

Technical Data Sheet



N6E3F11A



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

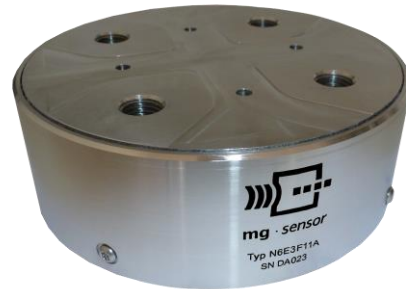
Resistive

Strain gauges

Options

ID-Module integrated in sensor

Polarity according to customer specifications

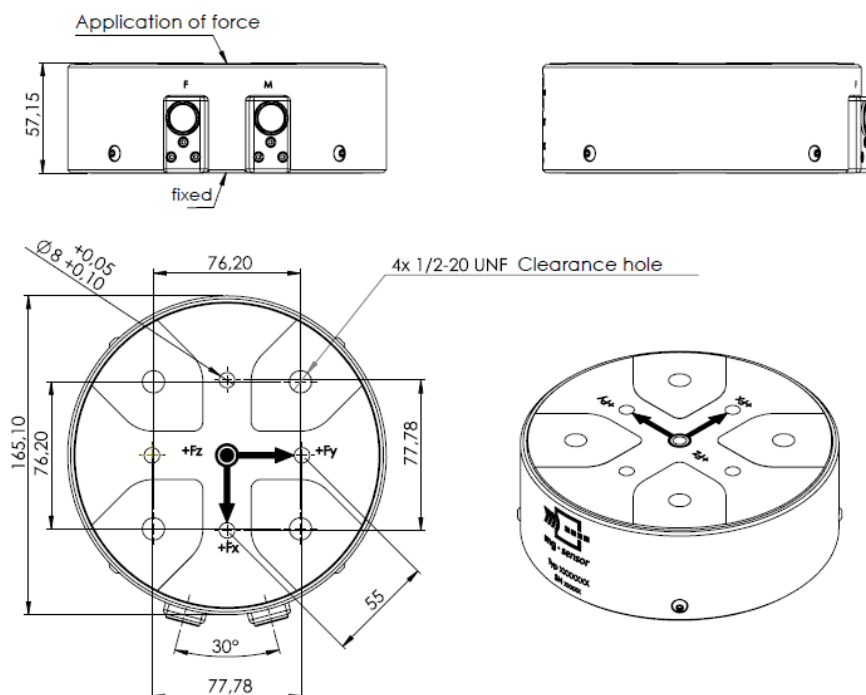


Technical description

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



Technical Data Sheet



mg · sensor
PURE PRECISION

N6E3F11A



Technical specification

	Unit	Value					
		F _x	F _y	F _z	M _x	M _y	M _z
Measuring range	kN Nm	80	80	80	8000	8000	6200
Sensitivity ¹⁾	μV/V/kN	21	21	10			
	μV/V/Nm				0.2	0.2	0.3
Output signal ^{1), 2)}	mV/V	1.7	1.7	0.8	1.9	1.9	2.0
Bridge resistance	Ω	350	350	700	350	350	700
Zero signal ¹⁾	mV/V	≤ 0.05					
Amplitude non-linearity ³⁾	%	≤ 1.0					
Hysteresis ³⁾	%	≤ 1.5					
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