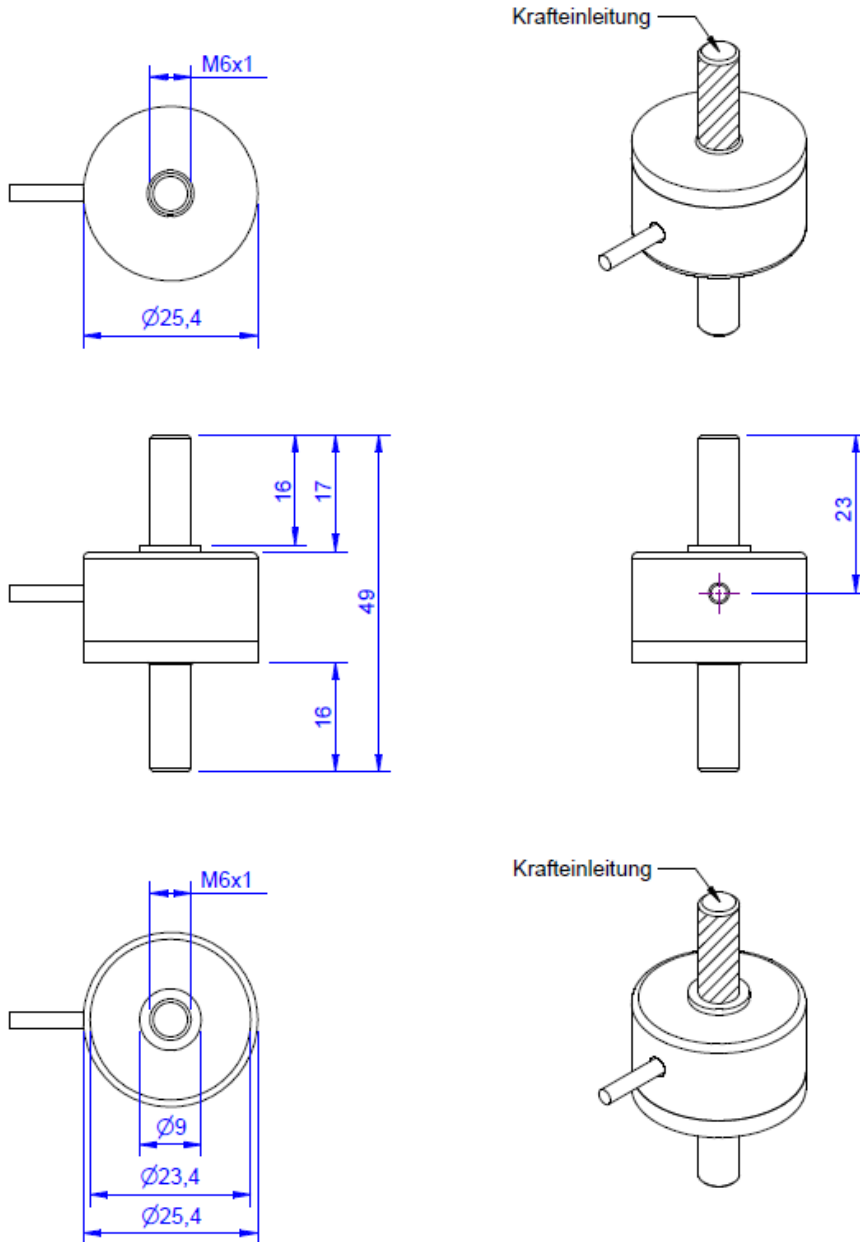




Description

The load cell KM26z is a membrane-type force sensor with small dimensions. It is suitable for measuring compressive and tensile forces. For force transmission there exist two threads M6. Environmental protection rating is IP 67. Force transmission must be free of lateral forces.

Dimensions



Technical Data

Force sensor

Type	Load cell
Force direction	Tension / Compression
Rated force F _x	50 N
Force introduction	Außengewinde
Dimension 1	M6x1
Sensor Fastening	Außengewinde
Dimension 2	M6x1
Operating force	150 %FS
Rated displacement	0.08 mm
Lateral force limit	10 %FS
Material	Stainless steel
Natural frequency	5 kHz
Height	49 mm
Length or Diameter	25.4 mm
Torque limit	5 Nm
Bending moment limit	1 Nm

Electrical Data

Input resistance	390 Ohm
Tolerance input resistance	40 ±
Output resistance	350 Ohm
Insulation resistance	2x10 ⁹ Ohm
Rated range of excitation voltage f	2.5 ... 5 V
Operating range of excitation voltage f	1 ... 10 V
Zero signal	0.05 mV/V
Rated output	0.5 mV/V / FS

