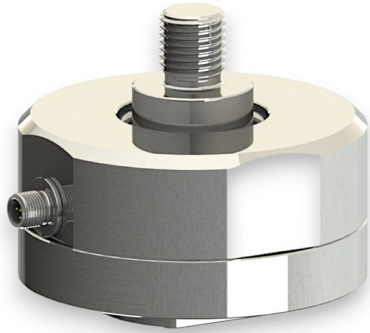


## Force Sensor KM115z-IG 50kN/M12

Item number: 13363



### Highlights

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

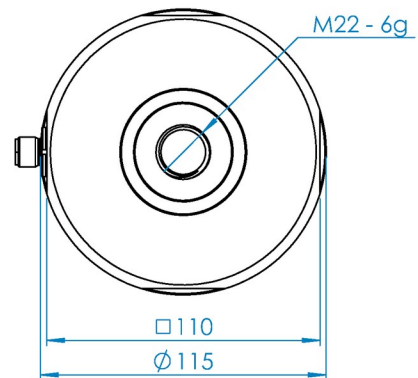
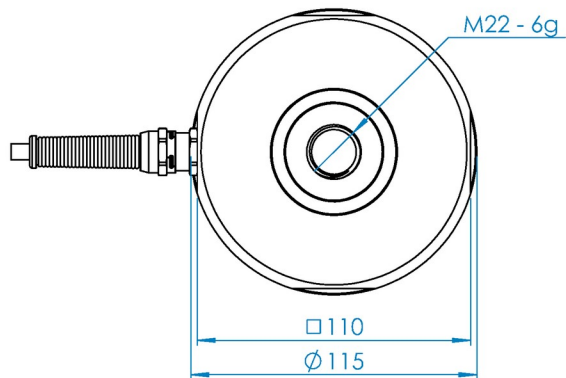
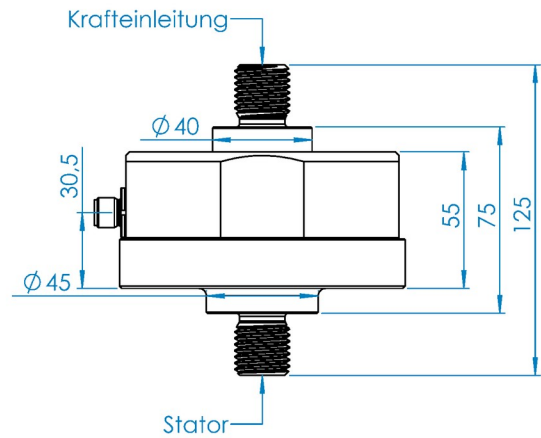
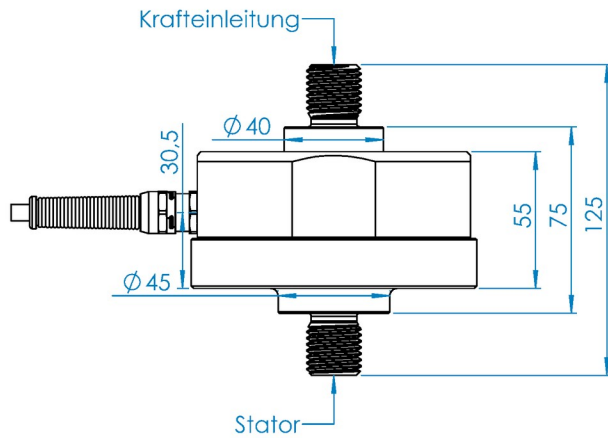
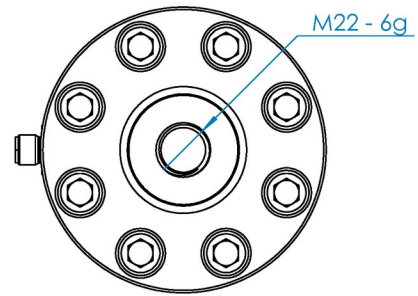
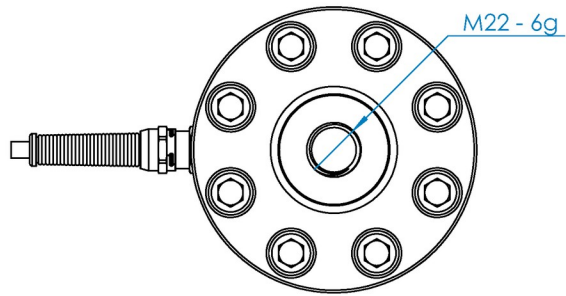
The KM65z force sensor is a tension/compression force sensor in diaphragma construction. He is characterized by

- a low height for the sensor body,
- a central M22 external thread for force introduction for the 50 kN variants
- a central M27 external thread for force introduction for the 100 kN variants
- a central M22 internal thread for sensor fastening for the 50 kN variants
- a central M27 internal thread for sensor fastening for the 100 kN variants

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 F <sub>x</sub>	50 kN
Force introduction	external thread
Dimension 1	M22
Sensor Fastening	Internal thread
Dimension 2	M22
Operating force	200 %
Rated displacement	0.05 mm
Lateral force limit	10 %
Material	Stainless steel
Natural frequency f <sub>x</sub>	2 kHz
Dimensions	Ø115mm x 100mm
Variants	50kN... 100kN

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	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.