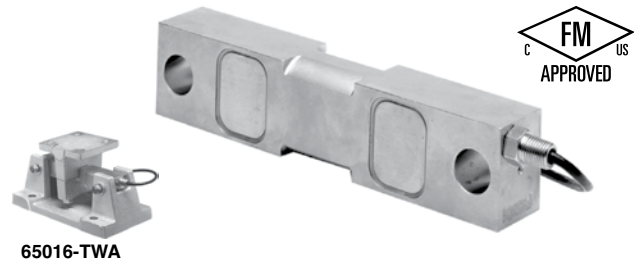


Double-Ended Shear Beam Load Cell

FEATURES

- Rated capacities of 1000 to 100,000 pounds
- Insensitive to side loads and bending moments
- High output—well suited to high deadload/low liveload applications
- Load cells have matched outputs for multi-cell systems
- Excellent combined error and repeatability
- Integral conduit adaptor
- *Sensorgage*™ sealed to IP67 standards
- Factory Mutual System Approved for Classes I, II, III; Divisions 1 and 2; Groups A through G. Also, non-incendive ratings (No barriers!);
- **Optional**
 - Weighing assemblies available—65016 TWA
 - EDOC option available; product appearance will differ from the photograph due to coating



65016-TWA

DESCRIPTION

The Model 65016 is a double-ended shear beam load cell constructed from nickel-plated alloy steel. The double-ended mounting provides good restraint to possible movement of the tanks and, in many cases, eliminates the need for check rods. The double Shear Beam design gives excellent performance for high capacity loading.

The output is rationalized to facilitate multiple-cell applications.

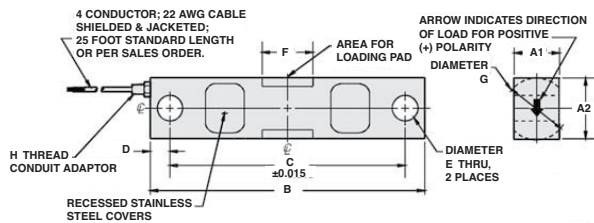
This load cell is constructed of alloy tool steel and is potted to IP67 providing excellent protection against moisture and humidity.

APPLICATIONS

- Tank, bin, and silo weighing
- Batching, blending and mixing systems
- Level and inventory monitoring

OUTLINE DIMENSIONS in millimeters

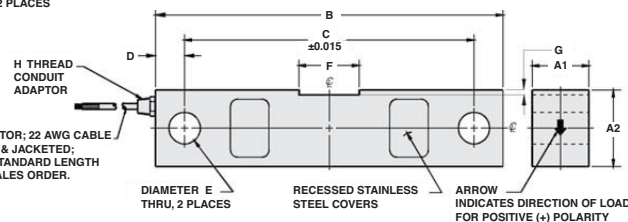
1000 to 50,000 lb capacities



Wiring

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

75,000 to 100,000 lb capacities



CAPACITY	A1	A2	B	C	D	E	F	G	H
1k-5k	1.25	1.25	7.50	6.25	0.62	0.50	1.22	1.25	1/4-18NPT
10k-25k	1.44	1.94	8.75	7.50	0.62	0.81	1.62	1.99	1/4-18NPT
35k	1.50	2.50	8.75	7.50	0.62	0.81	1.62	2.50	1/4-18NPT
50k	2.44	2.94	13.50	11.50	1.00	1.31	3.25	2.99	1/2-14NPT
75k	2.44	2.94	13.50	11.50	1.00	1.31	3.12	0.18	1/2-14NPT
100k	2.94	3.94	18.50	15.00	1.75	1.63	3.25	0.25	1/2-14NPT

Above dimensions apply to non-EDOC-coated load cells.

Double-Ended Shear Beam Load Cell

SPECIFICATIONS		
PARAMETER	VALUE	UNIT
Rated capacity—R.C. (E _{max})	1k, 1.5k, 2.5k, 5k, 10k, 15k, 25k, 35k, 50k, 75k, 100k	lbs
NTEP/OIML accuracy class	Standard	
Maximum no. of intervals (n)	—	
Rated output—R.O.	3.0	mV/V
Rated output tolerance	0.25	±% mV/V
Zero balance	1.0	±% FSO
Combined error	0.03	±% FSO
Non-repeatability	0.01	±% FSO
Creep error (20 minutes)	0.03	±% FSO
Temperature effect on zero	0.0015	±% FSO/°F
Temperature effect on output	0.0008	±% of load/°F
Compensated temperature range	14 to 104 (–10 to 40)	°F (°C)
Operating temperature range	0 to 150 (–18 to 65)	°F (°C)
Storage temperature range	–60 to 185 (–50 to 85)	°F (°C)
Sideload rejection ratio	500:1	
Safe sideload	100	% of R.C.
Maximum safe central overload	150	% of R.C.
Ultimate central overload	300	% of R.C.
Excitation, recommended	15	VDC or VAC RMS
Excitation, maximum	25	VDC or VAC RMS
Input impedance	700±14	Ω
Output impedance	703±4	Ω
Insulation resistance at 50 VDC	>1000	MΩ
Material	Nickel-plated alloy tool steel	
Environmental protection	IP67	

Notes

FSO—Full Scale Output

All Specifications 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.

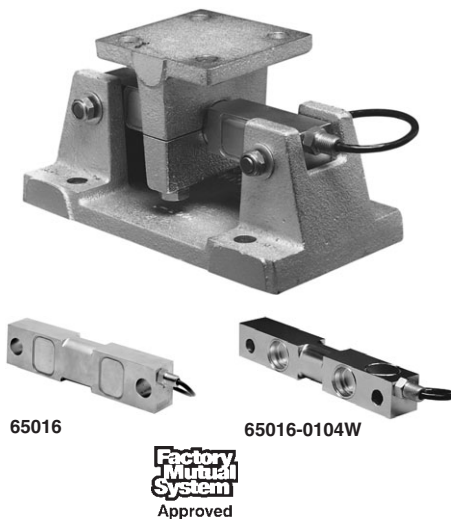
No license, express, implied, or otherwise, to any intellectual property rights is granted by this document, or by any conduct of VPG.

