5103/9103 DOUBLE ENDED BEAM LOAD CELL

DESCRIPTION:

The 5103/9103 are double-ended, centre loaded shearbeam type load cells. The 5103 is nickel plated alloy steel while the 9103 is stainless steel.

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

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

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

FEATURES:

- # Nickel plated (5103) and stainless steel (9103) versions
- # Sealing: IP67 (DIN 40.050)
- # Low profile construction
- # Optional mounting hardware
- # **CAPACITIES: 5 ® 250Klbs**

Revere Transducers Europe

5103/9103: SPECIFICATIONS

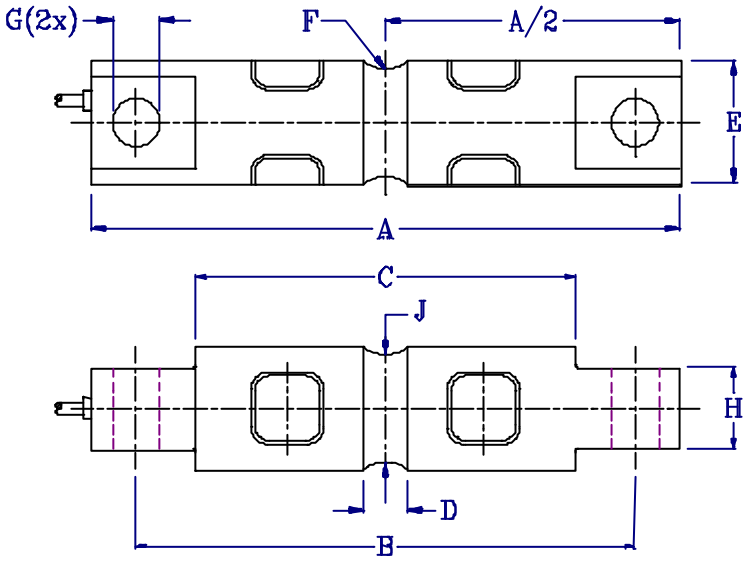
Standard Capacities (= E_{max})	Klbs	5[2], 10[2], 20, 30, 40, 50, 60, 100, 150[2], 200[2,3], 250[2,3]			
Metric equivalents	t	2.3[2], 4.5[2], 9.1, 13.6, 18.2, 22.7, 27.2, 45.4, 68[2], 91[2], 113[2]			
Accuracy Class According to OIML R-60				C2	C3
Max. Number of Verification Intervals (n_{lc})				2000	3000
Minimum Verification Interval (v_{min})				E_{max}/10000	E_{max}/10000
Minimum Utilisation	%			20	30
Accuracy According to Type Designation		D1	D3	C2	C3
Combined Error	%S	#" 0.1000	#" 0.0300	#" 0.0230	#" 0.0200
Non-Repeatability	%S	#" 0.0200	#" 0.0100	#" 0.0100	#" 0.0100
Minimum Dead Load Output Return[1]	%S	#" 0.0500	#" 0.0300	#" 0.0250	#" 0.0167
Creep Error (30 Minutes)[1]	%S	#" 0.0600	#" 0.0300	#" 0.0245	#" 0.0245
Creep Error (20-30 Minutes)[1]	%S	#" 0.0200	#" 0.0045	#" 0.0053	#" 0.0053
Temp. Effect on Min. Dead Load Output	%S/5EC	#" 0.0450	#" 0.0140	#" 0.0070	#" 0.0070
Temp. Effect on Sensitivity	%S/5EC	#" 0.0180	#" 0.0070	#" 0.0060	#" 0.0050
Minimum Dead Load	%E_{max}	0			
Maximum Safe Overload	%E_{max}	150			
Ultimate Overload	%E_{max}	300			
Maximum Safe Sideload	%E_{max}	100			
Deflection at E_{max}	mm	0.5/ 0.6/ 1.1/ 0.5/ 0.5/ 0.5/ 0.6/ 0.5/ 0.5/ 0.9/ 0.9			
Excitation Voltage	V	5...12			
Maximum Excitation Voltage	V	15			
Rated Output (= S)	mV/V	3			
Tolerance on Rated Output	mV/V	0.03	0.003		
Zero Balance	%S	#" 2.0	#" 1.0		
Input Resistance	Ω	880 " 80	700 " 7		
Output Resistance	Ω	700 " 7			
Insulation Resistance	MΩ	$ 5000			
Compensated Temperature Range	EC	-10... + 40			
Operating Temperature Range	EC	-40... + 80			
Storage Temperature Range	EC	-40... + 90			
Element Material		Stainless st.	NP alloy steel		
Sealing (DIN 40.050 / EN 60.529)		IP67			
Recommended Torque on Fixation Bolts	Nm	12...14			

1 Applies for the temperature range -10 to + 40 EC
2 Accuracy class D3 only
3 5103 only

The correct mounting of the load cells is essential to ensure optimum performance.
The available 5103/9103 mount incorporates a unique sliding pin design which allows thermal expansion, contraction and controlled scale deck movement, whilst eliminating the need for check rods in most applications.
Cable length 10m (6m for 5K, 10K and 20K). cable screen is not connected to load cell body.
Performance may be affected if load cell cables are shortened. Further information is available on request.

Wiring:

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



E_{max}	5K,10K	20K	30K-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_{rad}	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

Dimensions: mm. All dimension tolerances according to DIN 7168; middle accuracy unless otherwise specified.
All specifications subject to change without notice.

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