

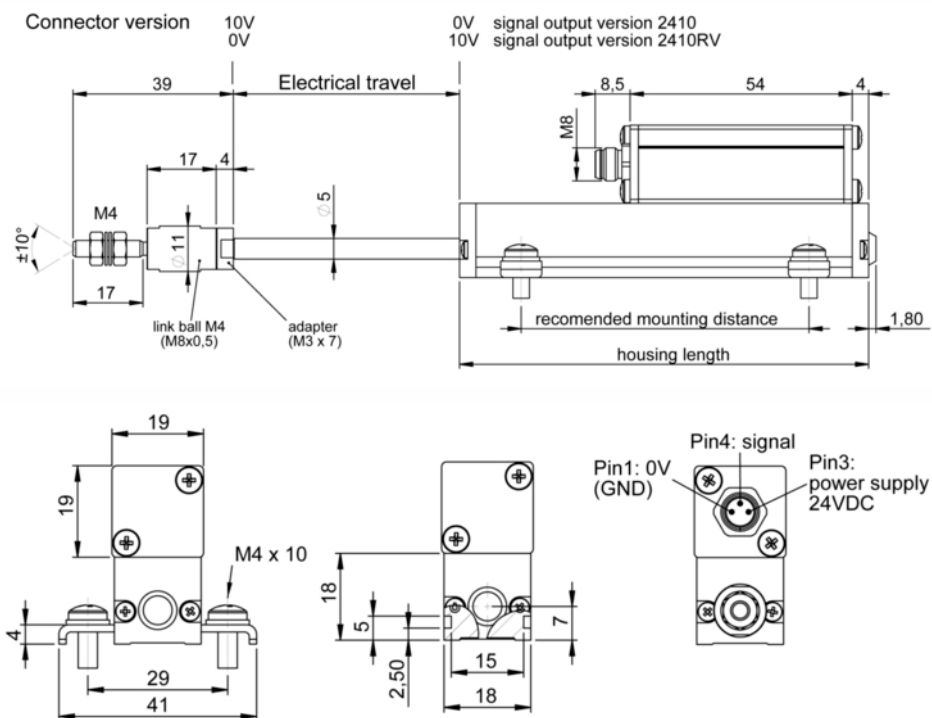
Series SPI18E / Potentiometric Transducer With Integrated Amplifier

- Integrated Signal-Converter
- Analog Output: 0..5/10V, 0/4..20mA
- Stroke: from 25 mm to 200 mm
- Housing dim. 18x18 mm industrial standard



The SPI18E linear transducer is a potentiometric sensor with conductive plastic technology and has with an integrated signalconverter to provide the typical output signals 0...5/10V an 0/4...20mA (power supply 24V ± 20%). The compact and robust design with only 18x18mm in his profile allows applications in rough industrial conditions with small space.

Drawing

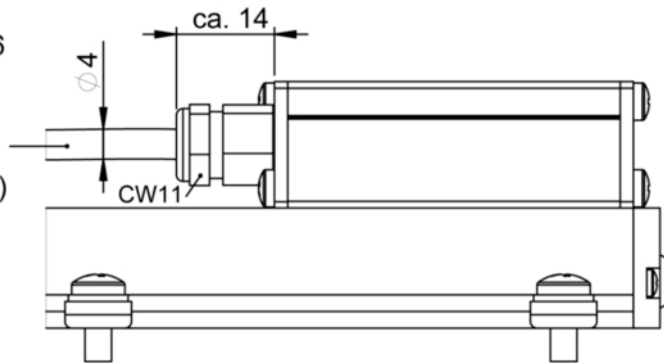


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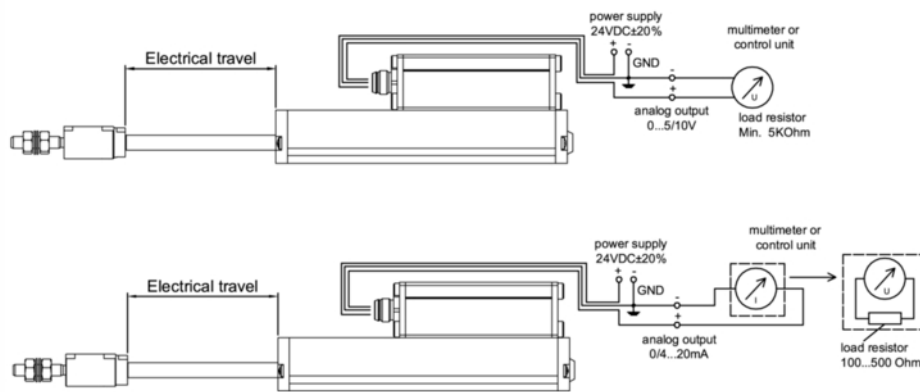
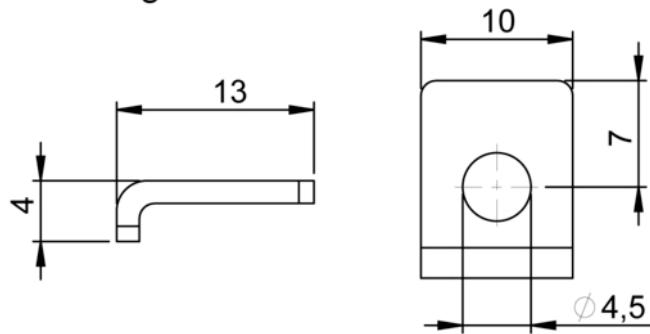
Cable version

