

VLU850 Series

Subminiature Tension and Compression Load Cells

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Description

VLU850 Series load cells are subminiature sized tension and/or compression load cells designed specifically for applications requiring very small size, very little mass and rugged construction. Designed of welded stainless steel, these bonded foil strain gaged force sensors provide reliable performance for demanding application conditions. VLU850 Series load cells come in both single in-line threaded stud or dual in-line threaded stud configurations. Additional features include shock and vibration protection.

VLU850 Series load cells are ideal for applications involving skeletal analysis, filament and fiber testing, force over area pressure measurements, surgical robotics and haptics. Each unit is shipped with a 5 point calibration record traceable to NIST as standard.

Standard Features

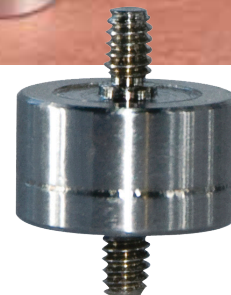
- Small Size
- 0.50% FSO Accuracy
- Tension or Compression
- 2 mV/V Output
- Welded Stainless Steel
- -40°F to 250°F Operating Temperature
- Shock and Vibration Resistant
- 5 Point Calibration Record Traceable to NIST



Select ranges in stock



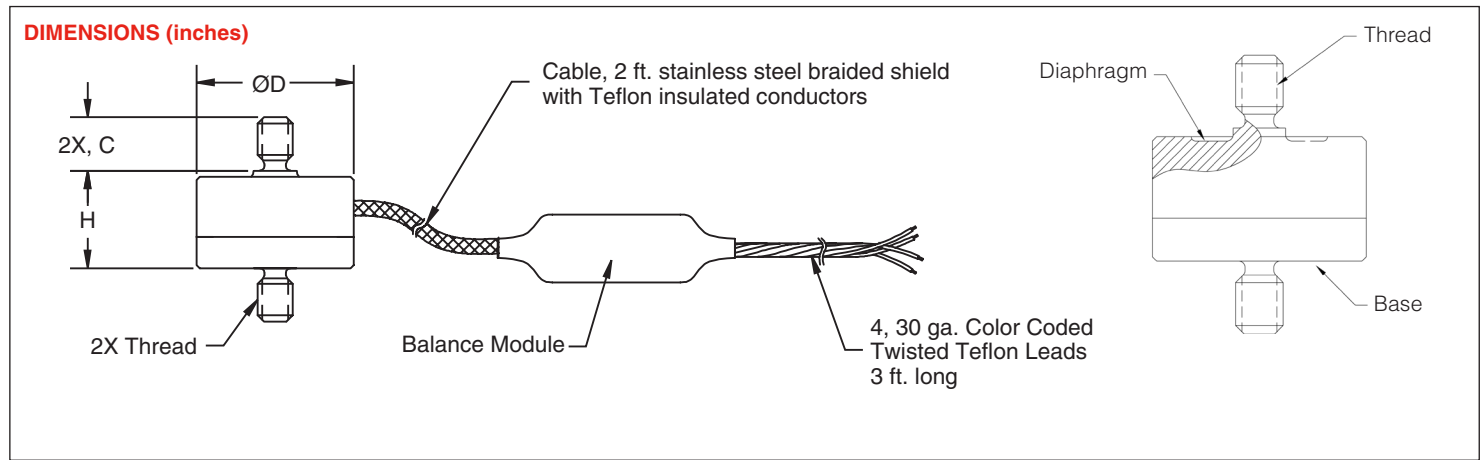
Shown (above) actual size



Optional Features

- Metric Versions
- Special Calibration
- Special Full Scale Ranges
- Customer Specified Cable Lengths
- -65°F to +400°F Temperature Ranges

LORD DATA SHEET



Capacity (lbs)	ØOD	Thread	C	H	Max. Torque
10, 25, 50, 100	0.50	4-40 UNC	0.17	0.31	64 in-oz
250, 500, 1000	0.75	1/4-28 UNF	0.31	0.42	90 in-lbs

PERFORMANCE

Standard Ranges

(Ranges in Bold Type are available in stock)

10, 25, 50, 100, 250, 500, 1000 lbs

Output

2 mV/V nominal

Accuracy

0.50% FSO BFSL

Temperature Effect on Zero

0.01% FSO/°F

Temperature Effect on Span

0.01% Reading/°F

Zero Balance

3% FSO

ENVIRONMENTAL CHARACTERISTICS

Compensated Temperature Range

70°F to 170°F (-65°F to +400°F optional)

Operating Temperature Range

-40°F to +250°F (-65°F to +400°F optional)

MECHANICAL CHARACTERISTICS

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):

Tension or Compression or Both Tension and Compression

Static Overload Without Damage

150% FSO

Material

Welded Stainless Steel

ELECTRICAL CHARACTERISTICS

Bridge Resistance

350 ohms nominal

Excitation

5 Vdc or Vac

Insulation Resistance

> 5000 megohms at 50 Vdc

Electrical Termination

Refer to dimensional drawing (above)

Wiring

Red (+) Excitation

Black (-) Excitation

Green (-) Signal

White (+) Signal

Customer specified wiring codes available.

INSTALLATION NOTES

CAUTION - Do not over-torque the threads on installation (see table above). Over-torquing may result in damage to the unit.

CAUTION - Do not overload. Low capacity load cells may be damaged if squeezed or handled incorrectly.

CAUTION - Do not load on diaphragm. Only load utilizing the threads. Damage and/or false readings may occur if the diaphragm is loaded.

Values stated in this technical data sheet represent typical values as not all tests are run on each lot of material produced. For formalized product specifications for specific product end uses, contact the Customer Support Center.

Information provided herein is based upon tests believed to be reliable. In as much as LORD Corporation has no control over the manner in which others may use this information, it does not guarantee the results to be obtained. In addition, LORD Corporation does not guarantee the performance of the product or the results obtained from the use of the product or this information where the product has been repackaged by any third party, including but not limited to any product end-user. Nor does the company make any express or implied warranty of merchantability or fitness for a particular purpose concerning the effects or results of such use.

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