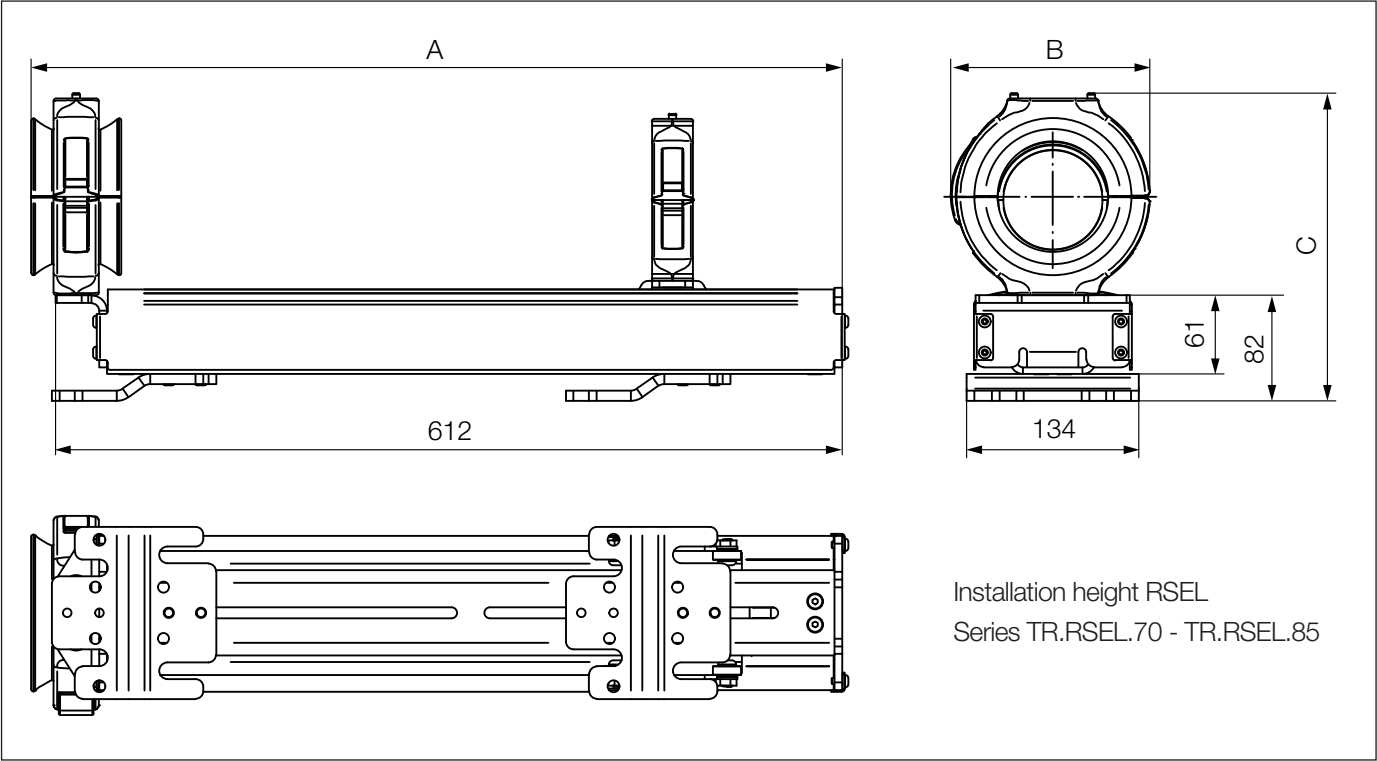
### Product range | RSEL retraction system

Ø		Part Number	Retraction length <sup>1)</sup>	A	B	C	Weight
Index		RSEL	≤ [mm]	[mm]	[mm]	[mm]	[kg]
30.	▶	–	–	–	–	–	–
40.	▶	–	–	–	–	–	–
50.	▶	–	–	–	–	–	–
60.	▶	–	–	–	–	–	–
65.	▶	–	–	–	–	–	–
65.	(R 200) ▶	–	–	–	–	–	–
70.	▶	TR.RSEL.70	380	631	155	239	8.8
85.	▶	TR.RSEL.85	380	638	155	251	8.9
85.	(R 240) ▶	–	–	–	–	–	–
100.	▶	–	–	–	–	–	–
125.	▶	–	–	–	–	–	–

Please order matching triflex® R e-chain® separately. 1) Maximum retraction length

# RSEL retraction system

## Installation dimensions



Installation height RSEL  
Series TR.RSEL.70 - TR.RSEL.85

### RSEL retraction system

Mounting bracket and gliding feed-through are included.  
Please order matching triflex® R e-chain® separately.





# RSEL e-chains®

Product range



## Product range | Matching e-chains® for RSEL

Ø Index	Part No. TRC enclosed	Part No. TRE "easy" design	Part No. TRCF with snap lock mechanism
30.	▶ –	–	–
40.	▶ –	–	–
50.	▶ –	–	–
60.	▶ –	–	–
65.	▶ –	–	–
65. (R 200)	▶ –	–	–
70.	▶ TRC.70.110.0	TRE.70.110.0.B	–
85.	▶ TRC.85.135.0	TRE.85.135.0.B	TRCF.85.135.0
85. (R 240)	▶ –	–	–
100.	▶ –	–	–
125.	▶ –	–	–

1) Available for B- and C-versions

Please note that all triflex® R e-chains can be lengthened and shortened individually and can be customized to meet the needs of your application.

Please order e-chains® as piece parts and purchase a protector for each one.

