RK ROSE+KRIEGER
A Phoenix Mecano Company

Linear unit E-II-stainless

The corrosion-resistant tubular linear unit
...now also for temperatures up to +150°C

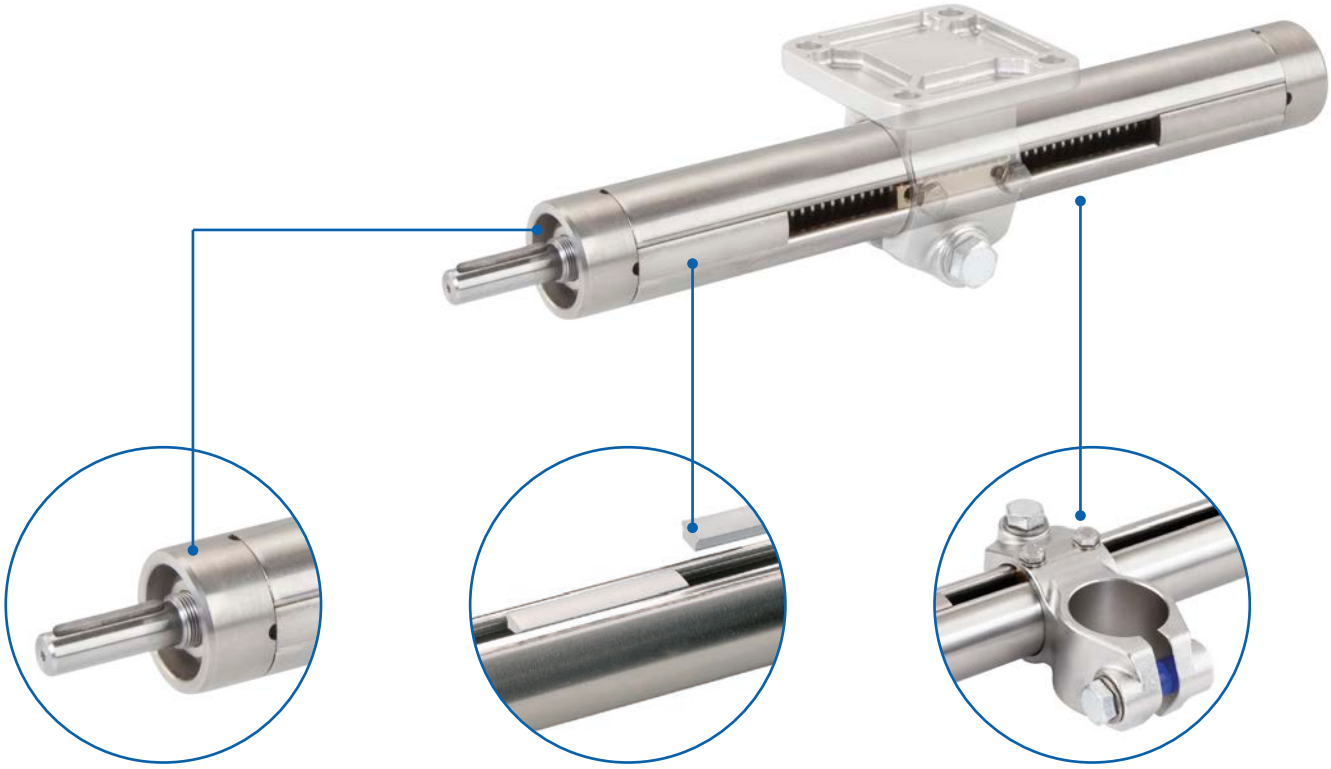


01/2026

Linear unit E-II-stainless

Flexible all-rounder – now corrosion-resistant and high temperature resistant

Single tube actuator – Linear unit E-II-stainless



End element

- Stainless steel ball bearing as screw bearing
- With drain hole as standard

Covers

- Slot cover as dust protection or stroke limitation

Guide carriage/fixing elements

- Range of variants facilitates connection to your design
- Made from stainless steel, guide carriages with slide bush as standard

Features:

- Units for light to heavy movement applications
- Corrosion-resistant to media, e.g. water
- Suitable for washing down
- FDA-approved lubricants

Options:

- Second free-running guide carriage
- Higher temperature range up to 150°C

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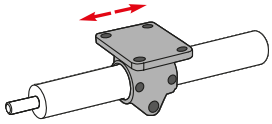
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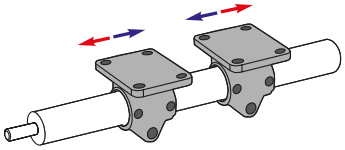
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Technical data

General information/operating conditions

Design	Adjustment unit with trapezoidal screw in rolled stainless steel profile
Guide Guide	carriage with slide bushing
Installation position	Any position
Positioning accuracy	± 0.2 mm / 300 mm stroke
Self-locking	Yes
Ambient temperature	-30°C to +80°C or -30°C to +150°C

Screw lead

	DIN EN ISO	AISI
Ball bearing	1.4301	304
Trapezoidal screw (-30°C to +80°C)	1.4104	430
Trapezoidal screw (-30°C to +150°C)	1.4301	304
Guide tube		
Bearing		
Screws		
Sealing profile		
End element	1.4305	303
Lead nut	Brass alloy	
Driver key		

Screw lead

Type	Screw lead [mm]	Speed with ball bearing 250 rpm [mm/s]
E-II 30-stainless	3	12.5
E-II 40-stainless	4	16.7
E-II 50-stainless	4	16.7

