

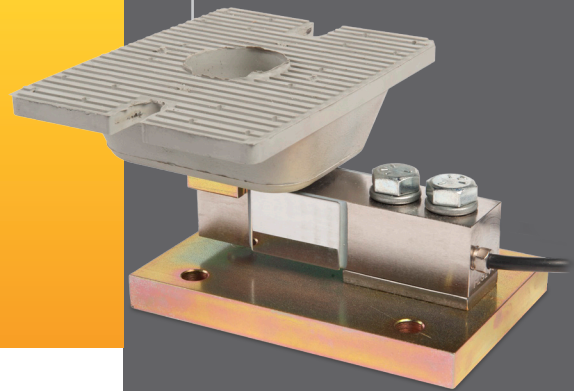


Low Profile Weigh Module

MB Series

The MB Series is a high performance, low profile weigh module constructed of steel, stainless steel or hermetically sealed stainless steel. The MB Series is designed to accurately measure compression loads in capacities ranging from 0-500 lbs. to 0-2,500 lbs.

The MB Series weigh module is available in steel (MB1), stainless steel (MB3) or hermetically sealed stainless steel (MB4). The MB Series is designed to accurately measure compression loads in capacities ranging from 0-500 lbs. to 0-2,500 lbs. The robust, rectangular shear beam design readily tolerates angular, eccentric and side loading effects, with minimal sensitivity to these anomalies. The neoprene load receiver reduces the effects of shock loading, vibration and thermal expansion, and accommodates minor misalignment with vessel supports. This load cell is available as Hostile Environment Sealed (IP66-High Pressure Jets) or as Harsh Environment Sealed (IP67-Limited Immersion) by virtue of proprietary, multi-redundant barriers uniquely integrated to protect all internal components. The output signal is calibrated to a close tolerance to facilitate in situ interchangeability and multiple load cell summing applications. The integral premium, instrumentation grade cable features a durable polyurethane-jacket over a tinned-copper braided shield for superior mechanical protection and to minimize the unwanted electrical effects of RFI and EMI. The MB Series is an ideal choice for reactor, mixer and blender weighing,



APPLICATIONS

- Compression Measurements
- Tank, Bin and Hopper Weighing
- Mixer and Blender Weighing
- In-Motion/Conveyor Weighing
- OEM and VAR Solutions

FEATURES

- 500 to 2,500 lbs. Capacities
- 0.02% Accuracy Class - NTEP Grade
- Steel, Stainless Steel or Hermetically Sealed Stainless Steel
- Shock/Vibration Isolation Mount
- Self-Checking
- Easy Installation
- IP66/IP67 Environmental Sealing
- Matched Output Sensitivities
- Two Year Warranty



For more information call **1-888-545-8988**

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MB Series Specifications

Innovative Measurement Solutions



PERFORMANCE

Rated Capacities ⁽¹⁾ (lbs.)	500, 1K, 1.5K, 2K, 2.5K
Rated Output (FSO)	3 mV/V
Output Tolerance	± .25 % R.O.
Combined Error Band	≤ 0.03 % FSO
Non-Linearity	≤ 0.03 % FSO
Hysteresis	≤ 0.03 % FSO
Non-Repeatability	≤ 0.02 % FSO (MB1 & MB3) ≤ 0.01 % FSO (MB4)
Side Load Rejection Ratio	500:1
Zero Balance	± 1.0 % FSO
Creep (20 Minutes)	0.03 % of Load

⁽¹⁾ ("K"=Thousand)

MECHANICAL

Load Cell Material	Alloy Tool Steel (MB1) 17-4 Stainless Steel (MB3 & MB4)
Load Cell Finish	Electroless Nickel Plated (MB1) Bead Blasted (MB3 & MB4)
Mount Material	Steel (MB1) Stainless Steel (MB3 & MB4)
Mount Finish	Zinc Plated (MB1) Natural (MB3 & MB4)
Safe Overload	Compression: 150% FSO Side Load: 100%
Ultimate Overload	Compression: 300% FSO Side Load: 200%
Deflection	See Dimensions Page
Weight	See Dimensions Page

