

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

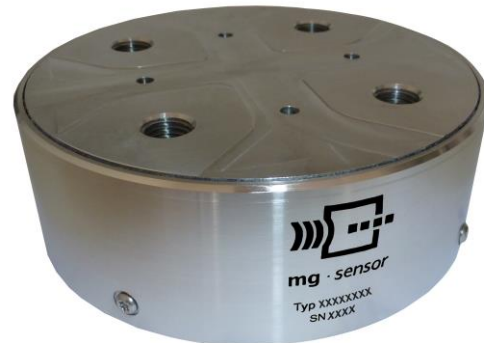
Measurement specification

Resistive

Strain gauges

Options

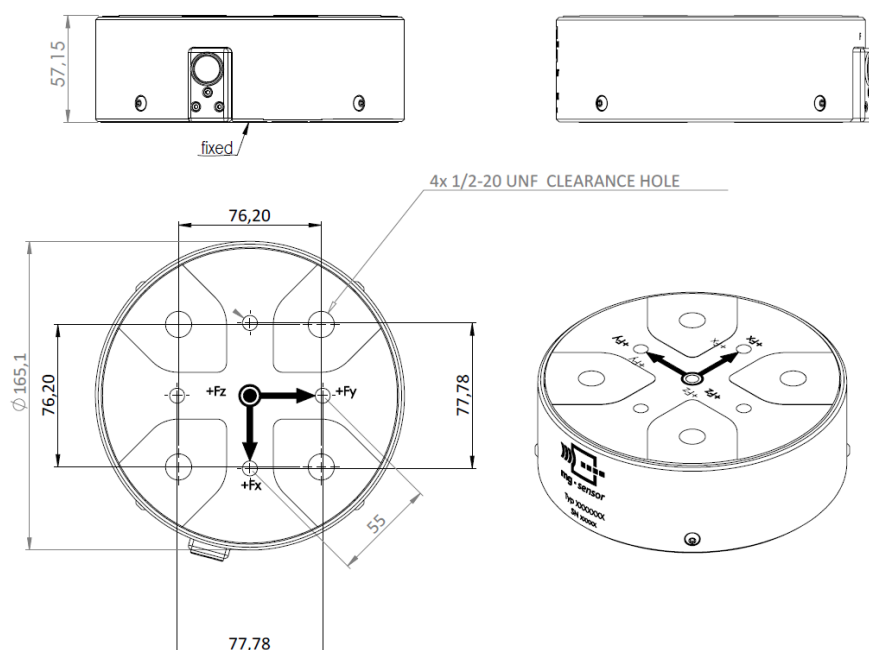
ID-Module integrated in sensor



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 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

N6BCI11A

Load Cell, 6-axial Location: Seat

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

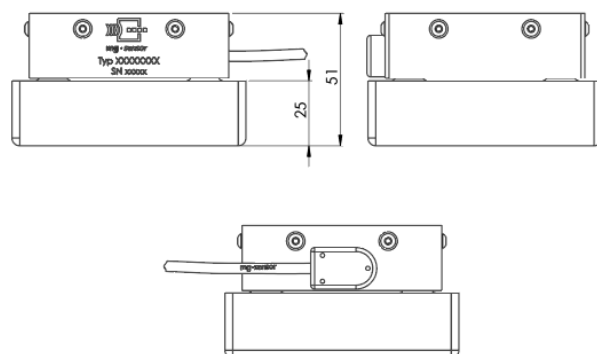
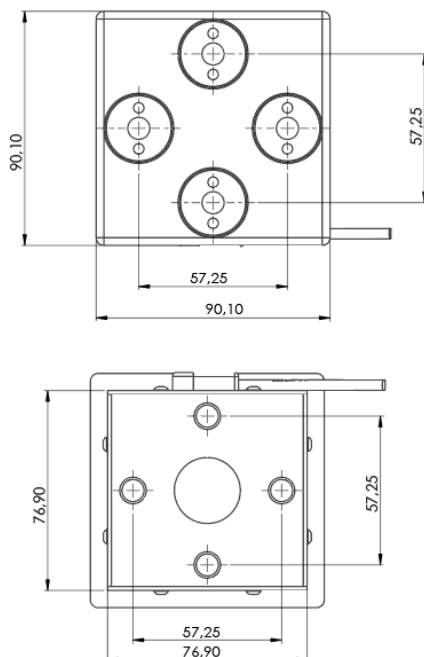
Polarity according to customer specifications



