ME-Meßsysteme GmbH
Neuendorfstr. 18a
DE-16761 Hennigsdorf

Tel +49 (0)3302 8982 4 60
Fax +49 (0)3302 8982 4 69

Mail info@me-systeme.de
Web www.me-systeme.de

KM16z 2kN, 5kN, 10kN, 20kN, 50kN

Description

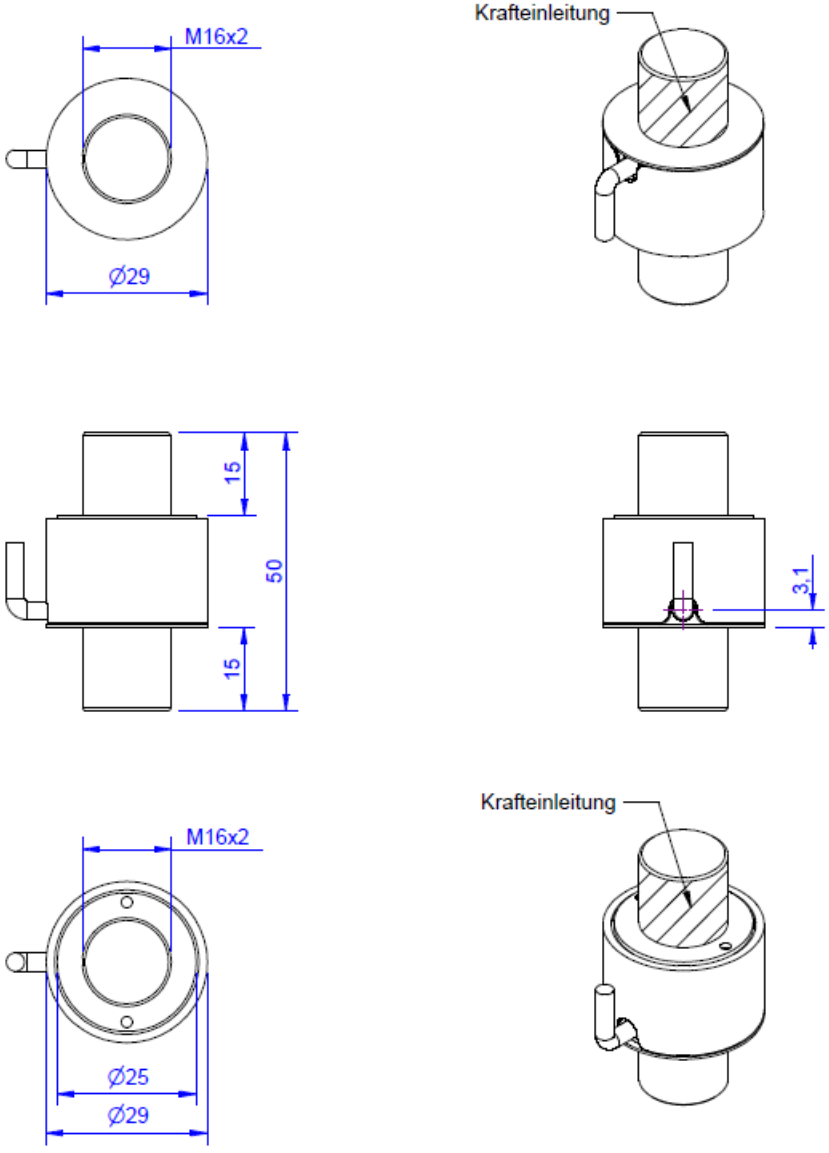
The force sensor KM16z is a sensor with minimal dimensions, which is used to measure tensile and compressive forces.
For the application of force two threads are provided.
The protection class is IP 67. The load must be free of transverse forces and bending moments.

ME-Meßsysteme GmbH
Neuendorfstr. 18a
DE-16761 Hennigsdorf

Tel +49 (0)3302 8982 4 60
Fax +49 (0)3302 8982 4 69

Mail info@me-systeme.de
Web www.me-systeme.de

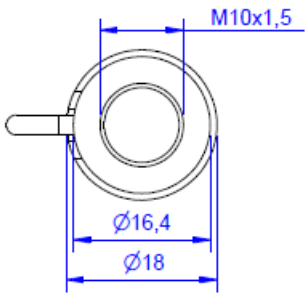
Dimensions

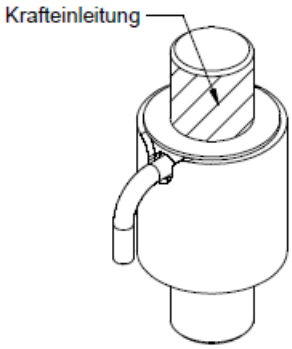


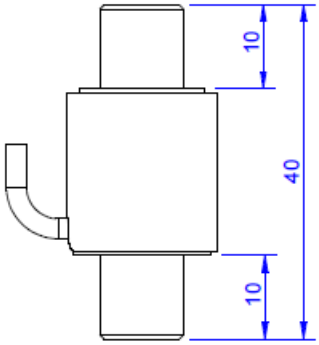
ME-Meßsysteme GmbH
Neuendorfstr. 18a
DE-16761 Hennigsdorf

