

FEATURES

- ◆ High stiffness
- ◆ Accuracy : 0.1% F.S.
- ◆ Integrated Amplifier optional
- ◆ IP 64 protected

APPLICATIONS

- ◆ Lifetime test benches
- ◆ Dynamic fatigue testing
- ◆ Robotics and Effectors
- ◆ Laboratory and Research
- ◆ Pneumatic cylinder monitoring

FN3060

Load Cell for Fatigue Testing

SPECIFICATIONS

- ◆ **S-Beam load cell**
- ◆ **Ranges 250 N to 2500 N (50 lbf to 500 lbf)**
- ◆ **Cable gland or connector output**

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.

High-level output models with integrated **A1/A2** amplifier are available. Sensor can all be supplied in higher temperature range for fatigue tests in oven.

With a long standing experience as a designer and manufacturer of sensors, TE CONNECTIVITY often works with customers to design or customize sensors for specific uses and testing environments.

On request, Instruction documents can be provided to ease the selection and use of our sensors and provide helpful tips.

STANDARD RANGES

Ranges in N	250	500	1k	2.5k
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

PERFORMANCE SPECIFICATIONS (typical values at temperature 23±3°C)

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	<1% of reading / 50° C [100° F]
Over-Range	
Without Damage	1.5 x F.S.
Without Destruction	3 x F.S.
Accuracy	
Combined non-linearity & hysteresis	↑±0.1% F.S.

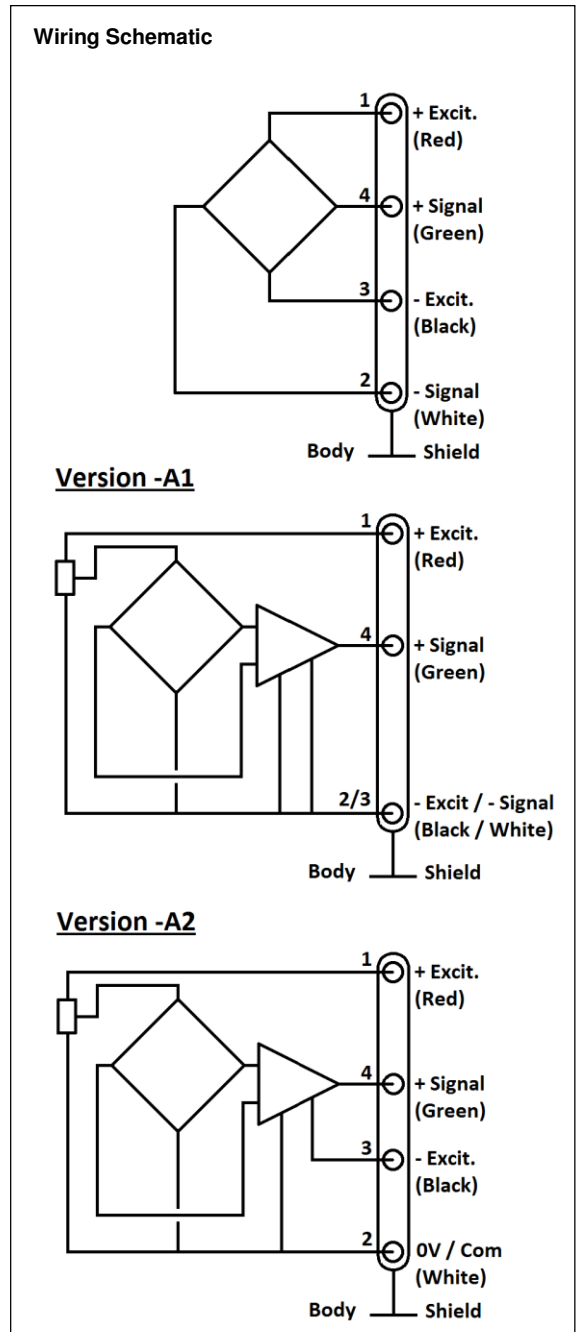
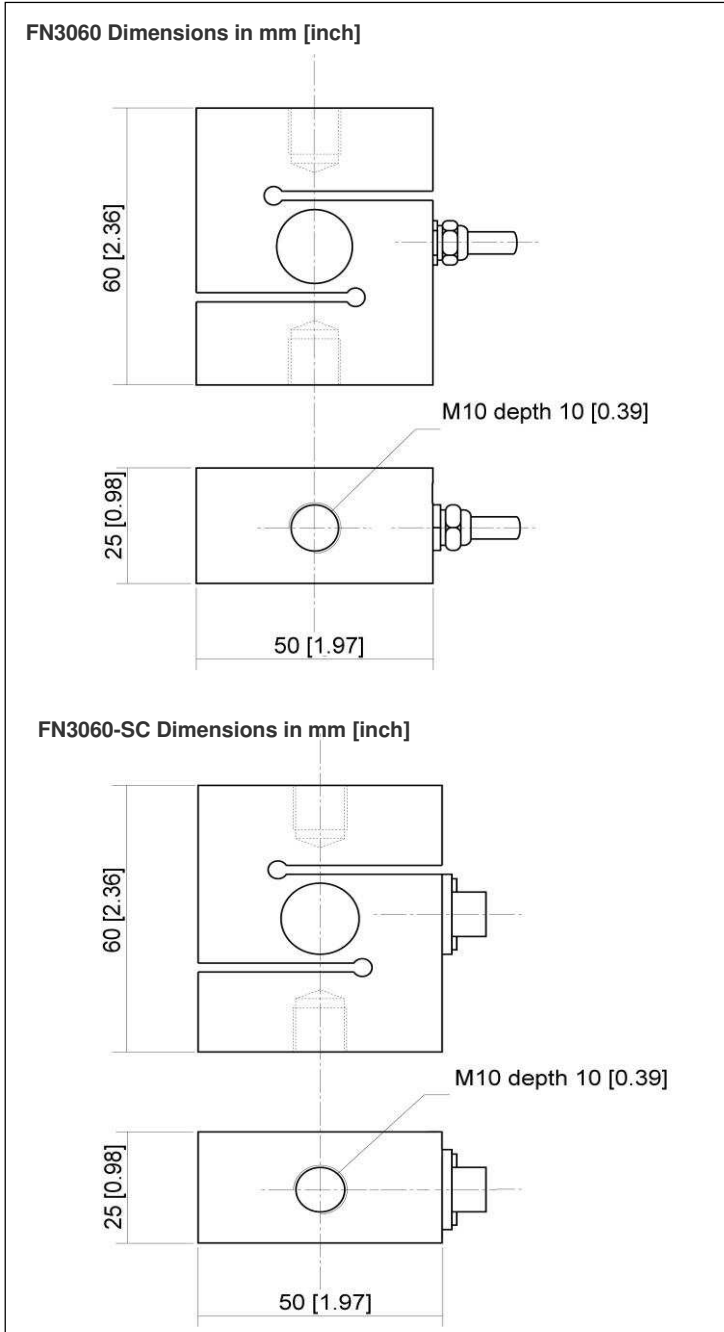
Electrical Characteristics

