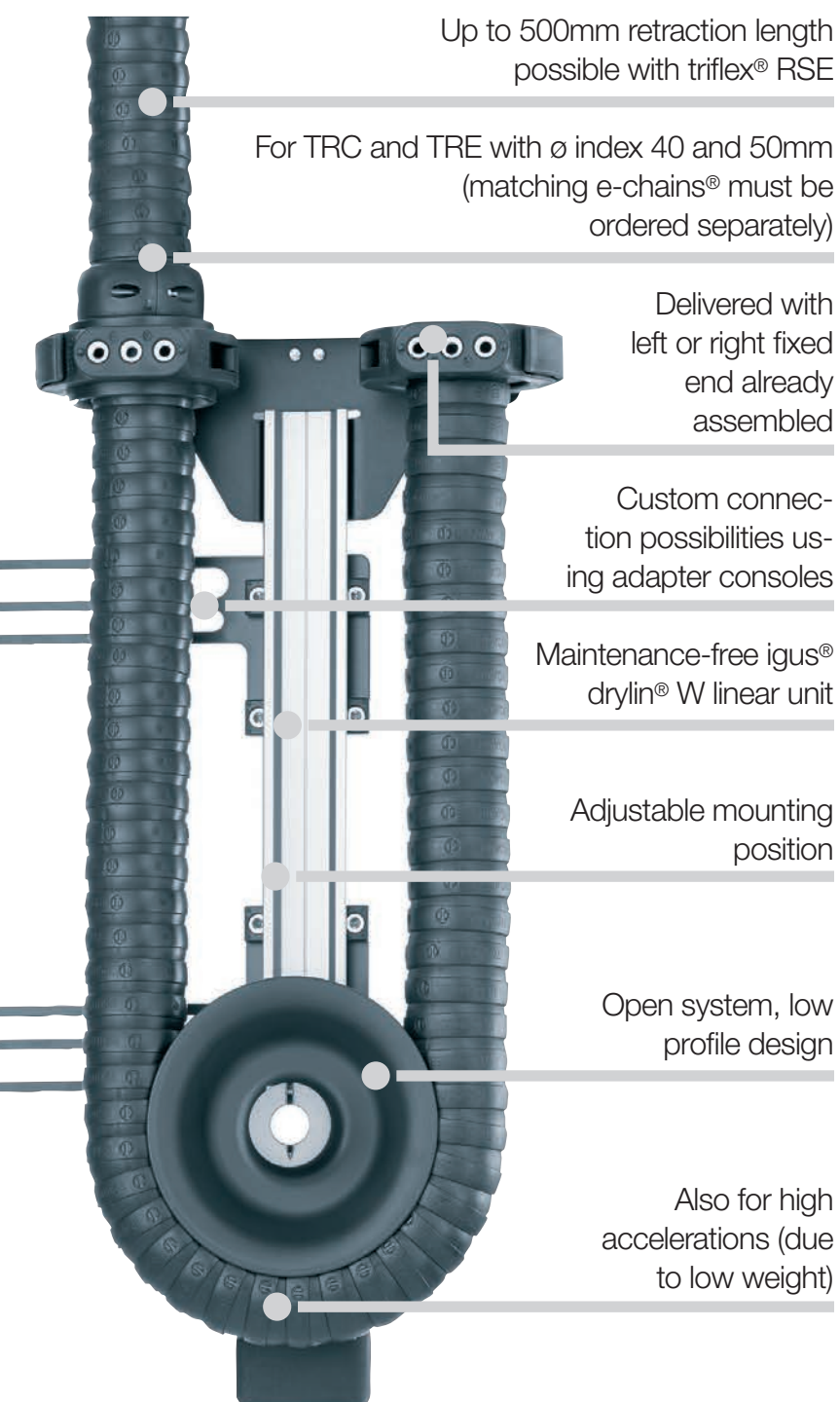


RSE retraction system

Cost-effective retraction system with deflection



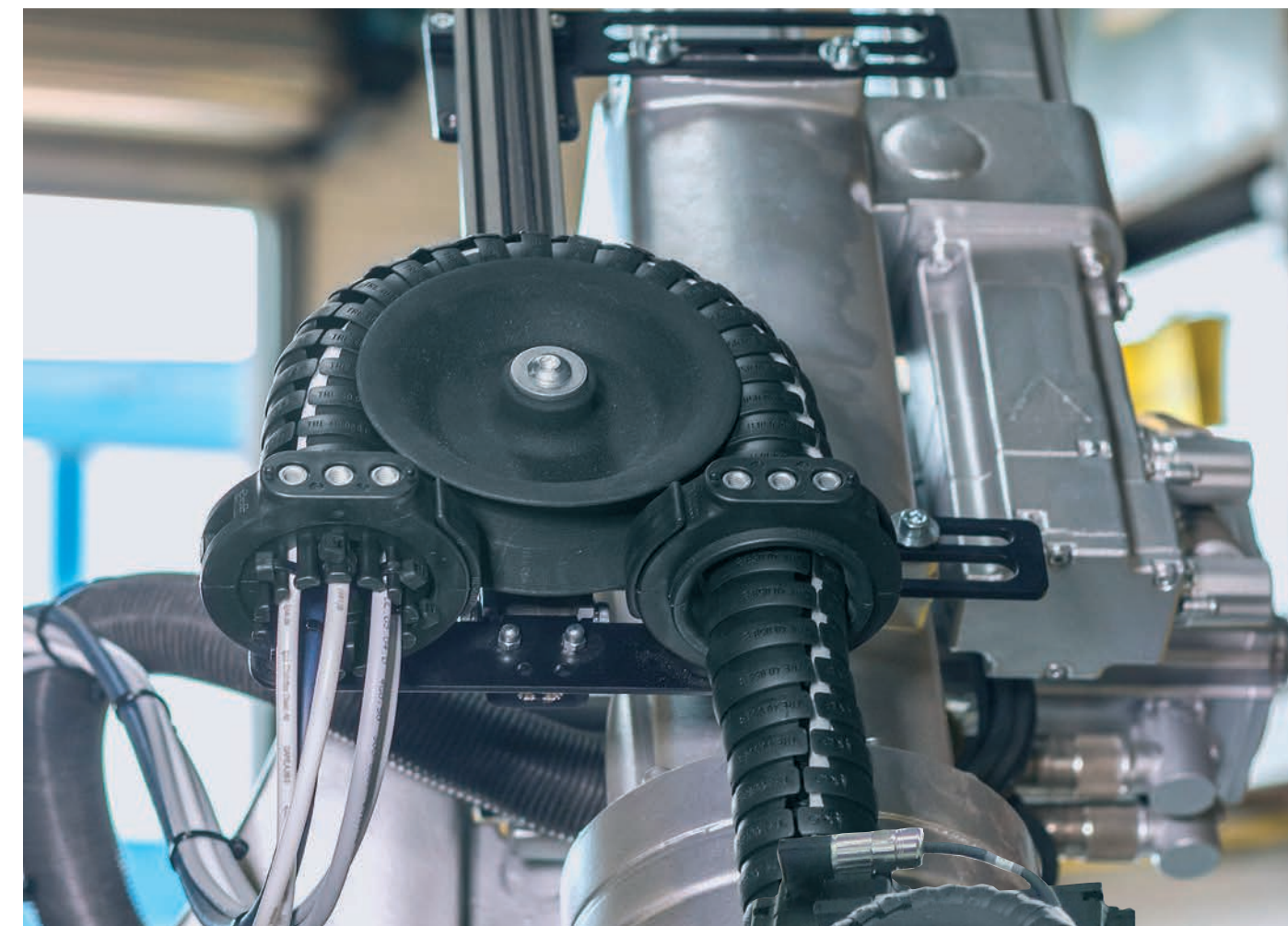
Cost-effective retraction system with deflection for small robots - triflex® RSE

Specially developed for robots with small to medium cable and hose filling, the igus® triflex® RSE retraction system offers a way to prevent loop formation in the workspace of the robot, even in highly dynamic applications.

