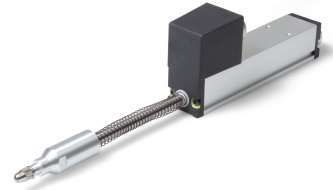


## Series SPR18 - Potentiometric Linear Transducer

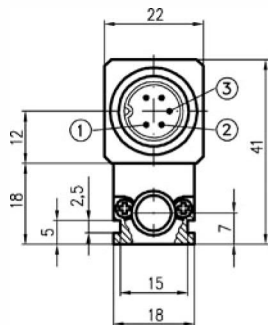
- Conductive plastic element, resolution quasi infinite
- Strokes from 25 mm to 100 mm
- Displacement speed up to 5 m/s
- Compact design in a 18x18 mm profile
- Industry standard housing
- Probe version with spring return and through shaft
- Protection class IP40, optional IP54



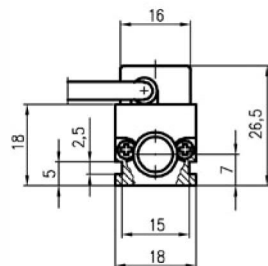
The SPR18-series is a linear motion sensor with accurate conductive plastic technology embedded in a robust 18 x 18 mm aluminium housing. The push rod is provided with spring return and a stainless steel ball in the probe tip.

### Drawing

Connector

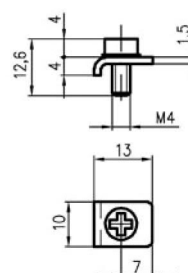
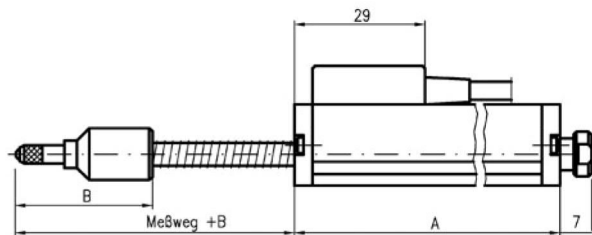
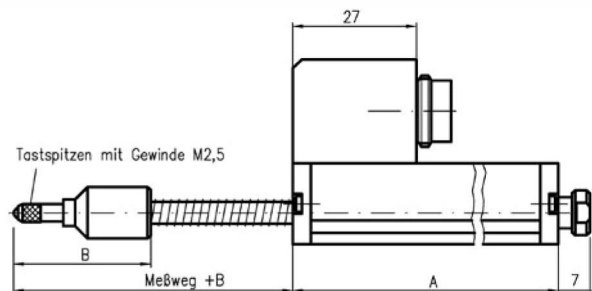
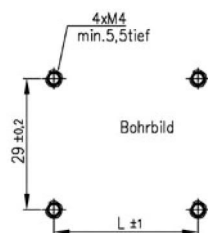


Cable



Mounting Clamps

1 Set (= 4 pcs.) included in delivery

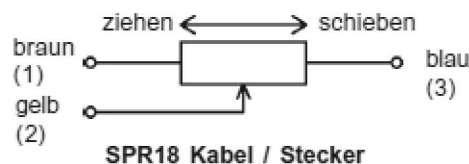


# Series SPR18 - Potentiometric Linear Transducer

## 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	55	62
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	SPR 18					
Connection:						
Connector		<b>S</b>				
Cable		<b>K</b>				
Stroke [mm]						
			<b>25</b>			<b>0,2%</b>
			<b>50</b>			<b>0,1%</b>
			<b>75</b>			<b>0,1%</b>
			<b>100</b>			<b>0,1%</b>
				<b>R1k</b>		
				<b>R2k (*)</b>		
				<b>R5k</b>		
				<b>R10k</b>		
Resistance value					<b>W10%</b>	
Linearity tolerance						<b>depends on the stroke (see above)</b>

"bold print = standard option"

short-term stock types can be found on: <http://www.megatron.de/en/stocklists/linear-sensors/lagerliste.html>

(\*) = on request available for projects

23.02.2015