

## Welded Seal Double-Ended Shear Beam Load Cell

### FEATURES

- Rated capacities of 15,000 to 125,000 lbs
- Stainless steel, welded seal construction
- Center-link recessed pivot load
- Insensitive to side loads and bending moments
- Load cells have matched outputs for multi-cell systems
- Integrated conduit adaptor
- Trade certified for NTEP Class III: 5000 divisions and Class IIIL: 10000 divisions
- *Sensorgage™* sealed to IP68 and IP69K 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**
  - 65058-TSA companion assemblies for vehicle scales
  - 65069-TWA companion assemblies for vessel weighing



65069-TWA



65058-TSA



### APPLICATIONS

- Hostile environments:  
Food and beverage processing, Chemical processing, Pharmaceutical and biomedical processing
- High performance weighing modules and assemblies
- Tank and reactor weighing
- Batching, blending and mixing systems

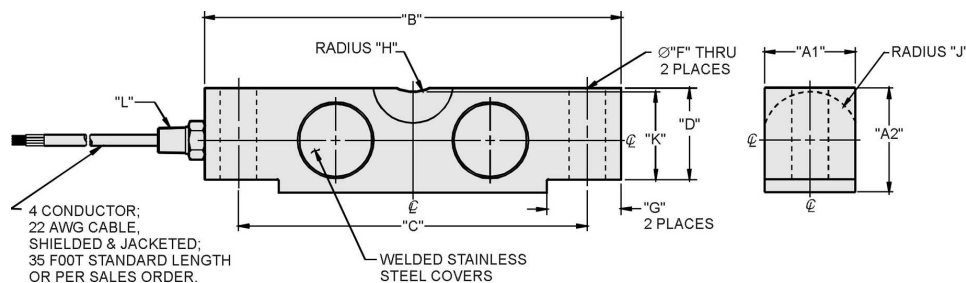
Protected to meet IP68 and IP69K requirements, the construction of the 65058S load cell uses double-redundant sealing methods, to ensure long and reliable service and constant calibration.

### DESCRIPTION

The Model 65058S is specifically designed to be installed in demanding environments. It is specially suitable for the food processing, chemical and pharmaceutical industries.

The additional sense wires compensate for changes in lead resistance due to temperature change and/or cable extension. Complete compensation of changes in lead resistance is achieved by feeding this voltage into the appropriate electronics.

### OUTLINE DIMENSIONS in inches



#### Wiring

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

| CAPACITY                | A1   | A2   | B    | C    | D    | F    | G    | H     | J     | K    | L          |
|-------------------------|------|------|------|------|------|------|------|-------|-------|------|------------|
| 15K, 20K, 25K           | 1,69 | 1,94 | 7,75 | 6,5  | 1,7  | 0,68 | 1,38 | R0.75 | R0.90 | 1,63 | ¼ - 18 NPT |
| 35K, 40K, 50K, 60K, 75K | 2,44 | 2,94 | 10,3 | 8,5  | 2,65 | 1,06 | 1,93 | R1.00 | R1.37 | 2,54 | ½ - 14 NPT |
| 100K                    | 2,44 | 3,44 | 10,3 | 8,5  | 2,65 | 1,06 | 1,93 | R1.00 | R1.37 | 2,55 | ½ - 14 NPT |
| 125K                    | 2,9  | 3,86 | 15,3 | 12,8 | 3,43 | 1,62 | 3,13 | R1.50 | R1.80 | 3,3  | ½ - 14 NPT |

Capacities are in pounds.

Welded Seal Double-Ended Shear Beam Load Cell

| SPECIFICATIONS                    |   |                |          |                   |
|-----------------------------------|---|----------------|----------|-------------------|
| PARAMETER                         | VALUE   |                |          | UNIT              |
| Rated capacity—R.C. ( $E_{max}$ ) | 15k, 20k, 25k, 35k, 40k, 50k, 60k, 75k, 100k, 125k <sup>(1)</sup> |                |          | lbs               |
| NTEP/OIML accuracy class          | NTEP III  | NTEP IIIL      | Standard |                   |
| Maximum no. of intervals (n)      | 5000 multiple   | 10000 multiple |          |                   |
| $Y = E_{max}/V_{min}$             | See NTEP cert. 86-046A3   |                |          | Maximum available |
| Rated output—R.O.                 | 3.0   |                |          | mV/V              |
| Rated output tolerance            | ±0.25   |                |          | ±% mV/V           |
| Zero balance                      | 1.0   |                |          | ±% FSO            |
| Combined error                    | 0.02  | 0.02           | 0.03     | ±% FSO            |
| Non-repeatability                 | 0.01  |                |          | ±% FSO            |
| Creep error (20 minutes)          | 0.03  | 0.03           | 0.03     | ±% FSO            |
| Temperature effect on zero        | 0.0015  | 0.0010         | 0.0015   | ±% FSO/°F         |
| Temperature effect on output      | 0.0008  | 0.0008         | 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           | 10  |                |          | VDC or VAC RMS    |
| Excitation, maximum               | 25  |                |          | VDC or VAC RMS    |
| Input impedance                   | 686–714   |                |          | Ω                 |
| Output impedance                  | 699–707   |                |          | Ω                 |
| Insulation resistance at 50 VDC   | >1000   |                |          | MΩ                |
| Material                          | Stainless steel   |                |          |                   |
| Environmental protection          | IP68, IP69K   |                |          |                   |

**Notes**

<sup>(1)</sup> NTEP approval 20–125k lbs only

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](http://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.