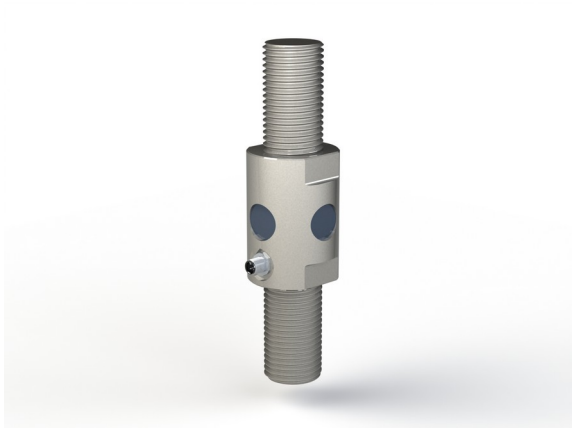
Force Sensor KM70z 200KN

Item number: 5070



The KM70z force sensor is a tension/compression force sensor with compact dimensions. Two M45x3 coarse-feeding threads are provided for application of force.

The protection class is IP67. Connection is made with an M12 connector. 10m assembled connecting cable is included in scope of delivery.

Optional special version

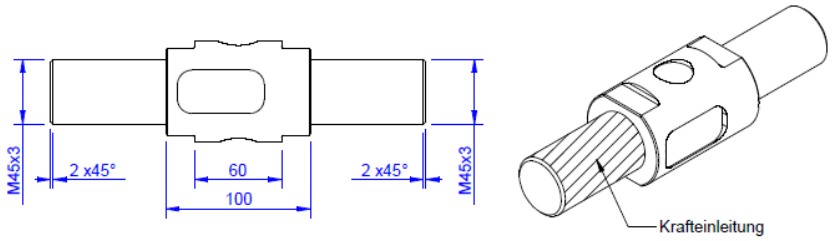
- Pressure range up to 8 bar

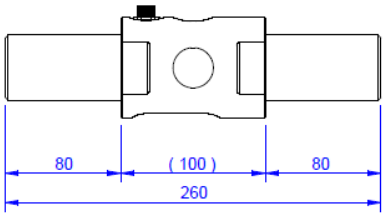
ME-Meßsysteme GmbH
Eduard-Maurer-Str. 9
DE-16761 Hennigsdorf

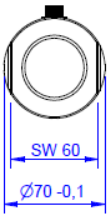
Tel: +49 (0)3302 8982 4 10
Mail: vertrieb@me-systeme.de
Web: www.me-systeme.de

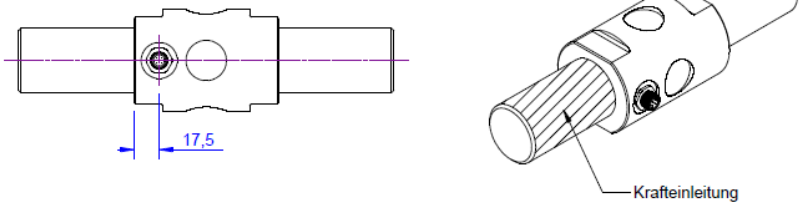
Stand: 28.08.2026

Technical Drawing









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Technical Data

Basic Data		Unit
Type	Kraftsensor	
Force direction	Tension/Compression	
Rated force Fx	200	kN
Force introduction	external thread	
Dimension 1	M45x3	
Sensor Fastening	external thread	
Dimension 2	M45x3	
Operating force	200	%FS
Rated displacement	0.04	mm
Lateral force limit	10	%FS
Material	Stainless steel	
Natural frequency fx	10	kHz
Dimensions	Ø70mm x 260mm	
Height	260	mm
Length or Diameter	70	mm
Torque limit	500	Nm
Bending moment limit	500	Nm
Variants	200kN	

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Electrical Data		Unit
Input resistance	390	Ohm
Tolerance input resistance	40	±
Output resistance	350	Ohm
Insulation resistance	2x10^9	Ohm
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

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

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Pin Assignment

Channel	Symbol	Description	Wire color	PIN
	+Us	positive bridge supply	brown	1
	-Us	negative bridge supply	white	2
	+Ud	positive bridge output	blue	3
	-Ud	negative bridge output	black	4

Compressive load: positive output signal. Shield connected to sensor housing.

Mounting

When assembling attachment parts, hold the sensor in place on the installation side / do not conduct any tensioning torque through the sensor. Attachment parts may be supported on the adjustable foot on the end faces, if preferred. The sensor is calibrated with application of force via the thread, not via the end faces. The calibration can deviate by a few percent when force is applied via the end faces.

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