

# Low Capacity High Accuracy Load Cell (SGLCHA)

**RoHS**



## Product Description

The Low Capacity High Accuracy Load Cell is an aluminium strain gauge-based transducer designed for either tension or compression use, with enhanced stiffness and internal temperature compensation. This design provides better than  $\pm 0.05\%$  (full scale) non-linearity. The load cell is provided with a threaded central hub for loading (a load button is optional), and four threaded holes are provided for either top or bottom mounting.

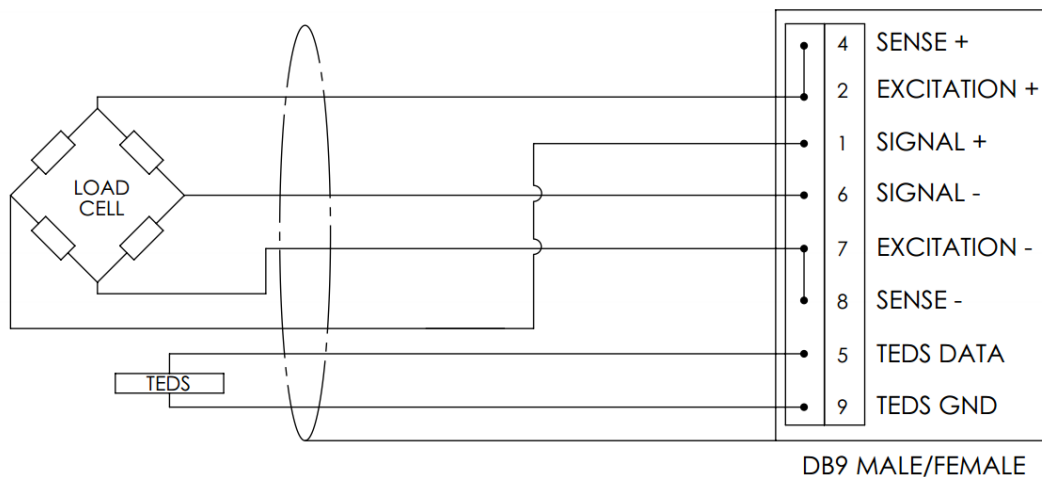
## Performance Specifications

▪ RATED CAPACITY	1kg
▪ RATED OUTPUT (RO)	1mV/V nominal
▪ SAFE OVERLOAD	150 % of R.O.
▪ NO LOAD OFFSET (ZERO BALANCE)	$\pm 2\%$ of R.O.
▪ EXCITATION (VDC OR VAC)	10V max, 5V recommended
▪ INPUT IMPEDANCE	350 $\Omega$
▪ OUTPUT IMPEDANCE	350 $\Omega$
▪ NON-LINEARITY	$\pm 0.05\%$ of R.O.
▪ HYSTERESIS	$\pm 0.05\%$ of R.O.
▪ NON-REPEATABILITY	$\pm 0.03\%$ of R.O.
▪ CREEP (30 min)	$\leq 0.1\%$ of R.O.
▪ TEMP. SHIFT ZERO	$\pm 0.01\%$ of R.O./ $^{\circ}\text{F}$ ( $\pm 0.018$ 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	-40 to 93 $^{\circ}\text{C}$
▪ WEIGHT (approx)	0.09 lb [40g]
▪ MATERIAL	Aluminium (stainless steel covers)
▪ DEFLECTION	0.0004" [0.1mm] nominal.
▪ NATURAL FREQUENCY	2800 Hz
▪ IP RATING	IP40
▪ CALIBRATION TEST EXCITATION	5 VDC
▪ CALIBRATION (STD)	5 pt. COMPRESSION (tension calibration optional)
▪ CONNECTOR	None (default) M8 Male connector mounted on the load cell (optional) DB9 cable mounted connector, Male or Female (optional)
▪ COMPLIANCE	RoHS

## Wiring

- The load cell is provided with a #28 AWG 4-conductor braided shielded cable with outer jacket, 0.12" [3 mm] diameter, 2 ft [0.6m] long, with no connection between the shield and the sensor body.
- Optional DB9 cable mounted connector pin configuration as shown below
- M8 load cell mounted connector also available – contact factory for pinout details

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## Dimensions (mm)