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

*max. screw speed with ball bearing 250 rpm

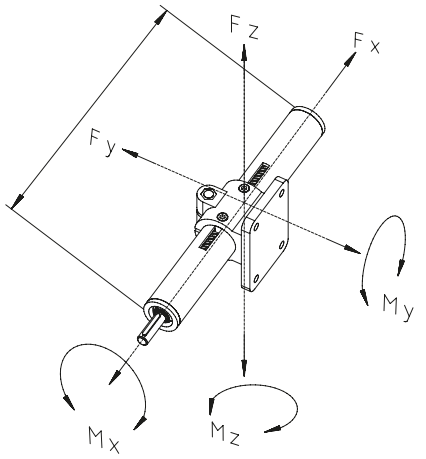
No-load torque

[Nm]

Type	Screw with ball bearing
E-II 30-stainless	0.35
E-II 40-stainless	0.50
E-II 50-stainless	0.90

Load data*

F Force [N]
M Moment [Nm]
I Geometric moment of inertia [cm^4]



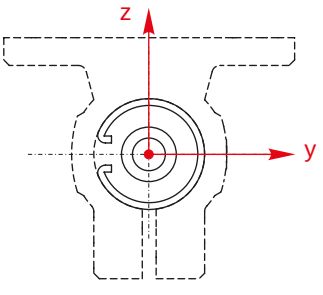
* with reference to carriage (deflection of guide element f = 0.5 mm, static, end elements supported)

	Fx	Fy*			Fz*			Mx	My	Mz
Total length [mm]		500	1000	1500	500	1000	1500			
Type										
E-II 30-stainless	800	500	60	10	500	50	9	6	15	15
E-II 40-stainless	1000	2100	250	60	1900	140	50	14	40	40
E-II 50-stainless	1700	3000	600	140	3000	600	140	30	65	65

Geometric moment of inertia

[cm^4]

Type	Iy	Iz
E-II 30-stainless	1.34	1.56
E-II 40-stainless	4.58	5.24
E-II 50-stainless	11.31	12.32



Versions

Dimensions / ordering data

Order instructions:

- Choice of guide carriage, this must be ordered separately
- Different "R" dimensions available on request
- Higher temperature range available on request

Version: ● Right- or lefthand thread



Code No.	Type	Screw	Basic length	B	D 1	D 2	J
78 _ 304 _	30	Tr 14x3	191	30	8	–	31
78 _ 306 _	30					8	
78 _ 404 _	40	Tr 20x4	193	40	12	–	39
78 _ 406 _	40					12	
78 _ 504 V	50	Tr 20x4	220	50	12	–	50
78 _ 506 V	50					12	

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

V = Temperature range (-30°C to +80°C)
H = Temperature range (-30°C to +150°C)

Version:

1 = righthand thread

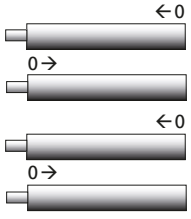
2 = lefthand thread

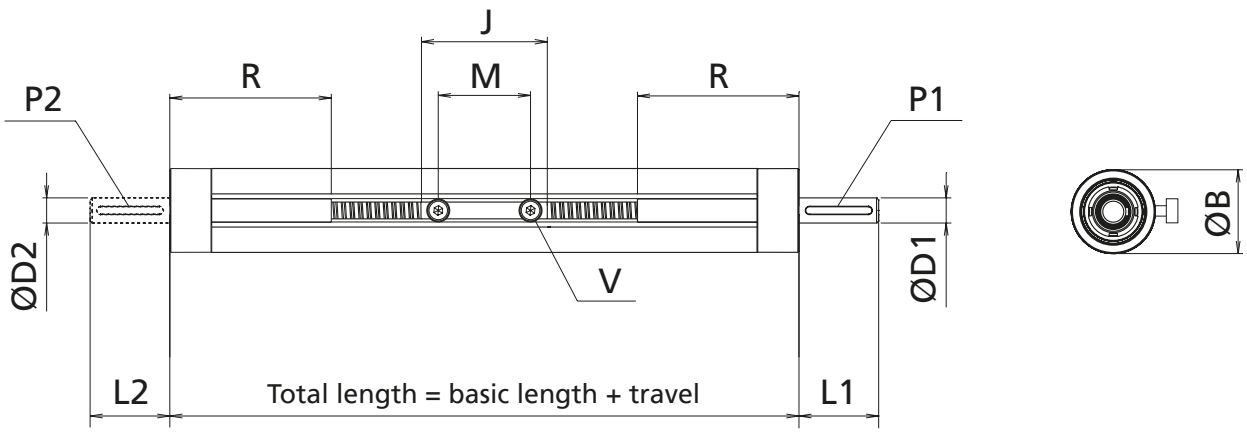
A = righthand thread with scale at 270° *

B = righthand thread with scale at 270° *

C = lefthand thread with scale at 270° *

D = lefthand thread with scale at 270° *





[mm]

L 1	L 2	M	P 1	P 2	R	V	Max. travel	Mass [kg]	
								Basic length	per 100 mm travel
26	–	22	2x2x20	–	80	M4x8	1283	0.610	0.212
	26			2x2x20			1257	0.620	0.212
38	–	28	4x4x32	–	77	M6x10	2769	1.305	0.432
	38			4x4x32			2731	1.336	0.432
38	–	38	4x4x32	–	85	M6x12	2742	1.955	0.539
	38			4x4x32			2704	1.986	0.539

Versions

Dimensions / ordering data

Order instructions:

- Choice of guide carriage, this must be ordered separately
- The total length (total travel + basic length) in millimetres has to be specified when ordering
- Different "R" dimensions available on request
- Higher temperature range available on request

Version: ● Right- and lefthand thread



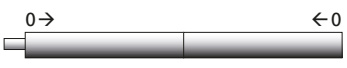
Code No.	Type	Screw	Basic length	B	D 1	D 2	J
78_30_ _	30	TR 14x3	247	30	8	8	31
78_40_ _	40	TR 20x4	255	40	12	12	39
78_50_V	50	TR 20x4	299	50	12	12	50

