

KM30z 1kN, 2kN, 10kN, 20kN, 50kN

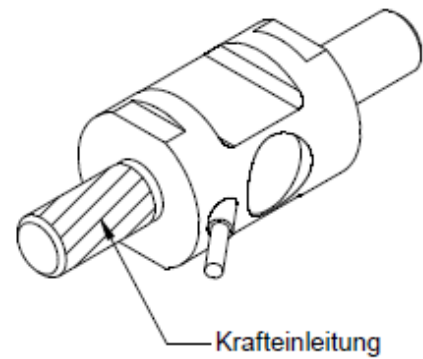
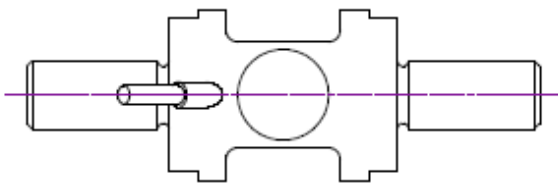
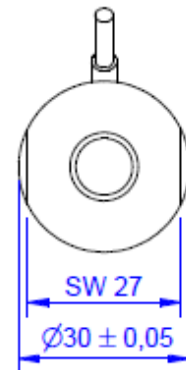
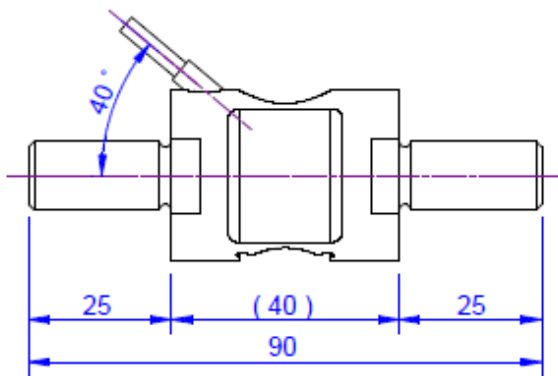
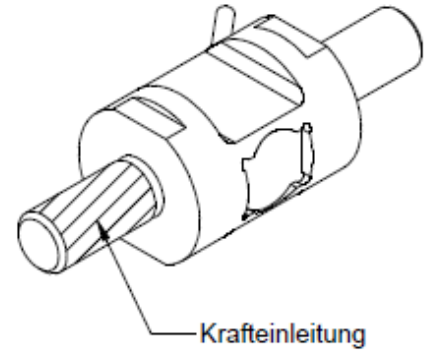
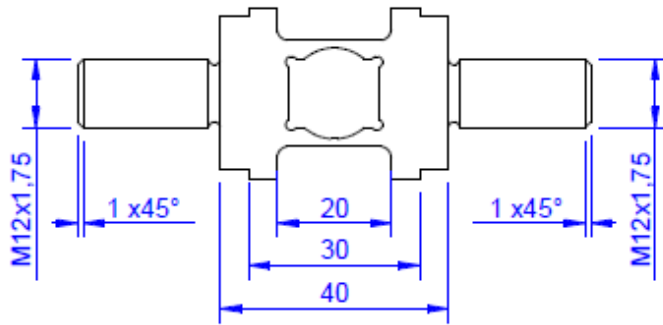


