

Compression Load Cells

FEATURES

- Capacity range:
20k, 50k, 100k, 200k, 300k, and 500k lb
(9k, 13.6k, 22.7k, 45.4k, 90.7k, 136k, and 227k kg)
- Compact and rugged
- Operational: -30° to +175°F
- Low deflection
- Environmentally sealed
- NTEP Certificate of Conformance for Class III L scale applications (20k to 200k)
- FM and CSA approved
- **Optional features**
 - Capacities greater than 500k lbs. (227k kg)—consult factory



APPLICATIONS

- Coal silos
- Rail car weighing
- Truck scales
- Force measurement

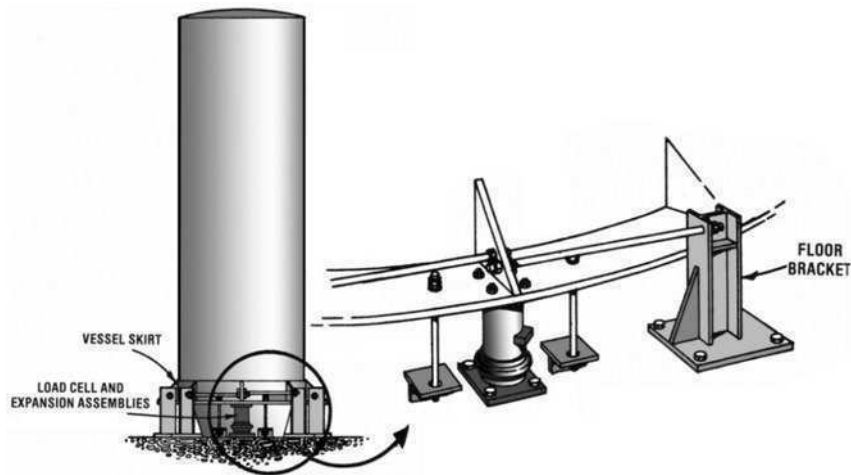


DESCRIPTION

C2P1 load cells are designed for various types of weighing and force measurement. Construction of C2P1 load cells utilizes all of the advantages of SR-4® strain gages. C2P1 load cells meet or exceed NIST Handbook 44 requirements and are Factory Mutual approved. Also, the National Type Evaluation Program (NTEP) has issued Certificate of Conformance number 87-060 for C2P1 20k to 200k pound capacities.

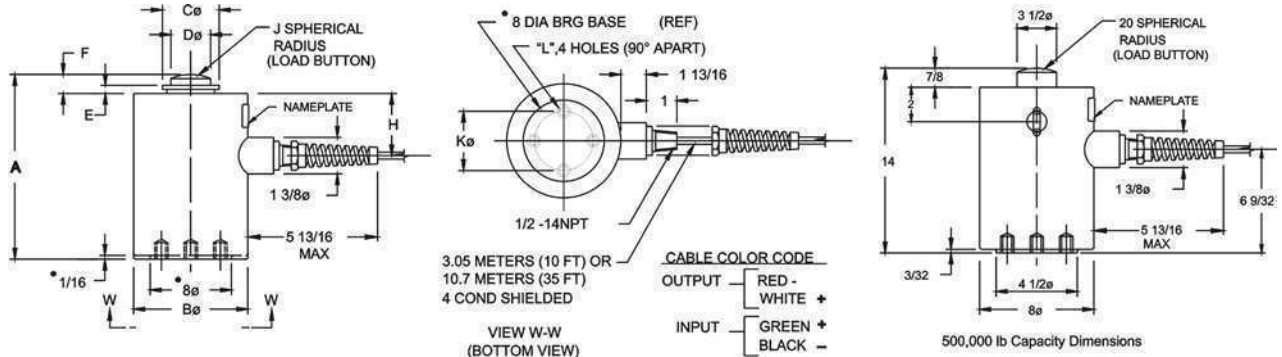
Double diaphragm fabrication and gage linearizing combine to offer precision performance and long-term reliability. Low deflection and superior sealing guarantee trouble-free operation. Relatively low mass and small deflection under load produce excellent frequency response. Overall, C2P1 cells perform superbly in many services where other transducers cannot.

CONFIGURATION



Compression Load Cells

OUTLINE DIMENSIONS



* Configuration and dimensions (*) are for 136077 kg (300,000 lb) capacity only

CAPACITY KG (LB)	A	BØ	CØ	DØ	E	F	H	J	KØ B.C.	L (TAPPED)
9072-22,680 (20,000-50,000)	190.50 (7-1/2)	114.30 (4-1/2)	57.15 (2-1/4)	31.75 (1-1/4)	12.70 (1/2)	19.05 (3/4)	63.50 (2-1/2)	152.40 (6)	60.33 (2-3/8)	3/8-24UNF-2B x 3.8 DP
45359 (100,000)	231.78 (9-1/8)	152.40 (6)	79.38 (3-1/8)	44.45 (1-3/4)	15.88 (5/8)	26.98 (1-1/16)	64.29 (2-17/32)	304.80 (12)	101.60 (4)	1/2-20UNF-2B x 3/4 DP
90718 (200,000)	295.28 (11-5/8)	203.20 (8)	114.30 (4-1/2)	63.50 (2-1/2)			89.69 (3-17/32)		139.70 (5-1/2)	5/8-18UNF-2B x 1 DP
136077 (300,000)	355.60 (14)	254 (10)	127 (5)	76.2 (3)	19.05 (3/4)	33.34 (1-5/16)	109.54 (4-5/16)	381 (15)	5-1/2	3/4-16UNF-2B x 1-1/4 DP
500,000									3-1/2	1/2-20UNF-2B x 3/4 DP

20K-200K lb capacities have NTEP CoC

* Single component, waterborne polyurethane copolymer—high gloss.

Compression Load Cells

SPECIFICATIONS				
PARAMETER		VALUE		
PERFORMANCE				
Capacities	20k, 50k, 100k, 200k, 300k, and 500k lb (9k, 13.6k, 22.7k, 45.4k, 90.7k, 136k, and 227k kg)			
Rated output (RO)	20k–300k lb	2.0 mV/V (±0.1%)	500k lb	2.0 mV/V (±0.25%)
Repeatability		0.01% RO		0.02% RO
Combined error		0.05% RO		0.08% RO
Zero balance		1.0% RO		1.0% RO
Creep (20 minutes)		0.02% RO		0.03% RO
Temperature effects on zero balance	0.0015% RO/°F all capacities			
Temperature effects on rated output	0.0008% load/°F all capacities			
ELECTRICAL				
Recommended excitation	10 VAC-DC			
Input resistance	350 Ω (±3.5)			
Output resistance	350 Ω (±3.5)			
Cable length	10 or 35 ft cable			
TEMPERATURE				
Safe range	–30°F to +175°F			
Compensated range	+30°F to +130°F			
ADVERSE LOAD RATINGS				
Safe overload	150% rated capacity			
Ultimate overload	300% rated capacity			
MATERIAL				
Element	High grade tool steel			
Cannister	Low carbon steel, painted*			
SEALING				
Environmental protection	IP67			
DEFLECTION				
20k lb	0.0075 in			
50k lb	0.0065 in			
100k lb	0.0075 in			
200k lb	0.007 in			
300k lb	0.012 in			
500k lb	0.020 in			
APPROVALS				
FM, CSA and NTEP certified.				

BLH Nobel is continually seeking to improve product quality and performance. Specifications may change accordingly.



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.