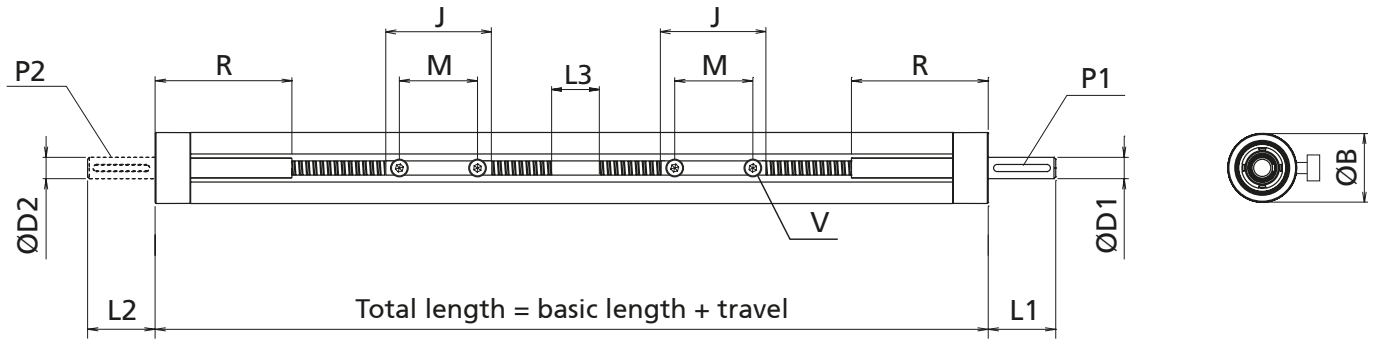
_ _ _ _ Total length = basic length + total travel [mm]

V = Temperature range (-30°C to +80°C)
H = Temperature range (-30°C to +150°C)

Version:
4 = 1 drive shaft at lefthand thread end
5 = 1 drive shaft at righthand thread end
6 = 2 drive shafts

Version:
3 = right and lefthand thread (RH/LH)
N = RH/LH with scale at 270° *





[mm]

L 1	L 2	L 3	M	P 1	P 2	R	V	Max. travel	Mass [kg]	
									Basic length	per 100 mm travel
26	26	25	22	2x2x20	2x2x20	80	M4x8	1753	0.798	0.212
38	38	23	28	4x4x32	4x4x32	77	M6x10	2745	1.742	0.432
38	38	29	38	4x4x32	4x4x32	85	M6x12	2625	2.725	0.539

Fixing

Guide carriage

Order instructions:

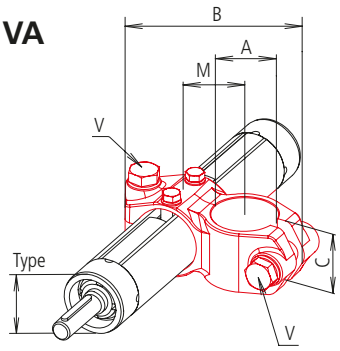
- A rotation locking device (drive key) is included in the scope of delivery of the linear unit. Additional drive keys (e.g. for free-running guide carriages) can also be ordered as an optional extra
- For further dimensions, please refer to the catalogue **"Connecting Technology"**

- A range of different versions facilitate simple system mounting

Material:
Precision cast stainless steel 1.4308 (AISI CF-8), electropolished finish

Scope of delivery:
Guide carriage with screws, losely enclosed

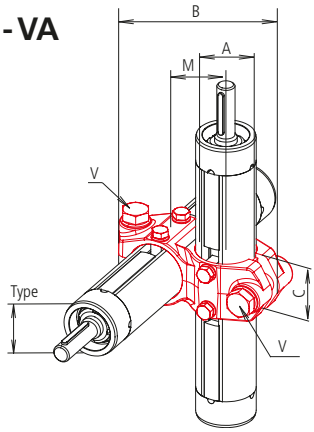
K - VA



[mm]

Code No.	Type	A	B	C	M	V	Clamping levers V Code No.
13001_0_	30	30	92	32.4	33	M8x30	93027
14001_0_	40	40	118	40	42	M10x35	93026
1500130_	50	50	150	55	54	M10x35	93026

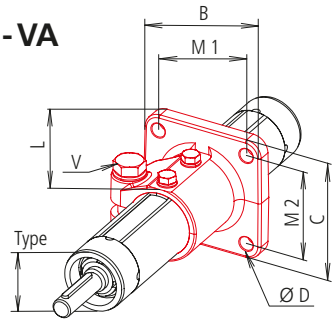
EK - VA



[mm]

Code No.	Type	A	B	C	M	V	Clamping levers V Code No.
13019_00	30	30	92	32.4	33	M8x30	93027
14019_00	40	40	118	40	42	M10x35	93026
15019300	50	50	150	55	54	M10x35	93026

FS - VA



[mm]

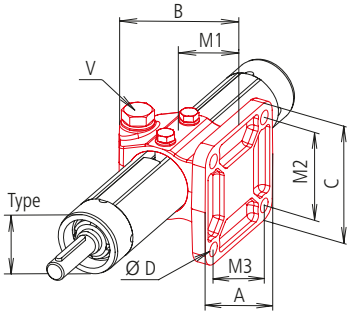
Code No.	Type	B	C	D	L	M1	M2	V	Clamping levers V Code No.
13011_0_	30	60	60	7	50	40	40	M8x30	93027
14011_0_	40	80	80	9	60	60	60	M10x35	93026
1501130_	50	105	105	11	80	80	80	M10x35	93026

0 = without scale
A = scale at 270°

3 = Temperature range (-30°C to +80°C)
A = Temperature range (-30°C to +150°C)

Guide carriage

FK - VA



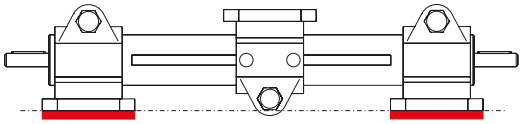
[mm]

Code No.	Type	A	B	C	D	M1	M2	M3	V	Clamping levers V Code No.
13023_0_	30	55	59	78	7	30	60	40	M8x30	93027
14009_0_	40	80	80	80	9	42	60	60	M10x35	93026
1500930_	50	85	101	105	11	53	80	60	M10x35	93026

0 = without scale
A = scale at 270°

3 = Temperature range (-30°C to +80°C)
A = Temperature range (-30°C to +150°C)

If using FK elements as guide carriages and fixing elements, spacers provide the necessary clearance.



