Technical Data Sheet

N6E3D11A

Load Cell, 6-axial

Location: Seat Pan

Force direction
F_x, F_y, F_z, M_x, M_y, M_z

Application
General purpose

Equivalent types
Customized version

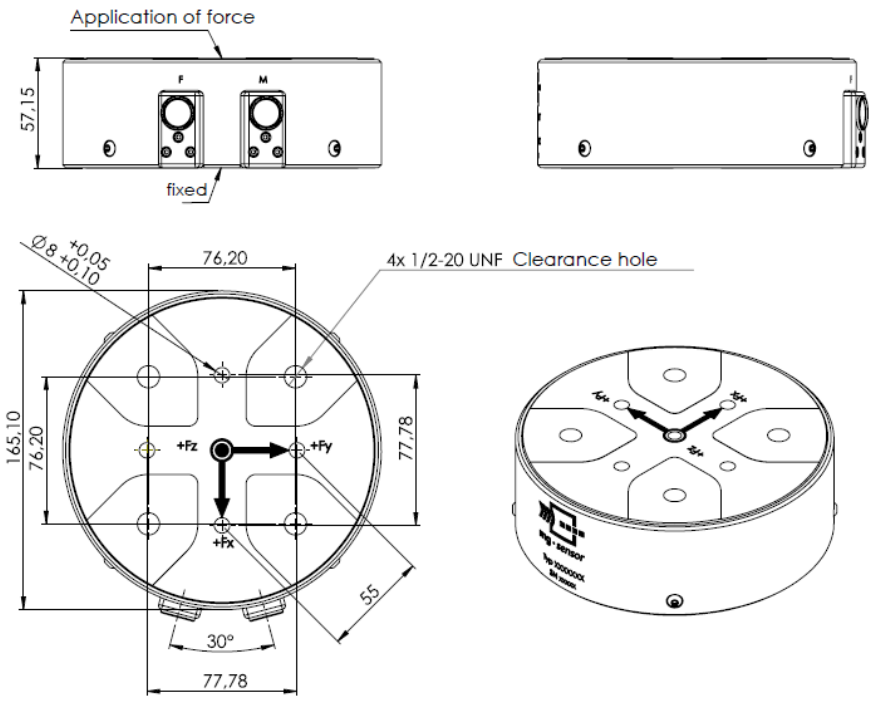
Measurement specification
Resistive
Strain gauges

Options
ID-Module integrated in sensor
Polarity according to customer specifications

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



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Technical specification

	Unit	Value					
		F_x	F_y	F_z	M_x	M_y	M_z
Measuring range	kN Nm	60	60	60	 6000	 6000	 5000
Sensitivity[1)]	µV/V/kN µV/V/Nm	28.5	28.5	13.5	 0.3	 0.3	 0.5
Output signal[1), 2)]	mV/V	1.7	1.7	0.8	1.9	1.9	2.2
Bridge resistance	Ω	350	350	700	350	350	700
Zero signal[1)]	mV/V	≤ 0.05					
Amplitude non-linearity[3)]	%	≤ 1.0					
Hysteresis[3)]	%	≤ 1.0					
Channel crosstalk[3)]	%	≤ 5.0					
Supply voltage	V	2–15					
Ultimate load	%	150					
Insulation resistance	MΩ	> 100					
Temperature range	°C	-30…+70					
Weight (approximate)	g	6500					

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

[1)] Typical value

[2)] At nominal load

[3)] Relative nominal range

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