

S-Beam Load Cell

FEATURES

- Rated capacities of 25 to 20,000 pounds
50 kilograms to 10 metric tonnes
- 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

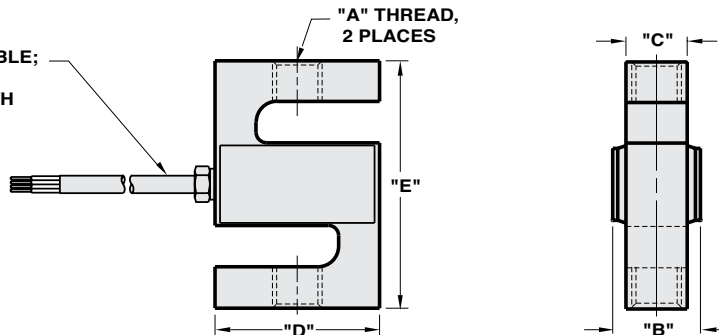
Model 60001 is a tension-compression load cell with a humidity-resistant coating and shielded cables, which enable use in harsh environments while maintaining operating specifications. Additional sense wires compensate for changes in lead resistance due to temperature change and/or cable extension.

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 UNS-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-1 t)	M12 x 1.75-6H	(25.4)	(19.1)	(50.8)	(76.0)	(0.004)	(1.8)
(2.5 t)	M20 x 1.5-6H	(31.8)	(25.4)	(76.2)	(108.0)	(0.008)	(2.9)
(5 t)	M20 x 1.5-6H	(31.8)	(25.4)	(88.9)	(120.7)	(0.011)	(2.9)
(10 t)	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 ±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, 1 t, 2.5 t, 5 t, 10 t*				lbs kg/metric tonne
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–1 t: +25 / -10		2.5 t–3 t: ±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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