

Digital Compression Load Cell



FEATURES

- Capacities: 30, 40 and 50t
- Digital output via RS-485 or RS-422 interface
- Self-aligning, stainless steel single column
- Hermetically sealed, IP66 and IP68
- Certified to OIML R-60, 4000d
- Internal diagnostics
- Internal lightning protection
- Maximum transmission distance 1200m

OPTIONAL FEATURES

- Self-aligning mount available
- Operation manual - SLC

DESCRIPTION

The DSC, Digital Single Column, is a stainless steel compression load cell with a digital output.

This digital output enables the user to communicate with each DSC independently of the others in the system, thus offering advantages in system setup, system control, corner correction, fault finding and load cell replacement.

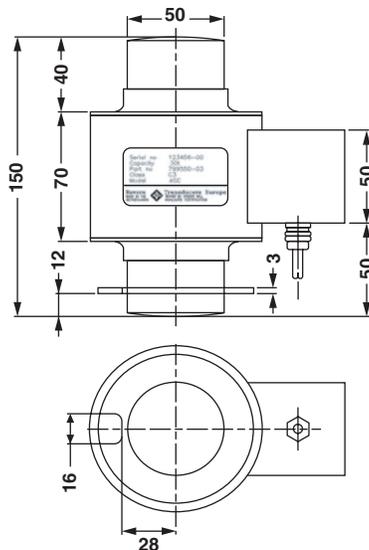
This product is suitable for use in road and rail weighbridges and process weighing applications.

The welded construction and built-in surge protection ensure that this product can be used successfully in harsh environments.

APPLICATIONS

- Weighbridges
- Silo hopper weighing

OUTLINE DIMENSIONS in mm



Cable specifications:

Cable length: 15m

Excitation +	Green
Excitation -	Black
Rx +	Yellow
Rx -	Blue
Tx +	Red
Tx -	White
Shield	Transparent

SPECIFICATIONS

PARAMETER	VALUE			UNIT
Standard capacities (E_{max})	30, 40, 50			ton
Accuracy class according to OIML R-60	Non-approved	C3	C4	
Maximum no. of verification intervals (n)		3000	4000	
Minimum verification interval ($V_{min}=E_{max}/Y$)		$E_{max}/6,000$	$E_{max}/8,000$	
Minimum verification interval, type MR		$E_{max}/15,000$	$E_{max}/20,000$	
Rated output (FSO)	240,000			counts
Tolerance on rated output	200			±counts
Zero balance	200			±counts
Combined error	0.0500	0.023	0.018	±% FSO
Non-repeatability	0.070	0.035	0.026	±% FSO
Minimum dead load output return	0.0500	0.017	0.013	±% FSO
Minimum dead load output return, type MI7.5	-	0.0067	0.0067	±% FSO
Creep error (30 minutes)	0.0600	0.025	0.0184	±% FSO
Creep error (20 - 30 minutes)	0.0200	0.0053	0.0039	±% FSO
Temp. effect on min. dead load output	0.0250	0.0117	0.0088	±% FSO/5°C
Temp. effect on min. dead load output MR		0.0047	0.0035	±% FSO/5°C
Temperature effect on sensitivity	0.0250	0.0088	0.0065	±% FSO/5°C
Compensated temperature range	-10 to +40			°C
Operating temperature range	-40 to +80			°C
Storage temperature range	-40 to +90			°C
Minimum dead load	0			% E_{max}
Safe dead load	150			% E_{max}
Ultimate load	300			% E_{max}
Deflection at E_{max}	0.50			mm
Excitation voltage	12.5 to 18.0			Vdc
Recommended excitation voltage	15			Vdc
Maximum current consumption	80			mA
Start up current	150			mA
Insulation resistance	>5000			MΩ
Element material (DIN)	Stainless steel 1.4542			
Sealing (DIN 40.050 / EN60.529 / IEC 529)	IP66 and IP68			
Signal update per second	25			
Baudrate	9600			Bits/s
Transmission type	Asynchronous serial transmission			
Start bits	1			
Data bits	7			
Stop bits	1			
Parity	Odd			
Maximum transmission cable length	1200			m
Data transmission interface	RS422 (4 communication wires) / RS485 (2 communication wires)			

Correct mounting of the load cells is essential to ensure optimum accuracy and performance. Further information is available upon request.

FSO - Full Scale Output

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.