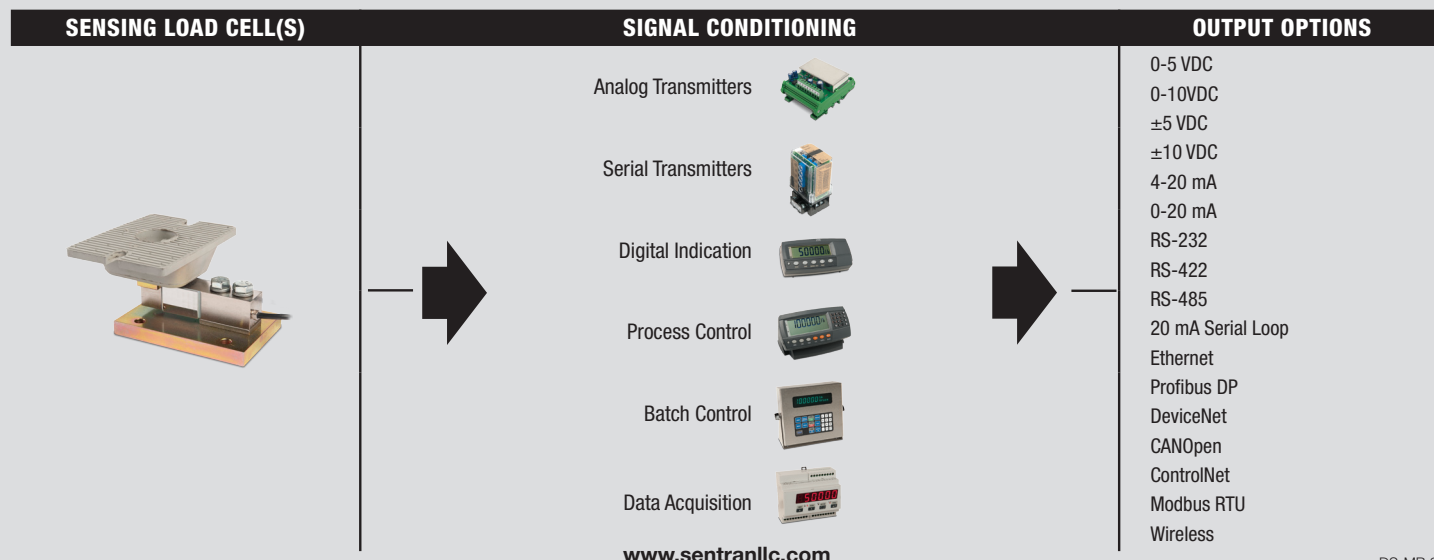
ELECTRICAL

Input Impedance	385 ± 5 Ohms
Output Impedance	350 ± 3 Ohms
Insulation Resistance	>5000 Megohms @ 50 VDC
Excitation Voltage	10 V AC/DC (15 V Maximum)
Cable Color Code	+ Excitation (red) - Excitation (black) + Signal (green) - Signal (white) Shield (natural)
Cable Type	4-conductor, 22 AWG, Polyurethane Jacket, Tinned Copper Braid, Diameter: 0.187"
Cable Termination	Finished Conductors
Cable Seal	Compression Gland Fitting (MB1) Conduit adapter; 1/4-18 NPT (MB3 & MB4)

