

## Double-Ended Beam Load Cell

### FEATURES

- Capacities: 5k to 250k lbs
- Low profile construction
- Nickel-plated alloy steel construction
- Certified to OIML R60 3000d, NTEP CoC—10000d
- Sealing: IP67 (DIN 40.050)
- **Optional**
  - FM approved for use in hazardous locations
  - ATEX versions are available for use in potentially explosive atmospheres

### APPLICATIONS

- Platform scales
- On-board weighing
- Weighbridges
- Silo hopper weighing

### DESCRIPTION

5103 transducers are double-ended, center-loaded shear beam load cells. The 5103 is constructed of nickel-plated alloy steel.

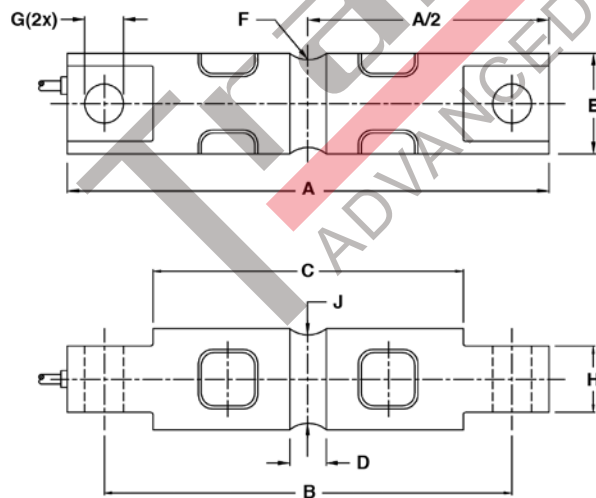


These products are suitable for tank weighing systems, low cost weighbridges, and axle weighers.

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

A specially designed mounting arrangement is available, providing the ideal solution for vessel / tank weighing.

### OUTLINE DIMENSIONS in millimeters



Capacity (lbs)	5k, 10k	20k	30k-60k	100k	150k	200k, 250k
A	206.2	206.2	260.4	285.8	285.8	406.9
B	174.6	174.6	215.9	241.3	241.3	330.2
C	133.1	133.1	165.1	190.5	190.5	254.0
D	15.7	21.3	25.4	31.8	31.8	33.0
E	43.2	49.5	76.2	88.9	99.1	136.5
F	12.7	12.7	25.4	38.1	38.1	50.8
G	16.7	16.7	26.9	26.9	26.9	39.6
H	28.4	28.4	60.2	63.5	71.1	116.8
J	37.6	37.6	69.3	82.3	92.5	131.4

#### Cable specifications

Cable length 10 m (6 m for 5k-20k)

Excitation +	Red
Excitation -	Black
Output +	Green
Output -	White
Shield	Transparent

## Double-Ended Beam Load Cell

SPECIFICATIONS			
PARAMETER	UNIT		
Standard capacities ( $E_{max}$ )	2.3*, 4.5*, 9.1, 13.6, 18.2, 22.7, 27.2, 45.4, 68*, 91*, 113*		
Standard capacities ( $E_{max}$ )	5k*, 10k*, 20k, 30k, 40k, 50k, 60k, 100k, 150k*, 200k*, 250k*		
Accuracy class according to OIML / NTEP	NTEP	Non-Approved	C3
Max. number of verification intervals ( $n_{ic}$ )	IIIL 10000	D3	3000
Minimum verification interval ( $v_{min}$ )			$E_{max}/10,000$
Rated output (= S)	3.0		
Rated output tolerance	0.003		
Zero balance	1.0		
Combined error	0.0200	0.0300	0.0200
Non-repeatability	0.0100	0.0100	0.0100
Minimum dead load output return	0.0250	0.0300	0.0167
Creep error (30 minutes)		0.0300	0.0245
Creep error (20 minutes)	0.030	0.0450	0.0053
Temp. effect on min. dead load output	(0.001)	0.0140	0.0070
Temperature effect on sensitivity	(0.0008)	0.0070	0.0050
Minimum dead load	0		
Maximum safe overload	150		
Ultimate overload	300		
Maximum safe side load	100		
Deflection at $E_{max}$	0.5/0.6/1.1/0.5/0.5/0.5/0.6/0.5/0.5/0.9/0.9		
Excitation voltage	5 to 12		
Maximum excitation voltage	15		
Input resistance	700 $\pm$ 7		
Output resistance	700 $\pm$ 7		
Insulation resistance	$\geq$ 5000		
Compensated temperature range	-10 to +40		
Operating temperature range	-40 to +80		
Storage temperature range	-40 to +90		
Element material (DIN)	Nickel-plated alloy steel		
Sealing (DIN 40.050 / EN 60.529)	IP67		
Recommended torque on fixation bolts	12 to 14		

\* Only 20k–100k lbs (9.1–45.4 t) capacities are OIML approved.

FSO—Full Scale Output

All specifications subject to change without notice.

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