

Compression Load Cell



DESCRIPTION

The CSP-M is a multi-column, low profile, stainless steel compression load cell. The unique four column design offers excellent insensitivity to eccentric loads whilst maintaining accuracy.

This product is, without doubt, one of the most successful compression cells ever produced and is suitable for use in road and rail weighbridges and process weighing applications..

The fully leak-tested welded construction, advanced cable entry and built-in surge protection tubes ensure that this product can be used successfully in harsh environments.

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

FEATURES

- Capacities: 10 - 100t
- Low profile, multi column stainless steel construction
- Hermetically sealed, IP66 and IP68
- Certified to OIML R-60, 4000d and NTEP class IIIIL 10000 divisions
- Built-in surge protection tubes (GDTs)
- Current calibration output (SC version) ensures easy and accurate parallel connection of multiple load cells

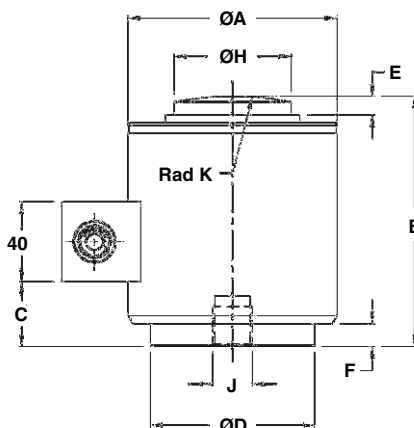
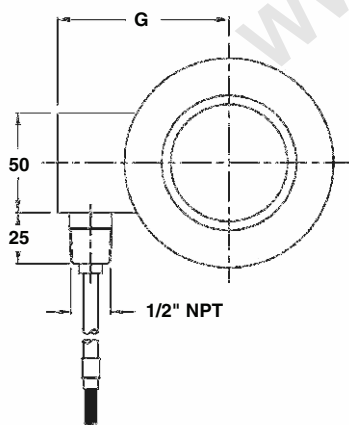
OPTIONAL FEATURE

- ATEX and FM certified versions are available for use in potentially explosive atmospheres
- Digital version available (model SCC)
- Multi-interval and multiple range versions available
- Imperial capacities (25K, 50K, 100K, 200Klbs) not OIML approved

APPLICATIONS

- Truck and rail weighbridges
- Silo and hopper weighing
- Process weighing

OUTLINE DIMENSIONS in millimeters



Cable specifications:

Cable length: 20m (10m for 10t version)

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

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

Capacity	10, 25	40, 60	100
A	72.0	105.0	150.0
B	83.0	127.0	185.0
C	13.0	35.0	70.0
D	58.0	82.5	123.8
E	6.5	8.0	23.6
F	1.8	11.0	21.8
G	63.0	83.0	107.0
H	32.0	59.0	80.0
J	M12x1.75 (8 Deep)	M20x2.5 (15 Deep)	
K Rad	150.0	150.0	430.0

SPECIFICATIONS

PARAMETER	VALUE				UNIT
Standard capacities (E_{max})	10, 25, 40, 60, 100 ⁽¹⁾				ton
Accuracy class according to OIML R-60 /NTEP	NTEP III L	Non-Approved	C3	C4	
Max. no. of verification intervals	10000		3000	4000	
Min. verification interval ($V_{min}=E_{max}/Y$)			$E_{max}/12,500$	$E_{max}/12,500$	
Min. verification interval, type MR			$E_{max}/17,500$	$E_{max}/17,500$	
Rated output (=S)	2				mV/V
Rated output tolerance	0.02				±mV/V
Zero balance	1.0				±% FSO
Combined error	0.0200	0.050	0.0200	0.0170	±% FSO
Non-repeatability	0.0100	0.020	0.0100	0.0090	±% FSO
Minimum dead load output return	0.0250	0.050	0.0167	0.0125	±% applied load
Creep error (30 minutes)		0.060	0.0245	0.0184	±% applied load
Creep error (20 - 30 minutes)	0.0300	0.0200	0.0053	0.0039	±% applied load
Temp. effect on min. dead load output	(0.0008)	0.0250	0.0056	0.0056	±% FSO/5°C (°F)
Temp. effect on min. dead load output, type MR			0.0040	0.0040	±% FSO/5°C
Temperature effect on sensitivity	(0.0010)	0.0250	0.0050	0.0035	±% applied load/5
Minimum dead load	0				%E _{max}
Maximum safe over load	150				%E _{max}
Ultimate over load	400				%E _{max}
Maximum safe side load	10				%E _{max}
Deflection at E _{max}	0.36 max.				mm
Excitation voltage	5 to 20				V
Maximum excitation voltage	25				V
Input resistance	450±4.5				W
Output resistance	480±4.8				W
Insulation resistance	≥5000				MW
Compensated temperature range	-10 to +40				°C
Operating temperature range	-40 to +80				°C
Storage temperature range	-50 to +90				°C
Element material	Stainless steel 1.4542				
Sealing (DIN 40.050 / EN60.529)	IP66 & IP68				

Notes

⁽¹⁾ 100t only has C1 grade of OIML

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.

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, "Vishay Precision Group"), 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 Vishay Precision Group's terms and conditions of purchase, including but not limited to, the warranty expressed therein.

Vishay Precision Group 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, Vishay Precision Group 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 Vishay Precision Group's knowledge of typical requirements that are often placed on Vishay Precision Group 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.

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

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