- For series TRC·TRE with sizes 40 and 50mm
- Extremely fast response, even in highly dynamic robot programs
- Low weight, very little reduction in robot handling capacity
- Universal adjustable installation brackets
- Maintenance and lubrication-free igus® drylin® W linear unit
- For maximum degrees of freedom
- For cable diameters up to 18.8mm

RSE applications

RSE - R(etraction) S(ystem) E(lastic)



Reliable and controlled energy supply, even in confined space with the igus® triflex® RSE retraction system



RSE retraction system

System design with matching e-chain®

Cover for additional installation space on the robot, optional: **TR.RSE.XX.COVER**

Matching triflex® R e-chains® for RSE with integrated fibre-rods

TRC.RSE.XX.R.LLLL.0

TRE.RSE.XX.R.LLLL.0.B



Overall e-chain® length =
additional length from the gliding
feed-through **LLLL** +
the e-chain® length within the system

RSE system (e-chain® not
included) +

Mounting bracket +
Gliding feed-through =
TR.RSE.(02).XX.L or
TR.RSE.(02).XX.R

Complete retraction system RSE with
deflection, fixed end right and triflex® R
e-chain® TRC series. Mounting bracket
and gliding feed-through are included.
Please order matching triflex® R e-chain®
and optional cover separately.

RSE retraction system

Order examples for retraction system including e-chain®



Sample order of a complete TR.RSE system, Ø index 50, fixed end on the left, including cover and e-chain® (standard length: 500mm)

System	Insert Ø index / select fixed end .L / .R	TR.RSE.50.L
+ Cover	Insert Ø index (cover optional)	TR.RSE.50.COVER
+ e-chain®	Insert ø index / Insert bend radius R / Insert standard length LLLL	TRC.RSE.50.080.0500.0
Order text:	TR.RSE.50.L + TR.RSE.50.COVER + TRC.RSE.50.080.0500.0	



Order key
retraction system

TR.RSE.50.L
TR.RSE.50.R



L = Fixed end right or
R = Fixed end left
Ø index
Retraction system
Series



Order key
e-chains®

TRC.RSE.50.080.0500.0
TRE.RSE.50.080.0500.0.B



Default colour black
LLLL = Additional length
R Bend radius
Ø index
Retraction system
e-chain® series

More optional accessories | RS modular retraction system



Cover

For additional installation space
and extreme movements

► Page 86



Adapter consoles

For individual
mounting options

► Page 111



Axis 6 clamp

For triflex® R mounting
brackets

► Page 114

RSE retraction system

Product range



Product range | RSE cost-effective retraction system with deflection

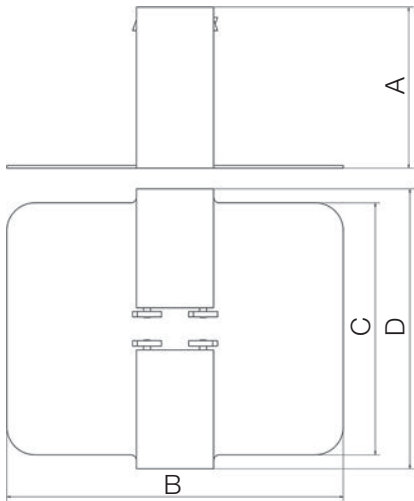
Ø	Part No.	Part No.	Retraction length ¹⁾	A	B	C	D	Weight
Index	fixed end left	fixed end right	≤ [mm]	[mm]	[mm]	[mm]	[mm]	[kg]
30.	▶ –	–	–	–	–	–	–	–
40.	▶ TR.RSE.02.40.L	TR.RSE.02.40.R	500	440	220	110	64.7	1.6
50.	▶ TR.RSE.50.L	TR.RSE.50.R	500	497	275	132	79	2.1
60.	▶ –	–	–	–	–	–	–	–
65.	▶ –	–	–	–	–	–	–	–
65. (R 200)	▶ –	–	–	–	–	–	–	–
70.	▶ –	–	–	–	–	–	–	–
85.	▶ –	–	–	–	–	–	–	–
85. (R 240)	▶ –	–	–	–	–	–	–	–
100.	▶ –	–	–	–	–	–	–	–
125.	▶ –	–	–	–	–	–	–	–

