

S-Beam Load Cell

FEATURES

- Rated capacities of 25 to 20,000 pounds
50 kilograms to 10 metric tons
- Designed for single or multiple load cell applications
- Constructed of high quality alloy tool steel
- Nickel plated for outstanding corrosion resistance
- *Sensorgage™* sealed to IP67 standards
- Trade certified for NTEP Class III: 5000d, IIIIL:
10000d and OIML R-60 3000d available
- Factory Mutual System Approved for Classes I, II, III;
Divisions 1 and 2; Groups A through G.
Also, non-incendive ratings (No barriers!).
- **Optional**
 - Stainless steel version is Model 60050

APPLICATIONS

- Tank, bin and hopper weighing
- Level and inventory monitoring
- Truck scale conversions
- Tension and compression measurements



DESCRIPTION

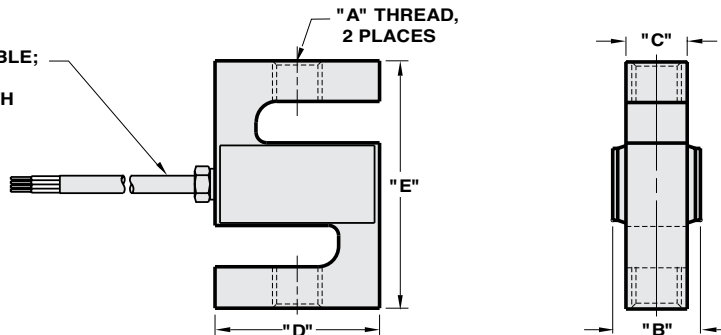
Model 60001 is a tension-compression load cell with a humidity-resistant coating and shielded cables, which enable use in harsh environments while maintaining operating specifications. Additional sense wires compensate for changes in lead resistance due to temperature change and/or cable extension.

Ideally suited for lever conversions, hanging scales, force measurement and a wide range of other industrial applications. Nickel-plated for outstanding corrosion resistance.

OUTLINE DIMENSIONS in inches [millimeters]

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 | A | B | C | D | E | DEFLECTION | WEIGHT |
|-------------|------------------|--------|--------|---------|---------|--------------|--------|
| 25-200 | 1/4-28 UNF-2B | 0.65 | 0.50 | 2.00 | 2.50 | 0.015-0.010 | 4.0 |
| 250-300 | 3/8-24 UNF-2B | 0.75 | 0.50 | 2.00 | 3.00 | 0.010 | 4.0 |
| 500-2k | 1/2-20 UNF-2B | 1.00 | 0.75 | 2.00 | 3.00 | 0.010-0.012 | 6.5 |
| 2.5k-4k | 1/2-20 UNF-2B | 1.25 | 1.00 | 2.00 | 3.00 | 0.012 | 6.5 |
| 5k | 3/4-16 UNF-2B | 1.25 | 1.00 | 3.00 | 4.25 | 0.017 | 6.5 |
| 10k | 3/4-16 UNF-2B | 1.25 | 1.00 | 3.50 | 4.75 | 0.025 | 6.5 |
| 15k | 1-14 UNF-2B | 1.50 | 1.25 | 4.00 | 5.50 | 0.025 | 9.0 |
| 20k | 1-1/4-12 UNF-2-B | 2.25 | 2.00 | 5.00 | 7.00 | 0.025 | 9.0 |
| [50-100 kg] | M8.0 x 1.25-6H | [16.5] | [12.7] | [50.8] | [63.5] | [0.03-0.004] | [0.8] |
| [250 kg-1T] | M12 x 1.75-6H | [25.4] | [19.1] | [50.8] | [76.0] | [0.004] | [1.8] |
| [2.5T] | M20 x 1.5-6H | [31.8] | [25.4] | [76.2] | [108.0] | [0.008] | [2.9] |
| [5T] | M20 x 1.5-6H | [31.8] | [25.4] | [88.9] | [120.7] | [0.011] | [2.9] |
| [10T] | M30 x 2.0-6H | [57.2] | [50.8] | [127.0] | [177.8] | [0.011] | [4.0] |

Capacities are in pounds [kg/T]. Deflection is $\pm 10\%$. Certified drawings are available.

S-Beam Load Cell

| SPECIFICATIONS | | | | | |
|---|--|--------------|----------------|----------|---------------------------|
| PARAMETER | VALUE | | | | UNIT |
| Rated capacity—R.C. (E _{max}) | 25, 50, 75, 100, 150, 200, 250, 300, 500, 750, 1k, 1.5k, 2k, 2.5k, 3k, 5k, 10k, 15k, 20k 50 kg, 100 kg, 250 kg, 500 kg, 1T, 2.5T, 5T, 10T* | | | | lbs kg/metric tons |
| NTEP/OIML accuracy class | NTEP III | NTEP IIIIL | Standard | OIML R60 | |
| Maximum no. of intervals (n) | 5000 single | 10000 single | | 3000* | |
| Y = E _{max} /V _{min} | NTEP Cert. No. 86-043A1 | | | 6667 | Maximum available |
| Rated output—R.O. lbs | 3.0 | | | | mV/V |
| Rated output tolerance lbs | 25–3k: +25 / -10 | | 5k–20k: ±0.25 | | % |
| Rated output—R.O. kg | 3.0 | | | | mV/V |
| Rated output tolerance kg | 50 kg–1T: +25 / -10 | | 2.5T–3T: ±0.25 | | % |
| 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) | 0.03 | 0.025 | 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) |
| Safe sideload | 30 | | | | % 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 | 343–450 | | | | Ω |
| Output impedance | 349–355 | | | | Ω |
| Insulation resistance at 50 VDC | >1000 | | | | MΩ |
| Material | Nickel-plated alloy tool steel** | | | | |
| Environmental protection | IP67 | | | | |

Notes

* OIML approval 100–5k lbs and 50–2500 kg only

NTEP approval from 25–20k lbs only

** Stainless steel available—Model Number 60050

FSO—Full Scale Output

All specifications subject to change without notice.

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