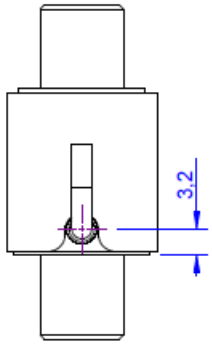
Tel +49 (0)3302 8982 4 60
Fax +49 (0)3302 8982 4 69

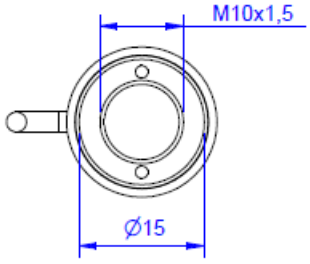
Mail info@me-systeme.de
Web www.me-systeme.de

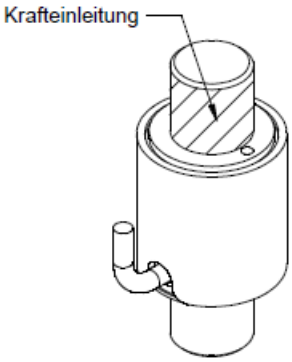












ME-Meßsysteme GmbH
Neuendorfstr. 18a
DE-16761 Hennigsdorf

Tel +49 (0)3302 8982 4 60
Fax +49 (0)3302 8982 4 69

Mail info@me-systeme.de
Web www.me-systeme.de

Technical Data

Force sensor		
Type	Force sensor	
Force direction	Tension / Compression	
Force introduction	Außengewinde	
Sensor Fastening	Außengewinde	
Operating force	200	%FS
Rated displacement	0.011	mm
Lateral force limit	10	%FS
Material	Stainless steel	
Natural frequency	40	kHz
Torque limit	10	Nm
Bending moment limit	1	Nm

Electrical Data		
Input resistance	390	Ohm
Tolerance input resistance	40	±
Output resistance	350	Ohm
Insulation resistance	2x10^9	Ohm
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		
Accuracy class	1%	
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

Connection Data		
Connection type	4 conductor open	
Name of the connection	STC-31V-4	
Cable length	3	m

Temperature		
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;

ME-Meßsysteme GmbH
Neuendorfstr. 18a
DE-16761 Hennigsdorf

Tel +49 (0)3302 8982 4 60
Fax +49 (0)3302 8982 4 69

Mail info@me-systeme.de
Web www.me-systeme.de

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.

Symbol	Description	Wire colour
+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

ME-Meßsysteme GmbH
Neuendorfstr. 18a
DE-16761 Hennigsdorf

Tel +49 (0)3302 8982 4 60
Fax +49 (0)3302 8982 4 69

Mail info@me-systeme.de
Web www.me-systeme.de

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.

ME-Meßsysteme GmbH
Neuendorfstr. 18a
DE-16761 Hennigsdorf

Tel +49 (0)3302 8982 4 60
Fax +49 (0)3302 8982 4 69

Mail info@me-systeme.de
Web www.me-systeme.de

accessories

	Description	Description
	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.
	Calibration Certificate kn/200/5	Factory calibration certificate for force to 200 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.
	Ringmutter	Ring nut for sensors with external thread KM16z, KM26z, KM30z
	GSV-1H	Measuring amplifier in top-hat rail housing for sensors with straingages. Analogue output -10V...+10V, limiting frequency 250Hz, 4 input sensitivities from 2.0mV/V.
	High Accuracy Calibration/1D	
	GSV-2TSD-DI	Measuring amplifier in desktop-housing for sensors with straingages. Serial port RS232, USB port, analogue output -5V...+5V, limiting frequency 260Hz, input sensitivity 3.5mV/V.
	GSV-3USB	Measuring amplifier in aluminum housing for sensors with straingages. Limiting frequency 1250Hz, input sensitivity 2 / 3,5 / 10 mV/V.
	GSV-6K	Analogue measuring amplifier in plug housing for sensors with strain gauges. Analogue output configurable, TEDS, sampling frequency 10Hz ... 25kHz, input sensitivity configurable 0.1mV/V ... 8mV/V