Model 5102

Revere

VPG force sensors

Celtron • Revere • Sensortronics • Tedea-Huntleigh

Single-Ended Beam Load Cell

FEATURES

- Capacities: 50 - 10K lbs
- Low profile, stainless steel construction
- Sealing: IP67 (DIN 40.050)
- Current calibration output (SC version) ensures easy and accurate parallel connection of multiple load cells
- Interchangeable with existing model 9102
- Certified to OIML R-60, 3000d



APPLICATIONS

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

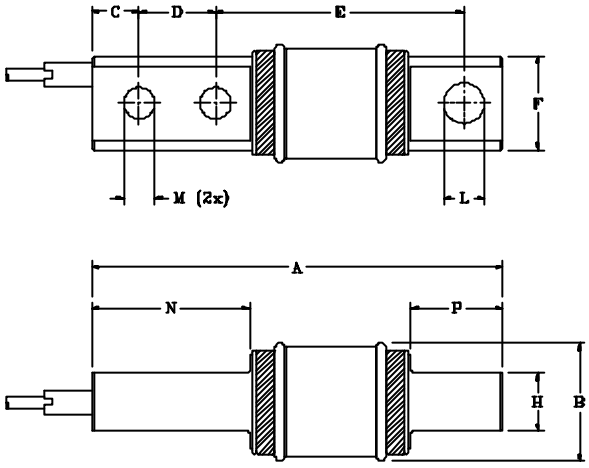
DESCRIPTION

The 5102 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 applications.

Reliable sealing is ensured by the proprietary TRANSEAL potting compound and a protective neoprene boot.

This product meets the stringent Weights and Measures requirements throughout Europe.

OUTLINE DIMENSIONS in millimeters



E_{max}	50→200	500,1K	2.5K	5→10K
A	127.0	136.7	136.7	184.9
B	39.6	39.6	39.6	54.9
C	9.7	15.8	15.8	19.1
D	15.9	25.4	25.4	44.5
E	88.9	82.6	82.6	102.4
F	31.2	31.2	31.2	43.2
H	19.0	19.0	19.0	34.9
L_{thru}	9.9	10.3	13.5	19.8
M_{thru}	6.8	10.3	10.3	16.7
N	38.1	52.6	52.6	88.1
P	31.8	30.5	30.5	39.6

Attention:
Dimensions: mm
All dimension tolerances according to DIN 7168; middle accuracy unless otherwise specified

Wiring:

Excitation +	Red
Excitation -	Black
Output +	Green
Output -	White
Shield	Orange

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Single-Ended Beam Load Cell

SPECIFICATIONS					
PARAMETER	**VALUE**				**UNIT**
Standard capacities (=E_{max})	50, 100, 200, 500, 1K, 2.5K, 5K 10K				lbs.
Accuracy class according to OIML R-60 /			C2	C3	
Max. no. of verification intervals (n)			2000	3000	
Minimum verification interval (V_{min})			E_{max}/10000	E_{max}/10000	
Minimum Utilisation			20	30	%
Accuracy According to Type Designation	CC	K3	C2	C3	
Rated Output (=S)	2				mV/V
Combined error	0.0500	0.0300	0.0230	0.0200	±% FSO
Non-repeatability	0.0200	0.0100	0.0100	0.0100	±% FSO
Minimum dead load output return	0.0500	0.0165	0.0250	0.0167	±% applied load
Creep error (30 minutes)	0.0600	0.0165	0.0245	0.0245	±% applied load
Creep error (20-30 minutes)	0.0200	0.0045	0.0053	0.0053	±% applied load
Temp. effect on min. dead load output	0.0250	0.0140	0.0070	0.0070	±% FSO/5°C (/°F)
Temp. effect on sensitivity	0.0250	0.0055	0.0060	0.0050	±% 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}	0.5/ 0.5/ 0.5/ 0.6/ 0.6/ 0.6/ 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)	IP67				
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 within 0.05% to a refe rence value. This allows an easy parallel connection of load cells. Accuracy classes C2 and C3 are in agreement with the OIML recommendation R-60. The correct mounting of the load cells is essential to ensure optimum performance. Cable length 3m. Cable screen is not connected to load cell body. Performance may be affected if load cell cables are shortened. Further information is available on request.

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