

# Model 9102

## Single Ended Beam Load Cell



### APPROVALS

	<b>C5</b> $n_{1c} \leq 5000$ $Y \leq 15000$
	<b>A5</b> $n_{1c} \leq 5000$
	IIIG EEx ia IIC T6/T4 or IIID T70°C II3G EEx nA II T6/T4 or II3D T70°C
	<b>Factory Mutual System</b>



### APPLICATIONS

Platform Scales	Silo/Hopper Weighing	Belt Scales	Overhead Track Scales

### DESCRIPTION

The 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 harsh environments found in the food, chemical and allied process industries.

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

### FEATURES

- 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
- ATEX and FM certified versions are available for use in potentially explosive atmospheres
- Capacities: **200 → 2500 lbs**

# 9102 SPECIFICATIONS

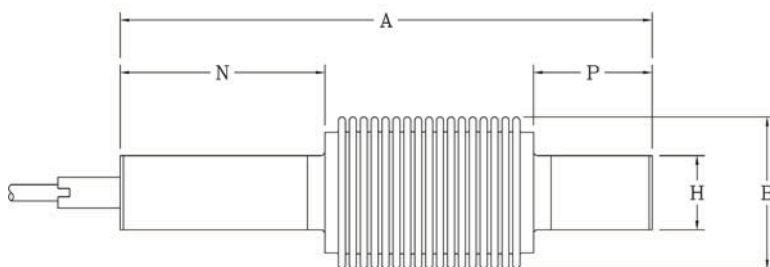
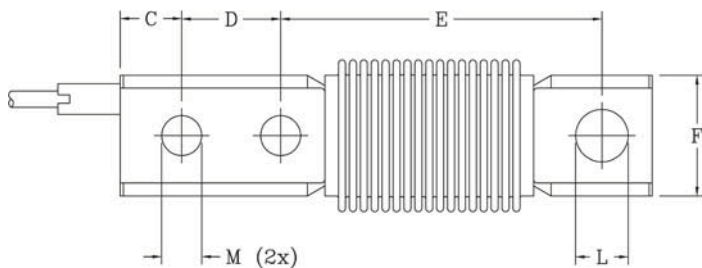
PARAMETER	VALUE				UNIT
Standard capacities ( $E_{max}$ )	200, 500, 1000, 2500				lbs
Accuracy class according to OIML R-60 / NTEP	Non-Approved	NTEP III	C3	C5	
Max. no. of verification intervals ( $n_{IC}$ )		5000	3000	5000	
Minimum verification interval ( $V_{min}$ )		--	$E_{max}/15000$	$E_{max}/15000$	
Rated output (=S)	2				mV/ V
Rated output tolerance	0.02				±mV/ V
Zero balance	1.0				±% FSO
Combined error	0.0500	0.0200	0.0200	0.0100	±% FSO
Non-repeatability	0.0200	0.0100	0.0100	0.0070	±% FSO
Minimum dead load output return*	0.0500	0.0250	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	0.0250	(0.0008)	0.0047	0.0047	±% FSO/5°C (°F)
Temp. effect on sensitivity	0.0250	(0.0010)	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 200lbs)				% $E_{max}$
Deflection at $E_{max}$	0.2/ 0.2/ 0.8/ 0.8				mm
Excitation voltage	5...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...+40				°C
Operating temperature range	-40...+80				°C
Storage temperature range	-40...+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 200lbs)				Nm

\* Applies for the temperature range -10 to +40 °C

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.

## OUTLINE DIMENSIONS



Capacity (lbs)	200	500 / 1000	2500
A	127.0	136.7	136.7
B	39.0	39.0	39.0
C	9.7	15.8	15.8
D	15.9	25.4	25.4
E	88.9	82.6	82.6
F	31.0	31.0	31.0
H	19.0	19.0	19.0
ØL	9.9	10.3	13.5
ØM	6.8	10.3	10.3
N	38.1	52.6	52.6
P	31.8	30.5	30.5

Note: Dimensions in millimeters

### 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.

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