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

Product range | RSE cover, optional

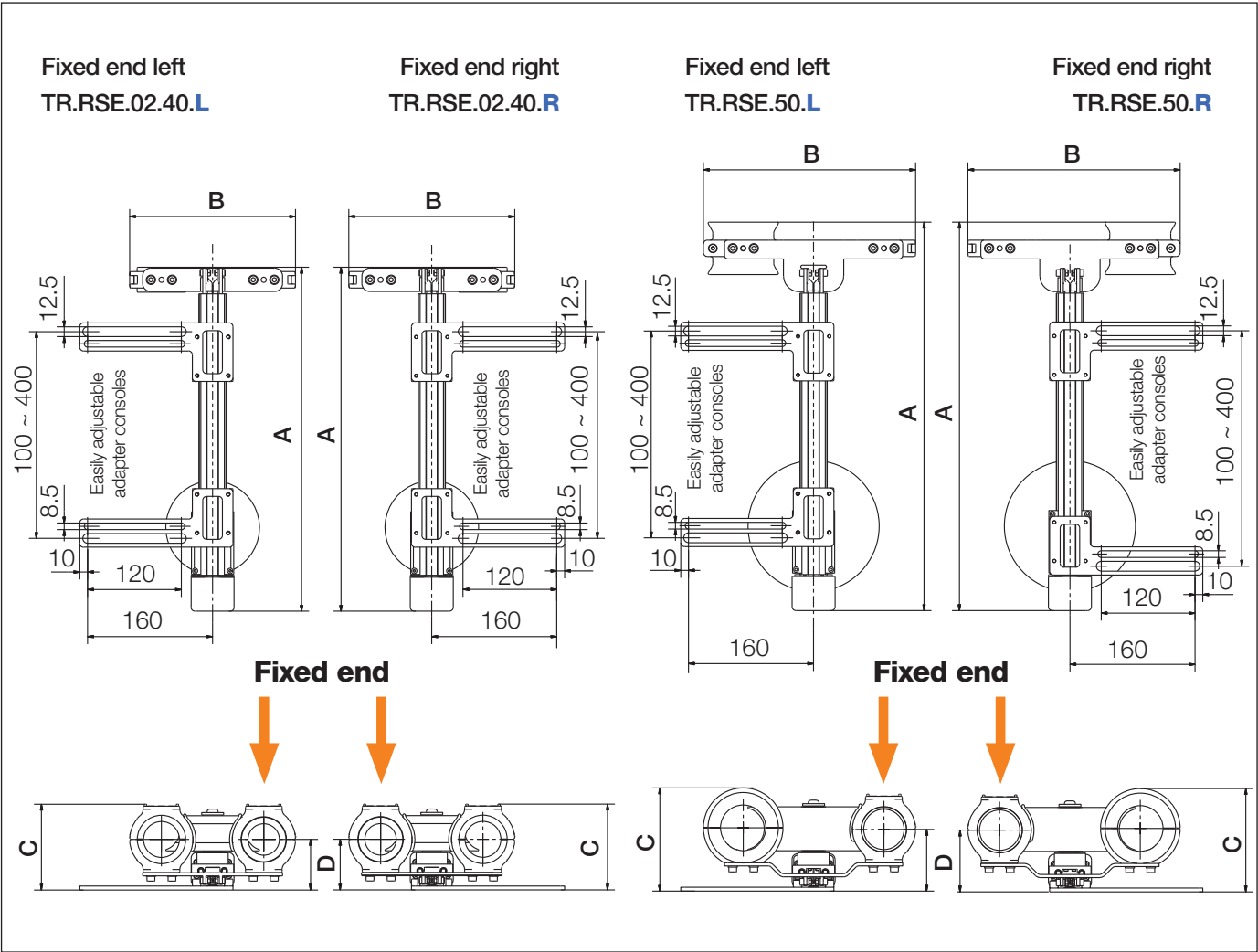
Ø	Optional cover	A	B	C	D	Load*	Weight
Index	retrofit kit	[mm]	[mm]	[mm]	[mm]	≤ [kg]	[kg]
30.	▶ –	–	–	–	–	–	–
40.	▶ TR.RSE.40.COVER	115	240	180	200	1.5	1.1
50.	▶ TR.RSE.50.COVER	126	300	248	248	1.5	1.7
60.	▶ –	–	–	–	–	–	–
65.	▶ –	–	–	–	–	–	–
65. (R 200)	▶ –	–	–	–	–	–	–
70.	▶ –	–	–	–	–	–	–
85.	▶ –	–	–	–	–	–	–
85. (R 240)	▶ –	–	–	–	–	–	–
100.	▶ –	–	–	–	–	–	–
125.	▶ –	–	–	–	–	–	–