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.

Tank Weighing Assembly



FEATURES

- Capacity ranges of 1000 to 125,000 pounds
- Mounts directly to the floor or structural support
- Self-checking with provisions for thermal expansion and contraction
- Insensitive to side loads and bending moments
- High output - well suited to high deadload/low liveload applications
- Load cells have matched outputs for multi-cell systems
- Excellent combined error and repeatability
- Accuracies exceed 0.1% with agitated loads
- Integral conduit adaptor
- Certified for uniform building code seismic zones 1 thru 4
- *Sensorgage*™ sealed to IP67 standards
- Factory Mutual System Approved for Classes I, II, III; Divisions 1 and 2; Groups A through G. Also, non-incendive ratings (No barriers!).

OPTIONAL FEATURE

- Stainless steel, welded seal assemblies available

DESCRIPTION

The 65016-TWA is a mid to high capacity nickel plated alloy steel weighing assembly.

This product is the standard in tank and container weighing due to the Zone 4 earthquake rating. It has high side load rejection, and is able to withstand loads in all directions up to and exceeding its rated capacity without permanent damage or the threat of structural failure. This weighing assembly is also designed to move in the direction of thermal expansion, guaranteeing accurate measurements regardless of

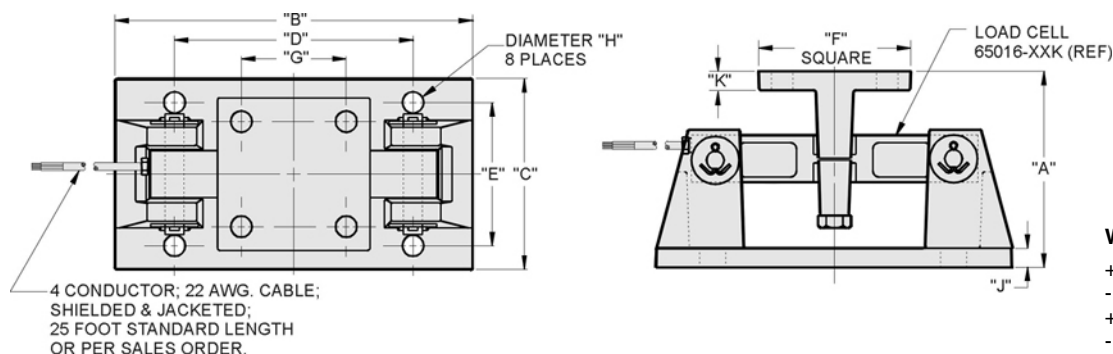
conditions. Nickel plating and IP67 rated sealing make this load cell suitable for use in outdoor applications as well as applications that are subject to high pressure wash down. For a higher degree of corrosion and water resistance please see 65016-0104W, the stainless steel and welded seal version of 65016.

This load cell is rated intrinsically safe by the Factory Mutual System (FM); making it suitable for use in potentially explosive environments.

APPLICATIONS

- Tank, bin and hopper weighing
- Silo weighing
- Batching, blending, mixing, level and inventory monitoring

OUTLINE DIMENSIONS in inches



Wiring

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

CAPACITY	A	B	C	D	E	F	G	H	J	K	WEIGHT
1K - 5K	5.13	9.35	5.00	6.25	3.75	4.00	2.75	0.56	0.90	0.50	22.0
10K - 35K	7.90	12.00	8.00	7.50	6.00	8.00	6.00	0.78	0.75	0.75	73.0
50K - 75K	9.30	16.25	12.00	11.50	9.50	9.00	6.50	0.78	1.00	1.00	172.0
100K - 125K	11.75	23.50	14.00	20.00	12.00	10.00	8.00	1.12	1.50	1.50	250.0

Capacities are in pounds.



SPECIFICATIONS

PARAMETER	VALUE	UNIT
Rated capacity-R.C. (E_{max})	1K, 1.5K, 2.5K, 5K, 10K, 15K, 25K, 35K, 50K, 75K, 100K, 125K	lbs
NTEP/OIML Accuracy class	Standard	
Maximum no. of intervals (n)	--	
Rated output-R.O.	3.0	mV/V
Rated output tolerance	0.25	±% mV/V
Zero balance	1.0	±% FSO
Combined error	0.03	±% FSO
Non-repeatability	0.01	±% FSO
Creep error (20 minutes)	0.03	±% FSO
Temperature effect on zero	0.0015	±% FSO/°F
Temperature effect on output	0.0008	±% of load/°F
Compensated temperature range	14 to 104 (-10 to 40)	°F (°C)
Operating temperature range	0 to 150 (-18 to 65)	°F (°C)
Storage temperature range	-60 to 185 (-50 to 85)	°F (°C)
Sideload rejection ratio	500:1	
Safe sideload	100	% of R.C.
Maximum safe central overload	150	% of R.C.
Ultimate central overload	300	% of R.C.
Excitation, recommended	15	Vdc or Vac rms
Excitation, maximum	25	Vdc or Vac rms
Input impedance	686 - 714	Ω
Output impedance	699 - 707	Ω
Insulation resistance at 50VDC	>1000	MΩ
Material load cell	Nickel plated alloy tool steel or stainless steel	
Material assembly	Zinc plated cast steel	
Environmental protection	IP67	

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.