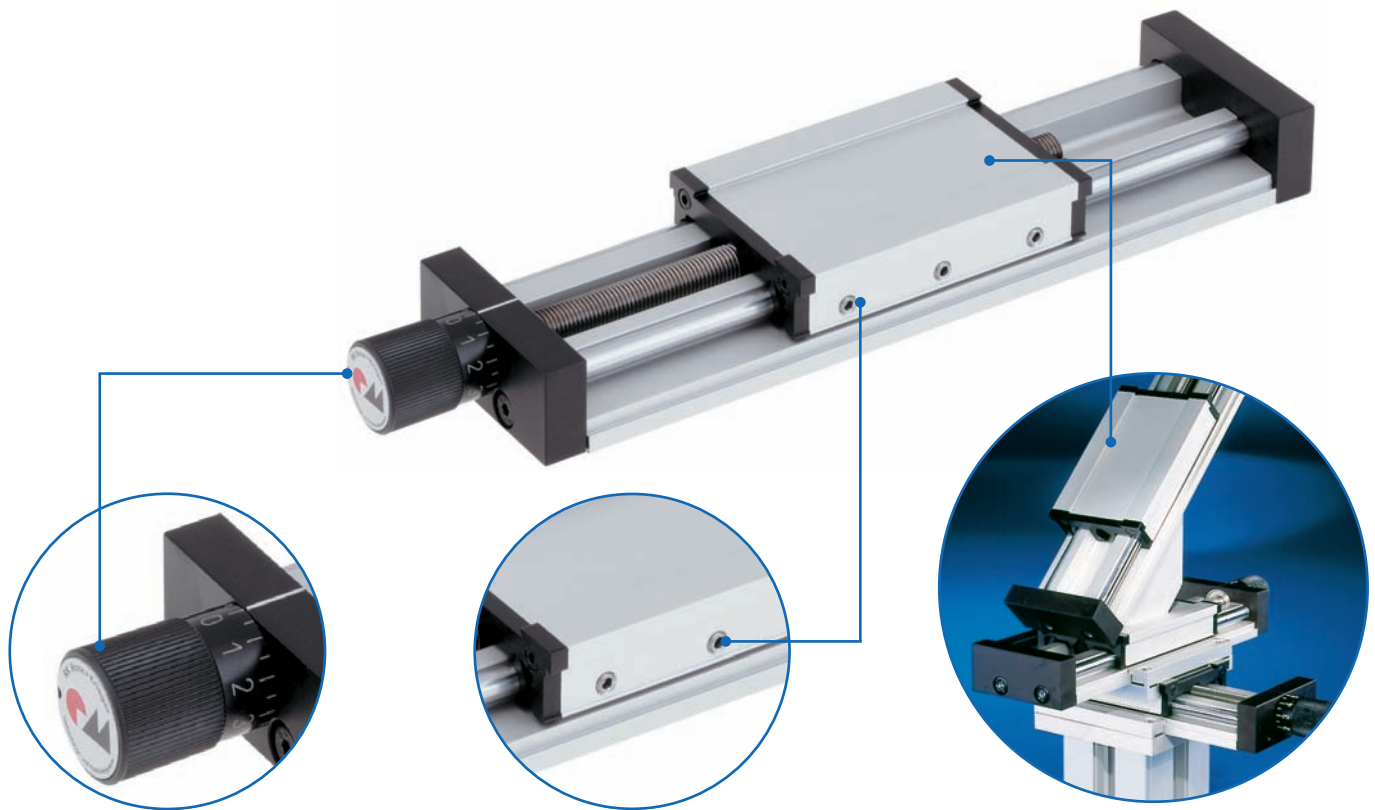


Profile guide/actuator - RK Compact

**Slimline short-stroke linear actuator
for hand adjustment – with excellent price-performance ratio**



Control knob with vernier

✓ Simple adjustment of carriage

✓ Backlash of carriage adjustable

Multiple axis combinations

✓ Standard accessories support the simple configuration of multiple axis combinations

Standard strokes

48 h
ready for delivery

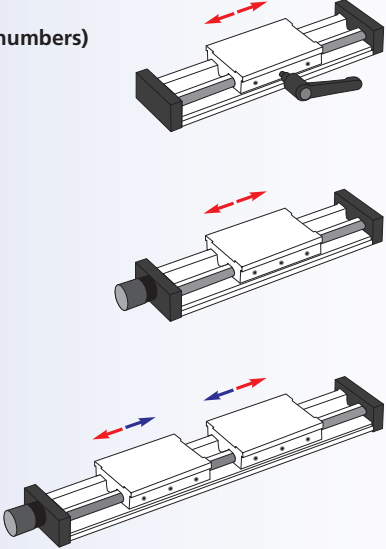
Features:

- Wide range of accessories for combining multiple axes
- Standard version with control knob
- Standard strokes ex warehouse

Options:

- Longer stroke lengths
- Second free-running carriage

RK Compact linear unit - Table of contents

Properties/Technical data		<ul style="list-style-type: none"> ■ General information/operating conditions... 158 ■ Load data..... 159
<p>Versions (Dimensions, order numbers)</p> 		<ul style="list-style-type: none"> ■ RK Compact G guide unit 160 - 161 ■ Right or lefthand thread 162 - 163 ■ Right <i>and</i> lefthand thread 164 - 165
Accessories	Fixing	<ul style="list-style-type: none"> ■ Clamping lever 166 ■ Clamping bars 167 ■ Combination angle 168 ■ Combination plate 168 ■ Fixing plate for BLOCAN® profiles..... 169
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RK Compact – Technical data

