

## 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, IIII: 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 FEATURE

- Stainless steel version is Model 60050

### 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.

### APPLICATIONS

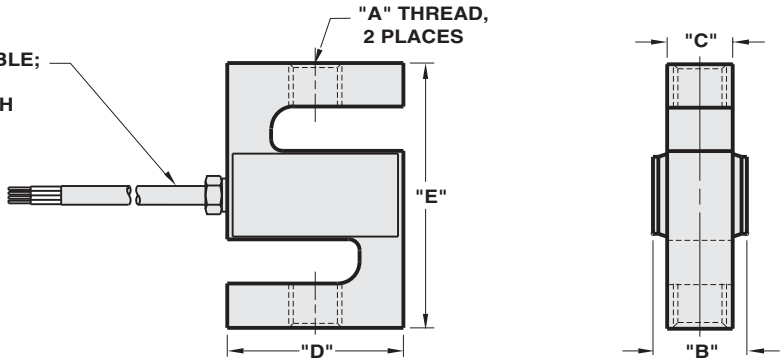
- Tank, bin and hopper weighing
- Level and inventory monitoring
- Truck scale conversions
- Tension and compression measurements

### 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	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-2-B	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 - 100kg]	M8.0 x 1.25-6H	[16.5]	[12.7]	[50.8]	[63.5]	[0.03 - 0.004]	[0.8]
[250kg - 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 ±10%. Certified drawings are available.



### 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				lbs
	50kg, 100kg, 250kg, 500kg, 1t, 2.5t, 5t, 10t*				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: $\pm 0.25$				%
Rated output-R.O. kg	3.0				mV/V
Rated output tolerance kg	50kg -1t: +25 / -10 2.5t - 3t: $\pm 0.25$				%
Zero balance	1.0				$\pm\%$ FSO
Combined error	0.02	0.02	0.03	0.02	$\pm\%$ FSO
Non-repeatability	0.01				$\pm\%$ FSO
Creep error (30 minutes)	0.03	0.025	0.03	0.017	$\pm\%$ FSO
Temperature effect on zero	0.0010	0.0010	0.0015	0.0010	$\pm\%$ FSO/ $^{\circ}$ F
Temperature effect on output	0.0008	0.0008	0.0008	0.0007	$\pm\%$ of load/ $^{\circ}$ F
Compensated temperature range	14 to 104 (-10 to 40)				$^{\circ}$ F ( $^{\circ}$ C)
Operating temperature range	0 to 150 (-18 to 65)				$^{\circ}$ F ( $^{\circ}$ C)
Storage temperature range	-60 to 185 (-50 to 85)				$^{\circ}$ F ( $^{\circ}$ 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				$\Omega$
Output impedance	349 - 355				$\Omega$
Insulation resistance at 50VDC	>1000				M $\Omega$
Material	Nickel plated alloy tool steel**				
Environmental protection	IP67				

Note: \* OIML approval 100-5Klbs & 50-2500kg only  
 NTEP approval from 25-20Klbs only  
 \*\* Stainless steel available - model number 60050  
 FSO - Full Scale Output

All specifications subject to change without notice.

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