



# **HEAVY DUTY WEIGH MODULE**

# 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 125,000 lbs. Capacities
- Excellent Overall Performance
- Dual Shear Beam Technology
- 0.03% Accuracy Class
- Steel or Stainless Steel
- Accommodates Vessel Movement
- Self-Checking/Integrated Design
- Easy Installation and Start Up
- IP66/67 Environmental Sealing
- Two Year Warranty

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application tip:

The Model WA Series load cells feature Dual Shear Beam Technology, field-proven as the best solution for High Capacity Weighing.

The MC Series is an extremely rugged, high performance weigh module constructed of steel (MC1), stainless steel (MC3) or hermetically sealed stainless steel (MC4). The MC Series modules are designed to accurately measure compression loads in capacities ranging from 1,000 lbs. to 125,000 lbs. The robust, rectangular Dual Shear Beam design readily tolerates angular, eccentric and side loading effects, with minimal sensitivity to these anomalies. Optional neoprene Load Receiver Pads (LRP) reduce the effects of shock loading, vibration, thermal expansion, and accommodate minor misalignments with vessel supports. To achieve a sealing rating of IP66 and IP67 (thoroughly sealed against airborne particles, strong jets of water and the effects of immersion up to 1 meter.) proprietary, composite environmental barriers are integrated to protect the load cell. The cable is a durable jacketed cable, with a tinned-copper braided shield for mechanical protection and to minimize the effects of RFI and EMI. The attributes of the MC Series make it ideal for inventory monitoring, tank, bin and hopper weighing, bulk material handling, specialty applications such as web tension and steel coil weighing, as well as for O.E.M. situations where a versatile, high performance solution is needed.







WA1 Steel

MC4 Stainless Steel

WA4 SS Hermetic Seal





# specifications



### performance

Featuring Model WA Series Dual Shear Beam Load Cells

Rated capacities (1) (lbs.): 1K, 2.5K, 5K, 10K, 15K, 20K, 25K,

35K, 50K, 75K, 100K & 125K (Higher Capacities Available On Request)

Rated output (FSO)  $3 \text{ mV/V} \pm 0.25\%$ Combined error ≤ 0.03 % FSO Non-linearity ≤ 0.03 % FSO Hysteresis ≤ 0.02 % FSO ≤ 0.01 % FSO

Non-repeatability Side Load Rejection Ratio ≤ 500:1

≤ 0.03 % of load Creep (20 minutes) Zero balance ≤ 1 % FSO

Zero return (20 minutes) Better than 0.03 % FSO

# electrical

Input impedance  $770 \pm 10 \text{ ohms}$ Output impedance  $700 \pm 3$  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)

4-conductor; 22 AWG; tinned-Cable type copper braided shield; Jacketed

Cable termination Finished conductors

#### mechanical

Load Cell Material: Alloy tool steel (MC1)

17-4ph Stainless steel (MC3/MA4) Load Cell Finish: Electroless nickel plated (MC1)

Electro-polished (MC3/MC4) Mount Material: Mild steel or Cast iron (MC1) Stainless steel (MC3/MC4)

Mount Finish: Plated (MC1)

Bead Blasted (MC3/MC4)

Safe overload Compression/Tension: 150% FSO

Side load: 100% FSO

Ultimate overload Compression/Tension: 300% FSO Side load: 150% FSO

See table below

Weight

#### environmental

Temperature, operating Temperature, compensated Temperature effects:

4 to +140 °F (-20 to +60°C) 14 to +104 °F (-10 to +40°C) < 0.0015% FSO/°F < 0.0026% FSO/°C

66 67

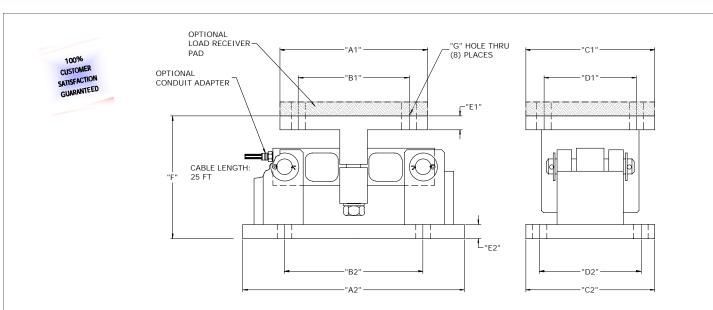
Output < 0.0008% of Rdg./°F < 0.0014% Rdg./°C

Sealing IP67 WA1/WA3); IP66 (WA4)

### options

Special Cable Lengths, High Temperature Operation, Load Receiver Pads, Conduit Adapters, Higher and/or Non-Standard Capacities.

## dimensions



#### DIMENSIONAL TAB BLOCK

CAPACITY (LB)	"A1"	"A2"	"B1'	"B2"	"C1"	"C2"	"D1'	"D2"	"E1"	"E2"	"F"	"G"	WEIGHT (LB)
1K - 5K	4.00	9.31	2.75	6.25	4.00	5.00	2.75	3.75	0.50	0.50	5.00	0.56	18
10K - 35K	8.00	12.00	6.00	7.50	8.00	8.00	6.00	6.00	0.75	0.75	7.89	0.78	75
50K - 75K	9.00	16.25	6.50	11.50	9.00	12.00	6.50	9.50	1.00	1.00	9.31	0.78	170
100K - 125K	10.00	19.00	8.00	16.00	10.00	12.00	8.00	10.00	1.25	1.25	9.51	1.12	215