

FN3060 Load Cell for Fatigue Testing



- **S-Beam Load Cell**
- **250 to 2,500 N (50 to 500 Lbf)**
- **Cable Gland or Connector Output**
- **Optional Build in Amplifier**

DESCRIPTION

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 0-250 to 0-2,500 N. 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, Measurement-Specialties 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.

FEATURES

- Full Scale Range: from 0-250 N to 0-2,500 N (0-50 Lbf to 500 Lbf)
- Tension and Compression
- Fatigue Rated
- Accuracy : 0.1% F.S.
- High Level Output Model with Integrated Amplifier

APPLICATIONS

- Test Bed
- Dynamic Fatigue Testing
- Robotics and Effectors
- Laboratory and Research

STANDARD RANGES

F.S. Ranges in N	250	500	1000	2500
F.S. Ranges in Lbf	50	100	200	500
Stiffness in N/m	8×10^6	1.5×10^7	2.5×10^7	5×10^7
Stiffness in Lbf/ft	5.5×10^5	1.0×10^6	1.7×10^6	3.4×10^6

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PERFORMANCE SPECIFICATIONS

Ambient Temperature: 20±1°C (unless otherwise specified)

PARAMETERS

Operating Temperature Range (OTR)	-20 to +80°C (-4 to 176°F)
Compensated Temperature Range (CTR)	0 to +60°C (32 to 140°F)
Zero Shift in CTR	<0.5% F.S./50°C (100°F)
Sensitivity Shift in CTR	<2.10 ⁻⁴ / °C of reading (<1.10 ⁻⁴ / °F of reading)
Range (F.S.)	From 0-250 N to 0-2.5 kN [50 lbf to 500 lb]
Over-Range	
Without Damage	1.5 x F.S.
Without Destruction	3 x F.S.
Accuracy	
Combined Non-Linearity & Hysteresis	±0.1%F.S

