



Linear Displacement Transducers

RP13 series

Measuring strokes: 25, 50, 75, 100, 125, 150, 200, 250, 300 mm

RP 11392 IE

06 / 2015

- Conductive plastic potentiometers
- Measuring strokes 25 to 300 mm
- Linearity $\pm 0.1\%$ to $\pm 0.05\%$
- Life expectancy up to 100 million cycles
- Infinite resolution
- Protection grade IP65
- Ball joints at option
- Spring return at option

Construction

Cylindrical case in anodised aluminium - Shaft in stainless steel - Conductive plastic resistance elements - Precious-metal wipers - Axial connector or radial leads - Ball joints at shaft end and / or case at option - spring return (gauge) at option.

Mechanical data

- Operating speed: 10 m/s (max.)
- Acceleration: 20 m/s² (max.)
- Operating force: < 2 N

Electrical data

- Linearity: Refer to table below
- Max. wiper current: 1 mA
- Recommended wiper current: < 0.1 μ A
- Insolation resistance: 100 MOhm
- Resistance tolerance: $\pm 20\%$
- Dielectric strength: 500 VAC (50 Hz)
- Repeatability: ± 0.01 mm

Environmental data

- Operating temperature range: - 30 °C to + 100 °C
- Storage temperature range: - 50 °C to + 120 °C
- Temperature coefficient: < 1.5 ppm/°C
- Resistance to vibration: 20 g (5 to 2.000 Hz)
- Resistance to shock: 50 g (11 ms)

Counter plugs:

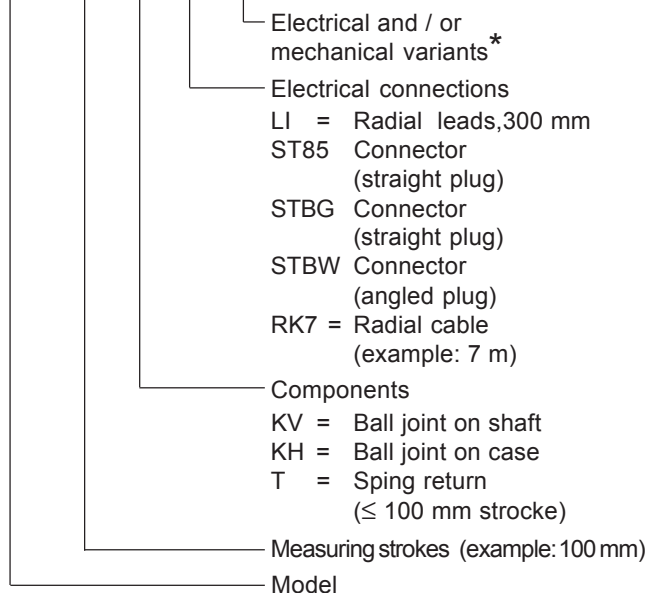
- STK4GS10: straight, plastic (STBG)
- STK4GS09: straight, metal (STBGM)
- STK4WS05: angled, plastic (STBW)
- STK4GS08: straight, plastic, with 10 m cable (STK65)
- STM3GS03: straight, metal (ST85G)

Mounting clamps to be ordered separately .



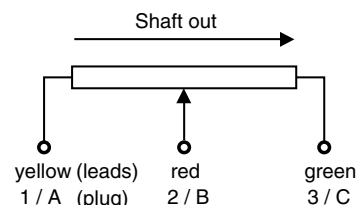
Order code format

RP13 / 100 - KV - LI - A01



* The basic versions in accordance with the data sheet bear the code number 01. Variations of the basic version are indicated by a consecutive number and are documented in our works.

Block diagram



Measuring strokes	[mm]	25	50	75	100	125	150	200	250	300
Mechanical strokes	[mm]	30	55	80	105	130	155	205	255	305
Resistance	[kOhm]	4,7	4,7	10	10	10	10	10	22	22
Linearity	[%]	0.2	0.1	0.1	0.1	0.05	0.05	0.05	0.05	0.05
Consumption at +40°C	[W]	0,5	1	1,5	2	2,5	3	3	3	3
Supply VDC max.	[V]	20	40	60	60	60	60	60	60	60
Case length	[mm]	83	108	133	158	183	208	258	308	358