Model	FN3060¹	FN3060-A1	FN3060-A2
Supply Voltage	1 to 10 Vdc	10 to 30Vdc	±15Vdc (±12 to ±18Vdc)
Sensitivity "FSO" ²	±2mV/V	±2V ±0.2V	±5V ±0.2V
Zero Offset ²	±1mV	2.5V ±0.2V	0V ±0.2V
Input Impedance/Consumption	350 to 700Ω	<50mA	50mA
Output Impedance	350 to 700Ω	1 kΩ ⁶	1 kΩ ⁶
Insulation under 50Vdc	≥100MΩ	≥100MΩ	≥100MΩ

Notes

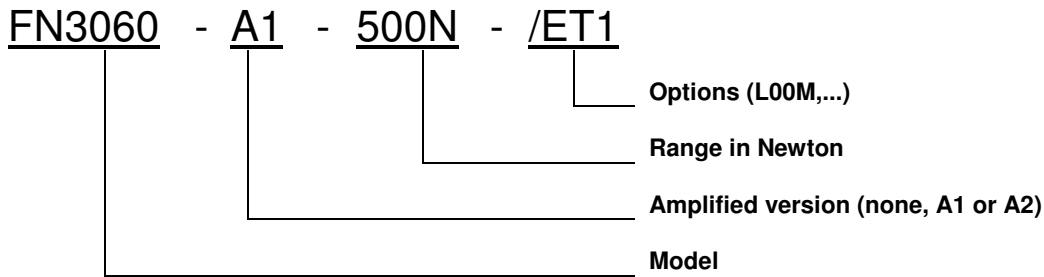
1. Sensors are calibrated with 10Vdc power supply as standard.
2. Signal goes positive in tension with standard wiring configuration. Other signal output on request
3. Electrical Termination: Cable gland termination; 2 m cable length standard
4. Material: Body aluminum alloy depending on F.S.
5. Protection Index: IP64
6. Output impedance < 100Ω on request
7. CE conformance according to EN 61010-1, EN 50081-1, EN 50082-1

DIMENSIONS & WIRING SCHEMATIC (IN METRIC AND IMPERIAL)



OPTIONS

A1 : Amplified Tension output with unipolar power supply
A2 : Amplified Tension output with bipolar power supply
ET1 : CTR -20 to 100° C OTR = CTR
ET2 : CTR -40 to 120° C OTR = CTR
SC : Connector output
V00 : Non-standard power supply calibration, replace "00" with value in Volt (standard 10Vdc, unamplified sensor only)
L00M : special cable length, replace "00" with total length in meters

ORDERING INFORMATION**SUPPLIED ACCESSOIRES (ONLY WITH SC OPTION)**

EFMX-4M : mating plug Jaeger 530-801-006 with clamp 530-841-006 standard and ET1 with SC option
EFMX-4H : mating plug Jaeger 530-804-006 with clamp 530-844-006 for ET2 option with SC option

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