cable 3xAWG26
black UL/CSA
shielded

wire terminals:
black: 0V (GND)
red: 24V DC
brown: signal



Monutnig clams



Wiring Diagram

Series SPI18E / Potentiometric Transducer With Integrated Amplifier

Dimensions in mm

| Type | SPI18E-25 | SPI18E-50 | SPI18E-75 | SPI18E-100 | SPI18E-150 | SPI18E-200 |
|-----------------------------------|-----------|-----------|-----------|------------|------------|------------|
| Electr. Stroke $\pm 1\text{mm}$ * | 25 | 50 | 75 | 100 | 150 | 200 |
| Mechan. Stroke | 30 | 55 | 80 | 105 | 155 | 205 |
| Housing Length | 74,5 | 99,5 | 124,5 | 149,5 | 199,5 | 249,5 |
| Mounting Space L | 44,5 | 69,5 | 94,5 | 119,5 | 169,5 | 219,5 |

* At the start of the measured displacement (0...2%FS) and at the end (98...100%FS) the linearity can deviate from the data sheet specifications.

| Electrical Data | SPR18E-25 | SPR18E-50 bis 200 |
|---------------------------------|--|-------------------|
| Independent Linearity Tolerance | $\pm 0,4\%$ | $\pm 0,2\%$ |
| Resolution [mm] | quasi infinite (integrated electronic works analog) | |
| Sampling Rate | > 1 kHz max (integrated electronic works analog) | |
| Operating Voltage | Voltage Output: 12V - 30V Current Output: 12V - 26V | |
| Power Consumption | Voltage Output: 0..5/10V: 5 mA Current Output: 0/4..20mA: 25 mA | |
| Load Resistance Voltage Output | 5 kOhm min. | |
| Load Resistance Current Output | 100 - 500 Ohm | |
| Load Capability | 0 - 500 μF | |
| Signal Coefficient | 150 ppm/K Voltage Output: typical 50 ppm/K Current Output: typical 100 ppm/K | |

| Mechanische Werte | SPI18E -25 | SPI18E -50 | SPI18E -75 | SPI18E -100 | SPI18E-150 | SPI18E-200 |
|-------------------|--------------------------|------------|------------|-------------|------------|------------|
| Friction | 3 N max. | | | | | |
| Weight \approx | 100g | 150g | 200g | 250g | 300g | 350g |
| Rod Bearing | Precision Sleeve Bearing | | | | | |
| Accleration | 5 m/s max. | | | | | |
| Middle Life | 40 Mio. axis movements | | | | | |
| Housing Material | anodized Aluminium | | | | | |
| Rod Material | stainless Steel | | | | | |

Series SPI18E / Potentiometric Transducer With Integrated Amplifier

Ambient Conditions

| | |
|-----------------------|-----------------|
| Operating Temperature | -30 ... +80 °C |
| Storage Temperature | -30 ... +100 °C |
| Protection Class | IP40 |

Options

- Cable on request

Accessories

- Socket with overmolded cable M8 straight 3-pole 2m IP67, unshielded. Part No. 125303
- Socket with overmolded cable M8 angled 3-pole 2m IP67, unshielded. Part No. 126325
- Socket with overmolded cable M8 grade 3-pole 2m IP67, shielded. Part No. 127825
- Socket with cable M8 angled 3-pole 2m IP67, shielded. Part No. 127826
- Mounting clamps (1 Set = 4 pcs. included in delivery)

Order Code

| Series | Version | Stroke | Signal |
|---------------|----------------------|-----------|--|
| SPI18E | S (Connector) | 50 | 2410 = 0..10V (extended Rod = 10V) 2405 = 0..5V 2420 = 0..20mA 2442 = 4..20mA 2410RV = 10..0V (extended Rod = 0V) 2405RV = 5..0V 2420RV = 20..0mA 2442RV = 20..4mA |

Example: **SPI18E S 50 2410**

Version with connector (pls. order plug separately), stroke 50 mm, supply 12-30V /output 0..10V (extended Rod = 10V)

Note: For smallest strokes and vibrations we recommend our inductive transducers with integrated amplifiers, with DC-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.

28.Oct 2010. All specifications are subject to change without notice.