[mm]

Code No.	Type	Spacer
96733	30	5 mm panel thickness, stainless steel 1.4301 (AISI 304)
96734	40	
–	50	Not required

Drive key for carriages

- Rotation locking for additional free-running carriages

Note:
The order number of the linear unit includes a drive key.

Material:
Brass alloy



[mm]

Code No.	Type	Installation length
95986	30	31
95985	40	39
95909	50	50

Fixing

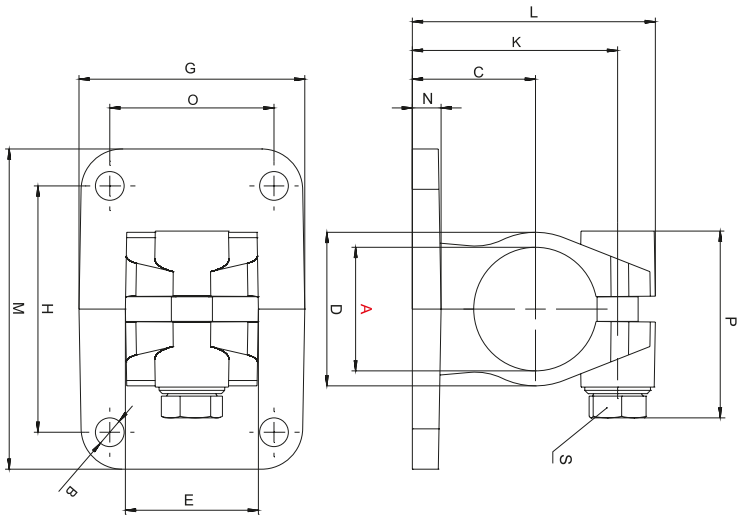
Fixing element

- Clamping elements for the simple fixing of Linear units E-II-stainless

Material:
Precision cast stainless steel 1.4308 (AISI CF-8), electropolished finish

FK - VA



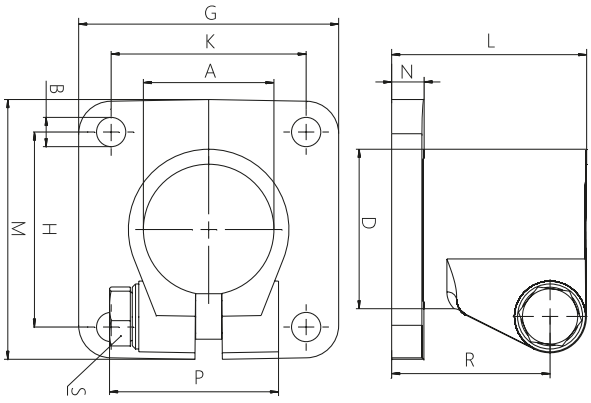


[mm]

Code No.	Type	A	B	C	D	E	G	H	K	L	M	N	O	P	m [g]	Clamping levers S Code No.
12300000390	FK-VA 30	30.1	7	30	37.4	32.4	55	60	50	59.2	78	7	40	45.5	370	93027
12400000390	FK-VA 40	40.17	9	42	49.4	46.4	80	60	69	80	80	10	60	54	849	93026
12500000390	FK-VA 50	50.22	11	53	61	55	85	80	90	101	105	14	60	56.5	1022	93023

FS - VA





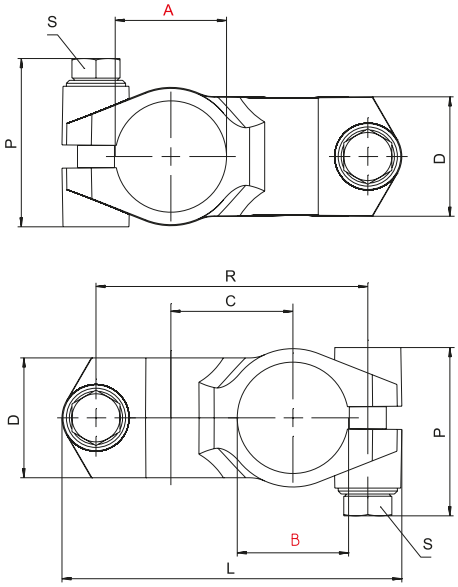
[mm]

Code No.	Type	A	B	D	G	H	K	L	M	N	P	R	m [g]	Clamping levers S Code No.
13300000390	FS-VA 30	30.1	7	37.4	60	40	40	50	60	7	45.5	41	316	93027
13400000390	FS-VA 40	40.17	9	49.4	80	60	60	60	80	10	54	90	629	93026
13500000390	FS-VA 50	50.22	11	64.5	105	80	80	80	105	14	56.5	54	1163	93023