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



N6BCI11A

Technical specification

	Unit	Value					
		F _x	F _y	F _z	M _x	M _y	M _z
Measuring range	kN Nm	55	55	55	3000	3000	1000
Sensitivity ¹⁾	μV/V/kN μV/V/Nm	58	58	14.5	0.8	0.8	1.1
Output signal ^{1), 2)}	mV/V	3.2	3.2	0.8	2.5	2.5	1.1
Bridge resistance	Ω	350	350	1400	700	700	350
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	2100					

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

¹⁾ Typical value

²⁾ At nominal load

³⁾ Relative nominal range

Technical Data Sheet



N6E3A11A



Load Cell, 6-axial Location: Seat Pan

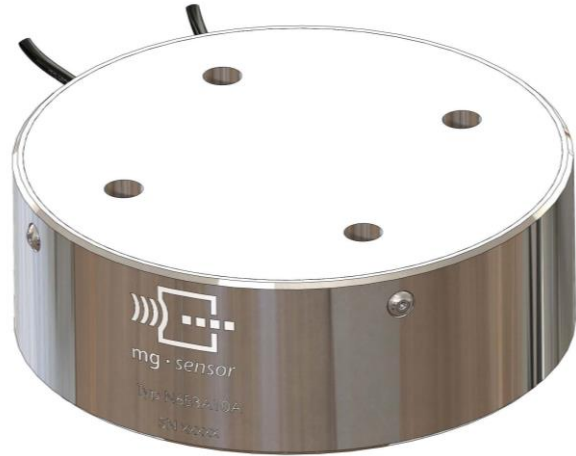
Force direction
 $F_x, F_y, F_z, M_x, M_y, M_z$

Application
General purpose

Equivalent types
Denton: 2513

Measurement specification
Resistive
Strain gauges

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

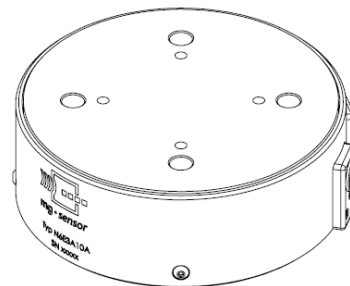
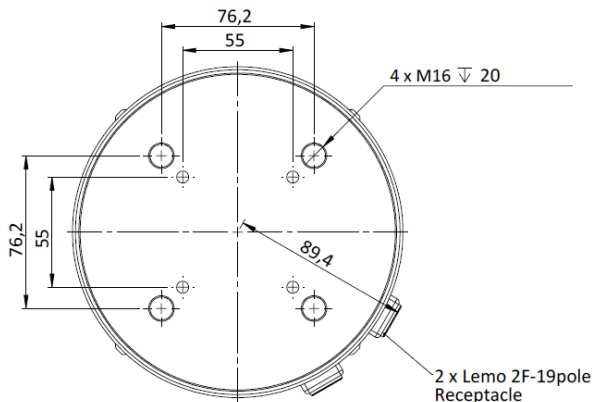
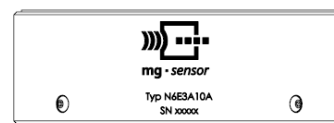
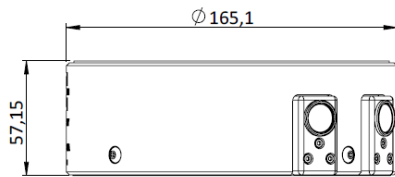


Technical description

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



N6E3A11A

Technical specification

	Unit	Value					
		F _x	F _y	F _z	M _x	M _y	M _z
Measuring range	kN Nm	45	45	45	2800	2800	2200
Sensitivity ¹⁾	μV/V/kN μV/V/Nm	55	55	22	0.7	0.7	0.7
Output signal ^{1), 2)}	mV/V	2.5	2.5	1.0	1.8	1.8	1.6
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