*Maximum fill weight to be used with the cover



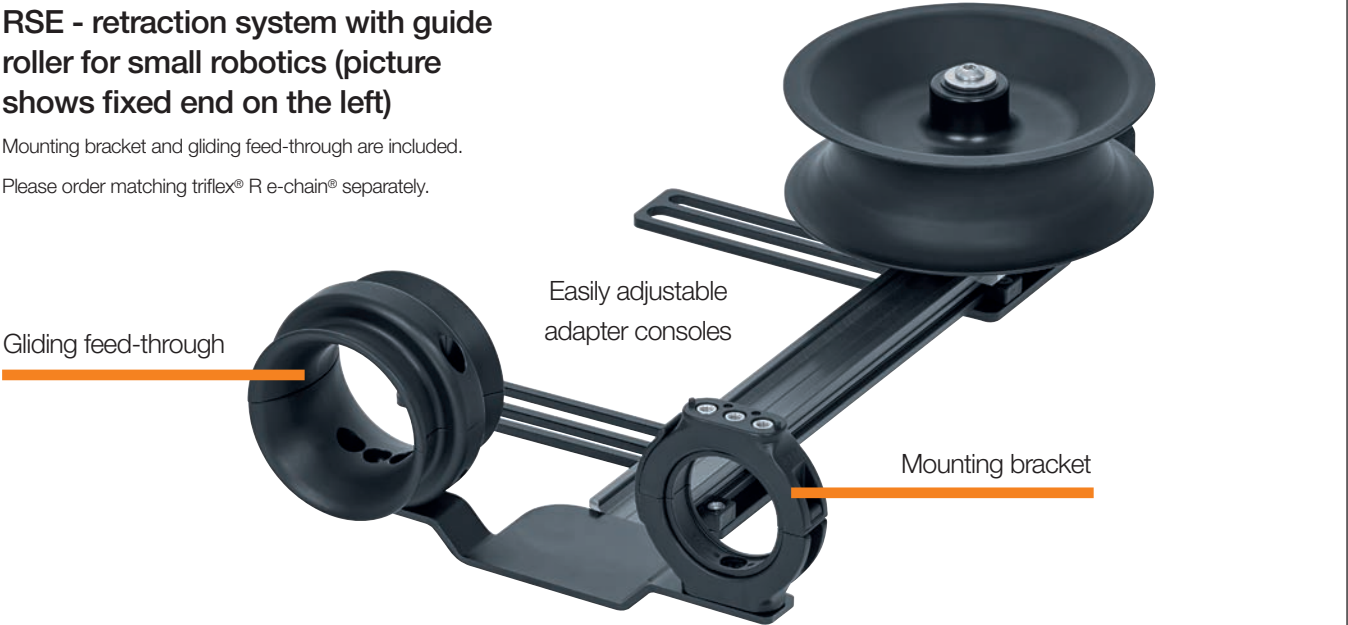
RSE retraction system

Installation dimensions



RSE - retraction system with guide roller for small robotics (picture shows fixed end on the left)

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



RSE e-chains®

Product range



Product range | Matching e-chains® for RSE

Ø Index	Part No. TRC enclosed	Part No. TRE "easy" design
30.	–	–
40.	TRC.RSE.40.058. LLLL.0	TRE.RSE.40.058. LLLL.0.B
50.	TRC.RSE.50.080. LLLL.0	TRE.RSE.50.080. LLLL.0.B
60.	–	–
65.	–	–
65. (R 200)	–	–
70.	–	–
85.	–	–
85. (R 240)	–	–
100.	–	–
125.	–	–

*Standard lengths from the gliding feed-through outside the system - special lengths upon request.

e-chains® standard lengths*

LLLL [mm] | 0500 | 0750 | 1000 | 1250 |

Part No. with LLLL standard length value (measured from the gliding feed-through) corresponds to the robot arm length from axis 3. For example: TRC.RSE.40.058.0500.0

RSE e-chains®

Cable length calculation

Calculating the overall e-chain® length | RSE e-chains®

Ø Index	Bend radius R [mm]	e-chain® length* [mm]	Number of e-chains® links	Overall e-chain® length [mm]
30.	–	–	–	–
40.	058	904	65	LLLL + 904
50.	080	1044	60	LLLL + 1044
60.	–	–	–	–
65.	–	–	–	–
65. (R 200)	–	–	–	–
70.	–	–	–	–
85.	–	–	–	–
85. (R 240)	–	–	–	–
100.	–	–	–	–
125.	–	–	–	–

*Values are related to the e-chain® length within the system

To calculate the overall e-chain® length: Please add the e-chains® length* within the system to the standard length LLLL (measured from the gliding feed-through)



More information and installation height | RSE 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

