

FN3280 Low Range Load Cell with Mechanical Stops



- Very low range: 1 to 5 N (0.2 to 1 lbf)
- S-Beam with mechanical stops
- Very high resolution
- High accuracy
- Compact size

DESCRIPTION

The FN3280 S-beam load cell is designed to measure low force and has standard ranges of 1 to 5 N [0.2 to 1 lbf]. Integrated mechanical stops protect against accidental overloads up to 100 times F.S. The FN3280 provides a combination of economy and performance, this low cost load cell has an accuracy of 0.1% F.S.

For higher ranges, the model FN3148 can measurement loads from 10 N to 2 kN [2 to 400 lbf] with mechanical stops.

With many years of experience as a designer and manufacturer of sensors, Measurement Specialties, Inc. 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

- Combined non-linearity & hysteresis 0.1% F.S.
- Tension and Compression
- Integrated Mechanical Stops
- Full Wheatstone bridge
- Cable output

APPLICATIONS

- Process control equipment
- Medical Instruments
- Weighing
- Laboratory and Research
- Calibration test benches

STANDARD RANGES

Ranges in N	1	2	5
Ranges in lbf	0.2	0.4	1
Stiffness in N/m	2.5×10^3	2.75×10^3	1.25×10^4
Stiffness in lbf/ft	1.7×10^2	1.9×10^2	8.6×10^2

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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	<0.5 % of reading / 50° C [100° F]
Range (F.S.)	0-1 to 0-5 N [0.2 to 1 lbf]
Over-Range	
Without Damage	40 to 100 x F.S. (see table)
Accuracy	
Combined non Linearity & Hysteresis	±0.1% F.S.

Electrical Characteristics

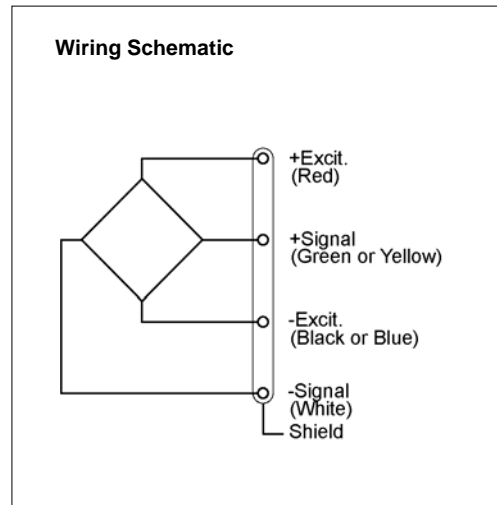
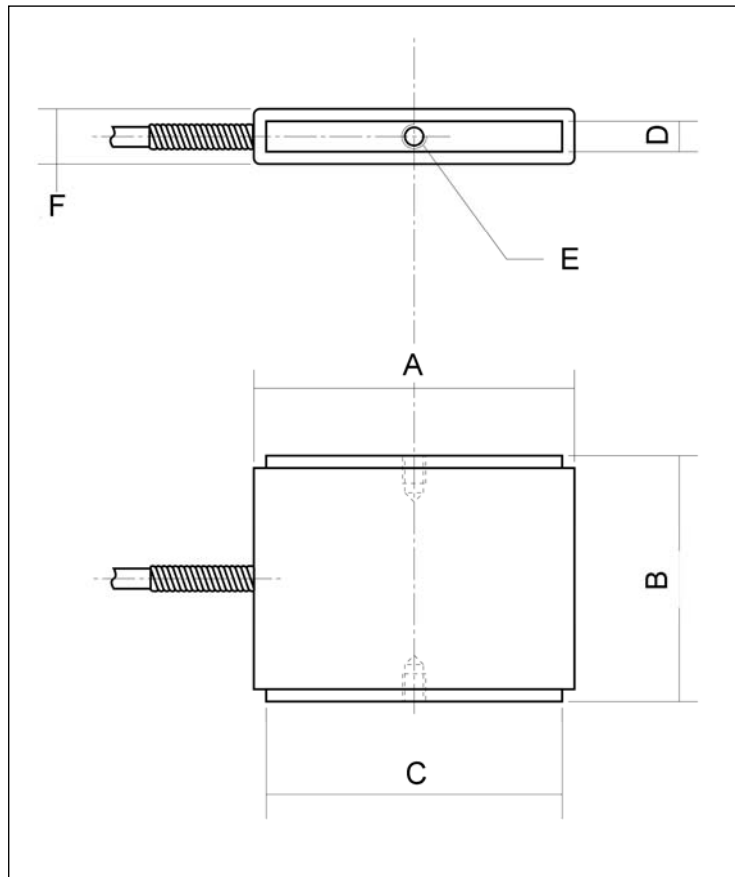
Model	FN3280
Supply Outage	10Vdc
F.S. Output	±1.5mV/V typical
Zero Offset	±5% F.S.
Input Impedance/Consumption	300 to 400Ω
Output Impedance	300 to 400Ω
Insulation under 50Vdc	≥100MΩ

Notes

1. Electrical Termination: Shielded Ø2.2 mm Tefabloc cable, 4 Teflon wires (AWG32) standard length 2 m
2. Materials: Body in aluminum alloy, stainless steel cover

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DIMENSIONS & WIRING SCHEMATIC (IN METRIC AND IMPERIAL)



Dimensions in mm [inch]

Range in N [in lbf]	1 [0.2]	2 [0.4]	5 [1]
A	52 [2.05]		52 [2.05]
B	40 [1.57]		50 [1.57]
C	48 [1.89]		48 [1.89]
D	5 [0.20]		15 [0.59]
E (Thread)	M3 depth 6 [0.24]		M4 depth 6 [0.24]
F	9 [0.35]		19 [0.75]
Over-range in N [in lbf]	100 [20]		200 [40]

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OPTIONS

LC“x”: Additional cable length to standard length (in m) (Note : “X” = Custom value)

ORDERING INFO



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