General information/operating conditions

Design	Profile linear unit with extruded guide profile/carriage
Guide	Adjustable slide guide
Installation position	Any position
Lead accuracy	Threaded screw ± 0.1 mm/300 mm travel, ball screw drive ± 0.05 mm/300 mm travel
Self-locking	Yes, for threaded screw. No, for ball screw drive
Ambient temperature	0°C to +60°C

Screw lead

Threaded screw		Ball screw drive	
Type	Screw lead	Type	Screw lead
RK Compact 30	0.5	RK Compact 80-120	1
RK Compact 50-120	1		

$$\text{Required screw speed } n \text{ [rpm]} = \frac{\text{speed [m/min]} \times 1000}{\text{screw lead [mm]}}$$

* max. screw speed with threaded screw 500 rpm
with ball screw drive 1000 rpm

No-load torque

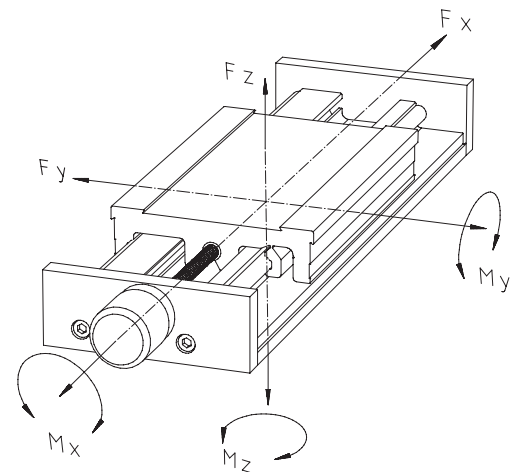
Type	No-load torque
RK Compact	0.20



Load data*

- F Force [N]
- M Moment [Nm]
- I Geometric moment of inertia [cm⁴]

* With reference to carriage (static values, guide element resting on full surface)

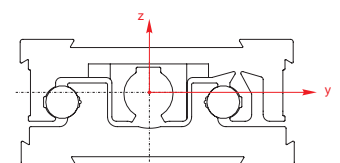


Type	Fx	Fy	Fz	Mx	My	Mz
RK Compact 30	50	160	160	3	3	3
RK Compact 50	125	350	350	6	7.5	7.5
RK Compact 80	215	600	600	12	18	18
RK Compact 120	215	1150	1150	32	59	59

Geometric moment of inertia

[cm⁴]

Type	Iy	Iz
RK Compact 30	0.09	0.90
RK Compact 50	0.46	7.44
RK Compact 80	3.68	47.14
RK Compact 120	9.85	214.84



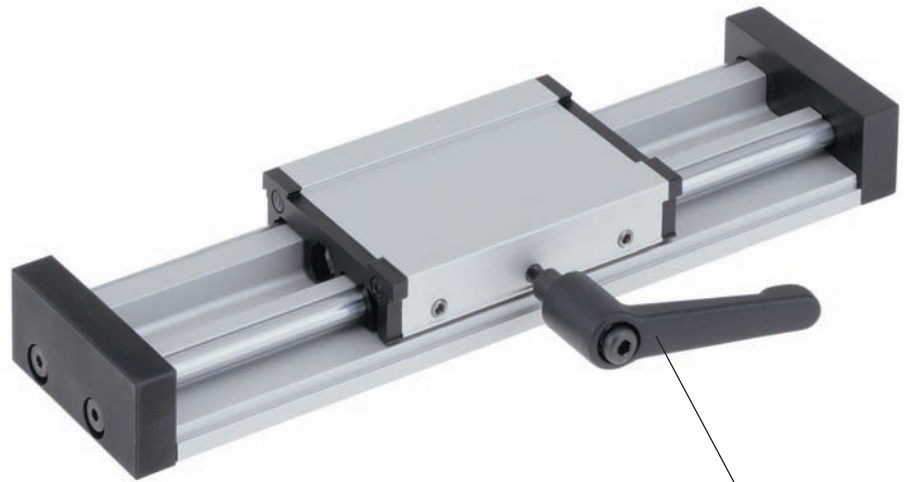
RK Compact-G - Versions

Order information:

- Standard strokes in stock!
Take advantage of our fast delivery times and lower prices
- Longer travel lengths on request

