

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

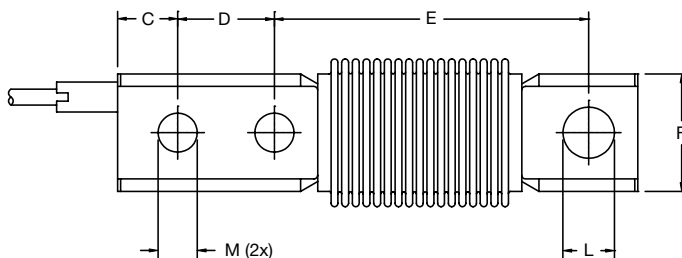
This product is suitable for small and medium platform scales, overhead track scales and process weighing.

DESCRIPTION

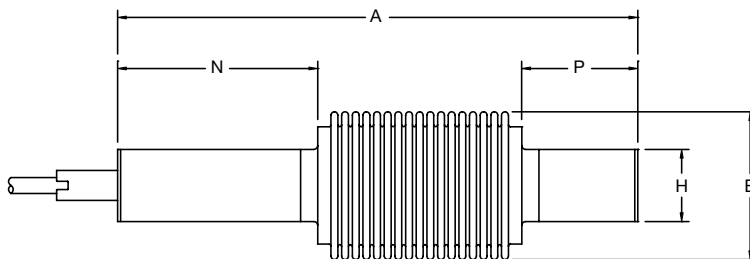
The 9102 is a stainless steel single-ended beam type load cell.

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.

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.



Disclaimer

ALL PRODUCTS, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Vishay Precision Group, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "VPG"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

The product specifications do not expand or otherwise modify VPG's terms and conditions of purchase, including but not limited to, the warranty expressed therein.

VPG makes no warranty, representation or guarantee other than as set forth in the terms and conditions of purchase. **To the maximum extent permitted by applicable law, VPG disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.**

Information provided in datasheets and/or specifications may vary from actual results in different applications and performance may vary over time. Statements regarding the suitability of products for certain types of applications are based on VPG's knowledge of typical requirements that are often placed on VPG products. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. You should ensure you have the current version of the relevant information by contacting VPG prior to performing installation or use of the product, such as on our website at vpgsensors.com.

No license, express, implied, or otherwise, to any intellectual property rights is granted by this document, or by any conduct of VPG.

The products shown herein are not designed for use in life-saving or life-sustaining applications unless otherwise expressly indicated. Customers using or selling VPG products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify VPG for any damages arising or resulting from such use or sale. Please contact authorized VPG personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.

Copyright Vishay Precision Group, Inc., 2014. All rights reserved.