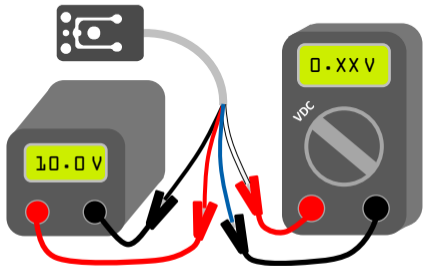


How to Test Our Force Sensor

You will need a laboratory power supply and a multimeter. Connect these to the sensor as shown below. Then apply forces by pressing down the bracket by hand or with a press.



Innovative Sensors for Your Measurement Task

Senstech is a leading manufacturer and development partner for customized sensors. Our mature thin-film technology is particularly stable over the long term and is therefore often used in medical technology, among other applications. Thanks to modern laser technology, our products can be easily adapted to customer requirements.



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Swiss Quality
ISO 9001
ISO 13485

Force Sensor Type KB-011-1600

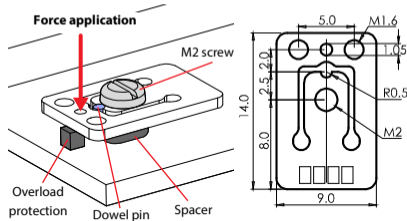
This force sensor bracket is suitable for a wide range of applications. It is screwed or welded to a surface through a central hole. By varying the sensor thickness, different measuring ranges can be covered.




Technical Specifications

Measurement principle	Thin Film Strain Gauge (Full Bridge)
Measurement parameter	Force (N)
Overload protection	Deflection limit defined by base plate and spacer (0.4 mm thick)
Force application	On measuring bracket, application point must be reproducible, signal is proportional to length of lever arm
Force direction	Perpendicular, either on back side or on thin-film coated side (sign of signal will change accordingly)
Supply voltage	Max. 15 VDC, signal and sensitivity proportional to supply voltage
Shielding	No shielding. Optionally, the substrate can be connected to signal ground
Temperature range	-20°C to +80°C
Humidity range	Up to 95% RH, non-condensing

Dimensions and Installation



Pin Assignment

Red		Supply voltage +
Black		Supply voltage -
White		Signal voltage +
Blue		Signal voltage -

Technical Specifications (continued)

Sensor range (Full Scale)	Force 20 N (2.3 mV/V)
Overload range	Force 30 N (3.45 mV/V)
Sensitivity (@25°C)	0.115 mV/V/N ± 15%
Bridge resistance	5 kΩ ± 25%
Zero offset	0 mV/V ± 0.2 mV/V
Zero repeatability	± 0.02 %FS
Sensitivity repeatability	± 0.3 %FS
Linearity error	± 0.2 %FS
Thermal shift of offset	0 %FS/°C ± 0.02 %FS/°C
Thermal shift of sensitivity	0.02 %/°C ± 0.01 %/°C
Dimensions	Length 14 mm ± 0.03 mm Width 9 mm ± 0.03 mm
Sheet thickness	1.0 mm ± 0.03 mm