Precision

Accuracy class	1%
Relative linearity error	0.5 %FS
Relative zero signal hysteresis	0.05 %FS
Temperature effect on zero signal	0.02 %FS/K
Temperature effect on characteristic value	0.02 %RD/K
Relative creep	0.1 %FS

Connection Data

Connection type	4 conductor open
Name of the connection	STC-31V-4
Cable length	3 m

Temperature

Rated temperature range f	-10 ... 70 °C
Operating temperature range f	-10 ... 85 °C

Storage temperature range f
Environmental protection

-10 ... 85 °C
IP67

Abbreviation: RD: „Reading“; FS: „Full Scale“;
1) The exact nominal sensitivity is indicated in the test report;
till nominal output 50N: ca 0,5 ... 1,0mV/V

Pin Configuration

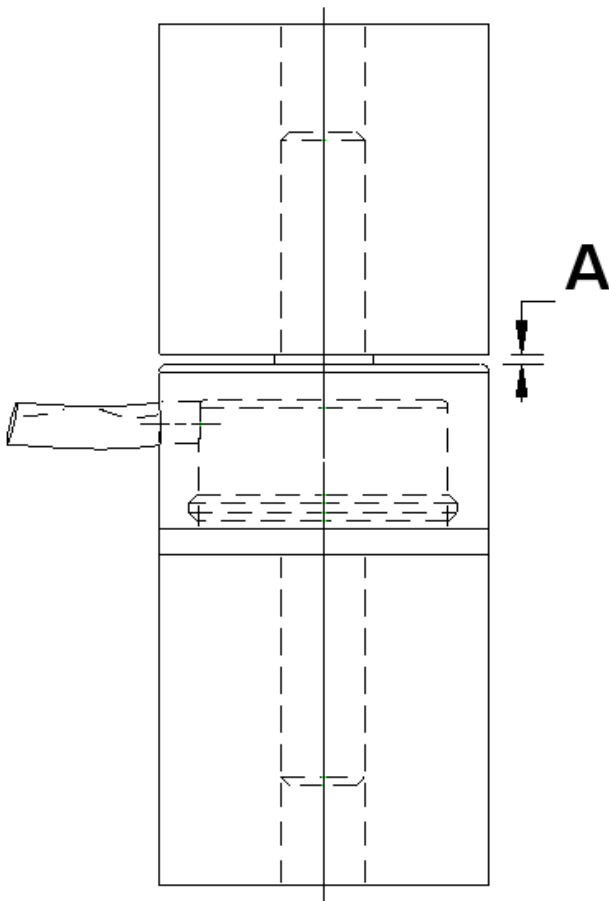
Symbol	Description	Wire colour
+Us	positive bridge supply	red
-Us	negative bridge supply	black
+Ud	positive bridge output	green
-Ud	negative bridge output	white

*Pressure load: positive output signal.
Shield- transparent.*

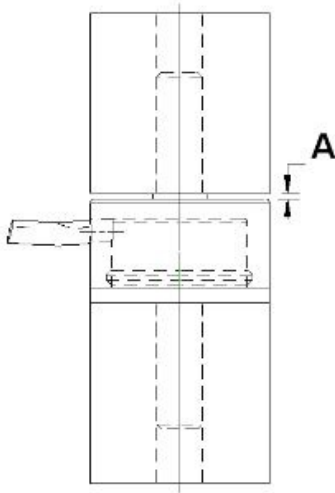
Mounting

Installation instructions: When assembling attachment parts, hold the sensor in place on the installation side / do not guide any tensioning torque through the sensor. Attachment parts may be supported on adjustable feet on the end faces, if preferred

Installation









Gap "A" may not be closed, is necessary for the function of the force sensor.



Gap "A" may not be closed. Gap "A" is necessary for the function of the force sensor.

accessories

Description	Description
	Calibration Certificate kn/20/5 Factory calibration certificate for force to 20 kN in accordance with DIN EN ISO / IEC 17025 for test materials monitoring according to DIN ISO 9001: 2008 with 5 load levels and 3 series of measurements.
	GSV-1H Measuring amplifier in top-hat rail housing for sensors with strain gauges. Analogue output -10V...+10V, limiting frequency 250Hz, 4 input sensitivities from 2.0mV/V.
	GSV-2TSD-DI Measuring amplifier in desktop-housing for sensors with strain gauges. Serial port RS232, USB port, analogue output -5V...+5V, limiting frequency 260Hz, input sensitivity 3.5mV/V.
	GSV-3USB Measuring amplifier in aluminum housing (IP54) for sensors with strain gauges. Limiting frequency 1250Hz, input sensitivity 2 / 3,5 / 10 mV/V.
	GSV-6K Analogue measuring amplifier in plug housing for sensors with strain gauges. Analogue output configurable, TEDS, sampling frequency 10Hz ... 25kHz, input sensitivity configurable 0.1mV/V ... 8mV/V
	High Accuracy Calibration/1D