Force Sensor KM16z 2kN

Item number: 8936



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.

Optional special version

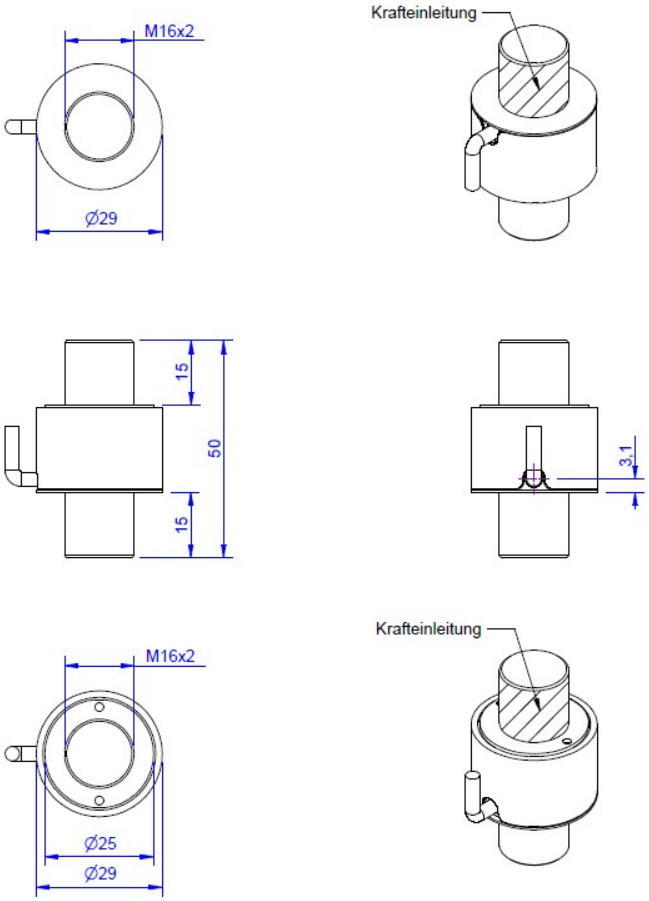
- Protection class IP68: from rated force 200 N

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Stand: 02.10.2026

Technical Drawing



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Technical Data

Basic Data		Unit
Type	Kraftsensor	
Force direction	Tension/Compression	
Force introduction	external thread	
Sensor Fastening	external thread	
Operating force	200	%FS
Rated displacement	0.011	mm
Lateral force limit	10	%FS
Material	Stainless steel	
Natural frequency fx	26	kHz
Dimensions	Ø18mm x 40mm	
Torque limit	5	Nm
Bending moment limit	1	Nm
Variants	2kN... 50kN	

Electrical Data		Unit
Input resistance	390	Ohm
Tolerance input resistance	40	Ohm
Output resistance	350	Ohm
Insulation resistance	2	GOhm
Rated range of excitation voltage from	2.5	V
Rated range of excitation voltage to	5	V
Operating range of excitation voltage from	1	V
Operating range of excitation voltage to	10	V
Zero signal	0.05	mV/V
Rated output	1	mV/V / FS

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Accuracy Data		Unit
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
Environmental Data		**Unit**
Rated temperature range from	-10	°C
Rated temperature range to	70	°C
Operating temperature range from	-10	°C
Operating temperature range to	85	°C
Storage temperature range from	-10	°C
Storage temperature range to	85	°C
Environmental protection	IP67	

Abbreviation: RD: „Reading“; FS: „Full Scale“;1) The exact nominal sensitivity is indicated in the test report;

Pin Assignment

Channel	Symbol	Description	Wire color	PIN
	+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.

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