

# Series MIN840

High Accuracy Miniature Tension or Compression Load Cell



## Description

The Series MIN840 load cells are 0.15% accuracy force transducers designed for tension and/or compression applications requiring a compact configuration. Constructed of all welded stainless steel, these bonded foil strain gaged force sensors provide reliable performance for a wide range of demanding application environments. The MIN840 comes in a variety of mounting configurations. With additional height dimensions, these units come with internal modules which provide high level analog or digital outputs. Additional features include shock and vibration protection and high resolution. MIN840 load cells are ideal for applications in components testing, shop floor automation, and robotics. Each unit is shipped with a 5 point calibration record traceable to NIST as standard.

## Standard Features

- 0.15% Accuracy
- Compact Size
- Tension and Compression
- 2 mV/V nominal
- All Welded Stainless Steel
- -40°F to 250°F Standard Temperature
- Shock and Vibration Resistant
- 5 Point Calibration Record Traceable to NIST

## Optional Features

- Multiple Mounting Configurations
- Metric Versions
- Analog (4-20 mA, 0-5 Vdc, 0-10 Vdc) and Digital (RS232, RS485, MODbus, CANbus) outputs
- Special Calibration
- Customer Specified Cable Lengths
- -40°F to +400°F Operating Temperature

## Performance

### Standard Ranges

250, 500, 1000, 2500, 5000 lbs.

### Output

2mV/V nominal.

### Accuracy

0.15% BFSL.

### Temperature Effect on Zero

0.005% FSO/°F.

### Temperature Effect on Span

0.005% Reading/°F.

### Zero Balance

1% FSO.

## Environmental Characteristics

### Operating Temperature Range

-40°F to 250°F.  
(-40°F to 400°F optional.)

### Compensated Temperature Range

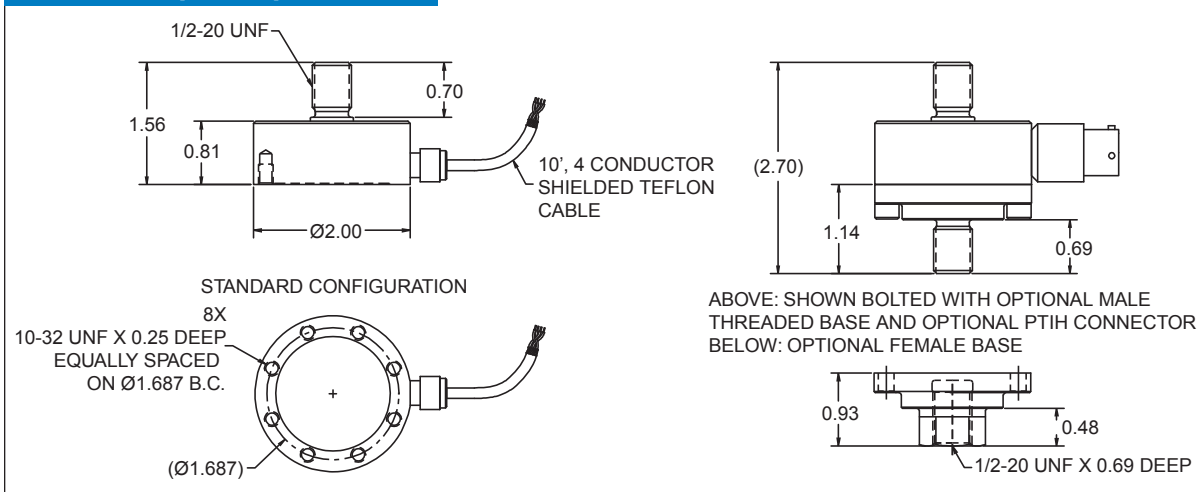
70°F to 170°F.  
(-40°F to 400°F optional.)

MIN840

# Series MIN840 Specifications

Baseline Configuration Specs Represented.  
Modifications Encouraged - See Below  
Custom Designs Available

## Dimensions (inches)



## Mechanical Characteristics

### Threads

1/2-20 UNF.

### Static Overload Without Damage

150% FSO.

### Standard Calibration

#### Tension only:

5 points (0, 50%, 100%, 50%, 0 of FSO).

### Optional Calibrations

#### • Compression only:

5 points (No charge option)

#### • Tension and Compression:

5 points in each direction

#### • Special multipoint calibration (customer specified):

in tension or compression or both tension and compression.

### Material

Welded stainless steel.

## Electrical Characteristics

### Bridge Resistance

350 Ohms nominal.

### Excitation

10 Vdc or Vac.

### Insulation Resistance

Greater than 5000 megaohms at 50 Vdc.

### Electrical Termination

10', 4 Conductor Shielded Teflon Cable.

## Electrical Characteristics

### Connector Pins (Standard)

RED	+EXE	GREEN	+SIG
BLACK	- EXE	WHITE	- SIG

Customer specified wiring codes are available.

## Modifications and Warranty

MODIFICATIONS: We realize transducer applications vary greatly and as such our designs are flexible. Choice of pressure port, electrical termination, material compatibility and performance characteristics are a few of the many options available. Specifications on this datasheet represent the standard configuration only. Product and company names listed are trademarks of their respective companies. Specifications subject to change without notice.

WARRANTY: Stellar Technology warrants that its product shall be free from defective workmanship and/or material for a twelve month period from the date of shipment, provided that Stellar Technology's obligation hereunder shall be limited to correcting any defective material FOB our factory. No allowance will be made for any expenses incurred for correcting any defective workmanship and/or material without written consent by Stellar Technology. This warranty is in lieu of all other warranties expressed or implied.

**LORD SENSING**  
Stellar Technology

ISO 9001/AS9100

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Due to the nature of technology, changes are inevitable. For latest technical specifications, see our website.

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