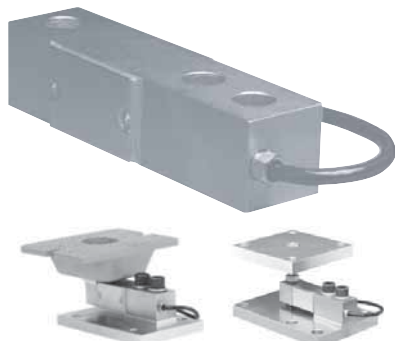


Shear Beam Load Cell



65059-TWA

65082-TWA



FEATURES

- Rated capacities of 250 to 20,000 pounds, 125 to 10,000kg
- "Thru" or "threaded" load hole configurations
- Low sensitivity to axial loads
- Low profile (ultra low available in 1000 to 2500 pound ranges)
- *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!).
- Trade certified for NTEP Class III:5000d, IIIIL:10000d and OIML R-60 3000d available

OPTIONAL FEATURES

- Stainless steel versions available
- 65059 TWA companion weighing assemblies available
- 65082 Tantomount companion weigh modules available

DESCRIPTION

Model 65023 is a low profile shear beam load cell designed for high accuracy platform scales, pallet scales and process weighing applications.

It has high immunity to shock or side loading and is available in 2 or 3mV/V sensitivity. Approved to OIML, NTEP standards. For hazardous environments this load cell is available with EEx ia IIC T6 level of European approval.

Nickel plating and full environmental sealing assures long term reliability. A stainless steel option is available for the lb versions for use in harsh or corrosive environments.

The two additional sense wires feed back the voltage reaching the load cell. Complete compensation of changes in lead resistance due to temperature change and/or cable extension is achieved by feeding this voltage into the appropriate electronics.

APPLICATIONS

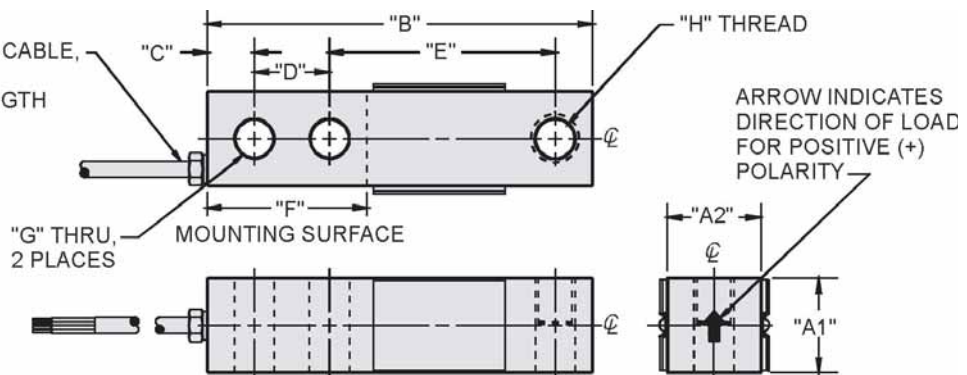
- Floor scales
- Tank weighing
- Bin and hopper weighing

OUTLINE DIMENSIONS in inches [mm]

4 CONDUCTOR; 22 AWG. CABLE, SHIELDED & JACKETED; 20 FOOT STANDARD LENGTH OR PER SALES ORDER.

Wiring

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



| CAPACITY | A1 | A2 | B | C | D | E | F | G | H | DEFLECTION | WEIGHT |
|---------------|--------|--------|---------|--------|--------|---------|---------|--------|---------------------------------------|-----------------|--------|
| 250 - 500lbs | 1.00 | 1.25 | 5.12 | 0.62 | 1.00 | 3.00 | 2.25 | 0.53 | 1/2-20 UNF-2B, Ø0.53 x 0.50 DP C'BORE | 0.013 | 1.7 |
| 1K - 4K | 1.25 | 1.25 | 5.12 | 0.62 | 1.00 | 3.00 | 2.25 | 0.53 | 1/2-20 UNF-2B, Ø0.53 x 0.62 DP C'BORE | 0.017 - 0.025 | 4.0 |
| 5K - 10K | 1.50 | 1.50 | 6.75 | 0.75 | 1.50 | 3.75 | 3.00 | 0.78 | 3/4-16 UNF-2B, Ø0.78 x 0.75 DP C'BORE | 0.025 - 0.035 | 6.5 |
| 15K - 20K | 2.00 | 2.00 | 8.88 | 1.00 | 2.00 | 4.88 | 4.00 | 1.03 | 1"-14 UNF-2B, Ø1.03 x 1.00 DP C'BORE | 0.048 - 0.063 | 9.0 |
| [125 - 250kg] | [25.0] | [31.0] | [130.0] | [16.0] | [25.0] | [76.0] | [57.0] | [13.0] | M12 x 1.75-6H, Ø13 x 15 DP C'BORE | [0.33] | [0.8] |
| [500 - 2t] | [32.0] | [32.0] | [130.0] | [16.0] | [25.0] | [76.0] | [57.0] | [13.0] | M12 x 1.75-6H, Ø13 x 15 DP C'BORE | [0.432 - 0.635] | [1.8] |
| [3t - 5t] | [38.0] | [38.0] | [171.0] | [19.0] | [38.0] | [95.0] | [76.0] | [20.7] | M20 x 2.5-6H, Ø20.5 x 19 DP C'BORE | [0.635 - 0.889] | [2.9] |
| [10t] | [51.0] | [51.0] | [226.0] | [25.0] | [51.0] | [124.0] | [102.0] | [25.0] | M24 x 2-6H, Ø25.4 x 25 DP C'BORE | [1.219 - 1.600] | [4.1] |

Capacities are in pounds [kg/t]. Deflection is ±10%. Certified drawings are available.

**SPECIFICATIONS**

| PARAMETER | VALUE | | | | UNIT |
|-----------------------------------|--|----------------|----------|----------|-------------------|
| Rated capacity-R.C. (E_{max}) | 250, 500, 1K, 1.5K, 2K, 4K, 5K, 10K, 15K, 20K 125, 250, 500, 750, 1000, 2000, 5000, 10,000* | | | | lbs kg |
| NTEP/OIML Accuracy class | NTEP III | NTEP IIII | Standard | OIML R60 | |
| Maximum no. of intervals (n) | 3000 single | 10000 multiple | | 3000* | |
| $Y = E_{max}/V_{min}$ | NTEP Cert. No. 86-044A2 | | | 6250 | 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 | 0.02 | ±% FSO |
| Non-repeatability | 0.01 | | | | ±% FSO |
| Creep error (30 minutes) | 0.025 | 0.03 | 0.03 | 0.017 | ±% FSO |
| Temperature effect on zero | 0.0010 | 0.0010 | 0.0015 | 0.0010 | ±% FSO/°F |
| Temperature effect on output | 0.0008 | 0.0008 | 0.0008 | 0.0007 | ±% 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 | 15 | | | | Vdc or Vac rms |
| Input impedance | 343 - 357 | | | | Ω |
| Output impedance | 349 - 355 | | | | Ω |
| Insulation resistance at 50VDC | >1000 | | | | MΩ |
| Material | Nickel plated alloy tool steel** | | | | |
| Environmental protection | IP67 | | | | |
| Recommended torque | All capacities up to 5000kg - 136.0 5000kg - 205.0 | | | | N*m |

Note: * OIML approval 1-10K & 500-5000kg only

** Stainless steel available

FSO - Full Scale Output

All specifications subject to change without notice.

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