

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 and includes overload protection in both tension and compression directions.

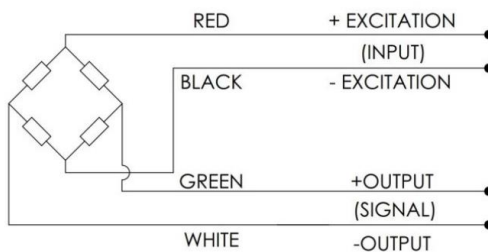
Performance Specifications

▪ RATED CAPACITY	25, 50, 100 & 250 lbf
▪ RATED OUTPUT (RO)	2mV/V nom.
▪ OVERLOAD	1000 % of R.O.
▪ NO LOAD OFFSET	$\pm 1\%$ of R.O.
▪ EXCITATION (VDC OR VAC)	10 MAX, 5V recommended
▪ INPUT IMPEDANCE	1000 Ω nom.
▪ OUTPUT IMPEDANCE	1000 Ω nom.
▪ NON-LINEARITY	$\pm 0.05\%$ of R.O.
	$\pm 0.10\%$ of R.O (250lbf).
▪ HYSTERESIS	$\pm 0.05\%$ of R.O.
	$\pm 0.10\%$ of R.O (250lbf).
▪ NONREPEATABILITY	$\pm 0.05\%$ of R.O.
▪ TEMP. SHIFT ZERO	$\pm 0.005\%$ of R.O./ $^{\circ}\text{F}$ (± 0.009 of R.O./ $^{\circ}\text{C}$)
▪ TEMP. SHIFT SPAN	$\pm 0.01\%$ of LOAD/ $^{\circ}\text{F}$ (± 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	Aluminum
▪ 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

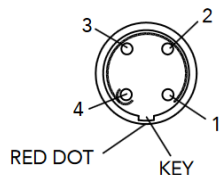
Miniature S-Beam with OLP (SGMSBOLP)

Wiring

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



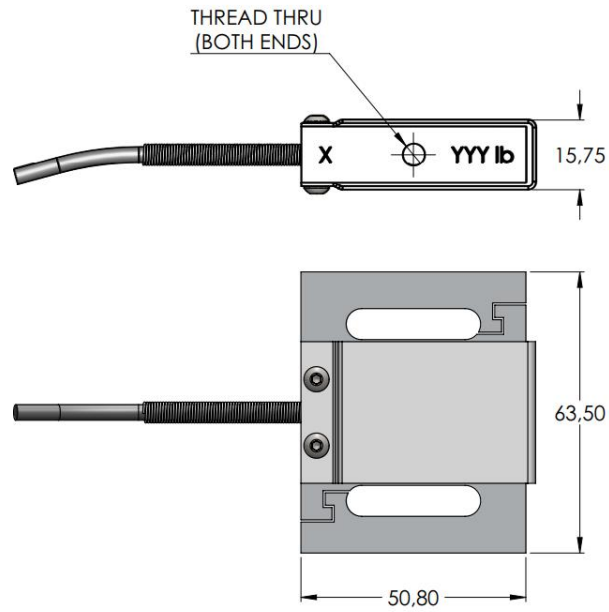
- Lemo Version - Connector pin configuration as shown below (for the with-connector version)



PIN	WIRING CODE
1	+ EXCITATION
4	- EXCITATION
2	+ SIGNAL
3	- SIGNAL

Dimensions (mm)

Miniature S-Beam with OLP (SGMSBOLP)



Model	Capacity (lbf)	Thread
SGMSBOLP-2M-P	25	M6 x 1
SGMSBOLP - 2U-P	25	1/4 - 28
SGMSBOLP - 2M-P	50	M6 x 1
SGMSBOLP - 2U-P	50	1/4 - 28
SGMSBOLP - 2M-P	100	M6 x 1
SGMSBOLP - 2U-P	100	1/4 - 28
SGMSBOLP - 2M-P	250	M6 x 1
MSBLC-2U-P	250	1/4 - 28