

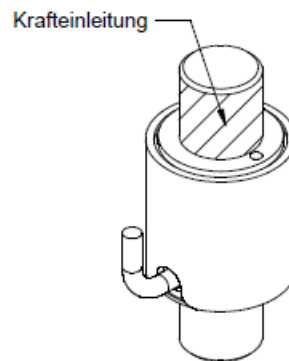
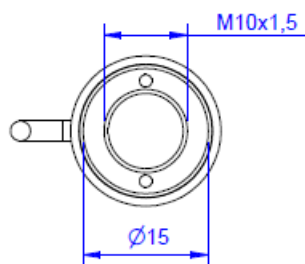
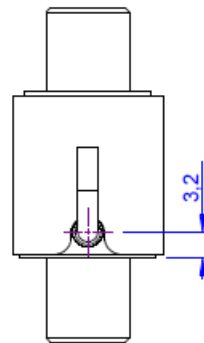
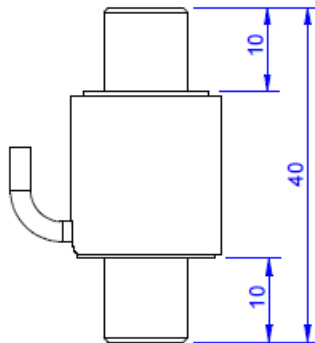
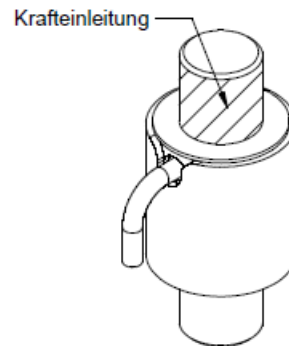
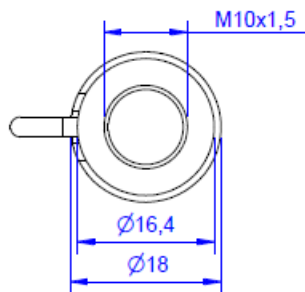
KM16z 10kN



Description

The force sensor KM16z is a sensor with minimal dimensions, which is used to measure tensile and compressive forces. For the application of force two threads are provided. The protection class is IP 67. The load must be free of transverse forces and bending moments.

Dimensions



Technical Data

Force sensor

Type	Force sensor
Force direction	Tension / Compression
Rated force F _x	10 kN
Force introduction	Außengewinde
Dimension 1	M10x1,5
Sensor Fastening	Außengewinde
Dimension 2	M10x1,5
Operating force	200 %FS
Rated displacement	0.011 mm
Lateral force limit	10 %FS
Material	Stainless steel
Natural frequency	48 kHz
Height	40 mm
Length or Diameter	18 mm
Torque limit	10 Nm
Bending moment limit	5 Nm

Electrical Data

Input resistance	390 Ohm
Tolerance input resistance	40 Ohm
Output resistance	350 Ohm
Insulation resistance	2 GOhm
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	1 mV/V / FS

Precision data

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

Environmental data

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

Storage temperature range f	-10 ... 85 °C
Environmental protection	IP67

Abbreviation: RD: „Reading“; FS: „Full Scale“;

1) The exact nominal sensitivity is indicated in the test report;

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

Mounting instructions:

Ensure that the sensor is installed on the mounting side of the mounting parts. Do not direct the tightening torque through the sensor.

accessories

	Description	Description
	Ring nut	Capacity 10kN, Thread M10, Diameter: 45mm, Height: 45mm, Ring Thickness: 10mm, for KM16z 5kN, 10kN, 20kN;
	Ring nut	Capacity 40kN, Thread M16, Diameter: 63mm, Height: 62mm, Ring Thickness: 14mm, for KM30z 20kN, KM16z 50kN;
	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.