

## Product Description

The Miniature S-Beam Load Cell is a bi-directional Aluminium strain gauge-based transducer with high performance and built-in temperature compensation. This design provides better than  $\pm 0.05\%$  (full scale) non-linearity. Options include IEEE1451.4 TEDS capability.

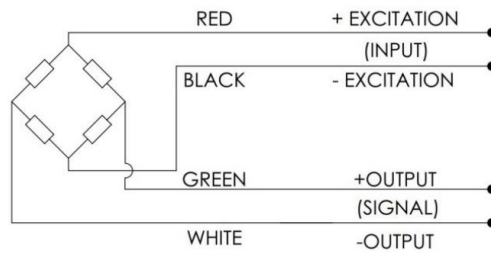
## Performance Specifications

▪ RATED CAPACITY	25, 50, 100 & 250 lbf
▪ RATED OUTPUT (RO)	2mV/V nom.
▪ OVERLOAD	150 % of R.O.
▪ NO LOAD OFFSET	$\pm 1\%$ of R.O.
▪ EXCITATION (VDC OR VAC)	10 MAX, 5V recommended
▪ INPUT IMPEDANCE	1000 $\Omega$ nom.
▪ OUTPUT IMPEDANCE	1000 $\Omega$ nom.
▪ NON-LINEARITY	$\pm 0.05\%$ of R.O.
▪ HYSTERESIS	$\pm 0.10\%$ of R.O (250lbf).
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	$\pm 0.10\%$ of R.O (250lbf).
▪ NONREPEATABILITY	$\pm 0.05\%$ of R.O.
▪ TEMP. SHIFT ZERO	$\pm 0.005\%$ of R.O./ $^{\circ}\text{F}$ ( $\pm 0.009$ of R.O./ $^{\circ}\text{C}$ )
▪ TEMP. SHIFT SPAN	$\pm 0.01\%$ of LOAD/ $^{\circ}\text{F}$ ( $\pm 0.018$ of LOAD/ $^{\circ}\text{C}$ )
▪ COMPENSATED TEMP.	5 to 160 $^{\circ}\text{F}$ (-15 to 71 $^{\circ}\text{C}$ )
▪ OPERATING TEMP	-60 to 200 $^{\circ}\text{F}$ (-51 to 93 $^{\circ}\text{C}$ ) – Lemo Version
	5 to 176 $^{\circ}\text{F}$ (-15 to 80 $^{\circ}\text{C}$ ) – Cable Version
▪ WEIGHT (approx)	0.3 lb [140 g]
▪ MATERIAL	Aluminium
▪ DEFLECTION	.004" to .010" [0.1mm to 0.25mm] nom.
▪ IP RATING	IP40
▪ CALIBRATION TEST EXCITATION	5V Recommended, 10V Max
▪ CALIBRATION (STD)	5 pt. Tension

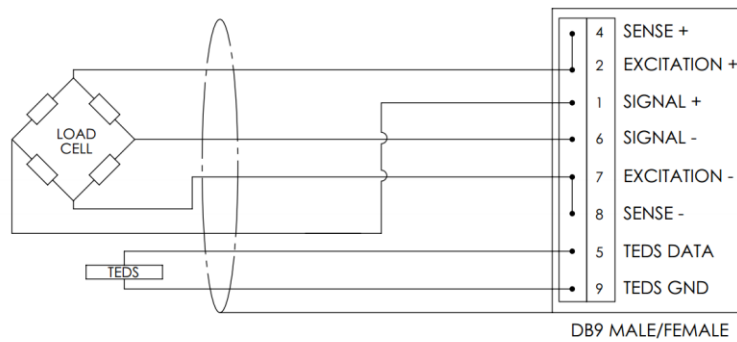
## Wiring

# Miniature S-Beam Load Cell

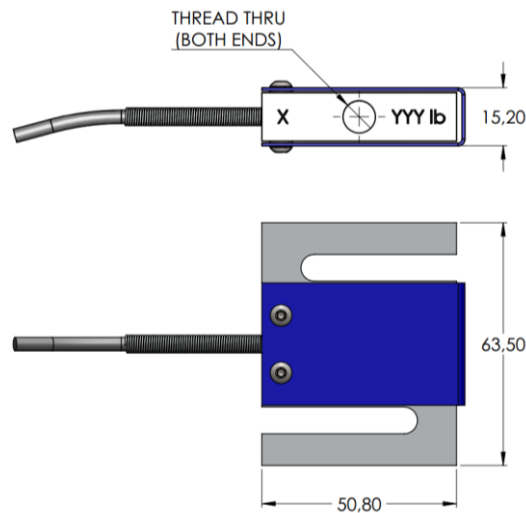
- The S-beam load cell is provided with 4x28 AWG wiring within a braided shielded cable (overall cable length 2m)



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



## Dimensions (mm)



Model	Capacity (lbf)	Thread
MSBLC-2M-NP	25	M6 x 1
MSBLC-2U-NP	25	1/4 - 28
MSBLC-2M-NP	50	M6 x 1
MSBLC-2U-NP	50	1/4 - 28
MSBLC-2M-NP	100	M6 x 1
MSBLC-2U-NP	100	1/4 - 28

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MSBLC-2M-NP	250	M6 x 1
MSBLC-2U-NP	250	1/4 - 28