Technical Data Sheet



N6E3D11A



Load Cell, 6-axial Location: Seat Pan

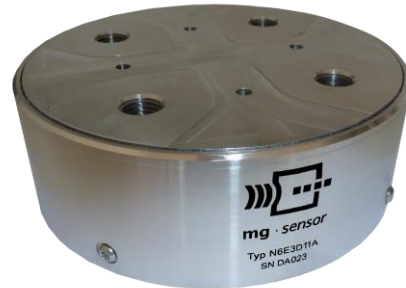
Force direction
 $F_x, F_y, F_z, M_x, M_y, M_z$

Application
General purpose

Equivalent types
Customized version

Measurement specification
Resistive
Strain gauges

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

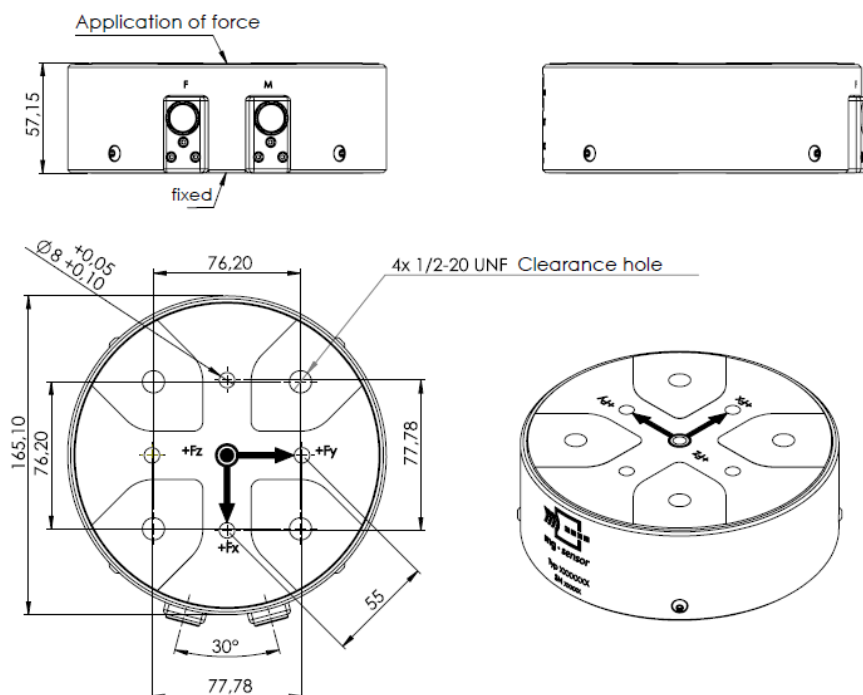


Technical description

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



Technical Data Sheet



N6E3D11A

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

Technical Data Sheet



N6E3E11A



Load Cell, 6-axial Location: Seat Pan

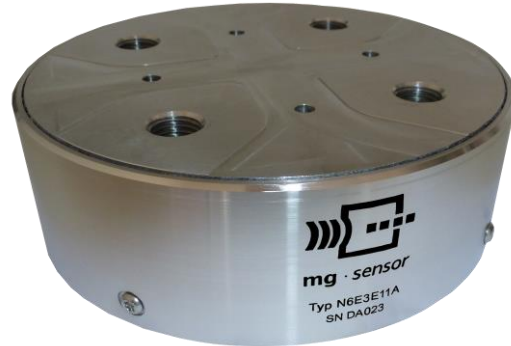
Force direction
 $F_x, F_y, F_z, M_x, M_y, M_z$

