

Double-Ended Beam Load Cell

FEATURES

- Capacities: 5k to 150k lbs
- Low profile construction
- Stainless steel construction
- Certified to NTEP class IIIL, 10000 divisions
- Sealing: IP67 (DIN 40.050)
- **Optional**
 - FM and ATEX certified versions are available for use in potentially explosive atmospheres
 - EDOC option available; product appearance will differ from the photograph due to coating



APPLICATIONS

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

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

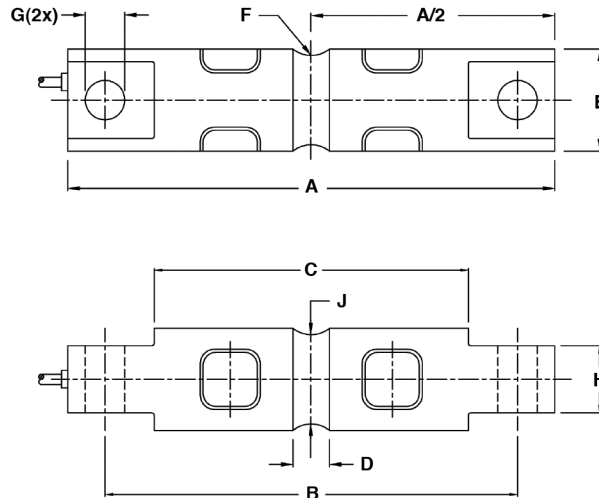
A reliable sealing is ensured by the proprietary TRANSEAL potting compound and additional mechanical protection of the strain gage area.

DESCRIPTION

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

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

OUTLINE DIMENSIONS in millimeters



Cable specifications

Cable length: 10 m (6 m 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

Above dimensions apply to non-EDOC-coated load cells.

Double-Ended Beam Load Cell

SPECIFICATIONS		
PARAMETER	VALUE	UNIT
Standard capacities (E_{max})	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*	t
Accuracy class according to NTEP	NTEP III L	Non-Approved
Maximum no. of verification intervals (n_{ic})	10000	
Rated output (=S)	3.0	mV/V
Rated output tolerance	0.003	±mV/V
Zero balance	2.0	±% FSO
Combined error	0.0200	0.1000
Non-repeatability	0.0100	0.0200
Minimum dead load output return	0.015	0.0500
Creep error (30 minutes)		0.0600
Creep error (20–30 minutes)		0.0200
Temperature effect on minimum dead load output	(0.0008)	(0.0140)
Temperature effect on sensitivity	0.0010	(0.0070)
Minimum dead load	0	% E_{max}
Maximum safe overload	150	% E_{max}
Ultimate overload	300	% E_{max}
Maximum safe side load	100	% E_{max}
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	mm
Excitation voltage	5 to 12	V
Maximum excitation voltage	15	V
Input resistance	700±7	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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