High Accuracy, Stainless Steel, S-Beam Load Cells

LC103B

High Accuracy, Stainless Steel, S-Beam Load Cells

LC103B-500

- Available in capacities from 25 to 20,000 lbs and 25 to 10,000 kg
- Stainless steel, sealed by adhesive inside, oil-proof, waterproof and anti-corrosion, suitable for all kinds of environments.
- S beam design, tension and/or compression loading possible, easy installation, suitable for crane scale, mechanical conversion scale, hopper scale and other electronic weighing devices.
- Provided with a certificate of conformance and full-scale calibration.

Load Cells, Force Sensors and Torque Transducers - View related products

Description

Omega's new LC103B S-Beam load cells are compact and provide superior performance for tension or compression loading. This design provides excellent linearity and temperature performance, meeting OIML R60 C3 accuracy class for legal metrology applications.

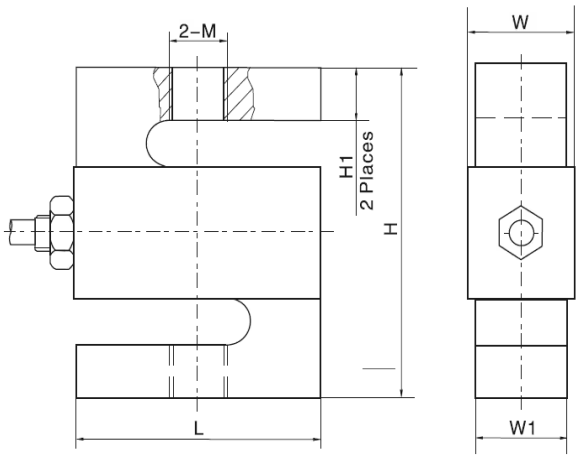
Rugged stainless steel construction and precision sealing provide anti-corrosion and IP67 ingress protection suitable for all kinds of environments.

S-Type load cells that receive tension or compression forces. Applications include tank weighing, hoppers, suspended loads and truck scales. S-Type load cells provide superior performance in a compact, versatile package.

Specifications:

Hysteresis: +/-0.035%
Linearity: +/-0.035%
Repeatability: +/-0.035%
Accuracy (>25lb): class C3
Approvals(>25lb): OIML R60
Output sensitivity (mV/V): 3.0±0.008 *(=25lb 2.0±0.006)*
Maximum number of load cell intervals (nLC): 3000
Ratio of minimum LC verification interval (Y=Emax/vmin): 10000
Combined error (%FS): ±0.020
Minimum dead load: 0

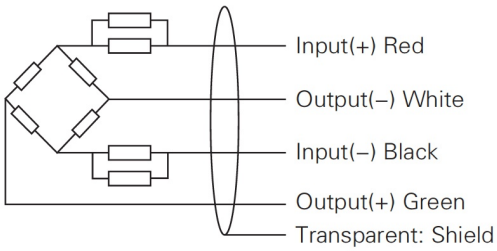
Safe overload (%FS): 150%
Ultimate overload (%FS): 300%
Zero balance (%FS): ±1.0%
Excitation, recommended voltage (V): 5 to 12(DC)
Excitation maximum (V): 18(DC)
Input resistance (O): 430 ± 50
Output resistance (O): 351 ± 2
Insulation resistance (MO): = 5000 (50VDC)
Compensated temperature (°C): -10 to 40
Operating temperature (°C): -35 to 65
Storage temperature (°C): -40 to 70
Element material: Stainless steel
Ingress protection (according to EN 60529): IP67
Recommended torque on fixation (Thread:lbf.ft):1/4"UNF:18 1/2"UNF:55 3/4"UNF:330 1"UNF:550 1 1/8"UNF:1070
Recommended torque on fixation (Thread:Nm):M8:25 M12:75 M20:450 M24:750 M30:1450
Nominal full scale deflection range: 0.1935---0.8065(mm)



Capacity	L *mm(in)*	H *mm(in)*	H1 *mm(in)*	W1 *mm(in)*	W *mm(in)*	M(thread)
25 to 300 lbf	50.8 (2.0)	60.96 (2.4)	8.89 (0.4)	11.96 (0.5)	15.06 (0.6)	1/4-28UNF
500 to 1500 lbf	50.8 (2.0)	60.96 (2.4)	8.89 (0.4)	18.03 (0.7)	21.4 (0.8)	1/2-20UNF
2000 to 2500 lbf	50.8 (2.0)	60.96 (2.4)	8.89 (0.4)	24.38 (1.0)	27.76 (1.1)	1/2-20UNF
3,000 lbf	76.2 (3.0)	99.06 (3.9)	13.97 (0.55)	24.38 (0.96)	27.76 (1.09)	1/2-20UNF
5000 lbf	76.2 (3.0)	99.06 (3.9)	13.97 (0.6)	24.38 (1.0)	27.76 (1.1)	3/4-16UNF
10,000 lbf	74.68 (2.9)	99.06 (3.9)	15.75 (0.6)	30.74 (1.2)	34.12 (1.3)	3/4-16UNF
20,000 lbf	112.8 (4.4)	177.8 (7.0)	39.9 (1.6)	42.93 (1.7)	46.31 (1.8)	1 1/4-12UNF
METRIC						
50 kgf to 100 kgf	50.8 (2.0)	60.96 (2.4)	8.89 (0.35)	11.68 (0.46)	15.06 (0.59)	M8

Capacity	L *mm(in)*	H *mm(in)*	H1 *mm(in)*	W1 *mm(in)*	W *mm(in)*	M(thread)
250 kgf to 500 kgf	50.8 (2.0)	60.96 (2.4)	8.89 (0.35)	18.03 (0.71)	21.4 (0.84)	M12
1,000 kgf	50.8 (2.0)	60.96 (2.4)	8.89 (0.35)	24.38 (0.96)	27.76 (1.09)	M12
2,500 kgf	76.2 (3.0)	99.06 (3.9)	13.97 (0.55)	24.38 (0.96)	27.76 (1.09)	M20 x 1.5
5,000 kgf	74.68 (2.94)	99.06 (3.9)	18.37 (0.72)	30.74 (1.21)	34.12 (1.34)	M20 x 1.5
7,500 kgf	87.38 (3.44)	139.7 (5.5)	27.5 (1.08)	37.08 (1.46)	40.46 (1.59)	M24 x 2
10,000 kgf	112.78 (4.44)	177.8 (7.0)	39.9 (1.57)	42.93 (1.69)	46.31 (1.82)	M30 x 2

Wiring



Shielded, 4 conductor cable
Cable diameter: Ø5mm
Standard cable length: 6m
Shield not connected to element

† ***All amounts shown in USD***