



MB_{SE}

LOW CAPACITY WEIGH MODULE

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
- Excellent Performance
- 0.03% Accuracy Class
- Steel or Stainless Steel Versions
- Shock/Vibration Isolation Mount
- Self-Checking
- Easy Installation
- IP65/IP67 Environmental Sealing
- Matched Output Sensitivities
- Two Year Warranty

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application tip:

The Model *VB3* load cell features *VITON*[®] Fluoroelastomer Seals. It is rated for moderate Washdown and for Corrosive Environments.

The MBse Series is a "small-envelope" high performance, low profile weigh module constructed of steel (MB1se), or stainless steel (MB3se). The MBse Series is designed to accurately measure compression loads in capacities ranging from 50 lbs. to 500 lbs. The integral Model VB load cell features a unique "dual-guided" cantilever design, resulting in reduced sensitivity to off-center and side loading effects. The neoprene load receiver reduces the effects of shock loading, vibration and thermal expansion, and accommodates minor misalignment with vessel supports. The MB1se is sealed to IP65. The MB3se exceeds the IP67 rating (thoroughly sealed against airborne particles and the effects of immersion up to 1 meter.) by virtue of proprietary, composite environmental barriers, including *VITON*[®] Fluoroelastomer Seals to protect the strain gage area and the cable entry, both high failure mode areas in competitive versions of this load cell. The cable is a durable PE/PVC DuoWrap[®] cable, with a tin-copper braided shield for mechanical protection and to minimize the effects of RFI and EMI. The attributes of the MBse Series make it an ideal choice for weighing small vessels, e.g. reactors, mixers and blenders, as well as for material handling and O.E.M. weighing situations where a well-sealed, compact, low capacity and high performance weigh module solution is needed.



VB3 Bending Beam

Innovative Measurement Solutions





performance

Featuring Model VB3
Stainless Steel Load Cells

Rated capacities (lbs.):	50, 75, 100, 150, 250 & 500
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
Creep (20 minutes)	≤ 0.03 % of load
Zero balance	≤ 2 % FSO
Zero Return (20 minutes)	Better than 0.01 % FSO

mechanical

Load Cell Material:	Alloy steel (MB1se) 17-4ph Stainless steel (MB3se)
Load Cell Finish:	Electroless nickel (MB1se) Electro-polished (MB3se)
Mount Material:	Mild steel (MB1se) Stainless steel (MB3se)
Mount Finish:	Plated (MB1) Bead Blasted (MB3se)
Safe overload	Compression/Tension: 150% FSO Side load: 50% FSO
Ultimate overload	Compression/Tension: 300% FSO Side load: 100% FSO
Weight	3 lbs.

electrical

Input impedance	350 ohms (NOMINAL)
Output impedance	350 ± 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	IP65 (MB1); IP67 (MB3se)

options

Special cable lengths, MS connectors, Hi-Temperature operation, Control Instrumentation and Unique Mount Requirements.

dimensions

