SENTRAN

WB

DUAL SHEAR BEAM LOAD CELL

applications

- Compression Measurements
- Truck Scales
- Railroad Track Scales
- Legal-For-Trade Certified Systems
- OEM and VAR Solutions

features

- 20,000 to 400,000 lbs. Capacities
- Dual Shear Beam Technology
- 0.03% Accuracy Class
- Alloy Tool Steel Element
- End-Mounted/Center-Link Loaded
- High Eccentric Load Tolerance
- IP67 Environmental Sealing
- Lightning Protection Option
- Matched Output Sensitivities
- Two Year Warranty

NIST H-44 NTEP CERTIFIED "LEGAL-FOR-TRADE"

- CLASS IIIL: 10,000D/Multiple
- 20,000 Through 125,000 lbs. Capacities

The WB Series is a high performance, bonded foil strain gage load cell constructed of alloy tool steel (WB1). The WB1 is designed to accurately measure compression loads in capacities ranging from 20,000 lbs. to 400,000 lbs. The robust, rectangular shear beam design readily tolerates angular, eccentric and side loading effects, with minimal sensitivity to these anomalies. To achieve a sealing rating of IP67 (thoroughly sealed against airborne particles and the effects of immersion up to 1 meter.) proprietary, multi-redundant environmental barriers are incorporated to protect the strain gage area. The cable is a durable polyurethane-jacketed cable, with a tin-copper braided shield for mechanical protection and to minimize the effects of RFI and EMI. The WB1 output signals are calibrated to a close tolerance to facilitate their use with summing/junction devices for multiple load cell applications. Non-standard versions of the WB Series load cells produce exceptional results in High Capacity applications such steel mill ladle scales, coil weighing systems, crane scales, aircraft weighing platforms and similarly demanding situations. The attributes of the WB Series make it ideal for truck scale and railroad track scale weighing, as well as for O.E.M. requirements where a versatile, rugged and high performance NTEP Certified load cell solution is needed.

SENTRAN, LLC
California Commerce Center
4355 Lowell Street
Ontario, CA 91761-2225

Toll Free: 1(888) 545-8988
Phone: 1(909) 605-1544
Fax: 1(909) 605-6305
Email: mail@sentranllc.com
URL: www.sentranllc.com

Innovative Measurement Solutions

SENTRAN

specifications

WB

performance

The WB Series load cells feature robust Dual Shear Beam Technology!

Rated capacities [1] (lbs.):	20K, 25K, 40K, 50K, 60K, 75K, 100K & 125K
Rated output (FSO)	3 mV/V ± 0.25%
Combined error	≤ 0.03 % FSO
Non-linearity	≤ 0.03 % FSO
Hysteresis	≤ 0.02 % FSO
Non-repeatability	≤ 0.01 % FSO
Side Load Rejection Ratio	≤ 500:1
Creep (20 minutes)	≤ 0.03 % of load
Zero balance	≤ 1 % FSO
Zero return (20 minutes)	Better than 0.03 % FSO

[1] ("K" = thousand)

mechanical

Load Cell Material	Alloy tool steel (WB1)
Load Cell Finish	Electroless nickel plated (WB1)
Safe overload:	Compression/Tension: 150% FSO Side load: 100% FSO
Ultimate overload:	Compression/Tension: 300% FSO Side load: 150% FSO
Deflection	< 0.020" (0.5mm)
Weight	See table below

electrical

Input impedance	770 ± 10 ohms
Output impedance	700 ± 5 ohms
Insulation resistance	>5000 Megohms @ 50VDC
Excitation Voltage	10 V AC/DC (15 V maximum)
Cable Color code:	+ Excitation (red) - Excitation (black) + Output (green) - Output (white) Shield (bare)
Cable type	4-conductor; 22 AWG; tin-copper, braided shield; polyurethane
jacket	

environmental

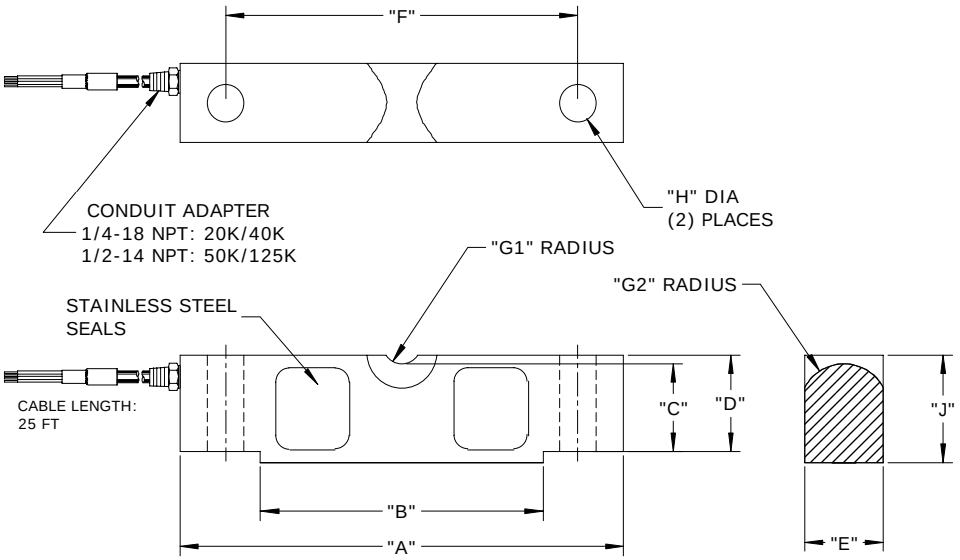
Temperature, operating	4 to +140 °F (-20 to +60°C)
Temperature, compensated	14 to +104 °F (-10 to +40°C)
Temperature effects:	Zero < 0.0015% FSO/°F < 0.0026% FSO/°C Output < 0.0008% of Rdg./°F < 0.0014% Rdg./°C
Sealing	IP67; Multi-redundant

options

Special Cable Lengths, Surge Voltage (Lightning) Protection, Non-Standard Capacities, High Temperature Operation and Instrumentation.

dimensions

100% CUSTOMER SATISFACTION GUARANTEED



DIMENSIONAL TAB BLOCK

CAPACITY (LB)	"A"	"B"	"C"	"D"	"E"	"F"	"G1"	"G2"	"H"	"J"	WEIGHT (LB)
20K - 25K	7.75	4.99	1.63	1.70	1.69	6.50	0.75	0.90	0.68	1.94	8
40K	10.25	6.39	2.00	2.10	1.94	8.50	1.00	1.12	0.81	2.44	12
50K - 75K	10.25	6.39	2.54	2.65	2.44	8.50	1.00	1.37	1.06	2.94	19
100K - 125K	15.25	8.99	3.30	3.43	2.90	12.75	1.50	1.80	1.62	3.86	38