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Linear Displacement Transducers

RP13 series

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

RP 11392 JE

08 / 2018

- Conductive plastic potentiometers
- Measuring strokes 25 to 300 mm
- Linearity ± 0.1 % to ± 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 - Preciousmetal 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:

■ Recommended wiper current:

■ Insolation resistance:

■ Resistance tolerance:

■ Picks trips transmits

■ 1 mA

< 0.1 µA

100 MOhm

± 20 %

■ Dialectric strength: 500 VAC (50 Hz)■ Repeatability: ± 0.01 mm

Environmental data

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

Counter plugs:

■ STK4GS10: straight, plastic (STBG)
■ STK4GS09: straight, metal (STBGM)
■ STK4WS05: angled, plastic (STBW)

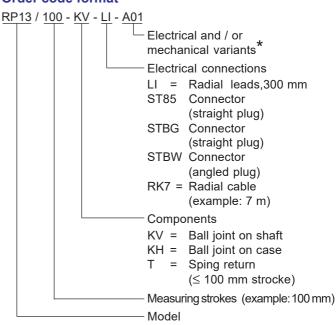
STK4GS08: straight, plastic, with 10 m cable (STK65)

■ STM3GS03: straight, metal (ST85G)

Mounting clamps to be ordered separately.

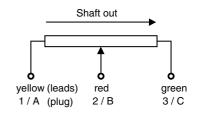


Order code format



* 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



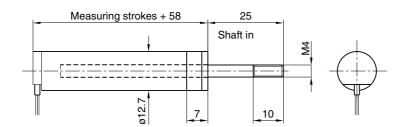
Measuring strokes	[mm]	25	50	75	100	125	150	200	250	300
Mechanical strokes	[mm]	30	55	80	105	130	155	205	255	305
Resistance	[kOhm]	4,7	4,7	10	10	10	10	10	22	22
Linearity	[%]	0.2	0.1	0.1	0.1	0.05	0.05	0.05	0.05	0.05
Consumption at +40°C	[W]	0,5	1	1,5	2	2,5	3	3	3	3
Supply VDC max.	[V]	20	40	60	60	60	60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



Dimensions in mm

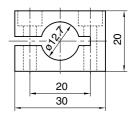
The shaft entry has a guide sleeve and is protected by an O-ring sealing. Misalignment must be avoided!

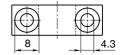
RP13 - ...



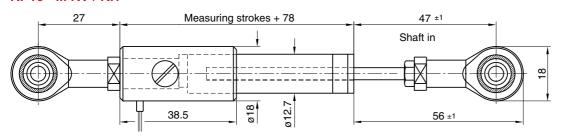
Mounting clamp MB-12.7

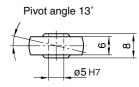
(Will be supplied with screw and spring washer)





RP13 - ... KV / KH

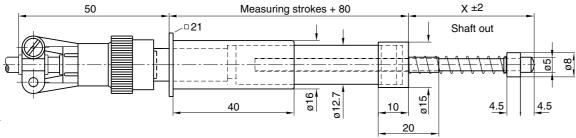




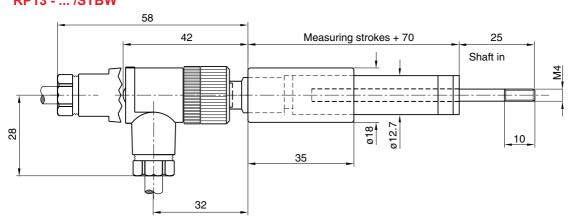
RP13 - ... T / ST85

Up to 100 mm measuring strokes only

Stroke	25	50	75	100
Х	53	78	103	128



RP13 - ... /STBG RP13 - ... /STBW



Necessary free space for plug: 10 mm