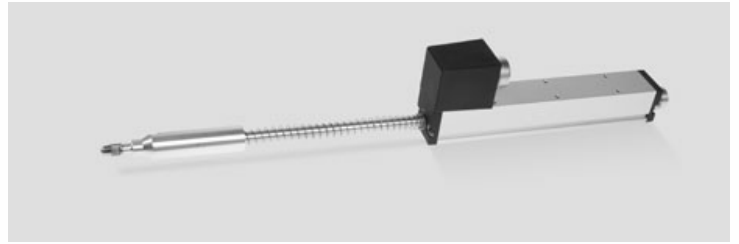


Series SPR18 - Potentiometric Linear Transducer

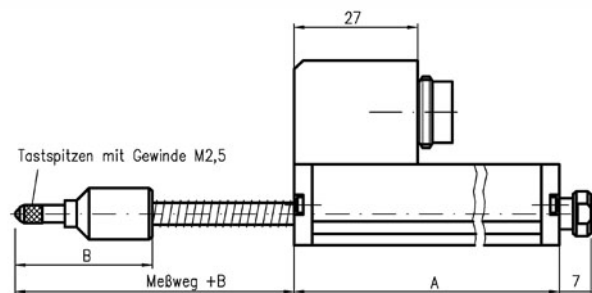
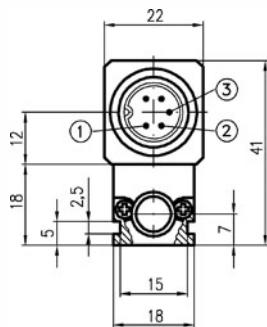
- Conductive plastic element, resolution quasi infinite
- Strokes from 25 mm to 100 mm
- Displacement speed up to 5 m/s
- Compact design in a 18x18 mm profile
- Industry standard housing
- Probe version with spring return and through shaft
- Protection class IP40, optional IP54



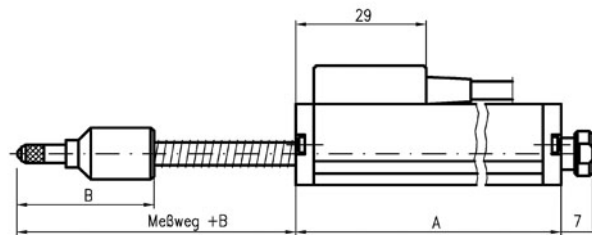
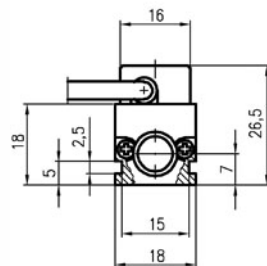
The SPR18-series is a linear motion sensor with accurate conductive plastic technology embedded in a robust 18 x 18 mm aluminium housing. The push rot is provided with spring return and a stainless steel ball in the probe tip.

Drawing

Connector

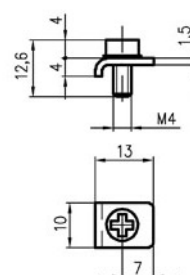
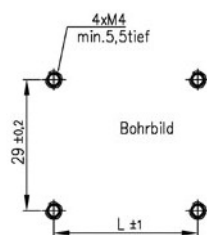


Cable



Mounting Clamps

1 Set (= 4 pcs.) included in delivery

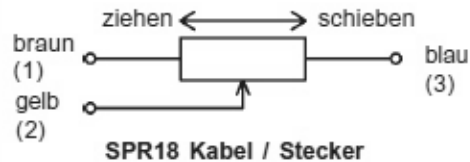


Series SPR18 - Potentiometric Linear Transducer

Dimensions in mm

Type	SPR 18-25	SPR 18-50	SPR 18-75	SPR 18-100
Mechanical Travel	30	55	80	105
Housing Length A	63	88	113	138
Probe Tip Length B	32	40	45	50
Spacing L (recomm.)	33	58	83	108

Wiring



Electrical Data	SPR 18-25	SPR 18-50	SPR 18-75	SPR 18-100
Electrical Travel [± 1mm]	25	50	75	100
Resistance Values	0,5, 1, 2, 5, 10		1, 2, 5, 10	
Resistance Tolerance, Standard	± 10%			
Linearity Tolerance, Standard	± 0,2%	± 0,1%		
Resolution	< 0,01 mm			
Power Rating at 40°C	0,3 W	0,6 W	0,75 W	1,25 W
Maximum Operating Voltage	25 V		50 V	
Temperature Coefficient, Resistor	400 ppm/K			
Insulation	> 1000 (bei 500 V DC)			
Dielectric Strength	< 500 MOhm Veff. (50 Hz) / 1 min.			
Maximum Wiper Current	1 mA			
Recommended Wiper Current	< 1µA (voltage divider circuit)			

Mechanical Data	SPR 18-25	SPR 18-50	SPR 18-75	SPR 18-100
Mechanical Travel	≈ 30 mm	≈ 55 mm	≈ 80 mm	≈ 105 mm
Maximum Operating Friction	3 N			
Weight ≈	100 g	150 g	200 g	250 g
Bearing Push Rod	Precision Sleeve Bearing			
Maximum Displacement Speed	5 m/s			
Average Life	20 Mio. (shaft movements)			
Housing Material	Anodized Aluminium			
Rod Material	Stainless Steel			

Series SPR18 - Potentiometric Linear Transducer

Ambient Conditions

Operating Temperature	-30 ... + 105° C
Storage Temperature	-45 ... + 125° C
Protection Class	IP40 / optional IP54

Options

- Cable
- Special cable length (Standard = 1m)
- 1 additional tapping
- Higher protection class IP54

Accessories

- 5-pole plug IP40 (straight) Type SW68
- 5-pole plug IP40 (angeled) Type SW31
- 5-pole plug P67 (straight) Type SW61
- Mounting clamps
(1 set = 4 pcs. included in delivery)

Order code

Series	Version	Elec. Travel	Resistance Value	Res. Tol.	Lin. Tol.	Protection	Tapping
SPR18	S (connector) K (cable, 1m) K2 (cable, 2m) K...	25 50 75 100	R500 (up to 75mm) R1K R2K R5K R10K R20K(> 75mm)	W10%	0,2% (25 mm) 0,1% (50-100 mm)	IP54	T

Example: SPR18 S 75 R5K W10% L0,1%

The specifications and information in this datasheet cannot consider all special demands that are caused by the application. Because of this, they are no general description of the properties of the product.
21. April 2010. All specifications are subject to change without notice.