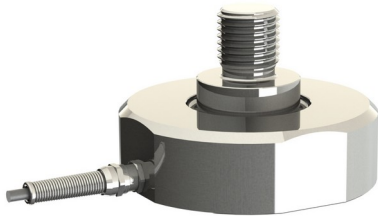


Force Sensor KM150z 150kN

Item number: 13370



Highlights

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

The KM150z force sensor is a tension/compression force sensor in diaphragma construction. He is characterized by

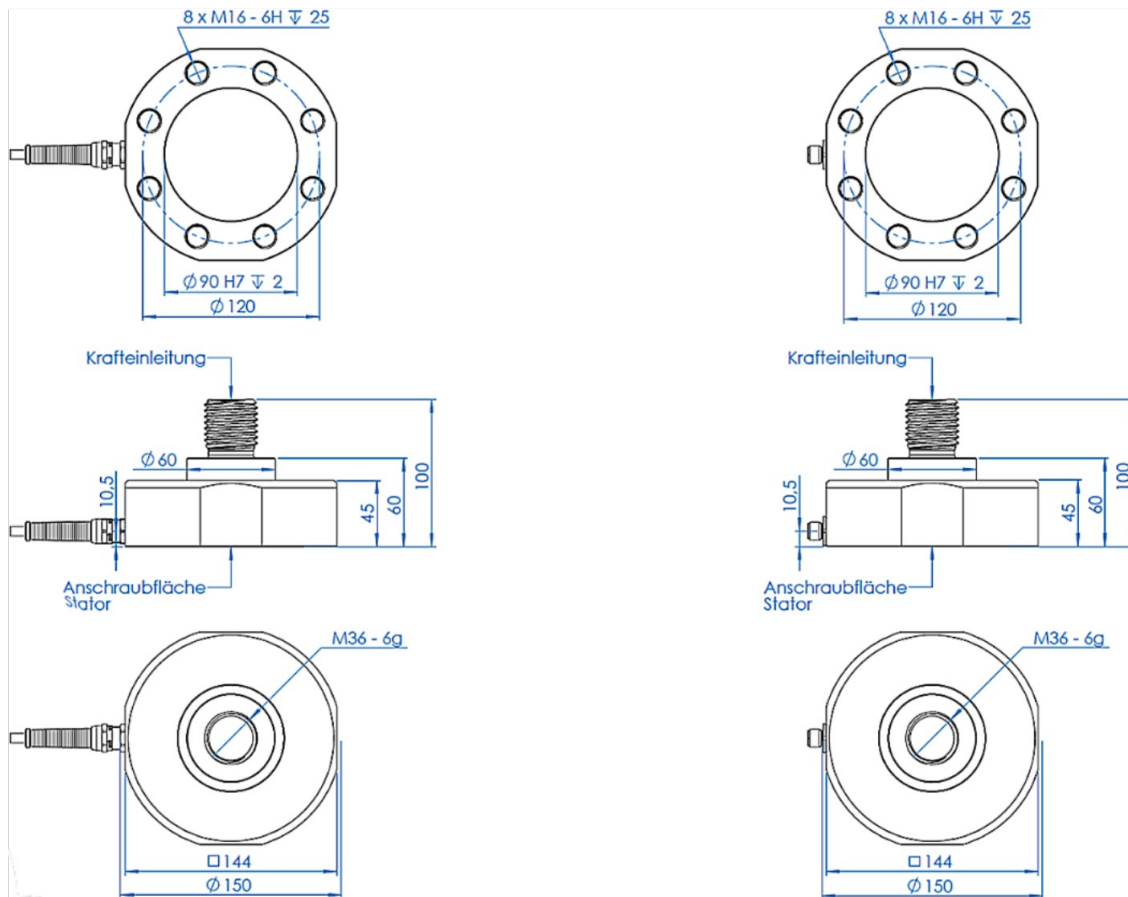
- a low height for the sensor body,
- a central M36 external thread for force introduction for the 150 kN variant
- a central M42 external thread for force introduction for the 200 kN variant
- and 8x internal thread M16 for attaching the sensor body.

The 8x M16 internal threads allow the installation of additional adapters, such as a central M36 or M42 internal thread or a central M36 or M42 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 F _x | 150 | kN |
| Force introduction | external thread | |
| Dimension 1 | M36 | |
| Sensor Fastening | Circular ring | |
| Dimension 2 | Ø150 mm x 30 mm | |
| Operating force | 200 | %FS |
| Rated displacement | 0.05 | mm |
| Lateral force limit | 10 | %FS |
| Material | Stainless steel | |
| Natural frequency f _x | 2 | kHz |
| Dimensions | Ø 150 mm x 100 mm | |
| Variants | 150kN... 200kN | |

| 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.