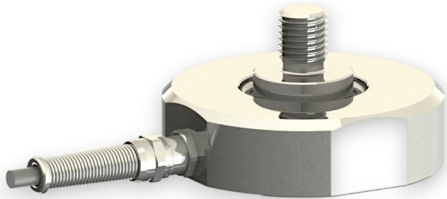


Force Sensor KM90z 10kN

Item number: 13340



Highlights

- low height of the sensor body
- drag chain compatible connection cable
- or integrated M12 round plug

The KM90z force sensor is a tension/compression force sensor in diaphragma construction. He is characterized by

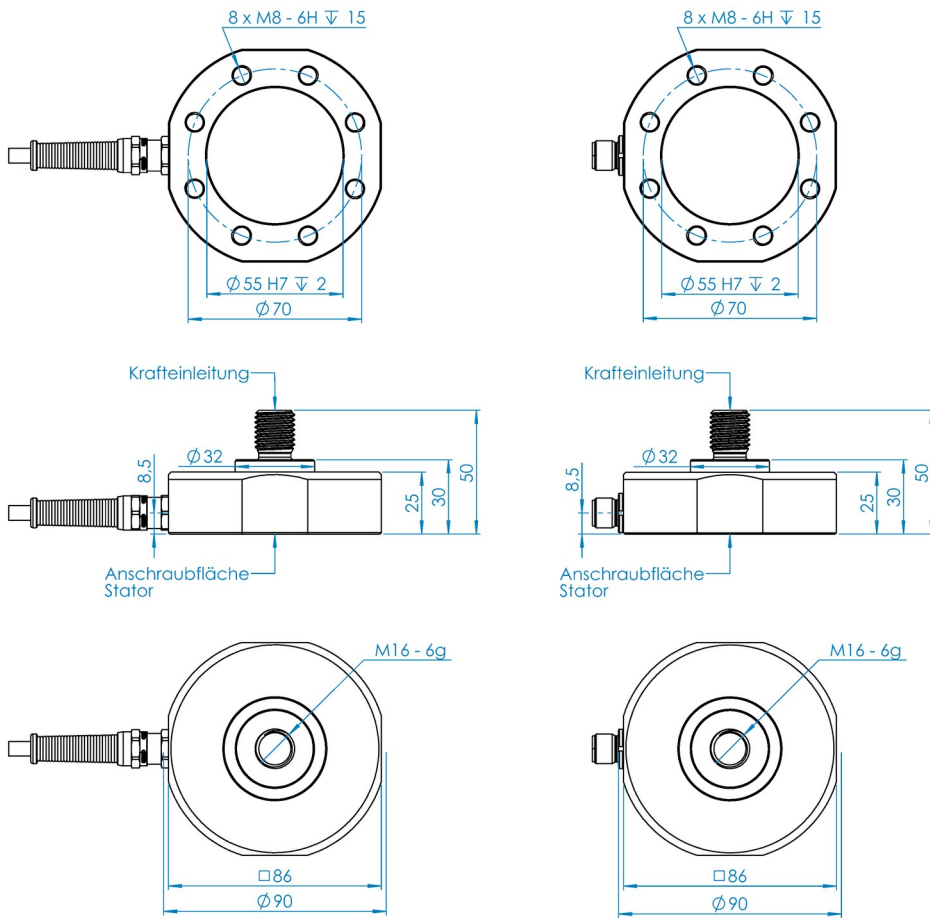
- a low height of 30mm for the sensor body,
- a central M16 external thread for force introduction for the 2 kN and 5 kN variants
- a central M20 external thread for force introduction for the 10 kN variants
- and 8x internal thread M8 for attaching the sensor body.

The 8x M8 internal threads allow the installation of additional adapters, such as a central M16 or M20 internal thread or a central M16 or M20 external thread.

All variants are available with a permanently installed connection cable, Lapp drag chain cable FD/CP/Plus, or with a permanently installed M12 round plug connector, 4-pin.

The protection class of the sensor is IP 67.

Technical Drawing



Technical Data

Basic Data	Unit
Type	Kraftsensor
Force direction	Tension/Compression
Rated force Fx	10 kN
Force introduction	external thread
Dimension 1	M16
Sensor Fastening	Circular ring
Dimension 2	Ø90 mm x 17,5 mm
Operating force	200 %
Rated displacement	0.05 mm
Lateral force limit	10 %
Material	Stainless steel
Natural frequency fx	2 kHz
Dimensions	Ø90mm x 50mm
Variants	10kN... 50kN

Electrical Data	Unit
Input resistance	760 Ohm
Tolerance input resistance	60 Ohm
Output resistance	700 Ohm
Tolerance output resistance	10 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 tolerance	0.05 mV/V
Rated output	1 mV/V

Accuracy Data		Unit
Accuracy class	0,2	
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	-20	°C
Operating temperature range to	85	°C
Storage temperature range from	-10	°C
Storage temperature range to	70	°C
Environmental protection	IP67	

Abbreviation: RD: "Reading"; FS: "Full Scale";
The exact nominal sensitivity is indicated in the test report;

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	

Compressive load: positive output signal. Shield: transparent.