Fixing element

K-VA



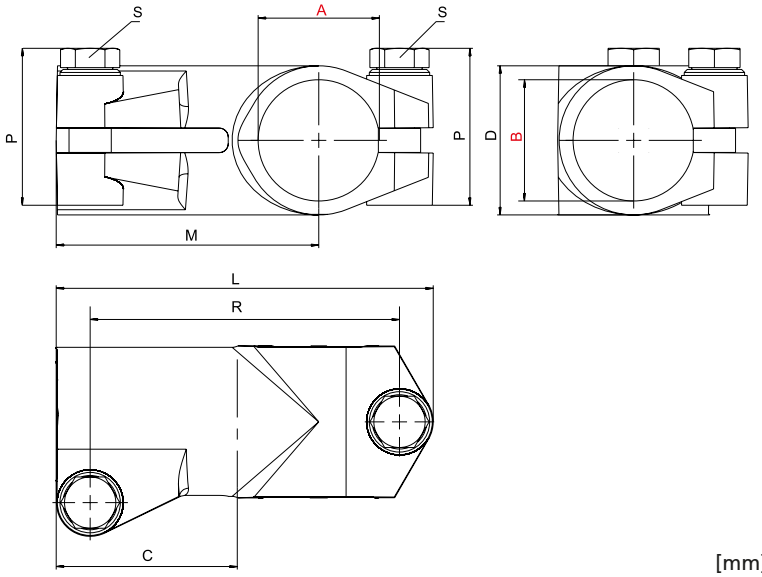


[mm]

Code No.	Type	A	B	C	D	L	P	R	m [g]	Clamping levers S Code No.
103000003900	K-VA 30	30.1	30.1	33	32.4	92	45.5	73.5	348	93027
104000003900	K-VA 40	40.17	40.17	42	40.4	118	54	95.5	647	93026
105000003900	K-VA 50	50.22	50.22	54	55	150	56.5	128	1166	93023

W-VA





[mm]

Code No.	Type	A	B	C	D	L	M	P	R	m [g]	Clamping levers S Code No.
113000003900	W-VA 30	30.1	30.1	40	38.4	87	58	45.5	69	403	9300201
114000003900	W-VA 40	40.17	40.17	60	50.4	124.9	87	54	102.5	875	93023
115000003900	W-VA 50	50.22	50.22	61.5	60	142	94.5	56.5	120	1149	93023

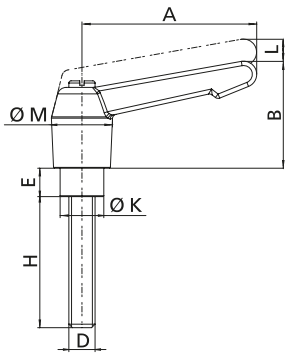
Fixing/Drive

Clamping lever



(Symbolic representation)

- Accessory for fixing elements and guide carriages



Material:
Handle – precision cast stainless steel 1.4308 (AISI CF-8), electropolished finish.
Other parts – stainless steel 1.4305 (AISI 303)

Note:
A washer (delivery scope of clamp) must be used if lever M10x40 shall be assembled

[mm]

Code No.	Type	A	B	D	E	H	K	L	M
93027	30	65	36	M8	6,5	30	13.5	3	19
93026	40-50	65	36	M10	6,5	40	13.5	3	19

Covers

- Slot covers, can be used as dust protection or stroke limitation
- Can be shortened or lengthened if required

Material:
Stainless steel 1.4301 (AISI 304)

Scope of delivery:
Pack of 2 cover strips or as bar material



The covers are available as a pack of two, or as bar material.



The linear unit comes with two covers for the bearing seats.



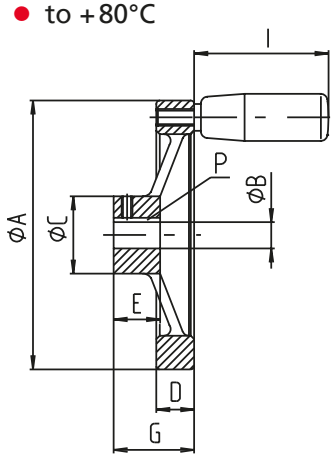
Additional covers can be inserted in the guide slot.

Code No.	Type	Length [mm]
	Covers, pack of 2	
90440	30	63
90441	40	57
90442	50	60
	Cover, bar material	
90445	30	3010
90446	40	3010
90447	50	3010

Handwheel



- to +80°C



Material:
Duroplast PF31 black,
hub made of stainless stell 1.4305 (AISI 303)
Handle (rotating), stainless steel 1.4305 (AISI 303)

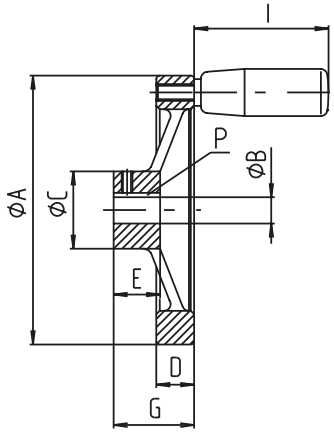
[mm]

Code No.	Type	ØA	B	C	D	E	G	P	I
90971	30	100	8	22	19	29.5	39	2x2	54.7
90972	40-50	100	12	22	19	29.5	39	4x4	54.7

Handwheel



- to +150°C



Material:
Stainless steel 1.4301 (AISI 304)

[mm]

Code No.	Type	ØA	B	C	D	E	G	P	I
90990	30	101.6	8	25.9	7.87	18.03	31.7	2x2	39.88
90991	40-50	101.6	12	25.9	7.87	18.03	31.7	4x4	39.88

Position determination

Order instruction:

- Position of scale on 0° or 180° as option

Scale

- Self-adhesive
- Width:10 mm
- 4 mm high figures

Material:
High-performance film
transparent – (-30°C to +80°C)
white – (-30°C to +150°C)

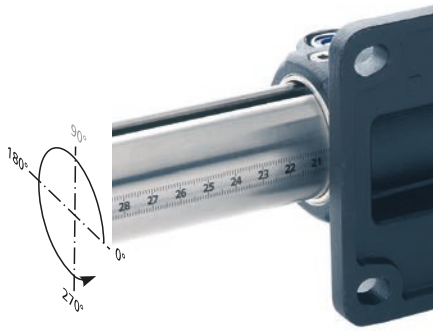


Image shows scale mounted at 0°, to be read from right to left. Standard mounting at 270° (90° not technically possible)

