Single-Ended Beam Load Cell

FEATURES

- Capacities: 200–2500 lbs.
- Low profile, stainless steel construction
- Hermetically sealed, IP66 and IP68
- Certified to OIML R-60, 5000d and NTEP class III, 5000 divisions
- Current calibration output (SC version) ensures easy and accurate parallel connection of multiple load cells
- Interchangeable with existing Model 5102
- **Optional**
  - ATEX and FM certified versions are available for use in potentially explosive atmospheres

APPLICATIONS

- Platform scales
- Belt scales
- Silo/hopper weighing
- Overhead track scales

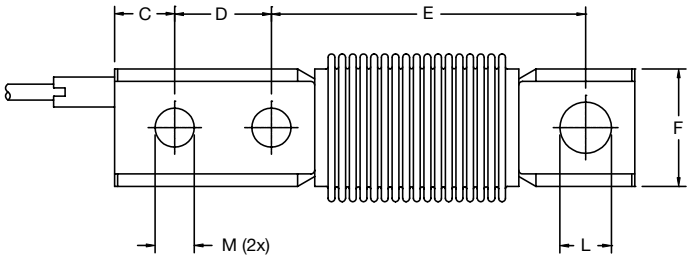
DESCRIPTION

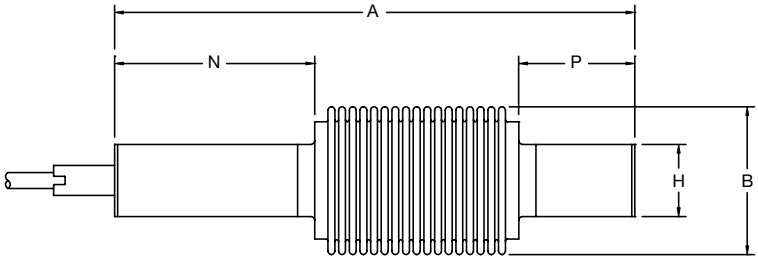
The Model 9102 is a stainless steel single-ended beam type load cell.

This product is suitable for small and medium platform scales, overhead track scales and process weighing.

The fully welded construction and water block cable entry ensure that this product can be used successfully in demanding environments found in the food, chemical and allied process industries.

OUTLINE DIMENSIONS in millimeters





Capacity (lbs)	200	500–1000	2500
A	127.0	136.7	136.7
B	39.6	39.6	39.6
C	9.7	15.8	15.8
D	15.9	25.4	25.4
E	88.9	82.6	82.6
F	31.2	31.2	31.2
H	19.0	19.0	19.0
L_{THRU}	9.9	10.3	13.5
M_{THRU}	6.8	10.3	10.3
N	38.1	52.6	52.6
P	31.8	30.5	30.5

Cable specifications:

Cable length	3m
Excitation +	Red
Excitation –	Black
Output +	Green
Output –	White
Shield	Transparent

Cable screen is not connected to load cell body. Performance may be affected if load cell cables are shortened.

Single-Ended Beam Load Cell

SPECIFICATIONS					
PARAMETER	**VALUE**				**UNIT**
Standard capacities (=E_{max})	200, 500, 1000, 2500				lbs.
Accuracy class according to OIML R-60 /	NTEP III	Non-Approved	C3	C5	
Max. no. of verification intervals (n)	5000		3000	5000	
Minimum verification interval (V_{min})			E_{max}/15000	E_{max}/15000	
Rated output (=S)	2				mV/V
Rated output tolerance	0.02				±mV/V
Zero balance	1.0				±% FSO
Combined error	0.0200	0.0500	0.0200	0.0100	±% FSO
Non-repeatability	0.0100	0.0200	0.0100	0.0070	±% FSO
Minimum dead load output return	0.0250	0.0500	0.0167	0.0100	±% applied load
Creep error (30 minutes)		0.0600	0.0245	0.0147	±% applied load
Creep error (20-30 minutes)		0.0200	0.0053	0.0032	±% applied load
Temp. effect on min. dead load output	(0.0008)	0.0250	0.0047	0.0047	±% FSO/5°C (/°F)
Temp. effect on sensitivity	(0.0010)	0.0250	0.0055	0.0035	±% applied load/5°C (/°F)
Minimum dead load	0				% E_{max}
Maximum safe overload	150				% E_{max}
Ultimate overload	300				% E_{max}
Maximum safe side load	100 (50 for 200 lbs.)				% E_{max}
Deflection at E_{max}	0.2/ 0.2/ 0.8/ 0.8				mm
Excitation voltage	5 to 12				V
Maximum excitation voltage	15				V
Input resistance	350±3.5				Ω
Output resistance	350±3.5				Ω
Insulation resistance	>5000				MΩ
Compensated temperature range	–10 to +40				°C
Operating temperature range	–40 to +80				°C
Storage temperature range	–40 to +90				°C
Element material	Stainless steel 1.4542				
Sealing (DIN 40.050 / EN 60.529)	IP66 and IP68				
SC-Version	Standard				
Recommended torque on fixation bolts	80 (70 for 200 lbs.)				N*m

FSO—Full Scale Output

SC-version: The rated output and the output resistance are balanced in such a way that the output current is calibrated to within 0.05% of a reference value. This allows easy parallel connection of the load cells.

Correct mounting of the load cells is essential to ensure optimum performance. Further information is available on request.

All specifications are subject to change without notice.

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