Version

■ Guide



Clamping lever for sizes 50-120 is included with

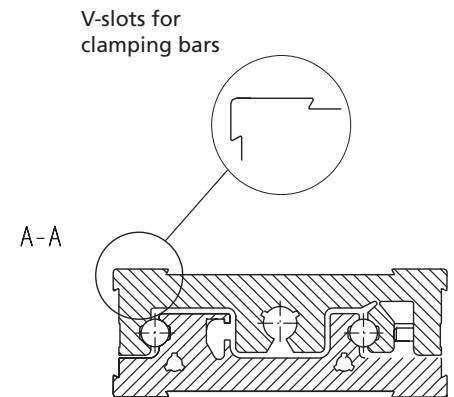
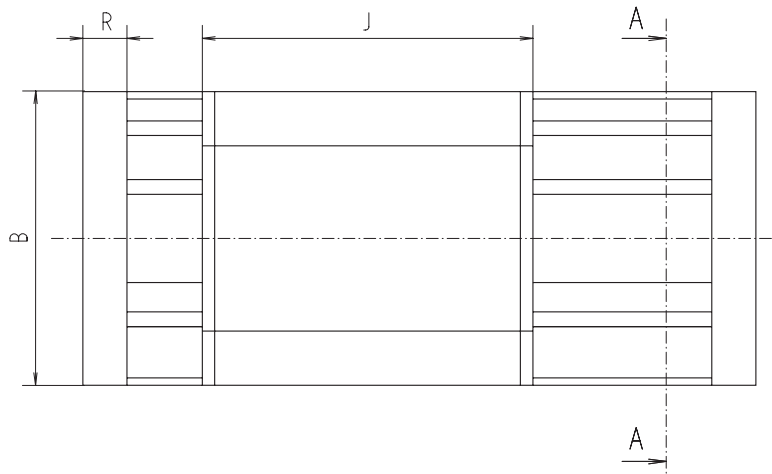
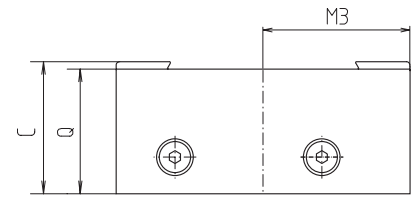
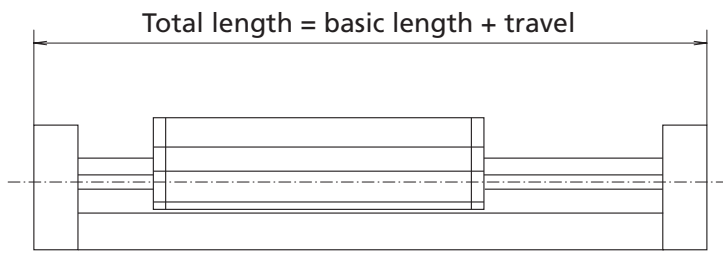


For standard strokes

- Type 30: 10, 20, 30, 50 mm
- Type 50-120: 25, 50, 75, 100 mm

Code No.	Type	Basic length	Standard stroke	B	C	J
MLA3017AA	30	59	10, 20, 30, 50	30	17	45
MLA5023AA	50	95	25, 50, 75, 100	50	23	75
MLA8036AA	80	144		80	36	120
MLA1246AA	120	204		120	46	180

----- Total length = basic length + travel [mm]



[mm]

M3	Q	R	Max. travel	Mass [kg]	
				Basic length	per 100 mm travel
17.1	16	7	300	0.06	0.07
26.5	21.5	10	350	0.27	0.14
40	34	12	350	0.29	0.29
60	44	12	400	2.62	0.63

RK Compact - Versions

Order information:

- Standard strokes in stock!
Take advantage of our fast delivery times and lower prices
- Longer travel lengths on request

Version

- Right or lefthand thread



For standard strokes

- Righthand threaded screw
- Type 30: 10, 20, 30, 50 mm
- Type 50-120: 25, 50, 75, 100 mm

Code No.	Type	Spindle	Basic length	Standard stroke	B	C	D	H1
Threaded screw								
FN_3017 TA	30	M5 x 0.5	59	10,20,30,50	30	17	13.5	8
FN_5023 T_	50	8 x 1	95	25	50	23	19	13
FN_8036 T_	80	8 x 1	144	50	80	36	27	20.5
FN_1246 T_	120	8 x 1	204	75	120	46	35	26.5
				100				
Ball screw drive								
FO_8036 T_	80	8 x 1	144	–	80	36	27	20.5
FO_1246 T_	120	8 x 1	204	–	120	46	35	26.5

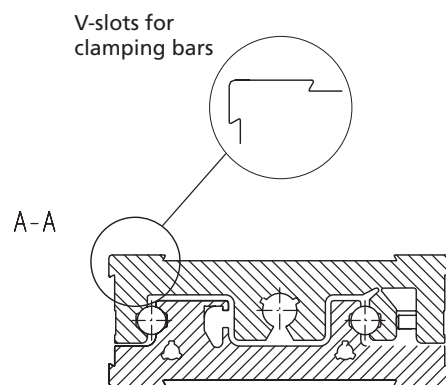
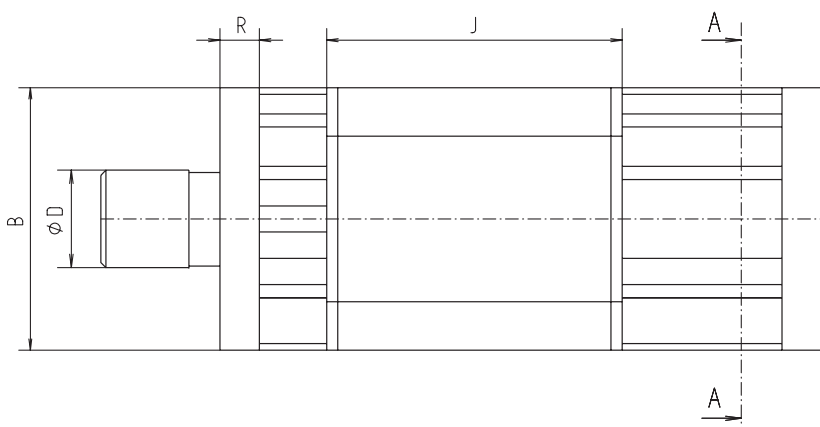
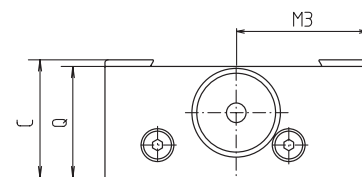
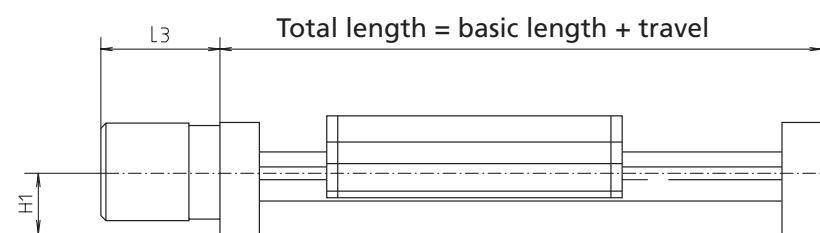
----- Total length = basic length + travel [mm]

