

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.

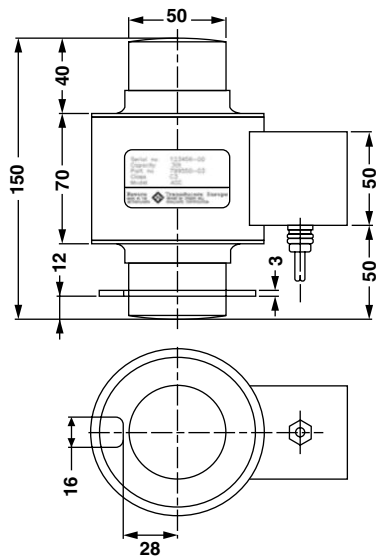
This product is suitable for use in road and rail weighbridges and process weighing applications.

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 millimeters



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

VISHAY TRANSDUCERS (VT) SALES OFFICES

VT Americas
City of Industry, CA
PH: +1-626-858-8899
FAX: +1-626-332-3418
vt.us@vishaymg.com

VT Netherlands
Breda
PH: +31-76-548-0700
FAX: +31-76-541-2854
vt.nl@vishaymg.com

VMG UK
Basingstoke
PH: +44-125-646-2131
FAX: +44-125-647-1441
vt.uk@vishaymg.com

VMG Israel
Netanya
PH: +972-9-863-8888
FAX: +972-9-863-8800
vt.il@vishaymg.com

VMG Germany
Heilbronn
PH: +49-7131-3901-260
FAX: +49-7131-3901-2666
vt.de@vishaymg.com

VT China
Tianjin
PH: +86-22-2835-3503
FAX: +86-22-2835-7261
vt.prc@vishaymg.com

VMG France
Chartres
PH: +33-2-37-33-31-20
FAX: +33-2-37-33-31-29
vt.fr@vishaymg.com

VT Taiwan*
Taipei
PH: +886-2-2696-0168
FAX: +886-2-2696-4965
vt.roc@vishaymg.com
*Asia except China



Notice

Specifications of the products displayed herein are subject to change without notice. Vishay Intertechnology, Inc., or anyone on its behalf, assumes no responsibility or liability for any errors or inaccuracies.

Information contained herein is intended to provide a product description only. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document. Except as provided in Vishay's terms and conditions of sale for such products, Vishay assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of Vishay products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Vishay for any damages resulting from such improper use or sale.