Electrical Characteristics

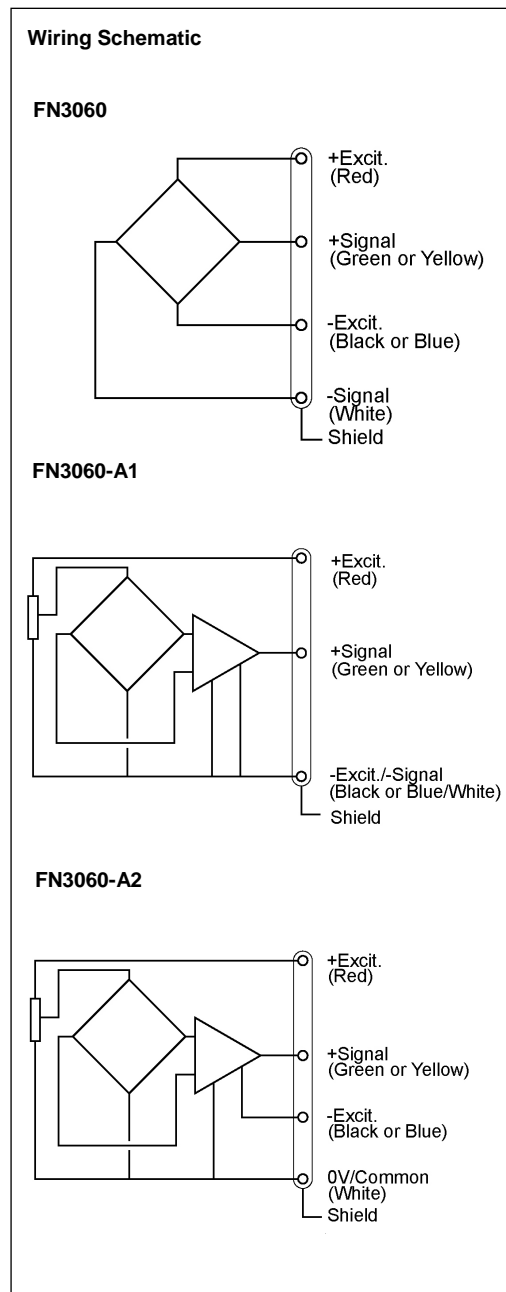
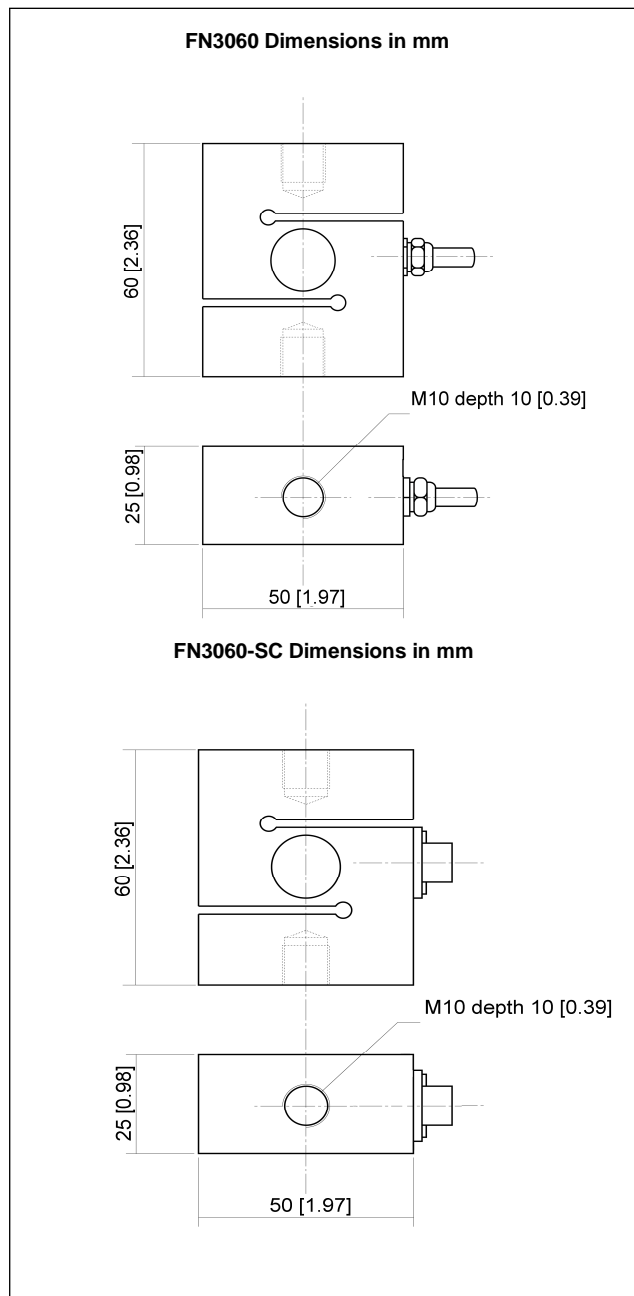
Model	FN3060	FN3060-A1	FN3060-A2
Supply Outage	10V	10 – 30Vdc	±15Vdc (±12 to ±18Vdc)
F.S. Output	±2mV/V	0.5 to 4.5Vdc	±5V
Zero Offset	<±5% F.S.	2.5V ±5% F.S.	0V ±5% F.S.
Input Impedance/Consumption	350 to 700Ω	<50mA	<50mA
Output Impedance	350 to 700Ω	<10Ω	<10Ω
Insulation under 50Vdc	≥100MΩ	≥100MΩ	≥100MΩ

Notes

1. Electrical Termination: Cable gland termination; 2 m cable length standard
2. Material: Body aluminum alloy depending on F.S.
3. Protection Index: IP64

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DIMENSIONS & WIRING SCHEMATIC (IN METRIC AND IMPERIAL)



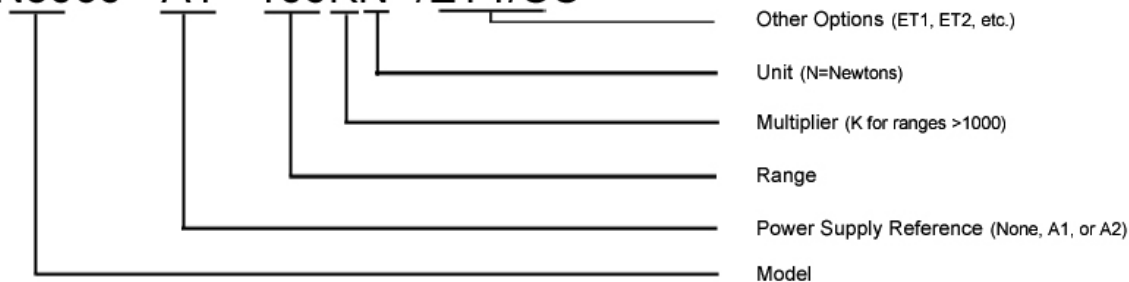
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OPTIONS

A1 : Unipolar tension
A2 : Bipolar tension
ET1 : CTR -20 to 100 °C OTR = CTR
ET2 : CTR -40 to 120 °C OTR = CTR
SC : Connector output
LC"x" : Additional cable length to standard length (in m) (Note : "X" = Custom value)

ORDERING INFO

FN3060 - A1 - 100KN -/ET1/SC



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