

S-Type Load Cell

FEATURES

- Capacities:
Aluminum construction—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

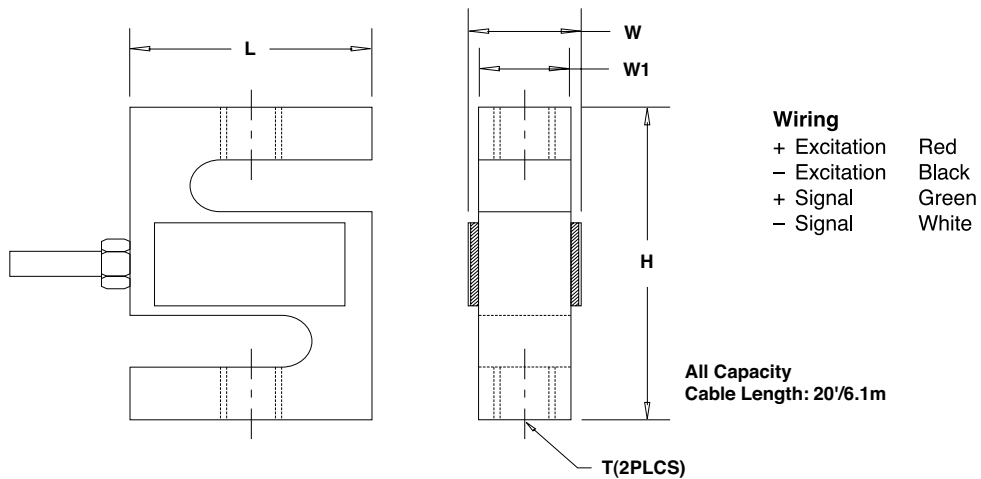
- Electro-mechanical conversion scales
- Silo/hopper/tank weighing
- Crane scales
- Fork-lift scales
- Dosing/filling
- Universal material tester
- Tensile/pulling force measurement

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]



Outline dimension for Alloy Steel supplied on next page

S-Type Load Cell

OUTLINE DIMENSIONS—ALLOY STEEL in inches [millimeters]						
CAPACITY		L	W	W ₁	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	
$Y = E_{max}/V_{min}$	10000	5000	Maximum available
Standard capacities (E_{max}) (Aluminum)	5, 10, 20		kg
Standard capacities (E_{max}) (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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