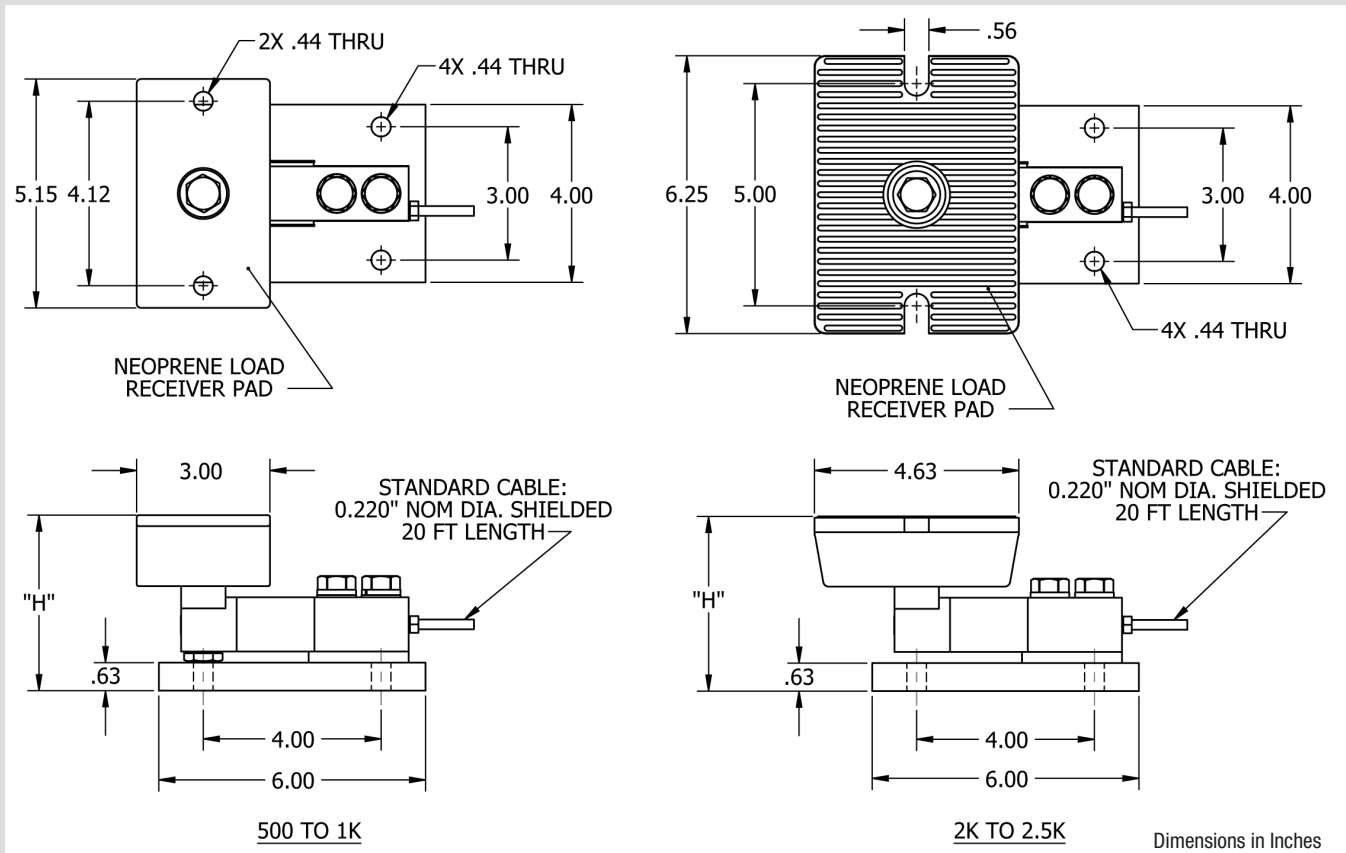
ENVIRONMENTAL

Temperature, Operating	-4 to +140 °F (-20 to +60°C) (MB1 & MB3) 0 to +150 °F (-18 to +65°C) (MB4)
Temperature, Compensated	14 to +104 °F (-10 to +40°C)
Temperature, Storage	-60 to +185 °F (-50 to +85°C) (MB1 & MB3) -40 to +170 °F (-40 to +77°C) (MB4)
Temperature Effects	Zero < 0.0015% FSO/°F < 0.0026% FSO/°C
Temperature Effects	Output < 0.0008% of Rdg./°F < 0.0014% Rdg./°C
Sealing	IP67; Multi-redundant; Limited Immersion Tolerance (MB1 & MB3) IP66; Multi-redundant; High Pressure Resistant and IP68; Continuous Immersion Tolerance (MA4)
FM Approval	Intrinsically Safe: Class I, II, III; Div.1 Groups A-G Non-Incendive: Class 1; Div.2 Groups A-D