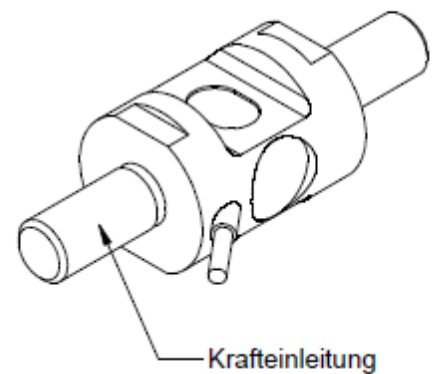
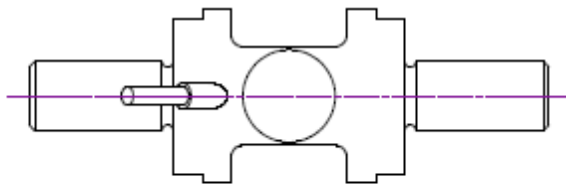
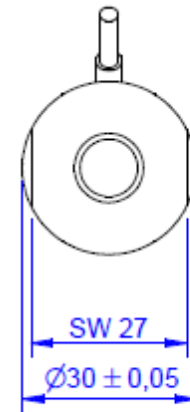
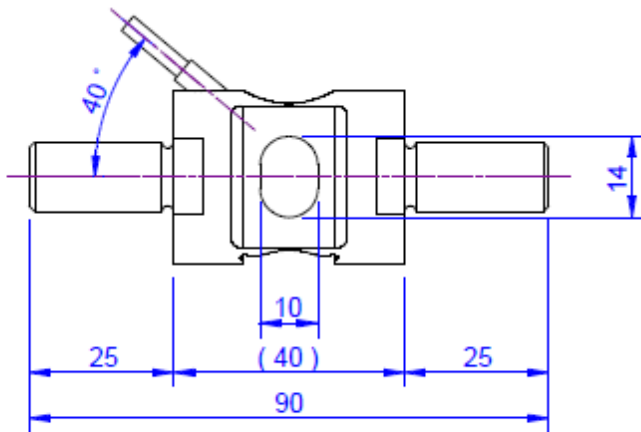
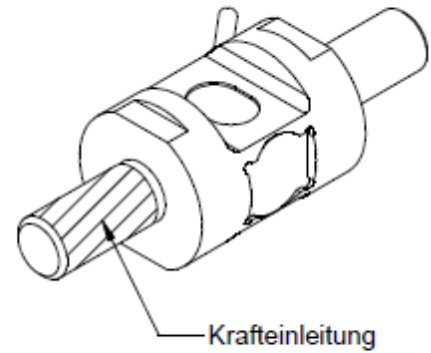
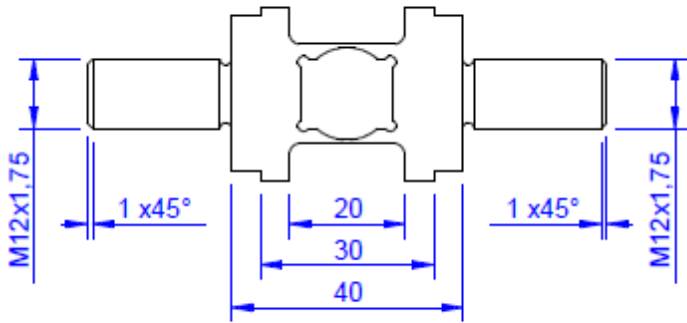
Description

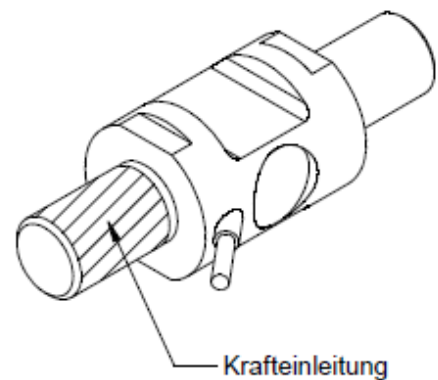
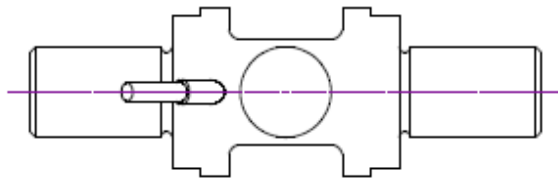
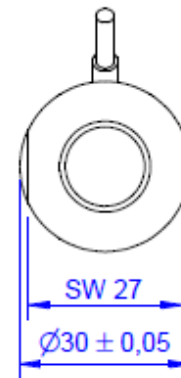
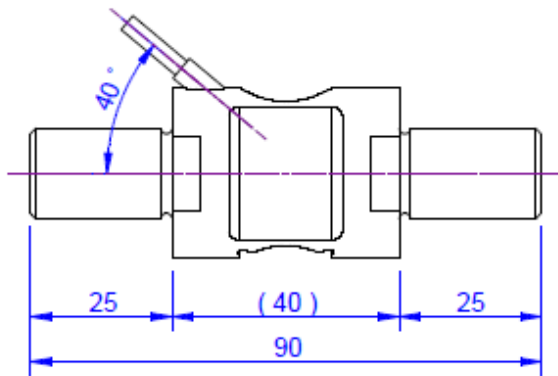
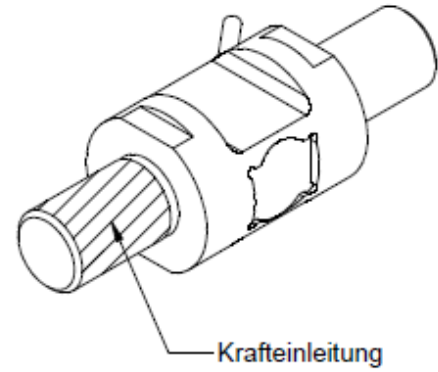
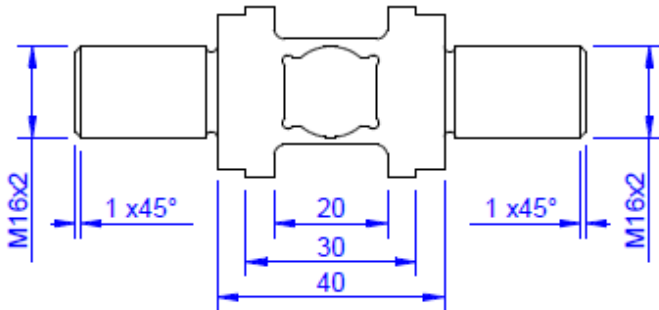
The KM30z force sensor is a compact tension/pressure/force sensor. Two threads are provided for application of force: M12 coarse-feeding thread up to 10kN, M16 coarse-feeding thread for 20kN, M20 coarse-feeding thread to 50kN. The versions up to 2kN are made of aluminium alloy. Ring nuts are also available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