Slide clamp:

- A = Standard
- J = Carriage with one clamping lever

Version:

- A = righthand thread
- H = lefthand thread



[mm]

J	C	M3	Q	R	Max. travel	Mass [kg]	
						Basic length	per 100 mm travel
45	21	17.1	16	7	130	0.08	0.07
75	22.5	26.5	21.5	10	350	0.29	0.18
120	30.5	40	34	12	350	0.99	0.33
180	35.5	60	44	12	400	2.76	0.67
120	30.5	40	34	12	199	0.99	0.33
180	35.5	60	44	12	199	2.76	0.67

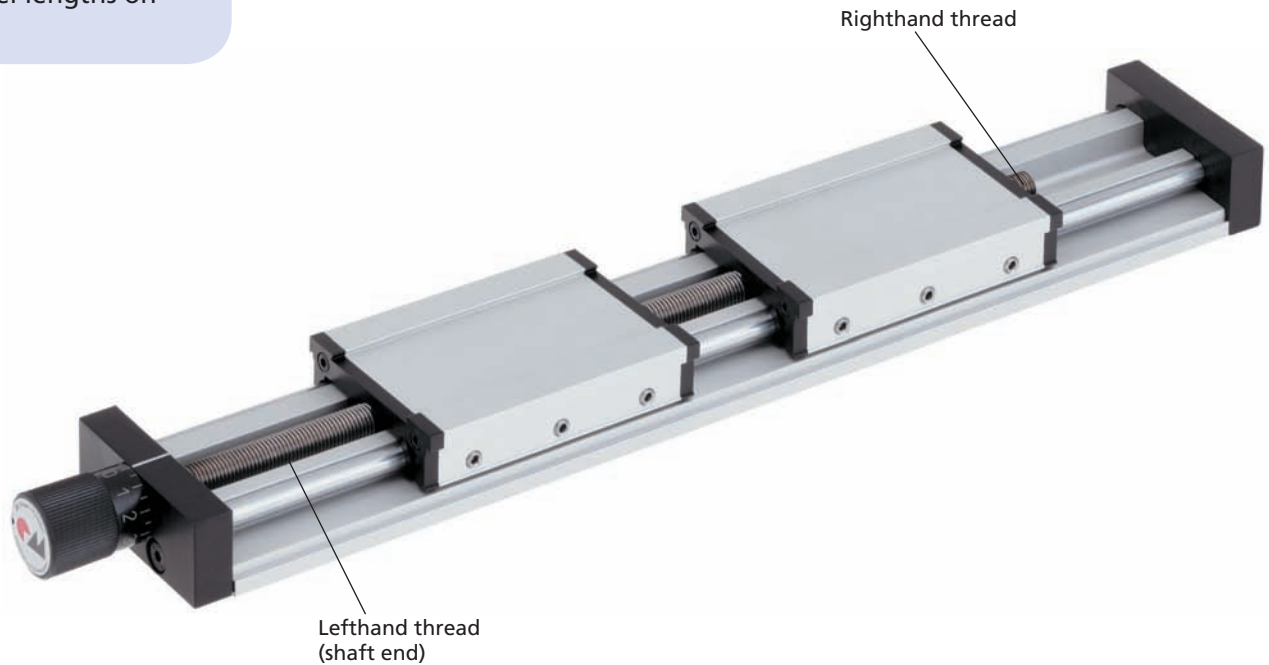
RK Compact - Versions

Order information:

- Standard strokes in stock!
Take advantage of our fast delivery times and lower prices
- Longer travel lengths on request