## Product range | Matching protectors for RSEL

Ø Index	① Part No. protector with screw fastener	② Part No. protector with quick-lock fastener	General image protector options
30.	▶ –	–	
40.	▶ –	–	
50.	▶ –	–	
60.	▶ –	–	
65.	▶ –	–	
65. (R 200)	▶ –	–	
70.	▶ TR.70.10	TR.70.30	
85.	▶ TR.85.10	TR.85.30	
85. (R 240)	▶ –	–	
100.	▶ –	–	More information on
125.	▶ –	–	Protectors ▶ Page 47

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

Please order protectors with screw connections or quick release as limit protectors.

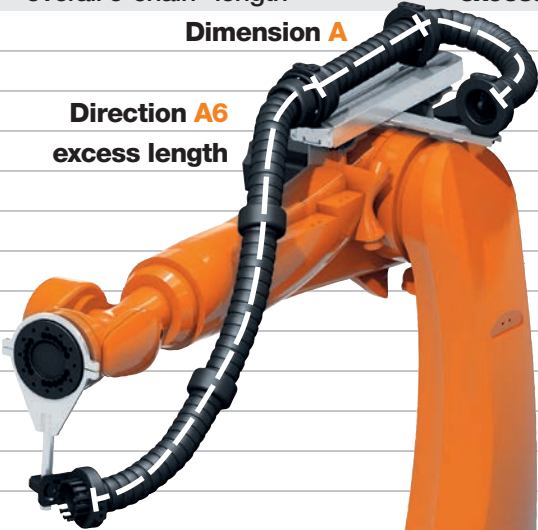


# RSEL e-chains®

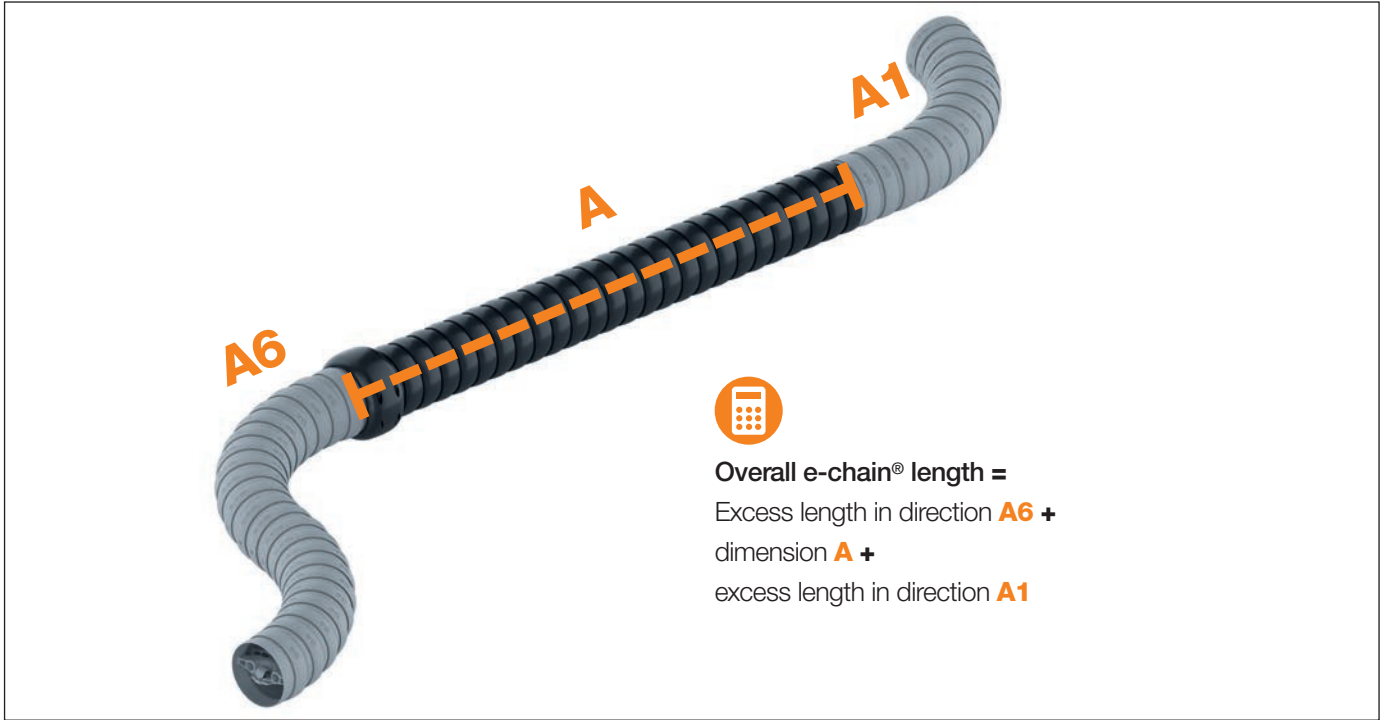
Cable length calculation

## Calculation of the overall e-chain® length | RSEL e-chains®

Ø Index	Bend radius R [mm]	Dimension A [mm]	General image overall e-chain® length	Direction A1 excess length
30.	▶ –	–	Dimension A	
40.	▶ –	–		
50.	▶ –	–	Direction A6 excess length	
60.	▶ –	–		
65.	▶ –	–		
85. (R 240)	▶ –	–		
70.	▶ 110	530		
85.	▶ 135	530		
85. (R 240)	▶ –	–		
100.	▶ –	–		
125.	▶ –	–		



For calculation of the overall e-chain® length: Please add the desired excess length in direction A1 and the excess length in direction A6 and the dimension A. Additionally, at least 1 limit protector must be ordered.



## More information and installation height | RSEL e-chains®

- TRC series - enclosed design, chip-protection, smooth outer contour ▶ from page 28
- TRE series - "easy" design, very easy to fill, simply press cables in ▶ from page 30
- TRCF series - enclosed design with snap-lock mechanism, chip-repellent, smooth outer contour ▶ from page 32