



WC

DUAL SHEAR BEAM LOAD CELL

applications

- Harsh Environments
- Washdown/Corrosive Areas
- Truck Scales
- Railroad Track Scales
- Legal-For-Trade Certified Systems

features

- 50,000 to 100,000 lbs. Capacities
- Excellent Overall Performance
- Dual Shear Beam Technology
- 0.03% Accuracy Class
- Alloy Tool Steel Element
- Hermetically Sealed IP66/IP67
- Center-Mounted/End-Link Loaded
- High Eccentric Load Tolerance
- Matched Output Sensitivities
- Two Year Warranty

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

- CLASS IIIIL: 10,000D/Multiple
- 50,000 Through 100,000 lbs. Capacities

The WC Series is a high performance, bonded foil strain gage load cell constructed of alloy tool steel and hermetically sealed (WC2). The WC2 is designed to withstand the rigors of harsh environmental conditions and to accurately measure compression loads in capacities ranging from 50,000 lbs. to 100,000 lbs. The robust, rectangular shear beam design readily tolerates angular, eccentric and side loading effects, with minimal sensitivity to these anomalies. To achieve sealing ratings of IP66 and IP67 (thoroughly sealed against airborne particles, strong jets of water and the effects of immersion up to 1 meter.) proprietary, multi-redundant environmental barriers are incorporated, including welded seals 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 WC2 output signals are calibrated to a close tolerance to facilitate their use with summing/junction devices for multiple load cell applications. The attributes of the WC Series make it ideal for truck scale and railroad track scale weighing, as well as for O.E.M. situations where a well sealed, rugged and high performance NTEP Certified load cell solution is needed.

Innovative Measurement Solutions



performance

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

Rated capacities ⁽¹⁾ (lbs.):	50K, 65K, & 100K
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 (WC1)
Load Cell Finish	Electroless nickel plated (WC1)
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	17 lbs. (7.7 kg)

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
Cable termination	Finished conductors

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	IP66/IP67; Hermetic; Welded

options

Special Cable Lengths, Surge Voltage (Lightning) Protection, Weigh Modules and Control Instrumentation.

dimensions

100%
CUSTOMER
SATISFACTION
GUARANTEED

