

## S-Type Load Cell



### FEATURES

- Alloy steel construction
- Stainless steel available
- Bi-direction(tension/compression)
- Rationalized output
- NTEP Class III 5000S III L10000 approval from 250 lb to 20K lb

### DESCRIPTION

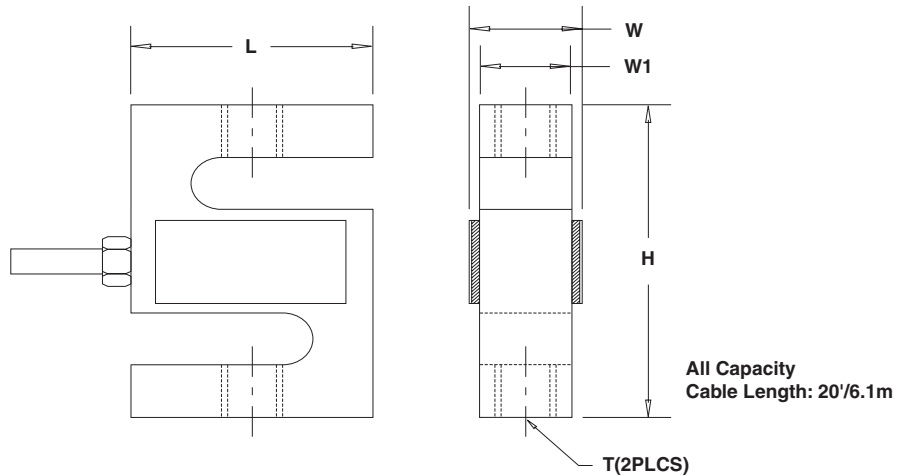
S Type load cell as the name indicated can be easily identified by S-shaped body. They can be loaded either in tension or compression, and used for single or multiple-cell application if the output is rationalized.

STC is made of alloy or stainless steel, sealed to IP67 providing excellent protection against moisture and humidity.

### APPLICATIONS

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

### OUTLINE DIMENSIONS



# Model STC

Vishay Celtron

S-Type Load Cell



| CAPACITY                                 |        | L     | W    | W1   | H     | T           |
|--|--------|-------|------|------|-------|-------------|
| 25/ 50/ 75kg                             | mm     | 50.8  | 19.1 | 12.7 | 63.5  | M6x1.0      |
|  | (inch) | 2.00  | 0.75 | 0.50 | 2.50  | 1/4-28UNF   |
| 100kg                                    | mm     | 50.8  | 25.4 | 19.1 | 76.2  | M10x1.5     |
|  | (inch) | 2.00  | 1.00 | 0.75 | 3.00  |             |
| 250/ 300 lb                              | mm     | 50.8  | 19.1 | 12.7 | 76.2  | 3/8-24UNF   |
|  | (inch) | 2.00  | 0.75 | 0.50 | 3.00  |             |
| 250/ 500/ 750kg<br>500/ 750/ 1K/ 1.5K lb | mm     | 50.8  | 25.4 | 19.1 | 76.2  | M12x1.75    |
|  | (inch) | 2.00  | 1.00 | 0.75 | 3.00  | 1/2-20UNF   |
| 1000/ 1500kg<br>2K/ 2.5K/ 3K lb          | mm     | 50.8  | 31.8 | 25.4 | 76.2  | M12x1.75    |
|  | (inch) | 2.00  | 1.25 | 1.00 | 3.00  | 1/2-20UNF   |
| 5K/ 7.5K lb                              | mm     | 76.2  | 31.8 | 25.4 | 107.9 | 3/4-16UNF   |
|  | (inch) | 3.00  | 1.25 | 1.00 | 4.25  |             |
| 2000/ 2500/ 5000kg                       | mm     | 76.2  | 38.1 | 31.8 | 100.4 | M20x1.5     |
|  | (inch) | 3.00  | 1.50 | 1.25 | 3.95  |             |
| 10K lb                                   | mm     | 88.9  | 31.8 | 25.4 | 120.7 | 3/4-16UNF   |
|  | (inch) | 3.50  | 1.25 | 1.00 | 4.75  |             |
| 15K lb                                   | mm     | 100.3 | 38.1 | 31.8 | 139.7 | 1-14UNS     |
|  | (inch) | 3.95  | 1.50 | 1.25 | 5.50  |             |
| 20K lb                                   | mm     | 125.5 | 55.7 | 49.3 | 177.8 | 1 1/4-12UNF |
|  | (inch) | 4.94  | 2.19 | 1.94 | 7.00  |             |
| 40K lb                                   | mm     | 152.4 | 69.9 | 63.5 | 254.0 | 1 1/2-12UNF |
|  | (inch) | 6.00  | 2.75 | 2.50 | 10.00 |             |

**SPECIFICATIONS**

|                               | Standard   | NTEP Class IIIL 5000S, IIIL10000                                       |
|-------------------------------|--|--|
| Capacity                      | 25, 50, 75, 100, 250, 500, 750, 1000, 1500, 2000, 2500, 5000kg , 250, 300, 500, 750, 1K, 1.5K, 2K, 2.5K, 3K, 5K, 7.5K, 10K, 15K, 20K, 40K lb | 250, 300, 500, 750, 1K, 1.5K, 2K, 2.5K, 3K, 5K, 7.5K, 10K, 15K, 20K lb |
| Recommended Excitation        | 10 V AC/DC   |  |
| Maximum Excitation            | 15 V AC/DC   |  |
| Output at Rated Load          | 3 mV/V $\pm$ 0.25%   |  |
| Non linearity                 | 0.02% (SS: 0.05%)  | 0.02%  |
| Hysteresis Error              | 0.02% (SS: 0.05%)  | 0.02%  |
| Non Repeatability             | 0.01%  |  |
| Creep (20 minutes)            | 0.03%  |  |
| Zero Return (20 minutes)      | 0.03%  |  |
| Temp. Effect/10°C on Span     | 0.015%   | 0.010%   |
| Temp. Effect/10°C on Zero     | 0.026%   | 0.015%   |
| Compensated Temp. Range       | -10°C to 40°C  |  |
| Operating Temp. Range         | -20°C to 60°C  |  |
| Zero Balance                  | $\pm$ 1%   |  |
| Input Resistance              | 385 $\pm$ 5 $\Omega$   |  |
| Output Resistance             | 350 $\pm$ 3 $\Omega$   |  |
| Insulation Resistance (50VDC) | >5000M $\Omega$  |  |
| Deflection at Rated Load      | <1mm   |  |
| Safe Overload                 | 150%   |  |
| Ultimate Overload             | 300%   |  |
| Minimum Dead Load (%)         | 2  |  |
| Vmin (% %)                    | 3K to 20K lb III 1, IIIL 0.4<br>250 to 2.5K lb III 0.5, IIIL 0.4   |  |

All specifications listed subject to change without notice.

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