

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
 - EDOC option available; product appearance will differ from the photograph due to coating

APPLICATIONS

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



DESCRIPTION

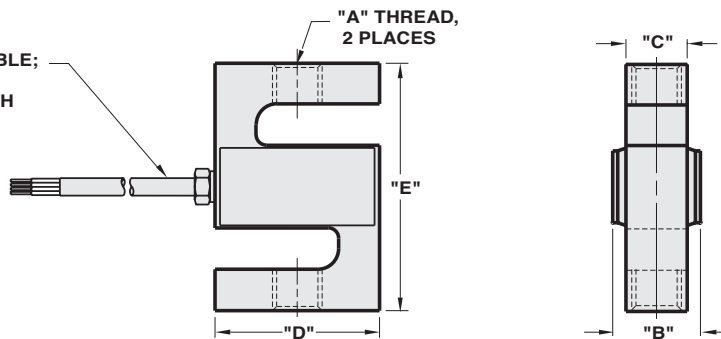
The Model 60001 is a tension-compression load cell with a humidity-resistant coating and shielded cables, which enable its use in harsh environments while maintaining operating specifications. Additional sense wires compensate for changes in lead resistance due to temperature change and/or cable extension.

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)	2686-EN (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 $\pm 10\%$. Certified drawings are available. Above dimensions apply to non-EDOC-coated load cells.

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.

CERTIFICATION MARKINGS

FM Approval markings (USA and Canada)
 IS Class I, II, III, Division 1,
 Groups A, B, C, D, E, F and G; T4
 Ta = -25°C to +40°C