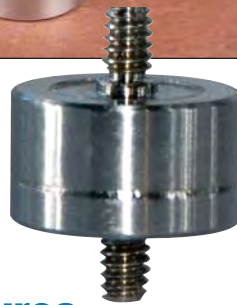


Series VLU850

Subminiature Tension and Compression Load Cell



Shown (above) actual size



Description

The Series VLU850 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 all welded stainless steel, these bonded foil strain gaged force sensors provide reliable performance for demanding application conditions. The VLU850 comes in both a single in-line threaded stud or dual in-line threaded stud configurations. Additional features include shock and vibration protection. VLU850 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% Accuracy
- Tension or Compression
- 2 mV/V
- All Welded Stainless Steel
- -40°F to 250°F Operating Temperature
- Shock and Vibration Resistant
- 5 Point Calibration Record Traceable to NIST

Optional Features

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

Performance

Standard Ranges

10, 25, 50, 100, 250, 500, 1000 lb.

Output

2mV/V nominal.

Accuracy

0.50% BFSL.

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

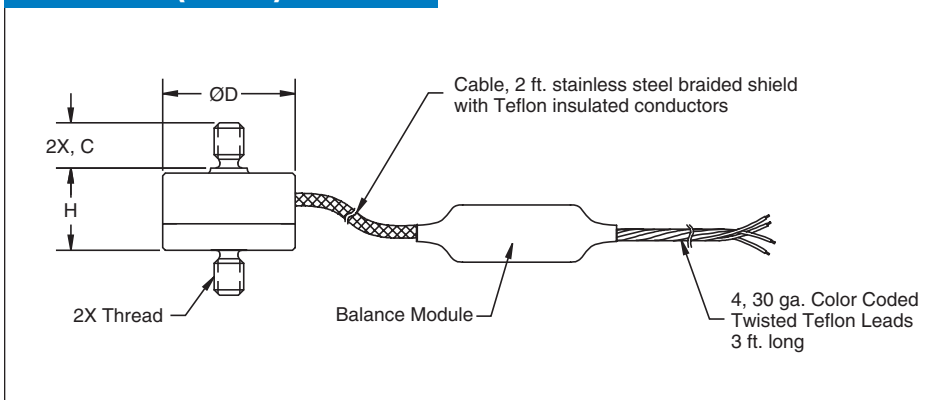
70°F to 170°F.
(-65°F to 400°F optional.)

VLU850

Series VLU850 Specifications

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

Dimensions (inches)



Capacity (lbs.)	ØD	Thread	C	H
10, 25, 50, 100	0.50	4-40 UNC	0.17	0.31
250, 500, 1000	0.75	1/4-28 UNF	0.31	0.40

Mechanical Characteristics

Static Overload Without Damage
150% FSO.

Calibration

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

Material

Welded stainless steel.

Electrical Characteristics

Bridge Resistance

350 Ohms nominal.

Excitation

5 Vdc or Vac.

Insulation Resistance

Greater than 5000 megohms at 50 Vdc.

Electrical Termination

5', 4 Conductor Shielded Teflon Cable with Integral Balance Board.

Electrical Characteristics

Connector Pins (Standard)

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

Customer specified wiring codes are available.

CE

NOTES: When using a load cell the user must consider load ratings and fatigue life for long term use and structural integrity. Critical loading applications, especially overhead loading, must always be designed with safety redundant load paths. MODIFICATIONS: We realize load cell applications vary greatly and as such our designs are flexible. 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.

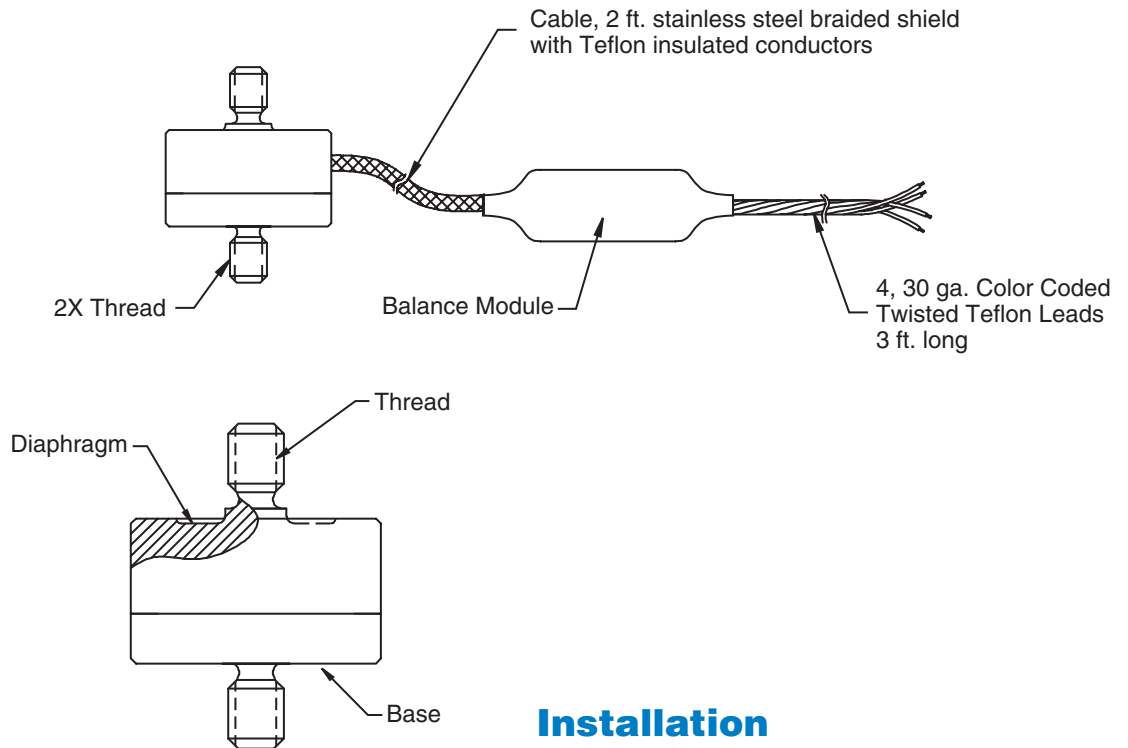
Find More Information at:
stellartech.com

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

Series VLU850

Installation Guide

INSTALLATION



Installation

1. **CAUTION** - Do not over-torque the threads on installation (See chart, below). Over-torquing may result in damage to the unit.

Capacity	Thread	Max. Torque
10, 25, 50, 100	4-40 UNC	64 In-Oz
250, 500, 1000	1/4-28 UNF	90 In-Lbs

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

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