Version

- Right and lefthand thread



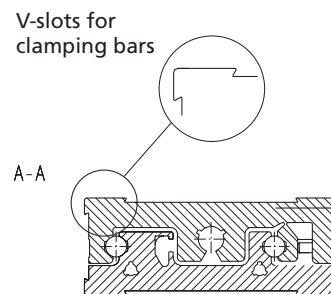
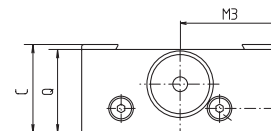
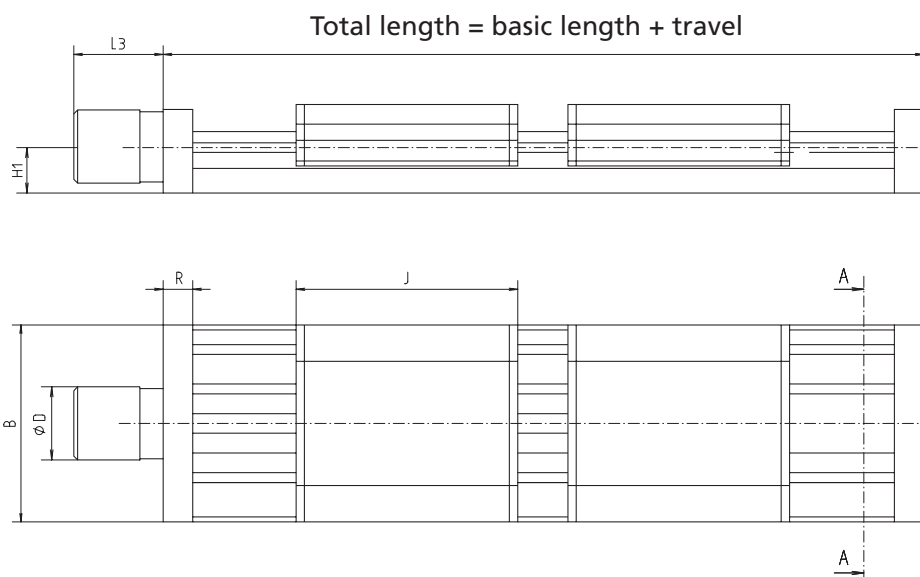
Code No.	Type	Spindle	Basic length	B	C	D	H1
Threaded screw							
FNC 3017 TA	30	M5 x 0.5	104	30	17	13.5	8
FNC 5023 T_	50	8 x 1	170	50	23	19	13
FNC 8036 T_	80	8 x 1	264	80	36	27	20.5
FNC 1246 T_	120	8 x 1	384	120	46	35	26.5

----- Total length = basic length + total travel [mm]

Slide clamp:

A = Standard

J = Carriage with one clamping lever



[mm]

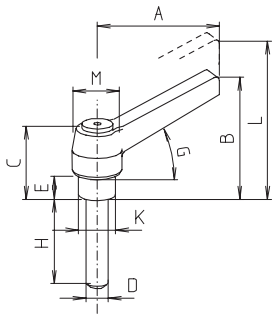
J	C	M3	Q	R	Max. travel	Mass [kg]	
						Basic length	per 100 mm travel
45	21	17.1	16	7	85	0.13	0.08
75	25.5	26.5	21.5	10	275	0.29	0.18
120	30.5	40	34	12	230	0.99	0.33
180	35.5	60	44	12	220	2.76	0.67

RK Compact – Fixing

Clamping lever

■ For the equipping of fixing elements and carriages

Material: Handle made of die cast zinc, plastic-coated



[mm]

Code No.	Type	A	B	C	D	E	G	H	K	L	M
90292	50	45	40	25	M4	7.5	25°	10	7	43	13
90293	80	45	35	22	M5	4	25°	12	10	38	13
90294	120	45	35	22	M6	4	25°	20	10	38	13

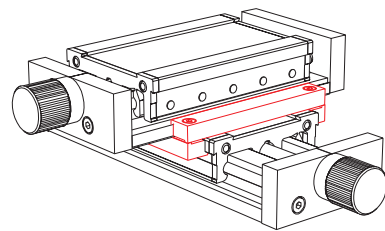
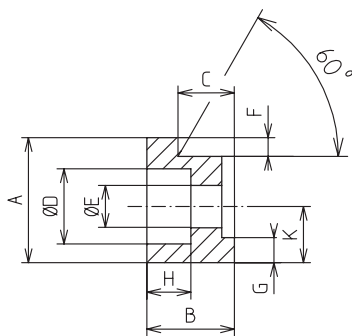


Clamping brackets

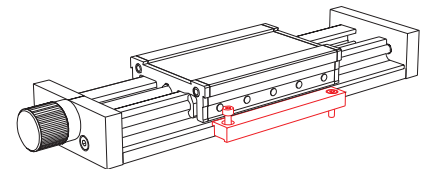
- Complete set for mounting on cross table
- Fixing of linear unit on an existing design
- Fixing of auxiliary devices and tools to the carriage

Material: Aluminium clear anodised
Galvanised fastenings

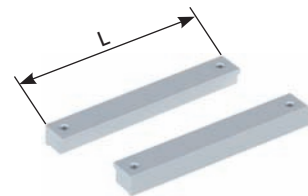
Scope of delivery: 1 set contains 2 clamping bars. Version with counterbore includes fixing screws



Version: crossing, complete



Version: with thread



Version: with counterbore

[mm]

