



ISO 9001/AS9100 Certified

# VLC856

SUBMINIATURE COMPRESSION LOAD CELL

YOUR ENGINEERED SOLUTION SOURCE <sup>SM</sup>



## DESCRIPTION

The Series VLC856 load cells are subminiature sized 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. The VLC856 comes with a load button machined as an integral part of the sensing element. Additional features include shock and vibration protection. VLC856 load cells are ideal for applications involving pharmaceutical presses, non-invasive fluid fill systems, physical therapy devices.

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

## STANDARD FEATURES

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

## OPTIONAL FEATURES

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

Select ranges in stock.

Shown actual size



## PERFORMANCE

### STANDARD RANGES

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

### 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

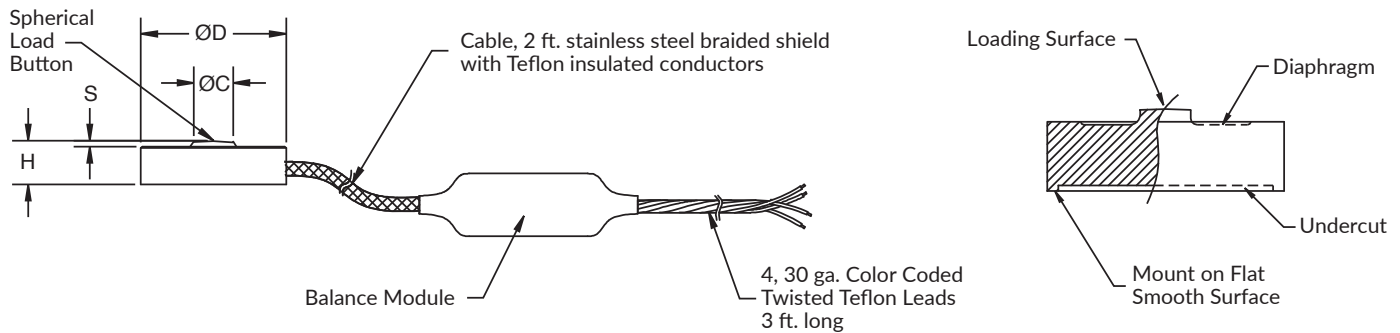
-40°F to 250°F.  
(-65°F to 400°F optional.)

### COMPENSATED TEMPERATURE RANGE

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



A US Manufacturer of: Pressure, Temperature, Load/Force/Torque, and Displacement Sensors.



| CAPACITY (LBS) | ØD   | ØC   | H    | S    |
|----------------|------|------|------|------|
| 10, 25, 50     | 0.38 | 0.08 | 0.13 | 0.02 |
| 100, 250       | 0.50 | 0.13 | 0.15 | 0.02 |
| 500, 1000      | 0.75 | 0.28 | 0.25 | 0.02 |

## MECHANICAL CHARACTERISTICS

### STATIC OVERLOAD WITHOUT DAMAGE

150% Range.

### CALIBRATION

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

### MATERIALS

Welded stainless steel.

## ELECTRICAL CHARACTERISTICS

### BRIDGE RESISTANCE

350 Ohms nominal.

### EXCITATION

5 Vdc or Vac.

### INSULATION RESISTANCE

Greater than 5000 megaohms 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.

## INSTALLATION NOTES

**CAUTION** - Do not load on diaphragm. Only load on loading surface (spherical button). Damage and/or false readings may occur if the diaphragm is loaded.

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

**CAUTION** - Do not let glue or other debris accumulate or be contained in the undercut area as this will result in incorrect readings and/or load cell failure.

For best results, load cells should be mounted on a flat, smooth surface.

## 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.



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

