



# WA

## DUAL SHEAR BEAM LOAD CELL

### *applications*

- Tank, Bin and Hopper Weighing
- Mixer and Blender Weighing
- Bulk Material Inventory/Processing
- Silo/Large Vessel Weighing
- Web Tension Measurements

### *features*

- 1,000 to 75,000 lbs. Capacities
- Excellent Overall Performance
- Dual Shear Beam Technology
- 0.03% Accuracy Class
- Steel or Stainless Steel
- High Eccentric Load Tolerance
- Companion Weigh Modules
- Matched Output Sensitivities
- IP67 Environmental Sealing
- Two Year Warranty

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#### *Application Tip:*

The Model WA1, WA3 & WA4 load cells feature Dual Shear Beam Technology, excellent for Mid to High Capacity Weighing.

The WA Series is an extremely rugged, high performance load cell constructed of steel (WA1), stainless steel (WA3), and hermetically sealed stainless steel (WA4). The WA Series load cells are designed to accurately measure compression loads in capacities ranging from 1,000 lbs. to 200,000 lbs. The robust, rectangular Dual 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, composite environmental barriers are integrated to protect the load cell. Sealing ratings of IP 66 (high pressure wash down) and IP 68 (submersion) are available with the WA4 hermetically sealed version using suitable conduit and the standard cable conduit adapter. 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 WA Series output sensitivities are held to a close tolerance to facilitate summing in multiple load cell applications. The attributes of the WA Series make it ideal for inventory monitoring, tank/bin/hopper and reactor weighing, bulk material handling, web tension and steel coil weighing applications, as well as for O.E.M. situations.



MC1 Steel Weigh Module



MC3 Stainless Weigh Module



MC4 Hermetic Seal Weigh Module

*Innovative Measurement Solutions*



### performance

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

Rated capacities <sup>(1)</sup> (lbs.):	1K, 1.5K, 2.5K, 5K, 10K, 15K 20K, 25K 50K, 75K, 100K, 150K, 200K
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

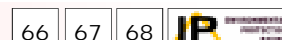
### mechanical

Load Cell Material:	Alloy tool steel (WA1) Stainless steel (WA3)
Load Cell Finish:	Electroless nickel plated (WA1) Electro-polished (WA3)
Safe overload	Compression/Tension: 150% FSO Side load: 100% FSO
Ultimate overload	Compression/Tension: 300% FSO Side load: 150% FSO
Weight	See table below

### electrical

Input impedance	770 ± 10 ohms
Output impedance	700 ± 3 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	IP67; Multi-redundant

### options

Special Cable Lengths, High Temperature Operation, Conduit Adapters, Control Instrumentation and *MC Series Weigh Modules*.

## dimensions

100%  
CUSTOMER  
SATISFACTION  
GUARANTEED

CAPACITY (LB)	"A"	"B"	"C"	"D"	"E"	"F"	"G"	WEIGHT (LB)
1K - 5K	7.50	6.25	1.39	1.25	1.25	0.50	1.25	3
10K - 25K	8.75	7.50	1.97	1.44	1.94	0.81	2.00	7
50K - 75K	13.50	11.50	3.25	2.44	2.94	1.31	3.00	25

Please consult SENTRAN for dimensional information on the 100K, 150K & 200K capacities.