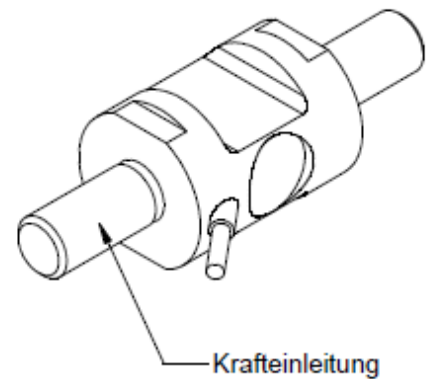
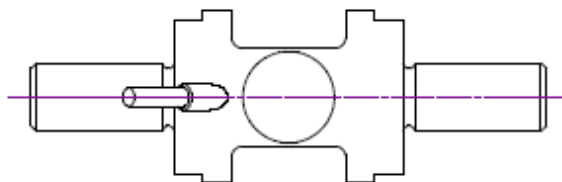
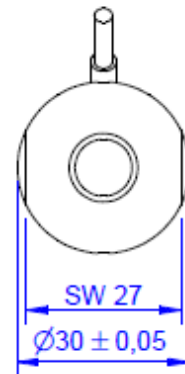
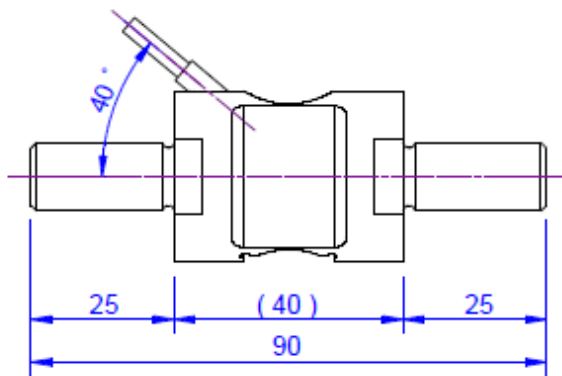
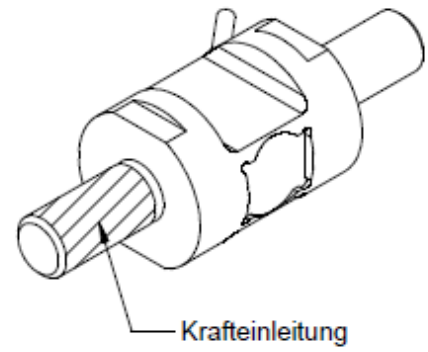
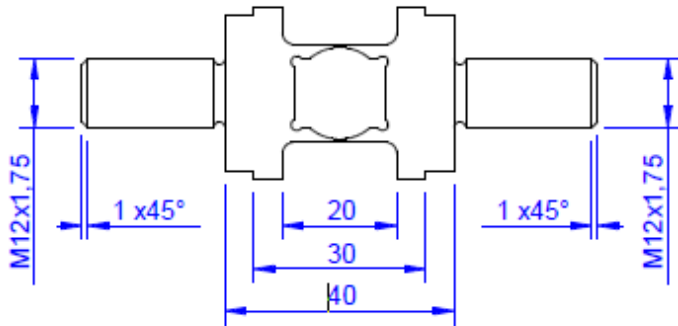
The protection class is IP67.