[mm]

Type	Can be read from	Length	Version
30-40-50	left to right	0-2000	fitted
	right to left	0-2000	fitted

Positioning indicator



Installation position: horizontal



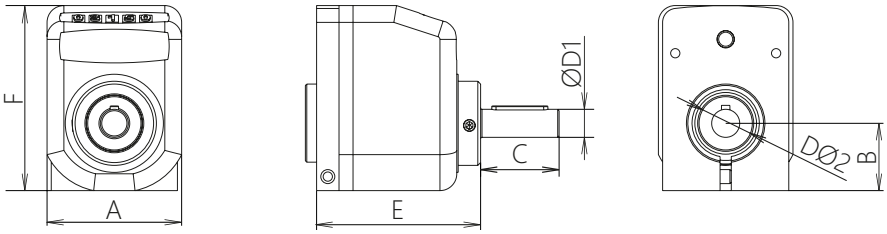
Installation position: vertical

- Max. Ambient temperature +80° C
- Figure height 6 mm
- Reading accuracy ± 0.1 mm
- If positioning indicators are fitted, the linear units are delivered exclusively with ball bearings

Material:
Housing polyamide 6
Orange RAL 2004

Cope of delivery: Positioning indicator, clamping ring, shaft extensension and fastenings

Note: „rising" and „falling" versions refer to the clockwise rotation of the drive shaft



[mm]

Type	Position	Connection	Code No.	Version	Code No.	Version	A	B	C	ØD1	ØD2	E	F
30	horizontal	Directly to E-II or on angular drive	91043	3 mm rising	91010	6 mm rising	48	24	18	8	20	58.5	66
			91053	3 mm falling	91029	6 mm falling	48	24	18	8	20	58.5	66
	vertical		91063	3 mm rising	91020	6 mm rising	48	24	18	8	20	58.5	66
			91073	3 mm falling	91019	6 mm falling	48	24	18	8	20	58.5	66
40	horizontal	Directly to E-II or on angular drive	91004	4 mm rising	91030	8 mm rising	48	29	38	12	20	58.5	71
			91014	4 mm falling	91039	8 mm falling	48	29	38	12	20	58.5	71
	vertical		91024	4 mm rising	91040	8 mm rising	48	29	38	12	20	58.5	71
			91034	4 mm falling	91041	8 mm falling	48	29	38	12	20	58.5	71
50	horizontal	Directly to E-II or on angular drive	91045	4 mm rising	91046	8 mm rising	56	33	38	12	20	58.5	75
			91055	4 mm falling	91047	8 mm falling	56	33	38	12	20	58.5	75
	vertical		91065	4 mm rising	91048	8 mm rising	56	33	38	12	20	58.5	75
			91075	4 mm falling	91049	8 mm falling	56	33	38	12	20	58.5	75

Position determination

Positioning indicator with spindle clamping



Installation position: horizontal



Installation position: vertical

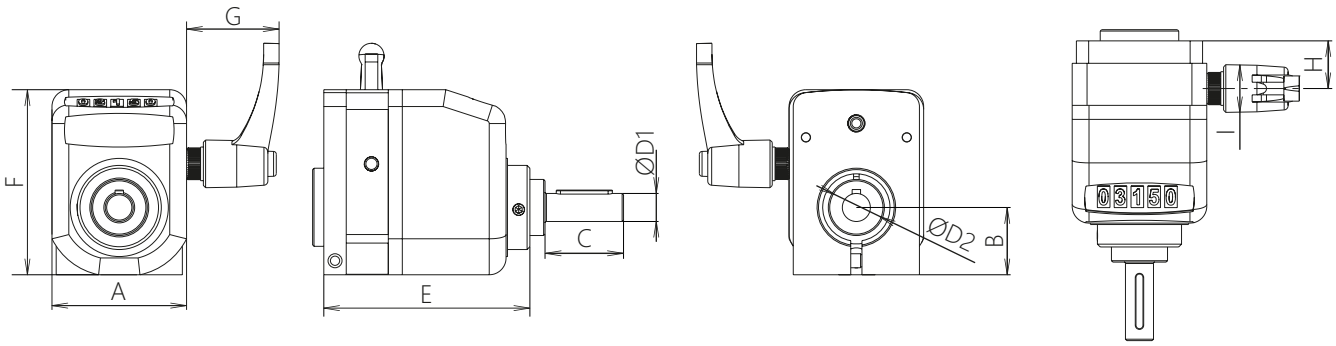
- Max. Ambient temperature +80° C
- Figure height 6 mm
- Reading accuracy ± 0.1 mm
- If positioning indicators are fitted, the linear units are delivered exclusively with ball bearings
- The spindles of the linear units can be fixed with the clamping plates. This means that the linear units retain their set position at all times.

Material:
Housing polyamide 6
Orange RAL 2004

Cope of delivery: Positioning indicator, clamping ring, shaft extensension and fastenings

Note: „rising“ and „falling“ versions refer to the clockwise rotation of the drive shaft

Type	Position	Connection	Code No.	Version	Code No.
30	horizontal	Directly to E-II	9104301	3 mm rising	9102901
			9105301	3 mm falling	9102901
	vertical		9106301	3 mm rising	9102001
			9107301	3 mm falling	9101901
	horizontal	Only on angular drive	9104302	3 mm rising	9101002
			9105302	3 mm falling	9102902
	vertical		9106302	3 mm rising	9102002
			9107302	3 mm falling	9101902
40	horizontal	Directly to E-II	9100401	4 mm rising	9103001
			9101401	4 mm falling	9103901
	vertical		9102401	4 mm rising	9104001
			9103401	4 mm falling	9104101
	horizontal	Only on angular drive	9100402	4 mm rising	9103002
			9101402	4 mm falling	9103902
	vertical		9102402	4 mm rising	9104002
			9103402	4 mm falling	9104102
50	horizontal	Directly to E-II	9104501	4 mm rising	9104601
			9105501	4 mm falling	9104701
	vertical		9106501	4 mm rising	9104801
			9107501	4 mm falling	9104901
	horizontal	Only on angular drive	9100402	4 mm rising	9104602
			9101402	4 mm falling	9104702
	vertical		9102402	4 mm rising	9104802
			9103402	4 mm falling	9104902