Application
General purpose

Equivalent types
Customized version

Measurement specification
Resistive
Strain gauges

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

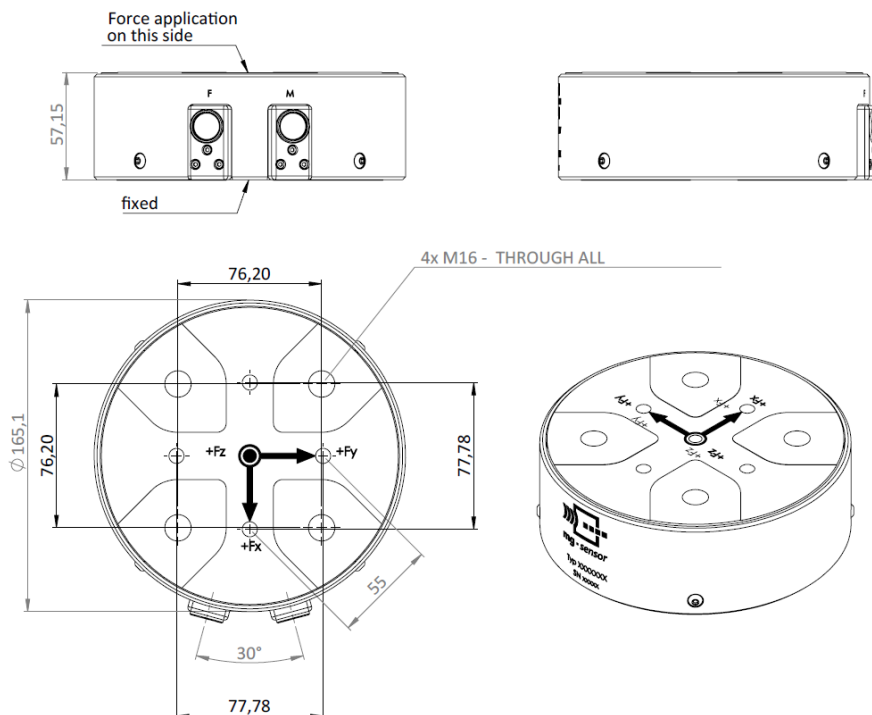


Technical description

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



N6E3E11A

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 μV/V/Nm	21.3	21.3	10	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⁾	%	≤ 1.0					
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	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

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

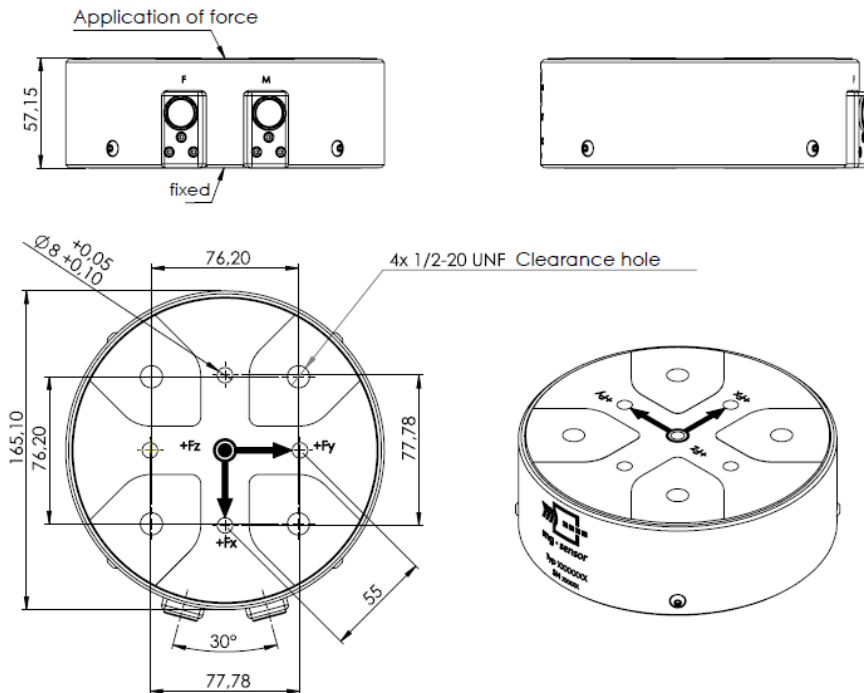


Technical description

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



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 μV/V/Nm	21	21	10	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