

**Main Features:**

- Material: Alloy steel (with imperial thread)
- Rated Capacity: 500lb-10klb
- OIML R60, NTEP HB44, CPA, CE and RoHS certified
- IP Rating: IP66 / IP68
- Suitable for process weighing of hopper scales, silo scales, tank scales, also force measurement.
- High precision by OIML R60 C5, high reliability

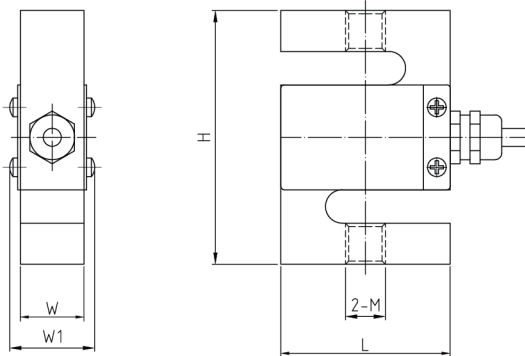


**Product description:**

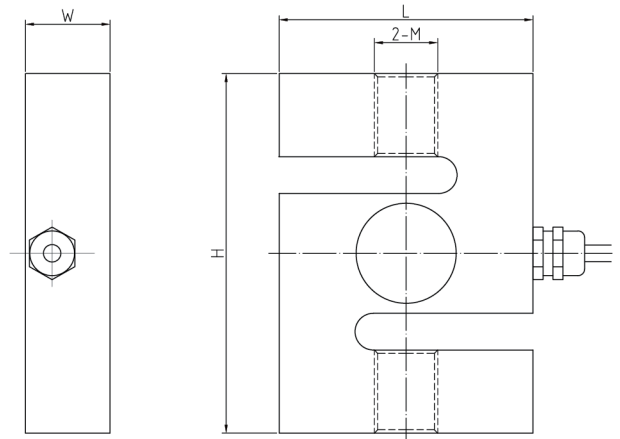
S510 is a square-shaped tension & compression load cell, completely hermetically sealed by laser to ensure it can work in harsh environment. Available in a wide range of capacities from 500lb to 10klb

**Dimensions (mm&inch):**

Capacity: 500lb-3,000lb



Capacity: 5,000lb-10,000lb



Rated Capacity	L	H	W	W1	M
lb/inches					
500-1,000	2.00	3.00	0.75	1.03	1/2-20 UNF-2B
2,000-3,000	2.00	3.00	1.00	1.28	1/2-20 UNF-2B
5,000	3.00	4.25	1.00	-	3/4-16 UNF-2B
10,000	3.50	4.75	1.00	-	3/4-16 UNF-2B

**Cable Colour Code**

Red	+Excitation
Black	-Excitation
Green	+Signal
White	-Signal
Yellow	Shield

Shield connected to load cell body

## S510 S-type Load Cell Specifications

Parameter		Units	Specifications		
Model No.			S510A		
Rated capacity (E <sub>max</sub> )		klb	0.5 / 1 / 2 / 3 / 5 / 10		
Accuracy class <sup>1)2)</sup>			C3	C5	
Min. dead load		lb	0		
Rated output		mV/V	3.0 ± 0.003		
Zero balance		% of E <sub>max</sub>	± 1		
Repeatability error		% of AL <sup>3)</sup>	< ± 0.010	< ± 0.006	
Creep; 30 minute		% of AL	< ± 0.017	< ± 0.010	
Min. dead load output return (DR); 30 min		% of AL	< ± 0.017	< ± 0.010	
Temp. effect on	Min. dead load output	% of E <sub>max</sub> /°C	< ± 0.0020	< ± 0.0014	
	Rated output <sup>2)</sup>	% of AL/°C	< ± 0.0012	< ± 0.0007	
Temperature range	Compensated	°C(°F)	-10 to +40 [+14 to +104]		
	Operating		-40 to +65 [-40 to +149]		
	Safe storage		-40 to +80 [-40 to +176]		
Excitation voltage	Recommended	V AC/DC	5 ~ 15		
	Maximum		15		
Terminal resistance	Excitation	Ω	384 ± 5		
	Output		350 ± 3		
Insulation resistance @50VDC		MΩ	> 5000		
Breakdown voltage		V AC	> 500		
Seal type / IP rating			Cap. ≤3000 lb: Silicon rubber / IP66		
			Cap. ≥5000 lb: Hermetically welded / IP68		
Load limit	Safe	% of E <sub>max</sub>	140		
	Ultimate		200		
Material	Spring element		Alloy steel nickel plated		
	Cable		Φ5.6; 4-wire; PVC		
Cable length		m	5.0		
Weight; approx		kg	0.5-3 klb	5 klb	10 klb
			0.8	1.6	2.2
Fatigue life		cycles @E <sub>max</sub>	> 1,000,000		
Deflection at E <sub>max</sub> ; approx		mm	< 1.0		
Barometric pressure effect on Zero Output		Vmin/kPa	< 1.0		

### Notes:

<sup>1)</sup> Error due to the combined effect of non-linearity and hysteresis

<sup>2)</sup> The sum of errors due to Temperature Effect on Output comply with the requirements of OIML R60 and NIST HB44

<sup>3)</sup> AL = Applied Load

### Interchangeable Products:

Manufacturer	Model
Vishay Sensortronics	60001, 60036
Vishay Celtron	STC
Vishay Tedeia-Huntleigh	620
HBM	RSC