

9103

DOUBLE ENDED SHEAR BEAM LOAD CELL



FEATURES

- Capacities: 5K to 250Klb
- Low profile construction
- Stainless steel construction
- Certified to NTEP class IIIIL, 10,000 divisions
- Sealing: IP67 (DIN 40.050)

OPTIONAL FEATURE

- FM and ATEX certified versions are available for use in potentially explosive atmospheres

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.

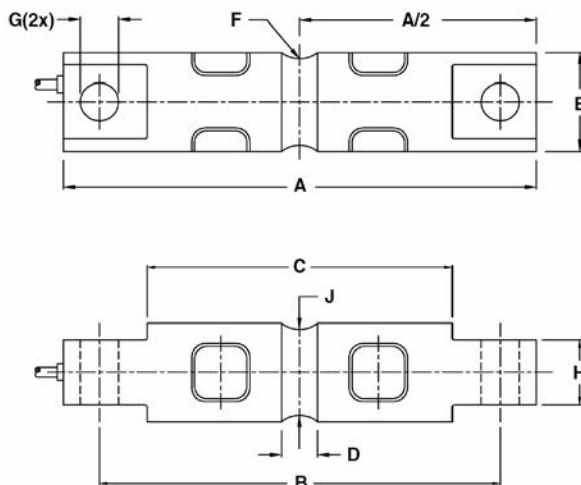
A reliable sealing is ensured by the proprietary TRANSEAL potting compound and additional mechanical protection of the strain gage area.

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

APPLICATIONS

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

OUTLINE DIMENSIONS in mm



Cable specifications:

Cable length: 10 meters (6 meters 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	200K, 250K
A	206.2	206.2	260.4	285.8	285.8	408.9
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



SPECIFICATIONS

PARAMETER	VALUE		UNIT
Standard capacities (E_{max})	5*, 10, 20, 30, 40, 50, 60, 100, 150*, 200*, 250*		Klbs
Metric equivalents	2.3*, 4.5, 9.1, 13.6, 18.2, 22.7, 27.2, 45.4, 68*, 91*, 113*		ton
Accuracy class according to NTEP	NTEP III L	Non-Approved	
Maximum no. of verification intervals (n_{ic})	10000		
Rated output ($\approx S$)	3.0		mV/V
Rated output tolerance	0.03		\pm mV/V
Zero balance	2.0		\pm % FSO
Combined error	0.0200	0.1000	\pm % FSO
Non-repeatability	0.0100	0.0200	\pm % FSO
Minimum dead load output return	0.0300	0.0500	\pm % applied load
Creep error (30 minutes)		0.0600	\pm % applied load
Creep error (20 - 30 minutes)	0.0300	0.0200	\pm % applied load
Temperature effect on minimum dead load output	0.0008)	(0.0140)	\pm % FSO/ $^{\circ}$ F (/5 $^{\circ}$ C)
Temperature effect on sensitivity	0.0010	(0.0070)	\pm % applied load/ $^{\circ}$ F (/5 $^{\circ}$ C)
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}	0.5/ 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 \pm 80		Ω
Output resistance	700 \pm 7		Ω
Insulation resistance	\geq 5000		M Ω
Compensated temperature range	-10 to +40		$^{\circ}$ C
Operating temperature range	-40 to +80		$^{\circ}$ C
Storage temperature range	-40 to +90		$^{\circ}$ C
Element material (DIN)	Stainless steel		
Sealing (DIN 40.050 / EN60.529)	IP67		
Recommended torque on fixation bolts	12 to 14		N*m

* Capacities 5, 150, 200 and 250 Klbs are not approved by NTEP

FSO-Full Scale Output