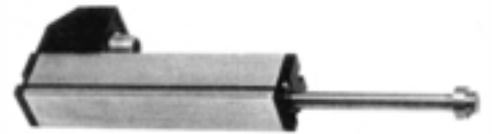


Series SPI18 - Potentiometric Linear Transducer

- Conductive plastic element, resolution quasi infinite
- Strokes from 25 mm to 150 mm
- Machine-sized design
- Industry standard housing
- Protection class IP40, optional IP54



Drawing

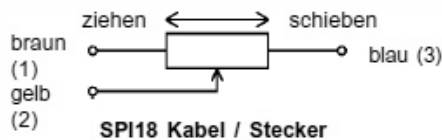
<p>Connector Version</p>	
<p>Cable Version</p>	
<p>Mounting Clamps 1 set (4 pcs) included in delivery</p>	

Series SPI18 - Potentiometric Linear Transducer

Dimensions in mm

Type	SPI18-25	SPI18-50	SPI18-75	SPI18-100	SPI18-150
Mechanical Travel	30	55	80	105	155
Housing Length A (IP54 ≈ 6 mm longer)	74,5	99,5	124,5	149,5	199,5
Spacing L (recomm.)	44,5	69,5	94,5	119,5	169,5

Wiring:



Electrical Data	SPI 18-25	SPI 18-50	SPI 18-75	SPI 18-100	SPI 18-150
Electrical Travel [± 1mm]	25	50	75	100	150
Resistance Values	0,5, 1, 2, 5, 10 kOhm		1, 2, 5, 10, 20 kOhm		
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	1,5 W
Maximum Operating Voltage	50 V				
Temperature Coefficient, Resistor	400 ppm/K				
Insulation	> 1000 MOhm (at 500 VDC)				
Dielectric Strength	< 500 Veff. (50 Hz) / 1 min.				
Maximum Wiper Current	1 mA				
Recommended Wiper Current	< 1 µA (voltage divider circuit)				

Mechanical Data	SPI 18-25	SPI 18-50	SPI 18-75	SPI 18-100	SPI 18-150
Mechanical Travel	≈ 30 mm	≈ 55 mm	≈ 80 mm	≈ 105 mm	155 mm
Maximum Operating Friction	< 1,2 N				
Weight ≈	90 g	120 g	140 g	160 g	250 g
Bearing Push Rod	Precision Sleeve Bearing				
Maximum Displacement Speed	5 m/s				
Average Life	40 Mio. (shaft movements)				
Housing Material	Anodized Aluminium				
Rod Material	Stainless Steel				

Series SPI18 - Potentiometric Linear Transducer

Ambient Conditions

Operating Temperature	-30 ... +105° C
Storage Temperature	-45 ... +125° C
Protection Class	IP40 optional IP54 (limited temperature range 60°C)

Options

- Cable
- Special cable length (Standard = 1m)
- 1 additional tapping
- Special shaft (length up to 200 mm, shape, thread)
- Higher protection class IP54

Accessories

- 5-pole plug IP40 (straight) Type SW68
- 5-pole plug IP40 (angled) Type SW31
- 5-pole plug IP67 (straight) Type SW61
- Mounting clamps
(1 set = 4 pcs. included in delivery)

Order code

Series	Version	Travel	Resistance Value	Res. Tol.	Linearity Tol.	Protection	Tapping
SPI18	S (connector)	25	R500 (up to 75mm)	W10%	L0,2% 25 mm L0,1% 50-100 mm L0,05% 150+200 mm	IP54	T
	K (cable, 1m)	50	R1K				
	K2 (cable, 2m)	75	R2K				
	K...	100	R5K				
		150	R10K				
	200	R20K(>75mm)					

Example: SPI18 K 25 R2K W10% L0,2%

Tip:

At lowest strokes, we recommend our inductive sensors with an internal electronic. They work with a direct d.c. voltage input and -output.

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.
24. August 2005. All specifications are subject to change without notice.