[mm]

Version	A	B	C	Ø D1	Ø D2	E	F	G	H	I
6 mm rising	48	24	18	8	20	73.5	66	33	17	17
6 mm falling	48	24	18	8	20	73.5	66	33	17	17
6 mm rising	48	24	18	8	20	73.5	66	33	17	17
6 mm falling	48	24	18	8	20	73.5	66	33	17	17
6 mm rising	48	24	18	8	20	73.5	66	33	17	17
6 mm falling	48	24	18	8	20	73.5	66	33	17	17
6 mm rising	48	24	18	8	20	73.5	66	33	17	17
6 mm falling	48	24	18	8	20	73.5	66	33	17	17
8 mm rising	48	29	38	12	20	73.5	71	33	17	17
8 mm falling	48	29	38	12	20	73.5	71	33	17	17
8 mm rising	48	29	38	12	20	73.5	71	33	17	17
8 mm falling	48	29	38	12	20	73.5	71	33	17	17
8 mm rising	48	24	18	8	20	73.5	66	33	17	17
8 mm falling	48	29	38	12	20	73.5	71	33	17	17
8 mm rising	48	29	38	12	20	73.5	71	33	17	17
8 mm falling	48	29	38	12	20	73.5	71	33	17	17
8 mm rising	48	29	38	12	20	73.5	71	33	17	17
8 mm falling	48	33	38	12	20	73.5	75	33	17	17
8 mm rising	48	33	38	12	20	73.5	75	33	17	17
8 mm falling	48	33	38	12	20	73.5	75	33	17	17
8 mm rising	56	33	38	12	20	73.5	75	33	17	17
8 mm falling	56	33	38	12	20	73.5	75	33	17	17
8 mm rising	56	33	38	12	20	73.5	75	33	17	17
8 mm falling	56	33	38	12	20	73.5	75	33	17	17

Position determination

Order instruction:

- **Please notice:**
  To mount the position display on your linear unit, you will need additional accessories.

  This includes an adapter plate and an adapter set, specially developed for your linear unit.

Electronic positioning indicator with / without spindle clamping



Installation position horizontal
Installation position vertical similar

Adapter kit	+	Adapter plate With or without spindle clamping	+	Positioning indicator horizontal or vertical

Electronic positioning indicator



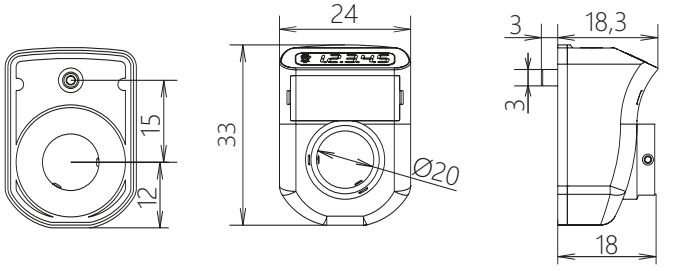
Installation position: horizontal



Installation position: vertical

- LCD display with 6 digits,- digit height 7.5 mm
- Max. ambient temperature 0°C to 50°C
- Rel. humidity 35-85%
- Various zero points for dimensional correction

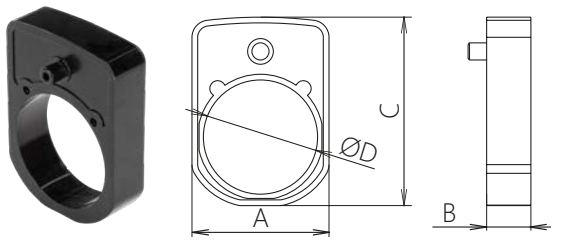
Material:
Housing polyamide
Orange RAL 2004



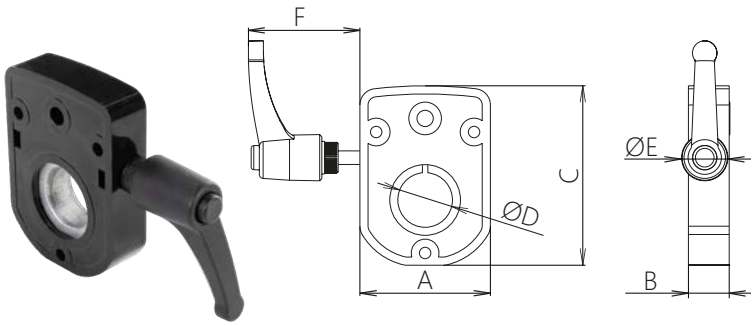
Code No.	Position	Version
9100041	horizontal	Pitch and direction of rotation freely programmable
9100042	vertical	

Adapter plate

Material:
Plastic
Mounting material made
of galvanized steel



Without spindle clamping



With spindle clamping

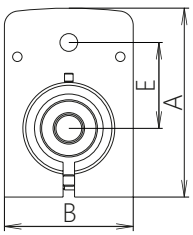
[mm]

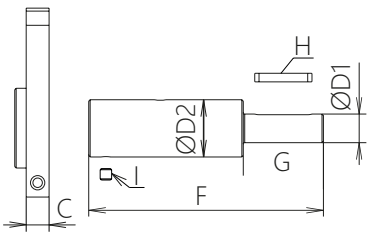
Code No.	spindle clamping	A	B	C	ØD	ØE	F
9100030	without	48	15.5	66	40	-	-
9100031	with	48	15	66	20.1	17	41

