

### Single Ended Beam Load Cell



#### FEATURES

- Capacities: 500 - 5000kg, 1K -10Klbs
- Low profile construction
- Certified to OIML R-60, 3000d and NTEP class III, 3000 divisions
- Sealing: IP67 (DIN 40.050)
- Nickel plated alloy steel construction
- Threaded load hole

#### OPTIONAL FEATURES

- FM certified for use in potentially explosion atmosphere

#### DESCRIPTION

The 5123 is a low profile single ended shear beam type load cell. The 5123 is nickel plated tool steel.

These products are suitable for small and medium platform scales, overhead track scales, hopper scales and process weighing applications.

Reliable sealing is ensured by the proprietary TRANSEAL potting compound and additional mechanical protection of the strain gage area.

Ease of installation is made possible through the use of a partially threaded hole to accept levelling feet, load buttons or loading cables.

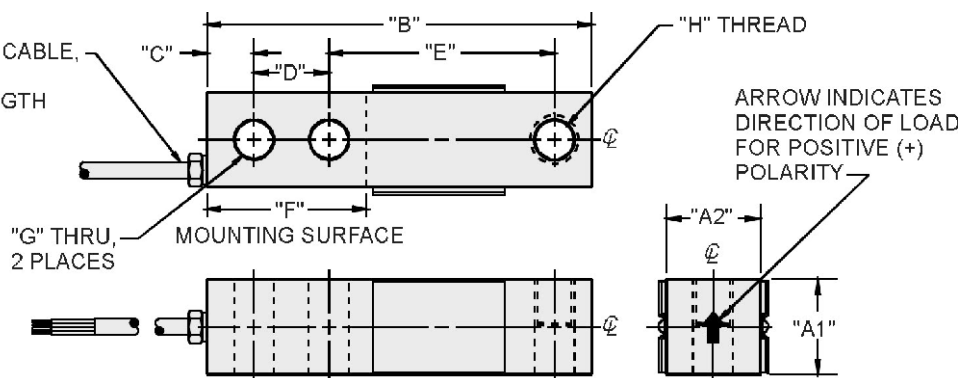
#### APPLICATIONS

- Floor scales
- Tank weighing
- Bin and hopper weighing

#### OUTLINE DIMENSIONS in inches [millimeters]

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	A1	A2	B	C	D	E	F	G	H	DEFLECTION	WEIGHT
1K - 4Klbs	1.25	1.25	5.12	0.62	1.00	3.00	2.25	0.53	1/2-20 UNF-2B, Ø0.53 x 0.62 DP C'BORE	0.017 - 0.025	4.0
5K - 10Klbs	1.50	1.50	6.75	0.75	1.50	3.75	3.00	0.78	3/4-16 UNF-2B, Ø0.78 x 0.75 DP C'BORE	0.025 - 0.035	6.5
[500kg - 2t]	[32.0]	[32.0]	[130.0]	[16.0]	[25.0]	[76.0]	[57.0]	[13.0]	M12 x 1.75-6H, Ø13 x 15 DP C'BORE	[0.432 - 0.635]	[1.8]
[3t - 5t]	[38.0]	[38.0]	[171.0]	[19.0]	[38.0]	[95.0]	[76.0]	[20.7]	M20 x 2.5-6H, Ø20.5 x 19 DP C'BORE	[0.635 - 0.889]	[2.9]

Capacities are in pounds [kg/t]. Deflection is  $\pm 10\%$ . Certified drawings are available.

SPECIFICATIONS				
PARAMETER	VALUE			UNIT
Standard capacities ( $E_{\max}$ )	500, 1000, 2000, 5000 <sup>(1)</sup>			kg
Standard capacities ( $E_{\max}$ )	1K, 2.5K, 4K, 5K, 10K <sup>(1)</sup>			lbs
Accuracy class according to OIML R-60 /NTEP	NTEP III	Non-Approved	C3	
Max. no. of verification intervals	3000		3000	
Min. verification interval ( $V_{\min}=E_{\max}/Y$ )			$E_{\max}/6000$	
Min. verification interval, type MR			$E_{\max}/10000$	
Rated output ( $\pm S$ )	3			mV/V
Rated output tolerance	0.0075			$\pm$ mV/V
Zero balance	1.0			$\pm$ % FSO
Combined error	0.0200	0.050	0.023	$\pm$ % FSO
Minimum dead load output return	0.0250	0.050	0.017	$\pm$ % FSO
Minimum dead load output return, type MI8			0.0063	$\pm$ % FSO
Non-repeatability	0.0100	0.01	0.01	$\pm$ % FSO
Creep error (30 minutes)		0.060	0.025	$\pm$ % FSO
Temp. effect on min. dead load output	(0.0008)	0.0250	0.0120	$\pm$ % FSO/5°C (°F)
Temp. effect on min. dead load output, type MR			0.0070	$\pm$ % FSO/5°C
Temperature effect on sensitivity	(0.0010)	0.0250	0.0088	$\pm$ % FSO/5°C (°F)
Minimum dead load	0			% $E_{\max}$
Maximum safe over load	150			% $E_{\max}$
Ultimate over load	300			% $E_{\max}$
Maximum safe side load	100			% $E_{\max}$
Deflection at $E_{\max}$	0.4/ 0.8/ 1.0/ 1.1 - kg 0.4/ 0.8/ 1.0/ 0.9/ 1.1 - lbs			mm
Excitation voltage	5 to 12			V
Maximum excitation voltage	15			V
Input resistance	350 $\pm$ 7			$\Omega$
Output resistance	352 $\pm$ 3			$\Omega$
Insulation resistance	$\geq$ 1000			M $\Omega$
Compensated temperature range	-10 to +40			°C
Operating temperature range	-18 to +65			°C
Storage temperature range	-50 to +85			°C
Element material	Nickel plated alloy steel			
Sealing (DIN 40.050 / EN60.529)	IP67			
Recommended torque on fixation bolts	0.5 - 2t & 1K - 4K: 136 5K & 5t and over: 205			N*m

**Notes**
<sup>(1)</sup> 5t and 10K are not approved by OIML

FSO - Full Scale Output

Correct mounting of the load cell is essential to ensure optimum performance. Further information is available on request.

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