

## Double-Ended Beam Load Cell

### FEATURES

- Capacities: 5k to 150k lbs
- Low profile construction
- Stainless steel construction
- Certified to NTEP class III, 10000 divisions
- Sealing: IP67 (DIN 40.050)
- **Optional**
  - FM and ATEX certified versions are available for use in potentially explosive atmospheres

### APPLICATIONS

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

### DESCRIPTION

The 9103 is a double-ended, center-loaded shear beam type load cell constructed of stainless steel.

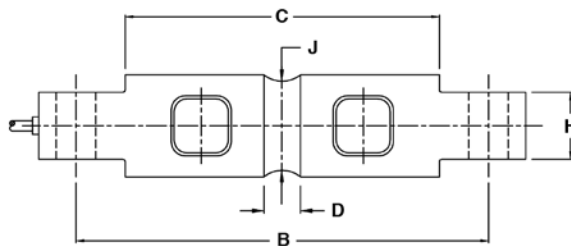
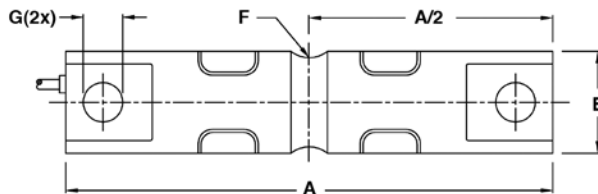


This product is suitable for tank weighing systems, low cost weighbridges and axle weighers.

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



#### Cable specifications

Cable length: 10m (6m for 5–20k)

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

Cable screen is not connected to the load cell body.

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

### Double-Ended Beam Load Cell

SPECIFICATIONS			
PARAMETER	VALUE		UNIT
Standard capacities (E <sub>max</sub> )	5k*, 10k, 20k, 30k, 40k, 50k, 60k, 100k, 150k*		lbs
Metric equivalents	2.3*, 4.5, 9.1, 13.6, 18.2, 22.7, 27.2, 45.4, 68*		ton
Accuracy class according to NTEP	NTEP III L	Non-Approved	
Maximum no. of verification intervals (n <sub>v</sub> )	10000		
Rated output (=S)	3.0		mV/V
Rated output tolerance	0.03		±mV/V
Zero balance	2.0		±% FSO
Combined error	0.0200	0.1000	±% FSO
Non-repeatability	0.0100	0.0200	±% FSO
Minimum dead load output return	0.0300	0.0500	±% applied load
Creep error (30 minutes)		0.0600	±% applied load
Creep error (20–30 minutes)	0.0300	0.0200	±% applied load
Temperature effect on minimum dead load output	(0.0008)	(0.0140)	±% FSO/°F (/5°C)
Temperature effect on sensitivity	0.0010	(0.0070)	±% applied load/°F (/5°C)
Minimum dead load	0		% E <sub>max</sub>
Maximum safe overload	150		% E <sub>max</sub>
Ultimate overload	300		% E <sub>max</sub>
Maximum safe side load	100		% E <sub>max</sub>
Deflection at E <sub>max</sub>	0.5/0.6/1.1/0.5/0.5/0.5/0.6/0.5/0.5/0.9/0.9		mm
Excitation voltage	5 to 12		V
Maximum excitation voltage	15		V
Input resistance	880±80		Ω
Output resistance	700±7		Ω
Insulation resistance	≥5000		MΩ
Compensated temperature range	-10 to +40		°C
Operating temperature range	-40 to +80		°C
Storage temperature range	-40 to +90		°C
Element material (DIN)	Stainless steel		
Sealing (DIN 40.050 / EN60.529)	IP67		
Recommended torque on fixation bolts	12 to 14		N*m

\* Capacities 5k and 150k lbs are not approved by NTEP

FSO—Full Scale Output

All specifications subject to change without notice.

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