



WEIGH MODULE

applications

- Tank, Bin and Hopper Weighing
- Mixer and Blender Weighing
- Bulk Material Inventory/Processing
- Silo/Large Vessel Weighing
- Legal-For-Trade Certified Systems

F M







features

- 5,000 to 150,000 lbs. Capacities
- Excellent Overall Performance
- Dual Shear Beam Technology
- 0.02% NTEP Accuracy Class
- Epoxy-Coated Steel Mount
- Accommodates Vessel Movement
- Self-Checking/Integrated Design
- Matched Output Sensitivities
- IP67 Environmental Sealing
- Two Year Warranty

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NIST H-44 NTEP CERTIFIED "LEGAL-FOR-TRADE" ME1 LOAD CELLS

- CLASS IIIL: 10,000D/Multiple
- 20, 000 Through 150,000 lbs. Capacities

The MH Series is a robust, high performance weigh module constructed of steel (MH1) and coated in durable two-part epoxy paint. The MH Series modules are designed to accurately measure compression loads in capacities ranging from 5,000 lbs. to 150,000 lbs. The rugged Dual Shear Beam design readily tolerates angular, eccentric and side loading effects, with minimal sensitivity to these anomalies. The MH1 Series features a unique "sliding pin" load plate to accommodate temperature-induced vessel movement. Optional neoprene Load Receiver Pads (LRP) reduce the effects of shock loading, vibration and thermal expansion, and accommodate minor misalignments with vessel supports. 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. The integral cable is durable PE/PVC DuoWrap® jacketed and features a braided, tinned-copper shield for mechanical protection and to minimize the effects of RFI and EMI. The attributes of the MH Series make it ideal for inventory monitoring, tank/bin/hopper weighing, bulk material handling, specialty applications such large scale platforms and steel coil weighing, as well as for O.E.M. situations where a versatile, rugged and high performance NTEP Certified measurement solution is needed.



WE1 Load Cell



67 **P**

performance



CLASS IIIL: 10,000D/Multiple 20,000 Through 150,000 lbs. Capacities *ME1* Load Cells

Rated capacities (1) (lbs.):

Rated output (FSO)

Combined error Non-linearity Hysteresis Non-repeatability Side Load Rejection Ratio Creep (20 minutes)

Zero balance

Zero return (20 minutes)

 $^{(1)}$ ("K" = thousand)

5K, 10K, 20K, 30K, 40K, 50K, 60K, 100K & 150K

 $3 \text{ mV/V} \pm 0.25\%$ ≤ 0.03 % FSO

≤ 0.03 % FSO ≤ 0.02 % FSO

≤ 0.01 % FSO

≤ 500:1

≤ 0.03 % of load

≤ 1 % FSO

Better than 0.03 % FSO

mechanical

Load Cell Material Load Cell Finish Mount Material Mount Finish

Safe overload:

Ultimate overload:

Load Cell Deflection

Weight

Alloy tool steel (WE1)

Electroless nickel plated (WE1)

Mild steel (MH1) Epoxy coated (MH1)

Compression/Tension: 150% FSO

Side load: 100% FSO

Compression/Tension: 300% FSO

Side load: 150% FSO < 0.020" (0.5mm)

See table below

electrical

Input impedance Output impedance Insulation resistance **Excitation Voltage**

Cable Color code:

Cable type

 $770 \pm 10 \text{ ohms}$ 700 ± 5 ohms

>5000 Megohms @ 50VDC 10 V AC/DC (15 V maximum)

+ Excitation (red) - Excitation (black) + Output (green) Output (white)

Shield (bare) 4-conductor, 22 AWG, PE/PVC

DuoWrap® jacket;, tinned-copper shield; free end termination

environmental

Temperature, operating Temperature, compensated

Temperature effects:

< 0.0015% FSO/°F < 0.0026% FSO/°C Output < 0.0008% of Rdg./°F < 0.0014% Rdg./°C

4 to +140 °F (-20 to +60°C) 14 to +104 °F (-10 to +40°C)

IP67; Multi-redundant

options

Sealing

Special Cable Lengths, High Temperature Operation, Load Receiver Pads, Conduit Adapters, Unique Mounting and Control Instrumentation.

dimensions

