

## S-Type Load Cell

### FEATURES

- Capacities:  
Aluminum construction— 1, 2, 5, 10, 20 kg;  
Alloy Steel construction— 25 to 5000 kg, 250 to 40k lbs
- Bi-direction (tension/compression)
- Rationalized output
- NTEP Class III 5000S, IIL10000 approval from 250 lbs to 20k lbs
- **Optional**
  - Stainless steel available
  - FM approval available



### APPLICATIONS

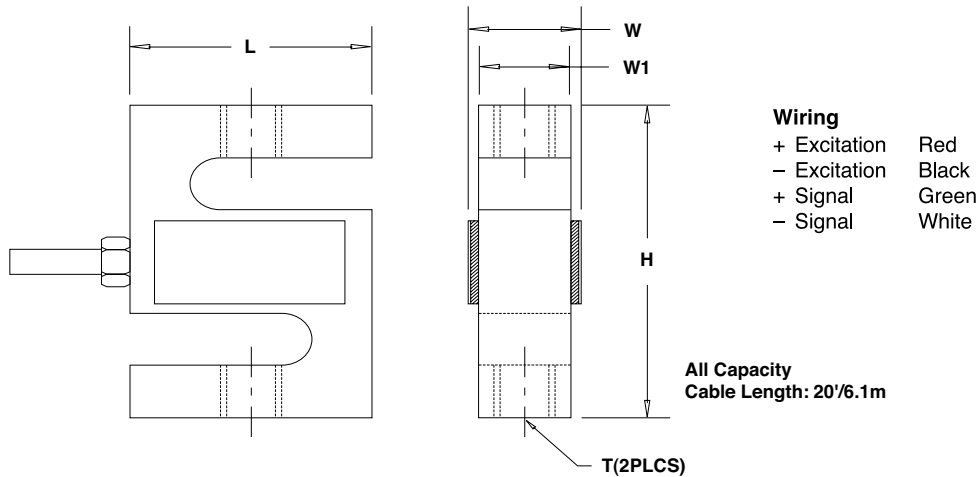
- Electro-mechanical conversion scales
- Silo/hopper/tank weighing
- Crane scales
- Fork-lift scales
- Dosing/filling
- Universal material tester
- Tensile/pulling force measurement

### DESCRIPTION

The S-type load cell, as the name indicates, can be easily identified by S-shaped body. They can be loaded either in tension or compression, and used for single or multiple-cell application if the output is rationalized.

STC is made of Aluminum, Alloy Steel or Stainless Steel, sealed to IP67 providing excellent protection against moisture and humidity.

### OUTLINE DIMENSIONS—ALUMINUM in inches [millimeters]



CAPACITY		L	W	W <sub>1</sub>	H	T
1 / 2 / 5 / 10 / 20 kg	mm	50.8	16.6	16.6	63.5	M6 x 1.0
	(inch)	0.65	1.05	0.65	2.50	

Outline dimension for Alloy Steel supplied on next page

**S-Type Load Cell**

<b>OUTLINE DIMENSIONS—ALLOY STEEL in inches [millimeters]</b>						
CAPACITY		L	W	W <sub>1</sub>	H	T
25 / 50 / 75 kg	mm	50.8	26.7	12.7	63.5	M6 x 1.0
	(inch)	2.00	1.05	0.50	2.50	
100 / 150 kg	mm	50.8	22.92	19.1	76.2	M10 x 1.5
	(inch)	2.00	0.9	0.75	3.00	
250 / 300 lbs	mm	50.8	26.7	12.7	76.2	3/8-24UNF
	(inch)	2.00	1.05	0.50	3.00	
250 kg 500 / 750 lbs	mm	50.8	30.4	19.1	76.2	M12 x 1.75
	(inch)	2.00	1.2	0.75	3.00	
500 / 750 kg	mm	50.8	25.4	19.1	76.2	M12 x 1.75
	(inch)	2.00	1.00	0.75	3.00	
1k / 1.5k lbs	mm	50.8	26.1	19.1	76.2	1/2-20UNF
	(inch)	2.00	1.03	0.75	3.00	
1000 / 1500 kg 2k / 2.5k / 3k lbs	mm	50.8	31.8	25.4	76.2	M12 x 1.75
	(inch)	2.00	1.25	1.00	3.00	
5k / 7.5k lbs	mm	76.2	31.8	25.4	107.9	3/4-16UNF
	(inch)	3.00	1.25	1.00	4.25	
2000 / 2500 / 5000 kg	mm	76.2	38.1	31.8	100.4	M20 x 1.5
	(inch)	3.00	1.50	1.25	3.95	
10k lbs	mm	88.9	31.8	25.4	120.7	3/4-16UNF
	(inch)	3.50	1.25	1.00	4.75	
15k lbs	mm	101.6	38.1	31.8	139.7	1-14UNS
	(inch)	4	1.50	1.25	5.50	
20k lbs	mm	127	55.7	50.8	177.8	1 1/4-12UNF
	(inch)	5	2.19	2	7.00	
40k lbs	mm	152.4	69.9	63.5	254.0	1 1/2-12UNF
	(inch)	6.00	2.75	2.50	10.00	

S-Type Load Cell

SPECIFICATIONS			
PARAMETER	VALUE		UNIT
NTEP/OIML accuracy class	NTEP III & IIIL	Non-Approved	
Maximum no. of intervals (n)	III 5000 single* IIIL10000 single*	2000	
Y = E <sub>max</sub> /V <sub>min</sub>	10000	5000	Maximum available
Standard capacities (E <sub>max</sub> ) (Aluminum)	1, 2, 5, 10, 20		kg
Standard capacities (E <sub>max</sub> ) (Steel)	25, 50, 75, 100, 250, 500, 750, 1000, 1500, 2000, 2500, 5000		kg
	250, 300, 500, 750, 1k, 1.5k, 2k, 2.5k, 3k, 5k, 7.5k, 10k, 15k, 20k, 40k		lbs
Rated output—R.O. (Aluminum)	2.0		mV/V
Rated output—R.O. (Steel)	3.0		mV/V
Rated output tolerance	0.25		±% of rated output
Zero balance	1		±% of rated output
Non-linearity	0.020	0.020 (SS: 0.05)	±% of rated output
Hysteresis	0.020	0.020 (SS: 0.05)	±% of rated output
Non-repeatability	0.020		±% of rated output
Creep error (20 minutes)	0.030		±% of rated output
Zero return (20 minutes)	0.030		±% of rated output
Temperature effect on min. dead load output	0.0015	0.0026	±% of rated output/°C
Temperature effect on sensitivity	0.0010	0.0015	±% of applied load/°C
Compensated temperature range	-10 to +40		°C
Operating temperature range	-20 to +60		°C
Safe overload	150		% of R.C.
Ultimate overload	200 (Aluminum) / 300 (Steel)		% of R.C.
Excitation, recommended	10		VDC or VAC RMS
Excitation, maximum	15		VDC or VAC RMS
Input impedance	410±5 (Aluminum) / 385±5 (Steel)		Ω
Output impedance	350±3		Ω
Insulation resistance	>5000		MΩ
Construction	Aluminium or Nickel-plated alloy steel **		
Environmental protection	IP67		

\* Capacities 250–20k lbs

\*\* Stainless steel available

All specifications subject to change without notice.

FM Approval

Intrinsically Safe: Class I, II, III; Div. 1 Groups A-G

Non-Incendive: Class I; Div. 2 Groups A-D

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