

Technical Data Sheet



F3E0K11A



Load Cell, 3-axial

Location: Seat Pan

Force direction

F_x, F_y, F_z

Application

Measuring of seat forces

Equivalent types

Customized version

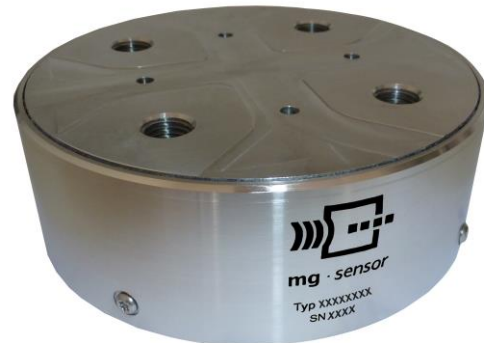
Measurement specification

Resistive

Strain gauges

Options

ID-Module integrated in sensor

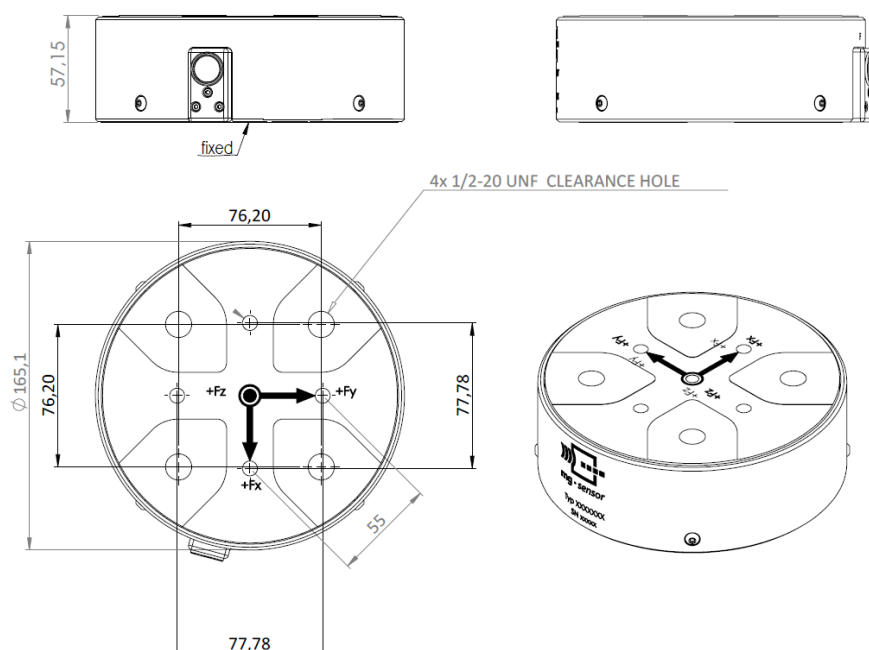


Technical description

The applied force causes compression or strain of the base body. The deformation is measured using strain gauges. The wiring of multiple strain gauges for a full bridge circuit compensates for the temperature influence on the zero signal and the cross-influence from other force and torque application.



Dimensions



Technical Data Sheet



mg · sensor
P U R E P R E C I S I O N

F3E0K11A



Technical specification

| | Unit | Value | | |
|---------------------------------------|---------|----------------|----------------|----------------|
| | | F _x | F _y | F _z |
| Measuring range | kN | 45 | 45 | 45 |
| Sensitivity ¹⁾ | μV/V/kN | 33.3 | 33.3 | 20 |
| Output signal ^{1), 2)} | mV/V | 1.5 | 1.5 | 0.9 |
| Bridge resistance | Ω | 350 | 350 | 700 |
| Zero signal ¹⁾ | mV/V | ≤ 0.05 | | |
| Amplitude non-linearity ³⁾ | % | ≤ 1.0 | | |
| Hysteresis ³⁾ | % | ≤ 1.0 | | |
| Channel cross talk ³⁾ | % | ≤ 5.0 | | |
| Supply voltage | V | 2–15 | | |
| Ultimate load | % | 150 | | |
| Insulation resistance | MΩ | > 100 | | |
| Temperature range | °C | -30...+70 | | |
| Weight (approximate) | g | 6900 | | |

All values measured at 10 V sensor supply voltage and at 23 °C.

¹⁾ Typical value

²⁾ At nominal load

³⁾ Relative nominal range