Code No.	Type	Version	A	B	C	D	E	F	G	H	K	L	M	N
91879	30	with counterbore	6.6	4.2	3	5	2.9	1	0.9	2.9	2.9	41.2	M2,5 x 6	35.4
91880	30	with thread	6.6	4.2	3	-	M2.5	1	0.9	-	2.9	41.2	M2,5 x 6	35.4
91881	30	crossing, complete												
91882	30/50	crossing, complete												
91845	50	with counterbore	10	7	4.5	6	3.4	1.5	2	4	4.5	67	M3 x 10	58
91846	50	with thread	10	7	4.5	-	M3	1.5	2	-	4.5	67	-	58
91847	50	crossing, complete												
91857	50/80	crossing, complete												
91848	80	with counterbore	14.5	10	8	8	4.5	2	2.5	5	6.5	105	M4 x 14	92
91849	80	with thread	14.5	10	8	-	M4	2	2.5	-	6.5	105	-	92
91850	80	crossing, complete												
91858	80/120	crossing, complete												
91851	120	with recess	14.5	10	8	10	5.5	2	2.5	5.7	6.5	145	M5 x 14	132
91852	120	with thread	14.5	10	8	-	M5	2	2.5	-	6.5	145	-	132
91853	120	crossing, complete												

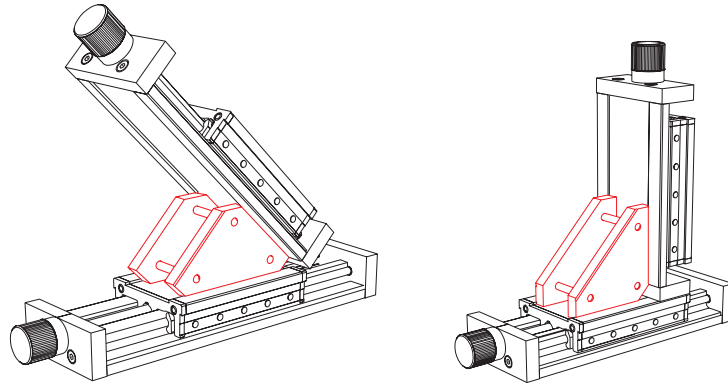
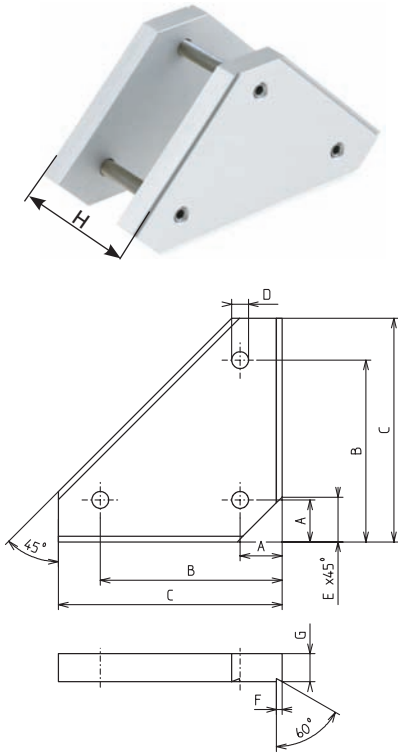
RK Compact – Fixing

Combination angle

- Combination angle for the creation of 2-axis combinations below 45° and 90°
- Simple assembly and centring due to prism geometry

Material: Aluminium, clear anodised
Stainless-steel set screws

Scope of delivery:
2 angled halves (1 x with thread, 1 x without thread)
3 set screws



[mm]

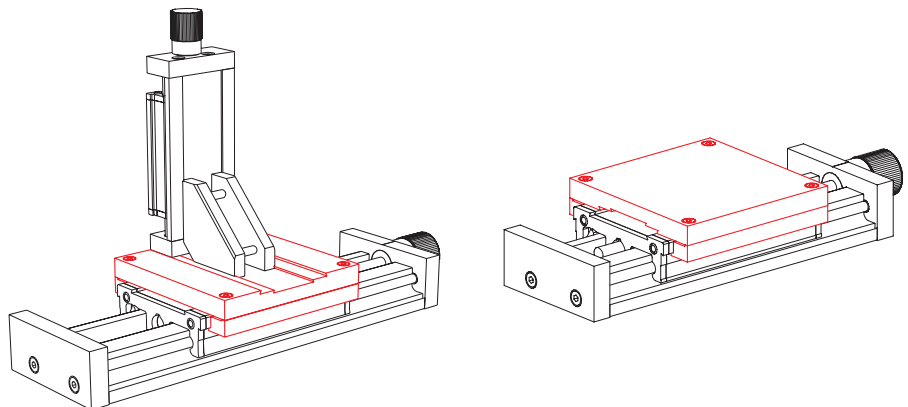
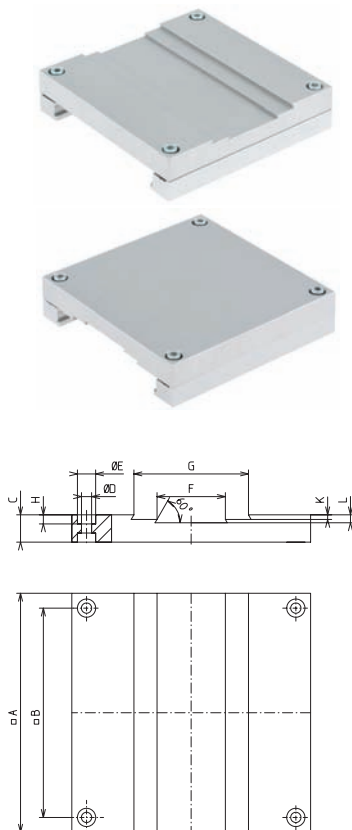
Code No.	Type	A	B	C	D	E	F	G	H
91883	30	7	21	25	M4	9.3	1	4	17.2
91854	50	11	40	50	M5	13	1.5	8	31.7
91855	80	15	65	80	M6	16	2	10	52.3
91856	120	18	100	120	M8	16	2	12	82.3

