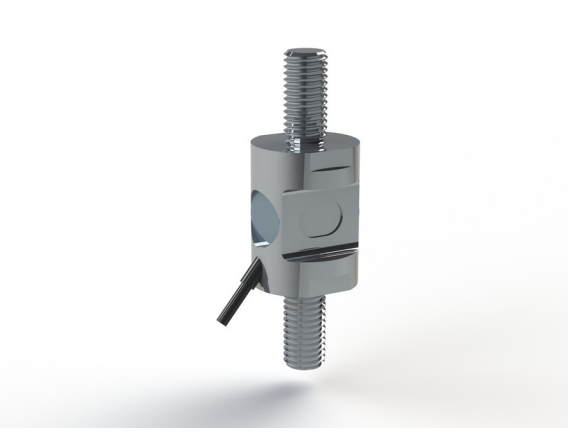
Force Sensor KM30z 1kN

Item number: 5895



Highlights

- Tension/compression force sensor
- High degree of protection IP67
- suitable for use in harsh conditions

The KM30z force sensor is a compact tension/pressure/force sensor. Two threads are provided for application of force: M12 coarse-feeding thread up to 10kN, M16 coarse-feeding thread for 20kN, M20 coarse-feeding thread to 50kN. The versions up to 2kN are made of aluminium alloy. Ring nuts are also available as accessories.

The protection class is IP67.

Optional special version

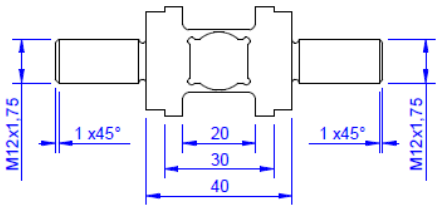
- Pressure range up to 8 bar

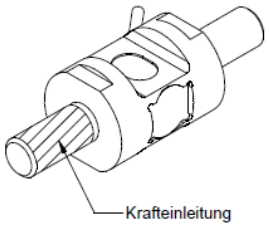
ME-Meßsysteme GmbH
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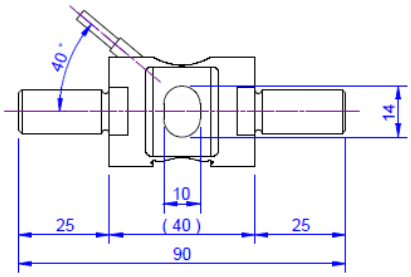
Tel: +49 (0)3302 8982 4 10
Mail: vertrieb@me-systeme.de
Web: www.me-systeme.de

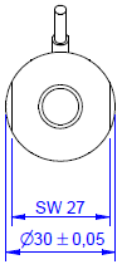
Stand: 09.11.2026

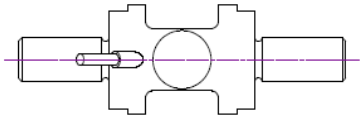
Technical Drawing

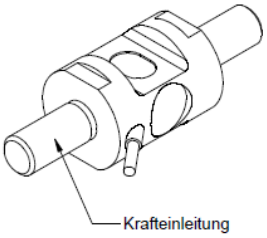












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Technical Data

Basic Data		Unit
Type	Kraftsensor	
Force direction	Tension/Compression	
Rated force Fx	1	kN
Force introduction	external thread	
Dimension 1	M12	
Sensor Fastening	external thread	
Dimension 2	M12	
Operating force	200	%FS
Rated displacement	0.04	mm
Lateral force limit	10	%FS
Material	alluminum-alloy	
Natural frequency fx	10	kHz
Dimensions	Ø30mm x 90mm	
Height	90	mm
Length or Diameter	30	mm
Torque limit	20	Nm
Bending moment limit	10	Nm
Variants	500N... 50kN	

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Electrical Data		Unit
Input resistance	390	Ohm
Tolerance input resistance	40	±
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

Accuracy Data		Unit
Accuracy class	0,5	
Relative linearity error	0.1	%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 characteristic value is indicated in the test report.

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Pin Assignment

Channel	Symbol	Description	Wire color	PIN
	+Us	positive bridge supply	brown	
	-Us	negative bridge supply	white	
	+Ud	positive bridge output	green	
	-Ud	negative bridge output	yellow	

Screen - transparent. Compressive load : positive output signal

Mounting

When assembling attachment parts, hold the sensor in place on the installation side / do not load any fastening torque through the sensor.The load can be inserted on the end faces.Calibration is carried out with force via the thread, not via the end faces. When loading the sensor on the end faces, the calibration can vary by a few percent compared to the calibration with a force via the thread.

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