MB Typical System Configuration

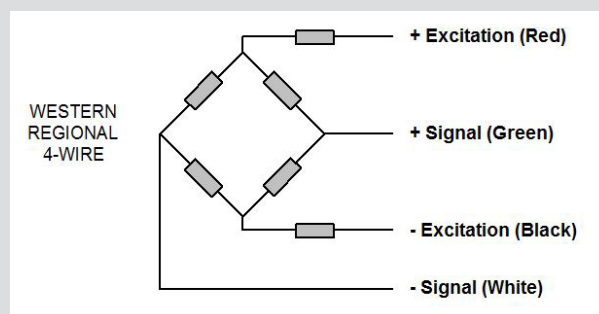


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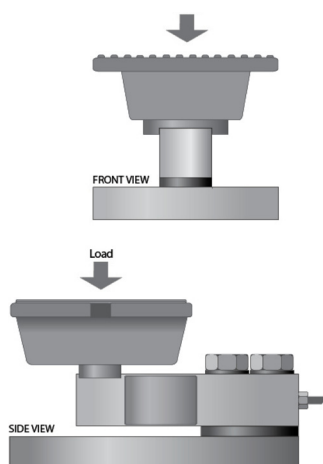
Capacity (LBS)	H	Deflect	Weight
DIMENSIONS (INCHES)			
500	3.75	0.013"	2.5 LBS
1K	4.00	0.014"	2.5 LBS
2K, 2.5K	4.00	0.014"	2.5 LBS

MB Wiring Diagram

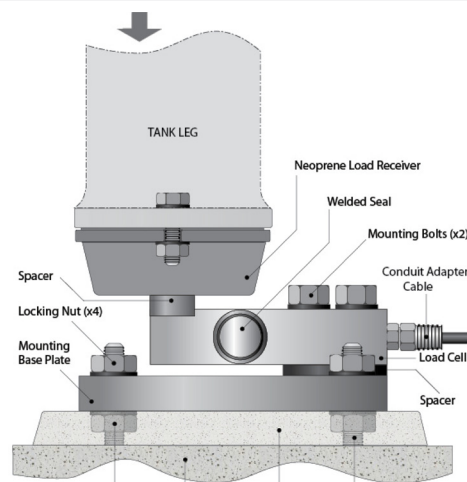




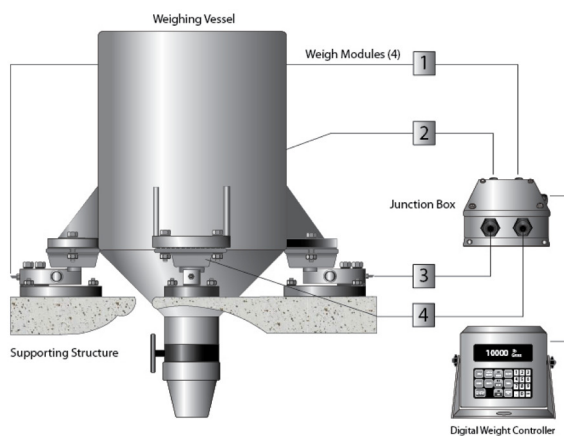
Compression Weigh Module (MB1)



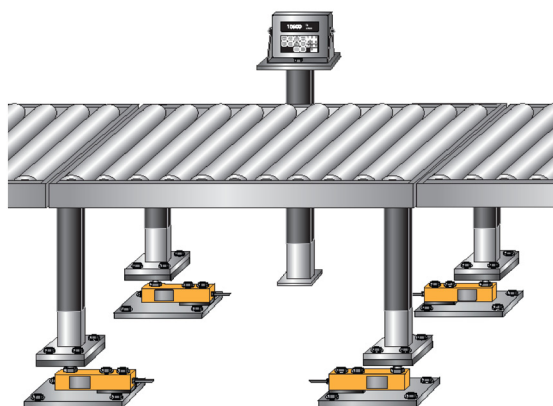
Floor/Footer Installation Components (MB4)



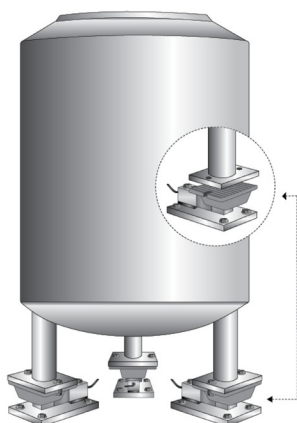
Weighing System Components



In-Line Check Weighing



Free Standing Tank Weighing



Corrosive/Washdown



Legal Disclaimer



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