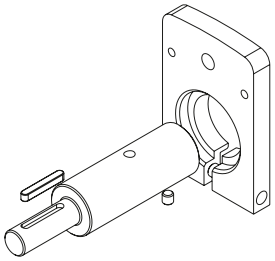
Mounting kit

Material:
Aluminium adapter plate & shaft extension,
mounting material made
of galvanized steel









[mm]

Type	Code No.	Connection	A	B	C	ØD1	ØD2	E	F	G	H	I
30	910300320	Directly to E-II	66	45	8	8	20	30	71	18	2x2x12	M5x5
	910300220	Only on angular drive	66	45	8	8	20	30	71	18	2x2x12	M5x5
40	910400320	Directly to E-II	71	45	8	12	20	30	90	38	4x4x32	M3x3
	910400220	Only on angular drive	71	45	8	12	20	30	90	38	4x4x32	M3x3
50	910500320	Directly to E-II	75	56	8	12	20	30	90	38	4x4x32	M3x3
	910500220	Only on angular drive	75	56	8	12	20	30	90	38	4x4x32	M3x3

Positioning indicator

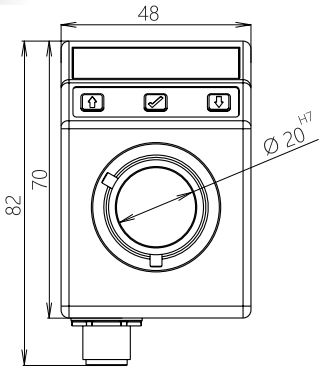
Order instruction:

- **This product can only be ordered from our partner Lenor+Bauer**
- **Please note:**

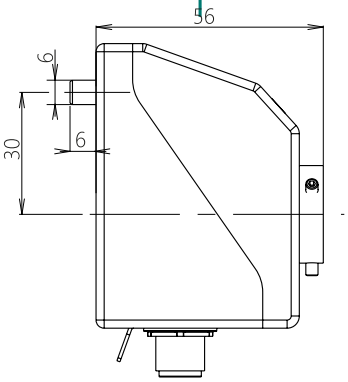
  To mount the position display on your linear unit, you will need additional accessories.

  This includes an adapter plate and an adapter set, specially developed for your linear unit.

IO-Link



CANopen



Mounting kit for electronic position display SeGMo-Assist GEL SEPOD R with fieldbus interface (Lenord+Bauer) with spindle clamping

Installation position: horizontal



- Display of nominal and actual position to facilitate manual adjustment processes
- Bright graphical display
- Presentation of customer-specific texts and pictograms for operator guidance

Installation position: vertical



- Ready for use immediately after power on due to absolute multiturn position detection
- Maintenance-free: no backup battery required
- Increased process safety through communication with the system control



More information

Adapter kit	+	Adapter plate With or without spindle clamping	+	Positioning indicator Horizontal or vertical

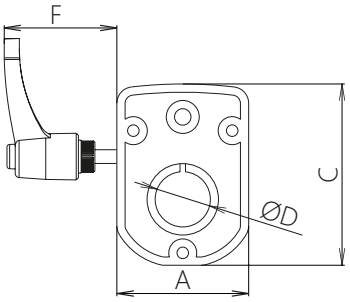
Technical data	Digital positioning display GEL SEPOD R
Measuring system	Magnetic, absolute; battery-free
Supply voltage	24 V DC
Temperature range	0 °C 60 °C
Protection class	IP 65
Housing material	ABS plastic, anthracite
Viewing window material	Plastic, impact protection
Interface	CANopen (CiA 406), IO-Link, further interfaces via the modular SeGMo-Box

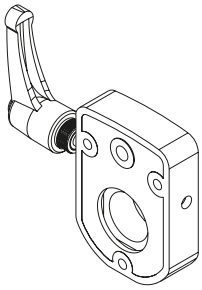
Adapter plate

Material:
Plastic



With spindle clamping





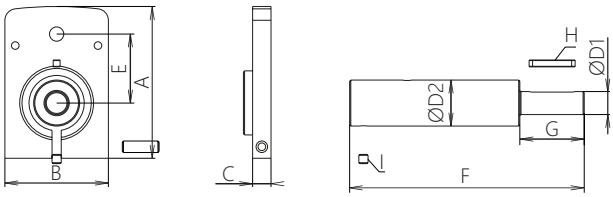
[mm]

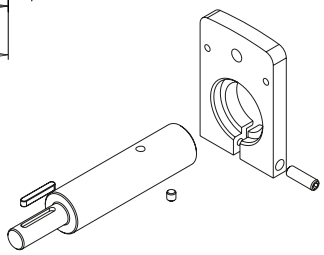
Code No.	spindle clamping	A	B	C	ØD	ØE	F
9100031	with	48	15	66	20,1	17	41

Mounting kit

Material:
Aluminium adapter plate & shaft extension,
mounting material made of galvanized steel







[mm]

Type	Code No.	Connection	A	B	C	ØD1	ØD2	E	F	G	H	I
30	910300321	Directly to E-II	66	45	8	8	20	30	91	18	2x2x12	M5x5
	910300221	Only on angular drive	66	45	8	8	20	30	91	18	2x2x12	M5x5
40	910400321	Directly to E-II	71	45	8	12	20	30	110	38	4x4x32	M3x3
	910400221	Only on angular drive	71	45	8	12	20	30	110	38	4x4x32	M3x3
50	910500321	Directly to E-II	75	56	8	12	20	30	110	38	4x4x32	M3x3
	910500221	Only on angular drive	75	56	8	12	20	30	110	38	4x4x32	M3x3

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More Informations

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