Combination plate

- The combination plate enables the drilling of holes for the fixing of a superstructure
- Used together with the combination angle, it allows the combination of different sizes and movement of the axes by 90°

Material: Aluminium, clear anodised
Galvanised fastenings

Scope of delivery:
1 combination plate
1 set of clamping bars (thread)
Fastenings



[mm]

Code No.	Type	A	B	C	D	E	F	G	H	K	L
94365	30	41.2	35.4	5	2.9	5 (90°)	16	-	-	1	-
94362	50	67	58	8	3.4	6	30	-	2.5	1.5	-
94363	80	105	92	12	4.5	8	30	50	4	2	3.5
94364	120	145	132	15	5.5	10	50	80	4.5	2	4

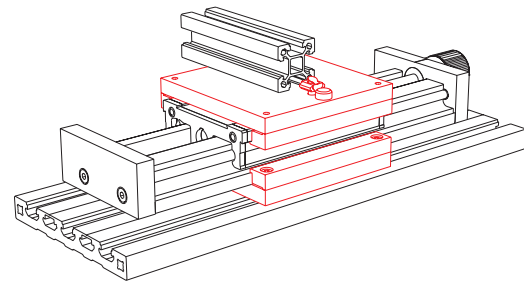
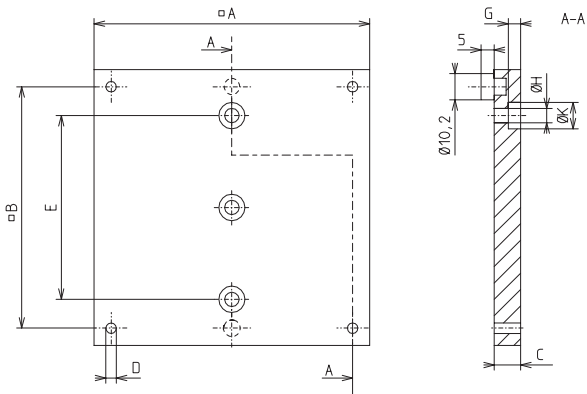


Fixing plate for BLOCAN® profiles

- For connecting a linear unit to a design made of BLOCAN® profiles
- Centring pins facilitate the assembly and alignment of the profiles

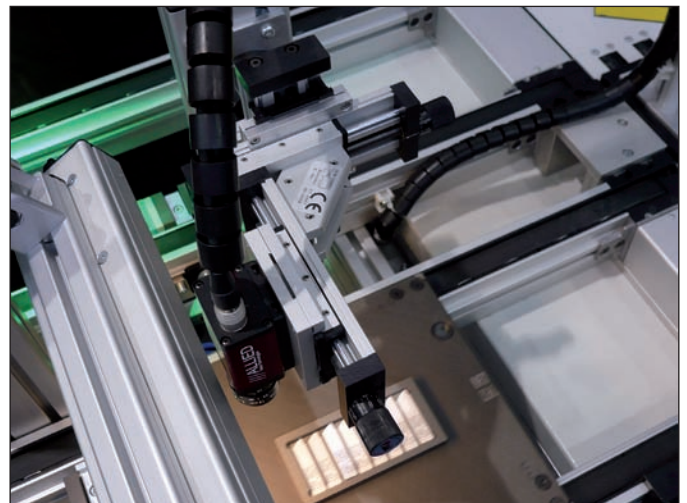
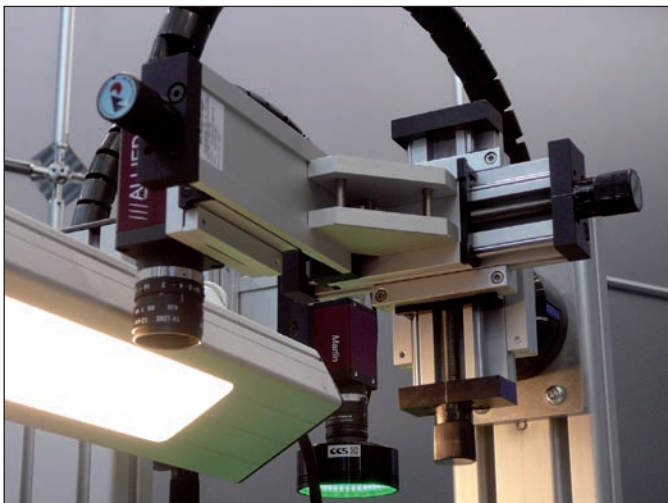
Material: Aluminium, clear anodised,
Centring pins, polyamide
Galvanised fastenings

Scope of delivery:
1 fixing plate
2 centring pins
1 set of clamping bars with clamping
2 or 3 slot stones -F-
Fastenings



[mm]

Code No.	Type	Version	A	B	C	D	E	G	H	K
94356	50	up to S/F-30	67	58	8	M3	34	3.9	4.5	8
94357	50	from S/F-40	67	58	8	M3	34	3.9	4.5	8
94358	80	up to S/F-30	105	92	10	M4	70	4.7	5.5	10
94359	80	from S/F-40	105	92	10	M4	70	4.7	5.5	10
94360	120	up to S/F-30	145	132	12	M5	110	4.9	6.6	11
94361	120	from S/F-40	145	132	12	M5	110	4.9	6.6	11



