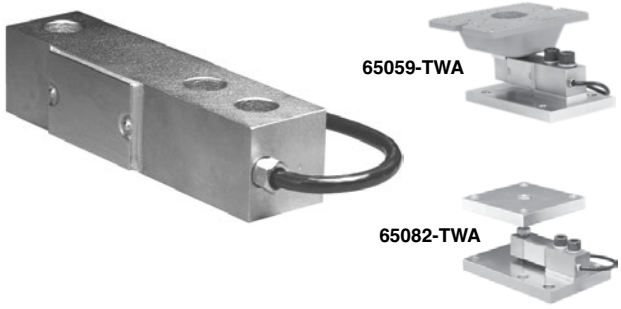
Shear Beam Load Cell

FEATURES

- Rated capacities of 250 to 20,000 pounds, 125 to 10,000 kg
- "Thru" or "threaded" load hole configurations
- Low sensitivity to axial loads
- Low profile (ultra low available in 1000 to 2500 pound ranges)
- Sensorgage™ sealed to IP67 standards
- Factory Mutual System Approved for Classes I, II, III; Divisions 1 and 2; Groups A through G. Also, non-incendive ratings (No barriers!).
- Trade certified for NTEP Class III: 5000d, IIIL: 10000d and OIML R-60 3000d available
- **Optional**
  - ❍ Ex ia IIC T4, Ex ia IIIC T135°C hazardous area approval
  - ❍ Stainless steel versions available
  - ❍ 65059 TWA companion weighing assemblies available



APPLICATIONS

- Floor scales
- Tank weighing
- Bin and hopper weighing

DESCRIPTION

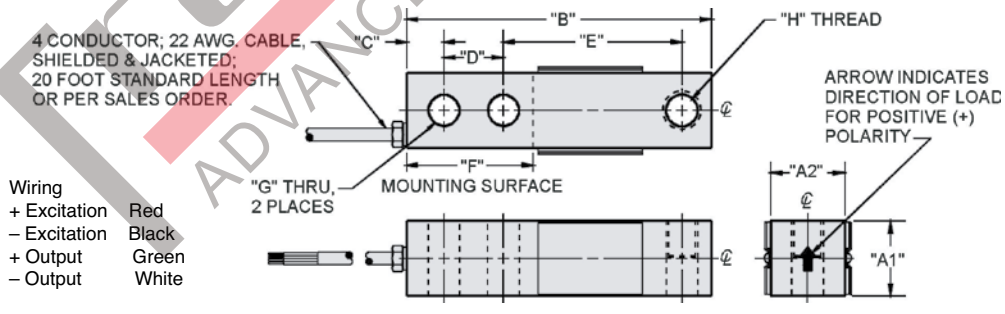
Model 65023 is a low profile shear beam load cell designed for high accuracy platform scales, pallet scales and process weighing applications.

It has high immunity to shock or side loading and is available in 2 or 3 mV/V sensitivity. Approved to OIML, NTEP standards. For hazardous environments this load cell is available with EEx ia IIC T6 level of European approval.

Nickel plating and full environmental sealing assures long-term reliability. A stainless steel option is available for the lb versions for use in harsh or corrosive environments.

The two additional sense wires feed back the voltage reaching the load cell. Complete compensation of changes in lead resistance due to temperature change and/or cable extension is achieved by feeding this voltage into the appropriate electronics.

OUTLINE DIMENSIONS in inches [millimeters]



CAPACITY	A1	A2	B	C	D	E	F	G	H	DEFLECTION	WEIGHT
250–500 lbs	1.00	1.25	5.12	0.62	1.00	3.00	2.25	0.53	1/2-20 UNF-2B, Ø0.53 x 0.50 DP C'BORE	0.013	1.7
1–4k	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–10k	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
15k–20k	2.00	2.00	8.88	1.00	2.00	4.88	4.00	1.03	1"-14 UNF-2B, Ø1.03 x 1.00 DP C'BORE	0.048–0.063	9.0
[125–250 kg]	[25.0]	[31.0]	[130.0]	[16.0]	[25.0]	[76.0]	[57.0]	[13.0]	M12 x 1.75-6H, Ø13 x 15 DP C'BORE	[0.33]	[0.8]
[500 kg–2 t]	[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]
[3 t–5 t]	[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]
[10 t]	[51.0]	[51.0]	[226.0]	[25.0]	[51.0]	[124.0]	[102.0]	[25.0]	M24 x 2-6H, Ø25.4 x 25 DP C'BORE	[1.219–1.600]	[4.1]

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

Shear Beam Load Cell

SPECIFICATIONS					
PARAMETER	**VALUE**				**UNIT**
Rated capacity—R.C. (E_{max})	250, 500, 1k, 1.5k, 2k, 2.5k, 4k, 5k, 10k, 15k, 20k				lbs
	125, 250, 500, 750, 1000, 2000, 5000, 10,000 [1]				kg
NTEP/OIML accuracy class	NTEP III	NTEP IIIL	Standard	OIML R60	
Maximum no. of intervals (n)	3000 single	10000 multiple		3000 [1]	
Y = E_{max}/V_{min}	NTEP Cert. No. 86-044A2			6250	Maximum available
Rated output—R.O.	3.0				mV/V
Rated output tolerance	0.25				±% mV/V
Zero balance	1.0				±% FSO
Combined error	0.02	0.02	0.03	0.02	±% FSO
Non-repeatability	0.01				±% FSO
Creep error (30 minutes)	0.025	0.03	0.03	0.017	±% FSO
Temperature effect on zero	0.0010	0.0010	0.0015	0.0010	±% FSO/°F
Temperature effect on output	0.0008	0.0008	0.0008	0.0007	±% of load/°F
Compensated temperature range	14 to 104 (–10 to 40)				°F (°C)
Operating temperature range	0 to 150 (–18 to 65)				°F (°C)
Storage temperature range	–60 to 185 (–50 to 85)				°F (°C)
Sideload rejection ratio	500:1				
Safe sideload	100				% of R.C.
Maximum safe central overload	150				% of R.C.
Ultimate central overload	300				% of R.C.
Excitation, recommended	10				VDC or VAC RMS
Excitation, maximum	15				VDC or VAC RMS
Input impedance	343–357				Ω
Output impedance	349–355				Ω
Insulation resistance at 50 VDC	>1000				MΩ
Material	Nickel-plated alloy tool steel [2]				
Environmental protection	IP67				
Recommended torque	All capacities up to 5000 kg–136.0 5000 kg–205.0				N*m

Notes

[1] OIML approval 1k–10k lbs and 500–5000 kg only

[2] Stainless steel available

FSO—Full Scale Output

All specifications subject to change without notice.

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