



Low Capacity Weigh Module

MBseSeries

The MBse Series is a compact, high performance, weigh module constructed of steel or stainless steel. The MBse Series is designed to accurately measure compression loads in capacities ranging from 0-50 lbs. to 0-500 lbs.



The MBse Series weigh module is available in steel (MB1se) and stainless steel (MB3se). This low profile series is designed to accurately measure compression loads in capacities ranging from 0-50 lbs to 0-500 lbs. The neoprene load receiver reduces the effects of shock loading, vibration and thermal expansion, and accommodates minor misalignment with vessel supports. The MBse Series is available as Environmentally Sealed (IP65-Low Pressure Jets) and 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 MBse Series is an ideal choice for weighing small vessels as well as reactor, mixer and blender weighing, material handling and O.E.M weighing situations where a versatile, high performance solution is needed.



APPLICATIONS

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

FEATURES

- 50 to 500 lbs. Capacities
- 0.03% Accuracy Class
- Steel or Stainless Steel
- Shock/Vibration Isolation Mount
- Self-Checking
- Easy Installation
- IP65/IP67 Environmental Sealing
- Matched Output Sensitivities
- Two Year Warranty

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

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MBse Series Specifications

Innovative Measurement Solutions



PERFORMANCE

Rated Capacities (lbs.)	50, 100, 150, 250, 500
Rated Output (FSO)	3 mV/V
Output Tolerance	± 0.25 % R.O.
Combined Error Band	≤ 0.03 % FSO
Non-Linearity	≤ 0.03 % FSO
Hysteresis	≤ 0.02 % FSO (VB1) ≤ 0.05 % FSO (VB3)
Non-Repeatability	≤ 0.01 % FSO
Zero Balance	± 1.0 % FSO
Creep (20 Minutes)	0.03 % of Load

MECHANICAL

Load Cell Material	Alloy Tool Steel (MBse1) 17-4 Stainless Steel (MBse3)
Load Cell Finish	Electroless Nickel (MBse1) Bead Blasted (MBse3)
Mount Material	Steel (MBse1) Stainless Steel (MBse3)
Mount Finish	Zinc Plated (MBse1) Natural (MBse3)
Safe Overload	Compression: 150% FSO Side Load: 30%
Ultimate Overload	Compression: 300% FSO Side Load: 50%
Deflection	See Dimensions Page
Weight	See Dimensions Page

ELECTRICAL

Input Impedance	415 \pm 35 ohms (MBse1) 350 \pm 50 ohms (MBse3)
Output Impedance	352 \pm 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: 0.200" (MBse1) 0.220 (MBse3)
Cable Length	See Dimensions Table
Cable Termination	Finished Conductors
Cable Seal	Epoxy (MBse1), Compression Gland Fitting (MBse3)

ENVIRONMENTAL

Temperature, Operating	0 to +150 °F (-18 to +65°C)
Temperature, Compensated	14 to +104 °F (-10 to +40°C)
Temperature, Storage	-60 to +185 °F (-50 to +85°C)
Temperature Effects	Zero < 0.015% FSO/°F < 0.0026% FSO/°C
Temperature Effects	Output < 0.0008% of Rdg./°F < 0.0014% Rdg./°C
Sealing Rating	IP65; Multi-redundant; Low Pressure Resistant (MBse1), IP67; Multi-redundant; Limited Immersion Tolerance (MBse3)

MBse Typical System Configuration

SENSING LOAD CELL(S)