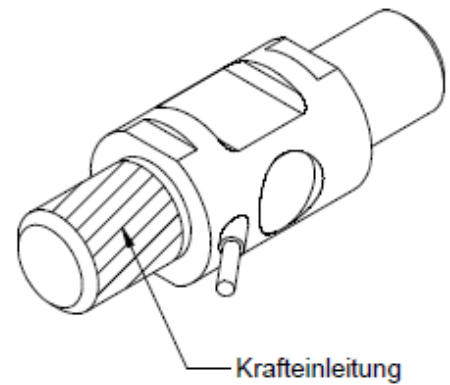
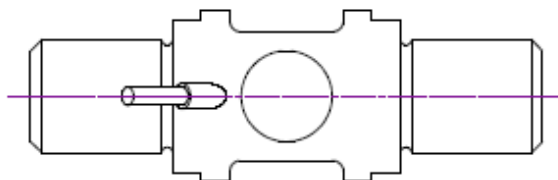
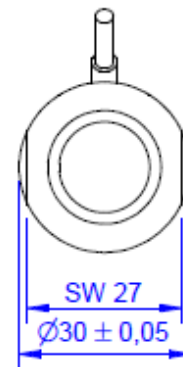
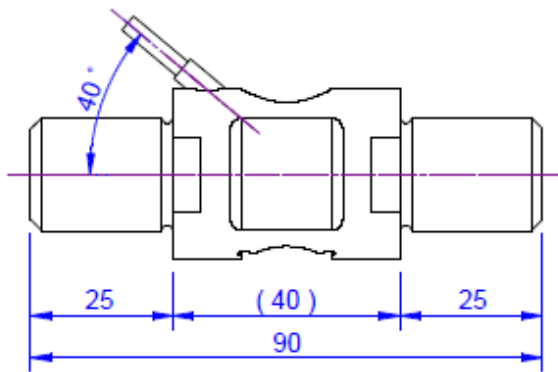
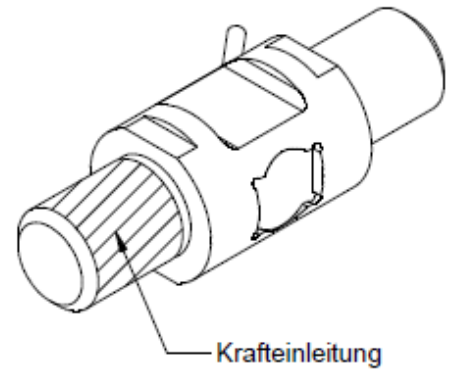
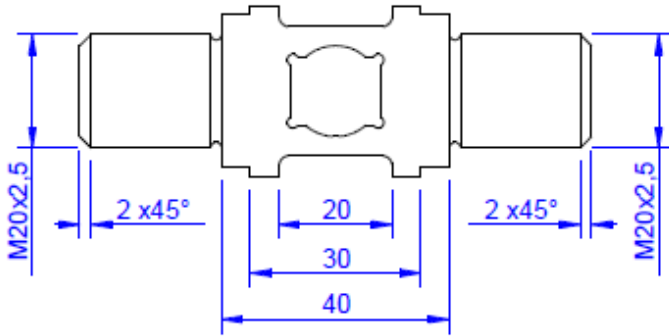
Dimensions













Technical Data

Kraftsensoren

Type	Force sensor
Force introduction	Außengewinde
Dimension 1	M12/M16/M20
Sensor Fastening	Außengewinde
Dimension 2	M12/M16/M20
Operating force	150 %FS
Rated displacement	0.04 mm
Height	90 mm
Length or Diameter	30 mm

Elektrische Daten

Input resistance	390 Ohm
Tolerance input resistance	40 ±
Output resistance	350 Ohm
Insulation resistance	2 GOhm
Rated range of excitation voltage f	2.5 ... 5 V
Operating range of excitation voltage f	1 ... 5 V
Zero signal	0.05 mV/V

Precision

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

Connection Data

Connection type	4 conductor open
Name of the connection	ME-SYSTEME.DE / 24-4 PUR
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 characteristic value is indicated in the test report.



Pin Configuration

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

Screen - transparent.

Pressure 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.

accessories

	Description	Description
	Ringmutter	Capacity 16kN, Thread M12; Diameter: 63mm, Height: 63mm; Ring Thickness: 14mm; for KM30z 2kN, 10kN;
	Ringmutter	Capacity 40kN, Thread M16, Diameter: 63mm, Height: 62mm, Ring Thickness: 14mm, for KM30z 20kN, KM16z 50kN;
	Ringmutter	Load capacity 50 kN, thread M20, diameter: 90 mm, height: 92mm, ring thickness: 21mm, for KM30z 50kN;
	Elastomerlager Mx	Elastomer Support for KD9363s, 0.25t..1.0t; Dimensions: 75mm x 40mm 150mm x 55mm; 1x Mx male thread, 1x Mx female thread;
	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.