



Series MIN845

Compression Load Washer Load Cells



Description

The Series MIN845 compression load cells are low profile load washers. The miniature thru-hole configurations are often used for measuring tension on fasteners. Constructed of stainless steel, these bonded foil strain gage force sensors are available in a wide selection of both standard and special outside diameters and inside diameters. For best results, MIN845 load cells are recommended to be used with a set of top and bottom hardened washers and/or spherical washer sets to ensure even loading and to protect the load cell from fastener inconsistencies. These mv/v output load washers can be used with Stellar Technology's selection of in-line and DIN rail mount signal conditioners to provide current or voltage outputs.

Each unit is shipped with a 5 point calibration record traceable to NIST as standard.

Standard Features

- 2.0% Accuracy Typical
- Very Low Profile
- High Capacity (2500 lbs. to 100,000 lbs.)
- Compression Force
- 2 mV/V Nominal
- Stainless Steel Construction
- -40°F to 250°F Standard Temperature
- Shock and Vibration Resistant
- 5 Point Calibration Record Traceable to NIST

Optional Features

- Custom Sizes
- Metric Versions
- Special Calibration
- Custom Cable Lengths
- Operating Temperature to 400°F

Performance

Standard Ranges

2500 to 100,000 lbs. (See table).

Output

2mV/V nominal.

Accuracy

2.0% - 3.0% FSO BFSL Typical.

Temperature Effect on Zero

0.01% FSO/°F.

Temperature Effect on Span

0.01% Reading/°F.

Zero Balance

3% FSO.

Environmental Characteristics

Operating Temperature Range

-40°F to 250°F.

(-65°F to 400°F optional.)

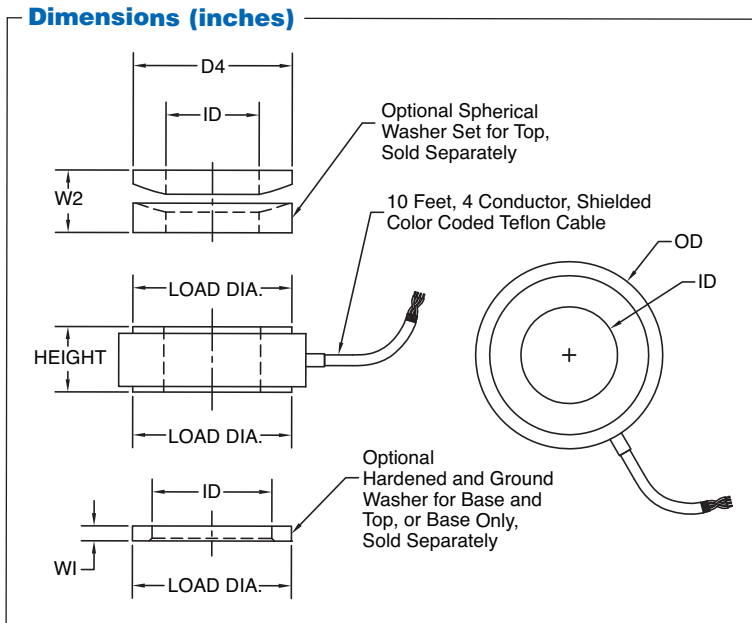
Compensated Temperature Range

70°F to 170°F.

(-65°F to 400°F optional.)

Series MIN845 Specifications

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



Load Cell Dimensions (Inches)

| Capacity (LBS) | Bolt Size | LOAD CELL | | | | FLAT WASHER WI | SPHERICAL WASHERS | |
|----------------|-----------|-----------|------|--------|-----------|----------------|-------------------|------|
| | | ID | OD | Height | Load Dia. | | D4 | W2 |
| 80,000 | 1 | 1.024 | 2.25 | 0.500 | 1.76 | 0.10 | 1.75 | 0.38 |
| 60,000 | 7/8 | 0.897 | 2.00 | 0.500 | 1.53 | 0.10 | 1.63 | 0.38 |
| 45,000 | 3/4 | 0.770 | 1.75 | 0.375 | 1.32 | 0.10 | 1.38 | 0.31 |
| 30,000 | 5/8 | 0.644 | 1.50 | 0.350 | 1.09 | 0.10 | 1.13 | 0.31 |
| 20,000 | 1/2 | 0.517 | 1.20 | 0.350 | 0.88 | 0.06 | 0.88 | 0.25 |
| 14,000 | 7/16 | 0.454 | 1.20 | 0.350 | 0.75 | 0.06 | 0.88 | 0.25 |
| 10,000 | 3/8 | 0.390 | 1.00 | 0.350 | 0.64 | 0.06 | 0.75 | 0.22 |
| 7000 | 5/16 | 0.326 | 1.00 | 0.350 | 0.53 | 0.06 | 0.63 | 0.19 |
| 4000 | 1/4 | 0.262 | 1.00 | 0.350 | 0.41 | 0.06 | 0.50 | 0.13 |
| 2500 | #10 | 0.192 | 1.00 | 0.350 | 0.32 | 0.06 | 0.38 | 0.13 |

Mechanical Characteristics

Static Overload Without Damage

150% Range.

Calibration

Standard calibration is 5 pts (0, 50%, 100%, 50%, 0 Range) compression.

Material

Welded stainless steel.

Electrical Characteristics

Bridge Resistance

700 Ohms nominal.

Excitation

10 Vdc.

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.



ISO 9001/AS9100

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

237 Commerce Drive • Amherst, NY 14228 • USA

Tel: 716.250.1900 • Fax: 716.250.1909

Web: stellartech.com • Email: info@stellartech.com

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