SIGNAL CONDITIONING

Analog Transmitters



Serial Transmitters



Digital Indication



Process Control



Batch Control



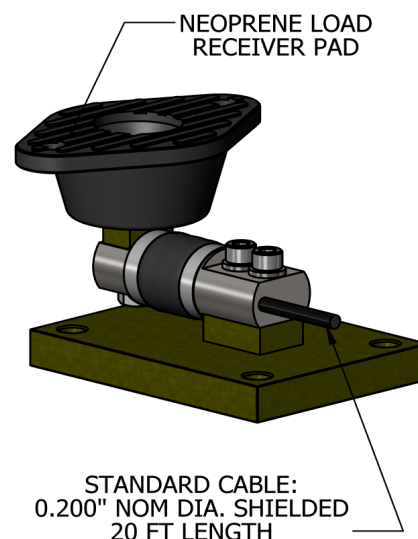
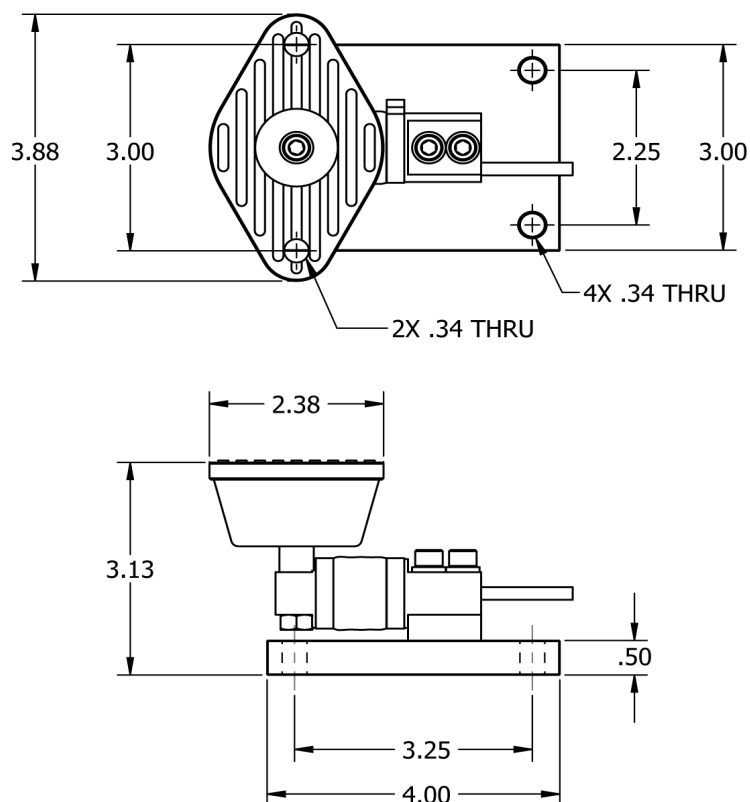
Data Acquisition



OUTPUT OPTIONS

0-5 VDC
0-10VDC
 ± 5 VDC
 ± 10 VDC
4-20 mA
0-20 mA
RS-232
RS-422
RS-485
20 mA Serial Loop
Ethernet
Profibus DP
DeviceNet
CANOpen
ControlNet
Modbus RTU
Wireless

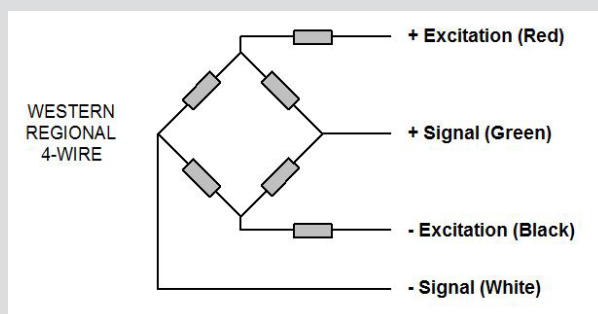
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Dimensions in Inches

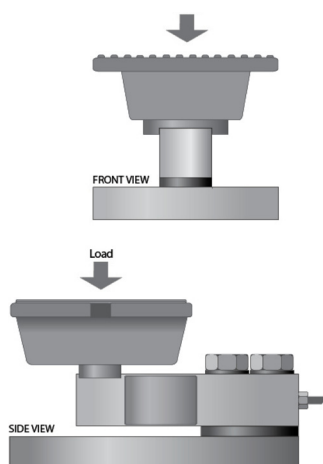
Capacity (LBS)	Deflect	Weight
DIMENSIONS (INCHES)		
25, 50	0.008"	3.0 LBS
75, 100, 150	0.011"	3.0 LBS
250	0.016"	3.0 LBS
500	0.025"	3.0 LBS

MBse Wiring Diagram

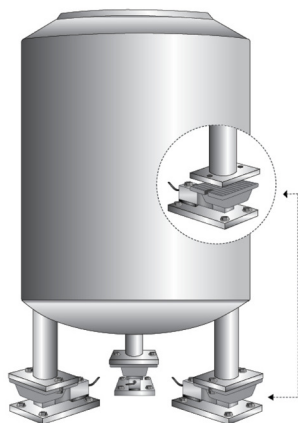




Compression Weigh Module



Free Standing Tank Weighing



In-Line Check Weighing



Legal Disclaimer



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