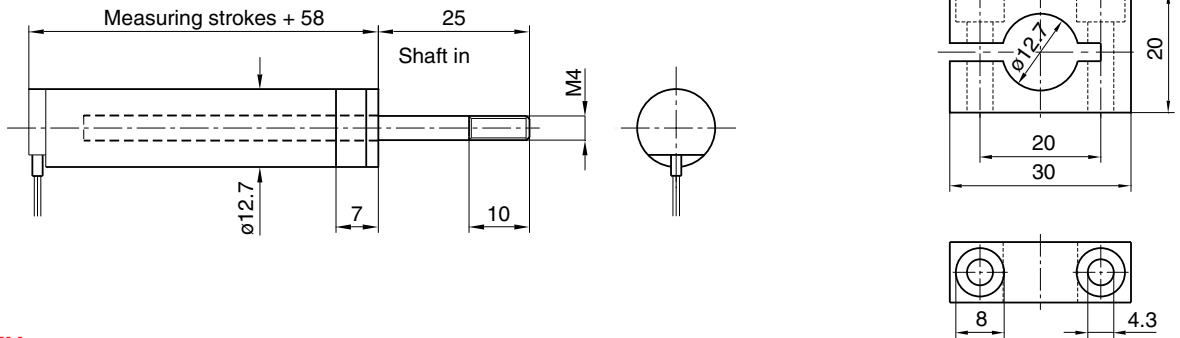
Dimensions in mm

The shaft entry has a guide sleeve and is protected by an O-ring sealing. Misalignment must be avoided!

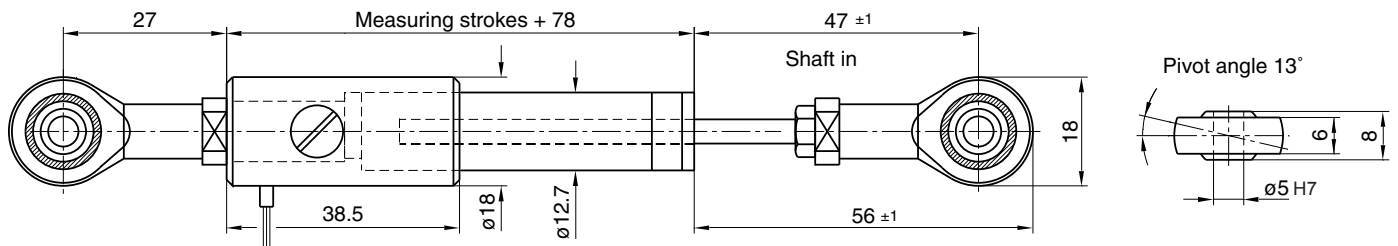
Mounting clamp MB-12.7

(Will be supplied with screw and spring washer)

RP13 - ...



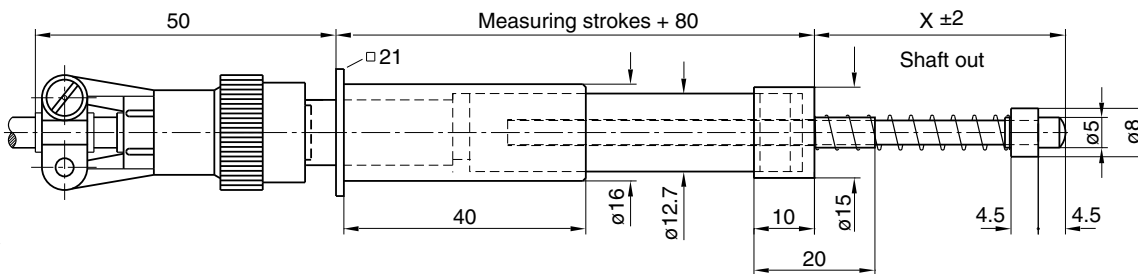
RP13 - ... KV / KH



RP13 - ... T / ST85

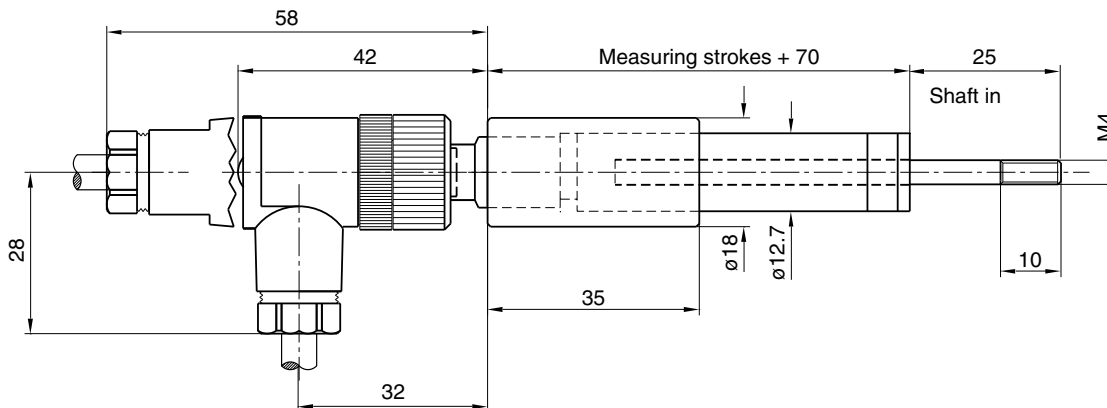
Up to 100 mm measuring strokes only

Stroke	25	50	75	100
X	53	78	103	128



RP13 - ... /STBG

RP13 - ... /STBW



Necessary free space for plug: 10 mm

Supply and signal conditioning: By ACTIPOT models as per data sheet 10346.