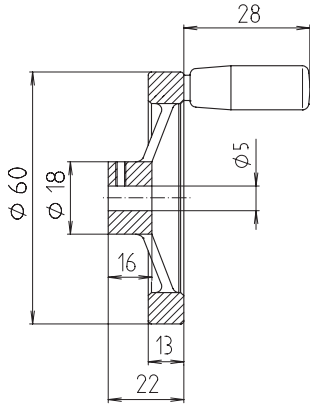
Camera adjustment via RK Compact 3-axis system, fixing via standard accessories

RK Compact – Drive/Position determination

Handwheel

- Rotating cylindrical grip
- Fully turned wheel rim
- Machined hub

Material: Aluminium die casting. Wheel body, completely plastic-coated

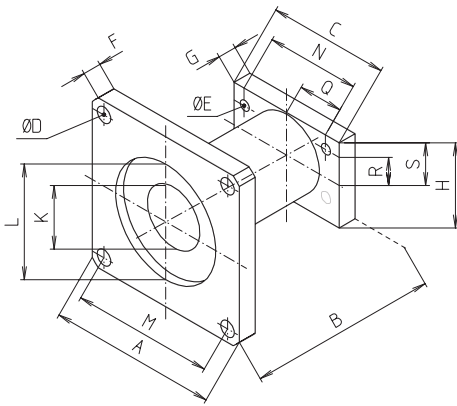


Code No.	Type
909200	50/80/120

Motor adaptor/coupling

- Motor adaptor for PD 42/56 stepper motor (see chapter "Controls and Motors")

Material: Aluminium, black anodised, Galvanised fastenings



Code No.	Type
9107140505	Coupling for motor PD42, Ø 5/Ø 5
9107140506	Coupling for motor PD56, Ø 5/Ø 6.3

[mm]

Code No.	Type	Ø A	B	C	D	E	F	G	H	K	L	Ø M	N	Q	R	S
91301	RK Compact 80/PD42	41	55.5	70	3.5	5.5	6	6	34	20	22 ^{H7} /3deep	31	40	16	10	20.5
91302	RK Compact 80/PD56	56	52	70	5.2	5.5	6	6	34	20	38,1/3deep	47	40	16	10	20.5
91303	RK Compact 120/PD42	41	55.5	90	3.5	6.6	6	6	34	20	22 ^{H7} /3deep	31	61	–	12	26.5
91309	RK Compact 120/PD56	56	52	90	5.2	6.6	6	6	34	20	38,1/3deep	47	61	23	12	26.5



RK Compact - Position determination

RK ROSE+KRIEGER

Positioning indicator

- Permitted ambient temperature +80°C
- Figure height 6 mm
- Reading accuracy ± 0.1 mm

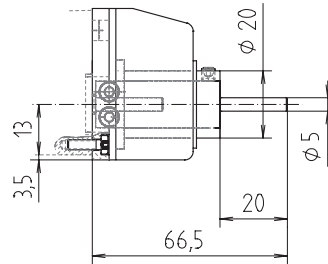
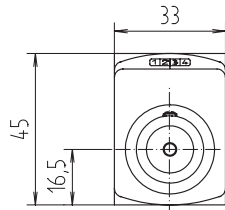
Material: Housing made of polyamide 6
Orange RAL 2004
Steel parts galvanised

Scope of delivery: Positioning indicator, clamping ring, shaft extension and fastenings

Note: If using a positioning indicator, the rotary knob delivered with the RK Compact must be replaced with the handwheel shown on the left.



Installation position: horizontal



Installation position: vertical

Code No.	Type	Version	Installation position
910031	50	1 mm rising	Horizontal
910032		1 mm falling	Horizontal
910033		1 mm rising	Vertical
910034		1 mm falling	Vertical
910035	80	1 mm rising	Horizontal
910036		1 mm falling	Horizontal
910037		1 mm rising	Vertical
910038		1 mm falling	Vertical
910039	120	1 mm rising	Horizontal
910040		1 mm falling	Horizontal
910041		1 mm rising	Vertical
910042		1 mm falling	Vertical

Inductive limit switch

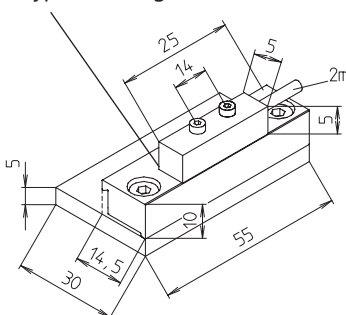
- The holder can be moved along the guide profile and fixed

Material: Holder made of aluminium, clear anodised
Galvanised fastenings

Scope of delivery: 1 limit switch with complete holder and fastenings



Additional spacer for Type 120, height 9.5 mm



Code No.	Type
92818	RK Compact 80
928112	RK Compact 120

Voltage	10 - 30 V DC
Max. switching current	200 mA
Max. starting current	2 A for approx. 2 ms
Operating frequency	700 Hz DIN EN 50010
Mechanical lifetime	independent of operating cycles
Operating distance	4 mm for steel
Protection class	IP 67
Ambient temperature	-25°C to +80°C