

FN3060 SERIES

Load Cell for fatigue testing



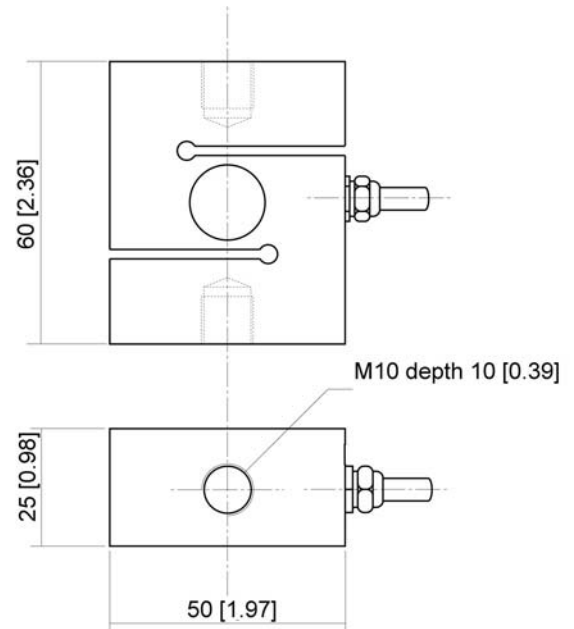
- **Full Scale Range :**
from 0-250 N to 0-2500 N [0-50 lb to 500 lb]
- **Tension and Compression**
- **Fatigue Rated**
- **Accuracy: 0.1% F.S.**
- **High Level Output Model with Integrated Amplifier**

The FN3060 S-beam load cell is highly suited for use in test benches and fatigue tests. Due to the mechanical design, the FN3060 is especially durable. It measures tension and compression in standard ranges from 0-50 to 0-500 lb. For high-level output a model with integrated amplifier is available as are numerous other options.

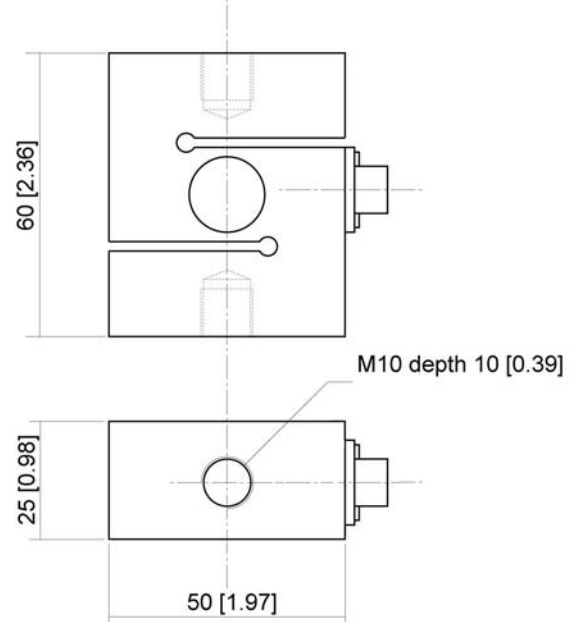
With many years of experience as a designer and manufacturer of sensors, FGP Sensors often works with customers to design or customize sensors for specific uses and testing environments.

To meet your needs we also offer complete turnkey systems. The matched components (sensor, power, amplifier and digital display) are formatted, calibrated and ready for immediate use.

FN3060 Dimensions in mm



FN3060-SC Dimensions in mm



F.S. Ranges in N [lb]	250 [50]	500 [100]	1000 [200]	2500 [500]
Stiffness in lb/ft	5.5×10^5	1.0×10^6	1.7×10^6	3.4×10^6

Technical Specifications

Range (F.S.)

From 0-250 N to 0-2500 N [50 lb to 500 lb] (see table on reverse side)

Over-range

Without Damage : 1.5 x F.S.
Without Destruction : 3 x F.S.

Accuracy

Combined Non Linearity & Hysteresis : $\pm 0.1\%$ F.S.

Temperature Range

Operating Temperature Range (OTR) : -20 to 80 °C [-4 to 176 °C]
Compensated Temperature Range (CTR) : 0 to 60 °C [32 to 140 °F]
Zero Shift in CTR : $< 0.5\%$ F.S. / 108 °F
Sensitivity Shift in CTR : $< 1.10^{-4}$ / °F of reading

Electrical Characteristics

Model	FN3060	FN3060-A1	FN3060-A2
Supply Voltage	10 Vdc	10 to 30 Vdc	± 15 Vdc (± 12 to ± 18 Vdc)
F.S. Output	2 mV/V	0.5 to 4.5 V	± 5 V $\pm 5\%$
Zero Offset	$\pm 5\%$ F.S.	2.5 V $\pm 5\%$ F.S.	0 V $\pm 5\%$ F.S.
Input Impedance/Consumption	350 to 700 Ω	< 50 mA	< 50 mA
Output Impedance	350 to 700 Ω	< 10 Ω	< 10 Ω
Insulation under 50 Vdc	≥ 100 M Ω	≥ 100 M Ω	≥ 100 M Ω

Electrical Termination

Cable Gland Termination, 2 m [6.5 ft] cable length standard

Mechanical Characteristics

Material : Body in aluminium alloy
Protection Index : IP 64

Product References

Low Level Output Sensor

Model

Full Scale Range (F.S.)
In lb

Option(s)

ET1 : CTR -20 to 100 °C [-4 to 212 °F] OTR=CTR
ET2 : CTR -40 to 120 °C [-40 to 248 °F] OTR=CTR
SC : Connector output
LC"X" : Additional cable length in ft

FN3060

500

SC

High Level Output Sensor

Model

Power Supply Reference

A1 : Unipolar-tension
A2 : Bipolar-tension

Full Scale Range (F.S.)
In lb

Option(s)

ET1 : CTR -20 to 100 °C [-4 to 212 °F] OTR=CTR
ET2 : CTR -40 to 120 °C [-40 to 248 °F] OTR=CTR
SC : Connector output
LC"X" : Additional cable length in ft

FN3060

A1

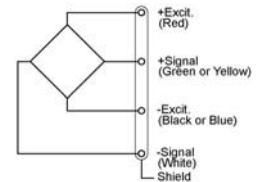
500

SC

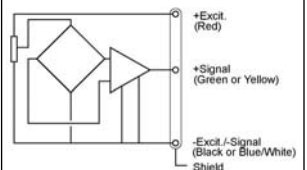
"X" = Custom value

Wiring Schematic

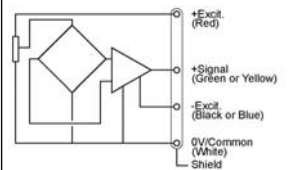
FN3060



FN3060-A1



FN3060-A2



Performance specifications nominal and subject to change without notice. Current specifications see web-site. April 13, 2005

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