

RoHS

Product Description

The Miniature S-Beam Load Cell is a bi-directional strain gauge based transducer for submersible applications. This design provides better than $\pm 0.5\%$ (full scale) non-linearity and includes overload protection in both tension and compression directions. Options include IEEE1451.4 TEDS capability.

Performance Specifications

- RATED CAPACITY 2, 5, 10, 25, 50, 100 lb
- RATED OUTPUT (RO) 2mV/V nom.
- SAFE OVERLOAD 1000 % of R.O., 200% tension only for 50lb & 100 lb
- NO LOAD OFFSET (ZERO BALANCE) $\pm 10\%$ of R.O.
- EXCITATION (VDC OR VAC) 10 MAX, 5V recommended
- INPUT IMPEDANCE 1000 Ω nom.
- OUTPUT IMPEDANCE 1000 Ω nom.

Capacity	Non-Linearity	Hysteresis	Zero Return	Creep 10 mins
2lb, 5lb	$\pm 0.5\%$ of R.O.	$\pm 1\%$ of R.O.	$\pm 0.5\%$ of R.O.	$\pm 1\%$ of R.O.
10lb, 25lb	$\pm 0.2\%$ of R.O.	$\pm 0.2\%$ of R.O.	$\pm 0.2\%$ of R.O.	$\pm 0.5\%$ of R.O.
50lb, 100lb	$\pm 0.2\%$ of R.O.	$\pm 0.2\%$ of R.O.	$\pm 0.2\%$ of R.O.	$\pm 0.2\%$ of R.O.

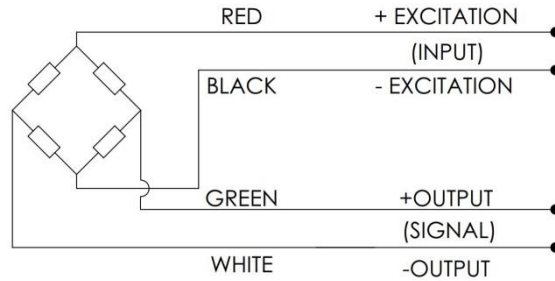
- NONREPEATABILITY $\pm 0.5\%$ of R.O.
- TEMP. SHIFT ZERO $\pm 0.02\%$ of R.O./ $^{\circ}\text{F}$ ($\pm 0.036\%$ of R.O./ $^{\circ}\text{C}$)
- TEMP. SHIFT SPAN $\pm 0.04\%$ of LOAD/ $^{\circ}\text{F}$ ($\pm 0.072\%$ of LOAD/ $^{\circ}\text{C}$)
- COMPENSATED TEMP. 5 to 160 $^{\circ}\text{F}$ (-15 to 71 $^{\circ}\text{C}$)
- OPERATING TEMP 5 to 160 $^{\circ}\text{F}$ (-15 to 71 $^{\circ}\text{C}$)
- WEIGHT (approx) 0.02 lb [9 g]
- MATERIAL Aluminum (2lb – 10lb), SS (25lb – 100lb)
- DEFLECTION 0.004" [0.1mm] nom.
- IP RATING IP68
- CALIBRATION TEST EXCITATION 5 VDC
- CALIBRATION (STD) 5 pt. Tension & Compression
- CONNECTOR DB9 Male or Female (specify at time of order)
- THREAD M3x0.5 or #4-40 (specify at time of order)

Wiring

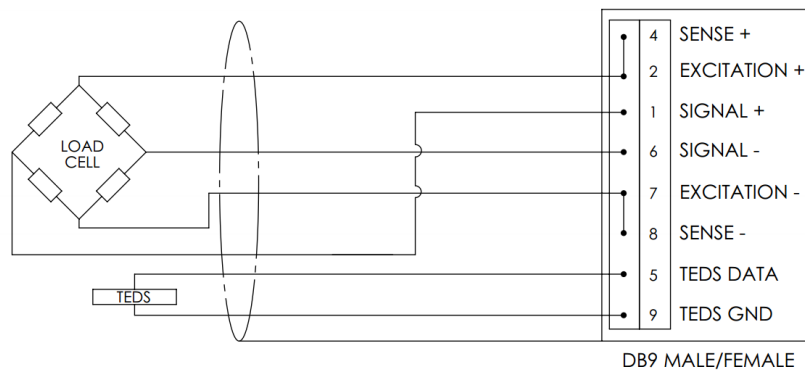
- The sensor is provided with a #32 AWG 4-conductor braided shielded cable with an outer jacket of 0.087" [2.2 mm] diameter, 5 ft [1.5m] long, with no connection between the shield and the sensor body.

Miniature S-Beam Load Cell (submersible version)

For additional protection, the cable is contained within a stainless steel spring for strain relief purposes for the first 1" [25 mm].



- Connector pin configuration as shown below (for the with-connector version)



Dimensions (mm)

