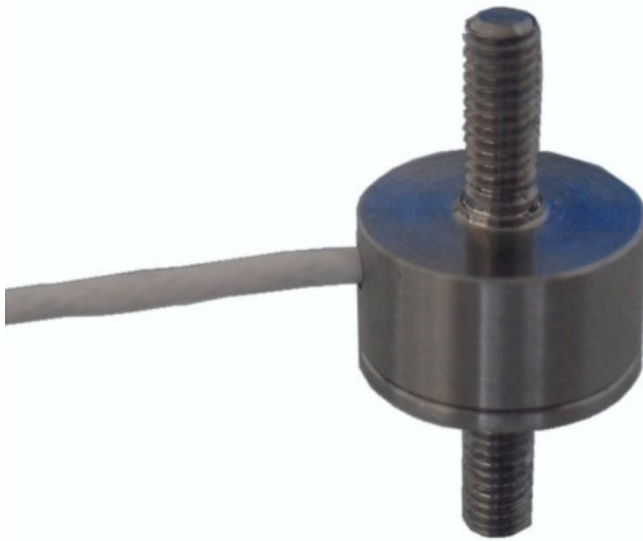


## Force Sensor KM10z

Nominal force ranges 25N, 50N, 100N, 200N

The KM10z membrane force sensor is ultra-miniature sensor for force and pressure measurement. The force is applied on two M2.5 thread. In the application of force is necessary to ensure that no bending moments greater than 0.1 Nm be initiated.

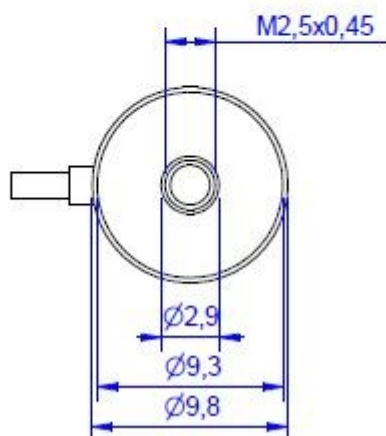
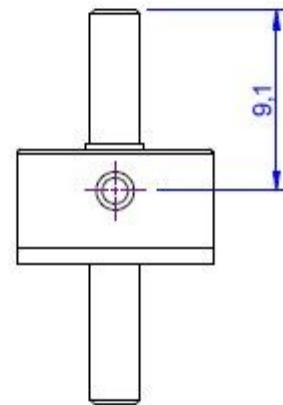
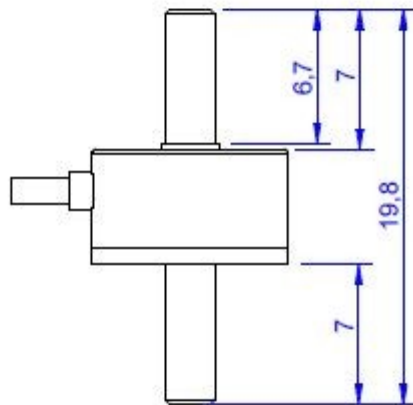
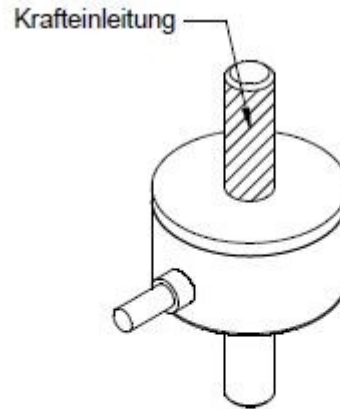
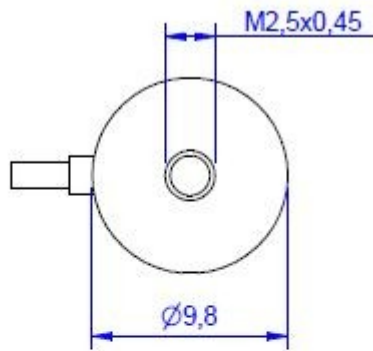


### Pin Configuration

+Us	positive bridge supply	brown
-Us	negative bridge supply	white
+U <sub>D</sub>	positive bridge output	green
-U <sub>D</sub>	negative bridge output	yellow
Shield		transparent

Pressure load : positive output signal

## Dimensions



## Technical Data

Measurement / Material		
Design		Bar, force/pressure
Material		Stainless Steel
Dimensions	mm x mm	Ø 9,8 x 19,8
Force transmission / Thread		2x M2,5
Mechanical Data		
Nominal Force (FS)	N	25, 50, 100, 200
Operation force	%FS	150
Break load	%FS	300
Deflection by FS	mm	0,04
Electrical Data		
Nominal output 1)	mV/V @ FS	0,5 ... 1,0
Zero balance	mV/V	0,05
max. supply voltage	V	10
Input resistance	Ohm	390 ±40
Output resistance	Ohm	350
Insulation resistance	Ohm	>2 10 <sup>9</sup>
Connection STC-36T-4	m	3
Accuracy		
Nominal output 2)	%	0,5
rel. linearity deviation	%FS	0,1
rel. reversal error 2)	%FS	0,05
Temperature coefficient of the zero signal	%FS/K	0,02
Temperature coefficient of the parameter	%RD/K	0,02
Creep Error (30 min)	%FS	0,1
Temperature		
Nominal temperature range	°C	-10 ... +70
Working temperature range	°C	-10 ... +85
Storage temperature range	°C	-10 ... +85
Environmental protection		IP67

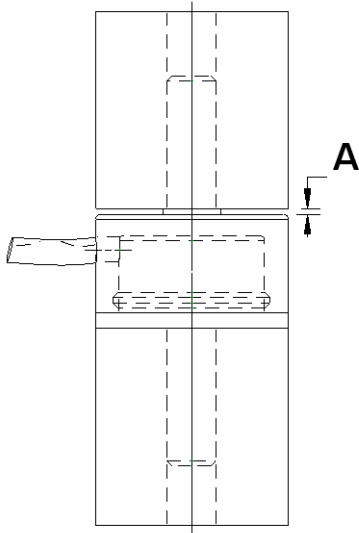
Abbreviation : RD: „Reading“; FS: „Full Scale“;

1. The exact nominal sensitivity is indicated in the test report.
2. Values in ( ) for compression and tension fluctuating measurement values

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

Note: We recommend that the sensor KM10z with rated load 500N to use only for pressure measurements! Thread the sensor only suitable for sensor mounting, not suitable for tension!

## Installation



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