Meriam’s M2 Series Smart Manometers bring high precision and value to handheld, digital manometer users. The M2 features NIST traceable accuracy of ±0.025% of Full Scale (FS), independent of temperature effect, at the lowest prices available. Pressure ranges from 3 kPa to 200 bar are available.

M2 pressure sensors are available to measure gauge (GI), compound (CI), differential (DI/DN), absolute (AI) or vacuum pressure. The display can read out in any of eleven pressure units or can be linearly scaled for special user units. Differential models offer a square root flow function to display flow rate in user defined units.

An adjustable damping feature minimizes the effects of pulsating pressures. A Min/Max function captures the extremes of pulsating or varying pressure signals and a Hold function can freeze the display at any point of interest. Auto Record documents up to 240 readings for future recall.

Accuracy
Accuracy: ±0.05% FS or optional ±0.025% FS No temperature effect from -5º to +50º C.

Certifications
Ex ia IIC T4
Class I,Div.1 Groups A,B,C,D, T4

Engineering Units
Inches of H₂O (select 4º C, 20º C), PSI, mm of Hg, inches of Hg, Mbar, bar, kPa, kg/cm², cm of H₂O and user selectable scaling.

Media Compatibility
DN: Non-isolated differential sensor for clean, dry, non-corrosive gases.
GI & AI: Isolated Gauge or Absolute sensor for fluids compatible with 316L SS. See Meriam’s M200-DI for wet/wet DP requirements.

Pressure Limits
Twice range on Gauge and Absolute units. Twice range on Differential units when pressurized on high side only and 10 bar (10.5 Kg/cm²) static when applied to both sides of the sensor simultaneously.

Leak Test
Allows users to view Min/Max pres-sure values and calculates leak rate per minute in pressure units. The feature is very handy when troubleshooting or pressure testing pneumatic systems.

Auto Record
Document up to 240 readings (automati-cally or manually) to reduce paperwork and field time. Saved readings can be recalled at any time.

Damping Rates
Exponential damping with user selec-table time constant from 0.1 to 25 seconds.

Min/Max Capture
Capture speed is equal to the selected damping rate.

Field Re-cal
The M2 series can be recalibrated in the field for zero, span, and linearity. The user has the option to select a 1 point or 5 point calibration procedure. Enables users with accurate primary standards to calibrate their devices locally if desired.

Auto Shut-Off
User selectable shut-off. Programmable at 10, 20, 30, 45, 60 minutes.
Technical Specifications

Base Unit
400 grams (165 X 91 X 57 mm) polycarbonate, permanently dissipative, ESD protection.

Keypad
Sealed membrane type with 5 dome contact style buttons.

Display
5 significant digit LCD (6mm high) 2 line x 16 alphanumeric characters with contrast adjustment. Two stage backlight with visual overrange indication.

Power
4 each AA batteries providing over 100 hours of continuous use.

Wetted Parts
DN: 316L SS, brass, viton
GI: 316L SS
AI: 316L SS

Connections
1/8” female NPT, 316L SS

NIST Traceable Accuracy
Pressure: + 0.05% FS standard, optional + 0.025% FS (DN0010 is ± 0.05% FS only). Accuracy statement includes all effects of temperature over specified operating range. Note: For "CI" type pressure sensors use Upper Range Limit (URL) as full scale in accuracy calculations.

Certifications
Ex ia IIC T4
DEMKO 06 ATEX 0615699  IP 40
Class I, Div.1 Groups A,B,C,D, T4 Intrinsically Safe, Exia
Class I, Zone 0, AEx ia IIC T4
Class I, Zone 0, Ex ia IIC T4
-5 C < Ta < +50 C

Model No & Description
M200 - (specify pressure range) - Smart Manometer
M201 - (specify pressure range) - Rotary Gas Meter Tester (only available with DN0028 or DN0200 sensor range)

Temperature Specifications
Storage: -40° C to 60° C
Operating: -5° C to 50° C Intrinsically Safe (IS) Models
-20° C to 50° C General Purpose (GP) Models

Pressure Ranges

<table>
<thead>
<tr>
<th>Model No</th>
<th>Range</th>
<th>Accuracy</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>DN0010</td>
<td>0 to 3.000 kPa</td>
<td>± 0.05% FS (± 0.025% FS optional)</td>
<td>Full Scale</td>
</tr>
<tr>
<td>DN0028</td>
<td>0 to 7.000 kPa</td>
<td>± 0.05% FS</td>
<td>Differential</td>
</tr>
<tr>
<td>DN0200</td>
<td>0 to 35.000 kPa</td>
<td>± 0.05% FS</td>
<td>Differential</td>
</tr>
<tr>
<td>DN0415</td>
<td>0 to 120.000 kPa</td>
<td>± 0.05% FS</td>
<td>Differential</td>
</tr>
<tr>
<td>DN2000</td>
<td>0 to 500.000 kPa</td>
<td>± 0.05% FS</td>
<td>Differential</td>
</tr>
<tr>
<td>CI0015</td>
<td>-100.00 to 100.00 kPa</td>
<td>± 0.05% FS</td>
<td>Compound</td>
</tr>
<tr>
<td>CI0030</td>
<td>-100 to 200.00 kPa</td>
<td>± 0.05% FS</td>
<td>Compound</td>
</tr>
<tr>
<td>CI0050</td>
<td>-100 to 350.00 kPa</td>
<td>± 0.05% FS</td>
<td>Compound</td>
</tr>
<tr>
<td>CI0100</td>
<td>-100 to 700.00 kPa</td>
<td>± 0.05% FS</td>
<td>Compound</td>
</tr>
<tr>
<td>CI0300</td>
<td>-100 to 2000.00 kPa</td>
<td>± 0.05% FS</td>
<td>Compound</td>
</tr>
<tr>
<td>CI0500</td>
<td>-100 to 3500.00 kPa</td>
<td>± 0.05% FS</td>
<td>Compound</td>
</tr>
<tr>
<td>CI1000</td>
<td>-100 to 7000.00 kPa</td>
<td>± 0.05% FS</td>
<td>Compound</td>
</tr>
<tr>
<td>AI0017</td>
<td>0.05% FSV 0-17 PSIA (0-120.00 kPa A)</td>
<td>Absolute</td>
<td></td>
</tr>
<tr>
<td>AI0038</td>
<td>0.05% FSV 0-38 PSIA (0-300.00 kPa A)</td>
<td>Absolute</td>
<td></td>
</tr>
<tr>
<td>AI0100</td>
<td>0.05% FSV 0-1000 PSIA (0-7000.0 kPa A)</td>
<td>Absolute</td>
<td></td>
</tr>
</tbody>
</table>

Optional Accessories
Z9P000107 Hard Carrying Case
Z9P000108 Hard Carrying Case with Vacuum Pump
Z9P000109 Hard Carrying Case with Pressure Pump
ZA34386 Connector Kit, brass

M200-D1 FOR WET/WET DP APPLICATIONS

Meriam’s M200-D1 handheld Smart Manometer for liquids brings high accuracy to wet/wet differential pressure applications. Potentially corrosive or wet gasses are also handled by the M200-D1. NIST traceable accuracy of ± 0.05% FS (± 0.025% FS optional) independent of temperature effect from -5° to 50° C for Intrinsically Safe models. The accuracy statement is good from -20° to 50° C for general purpose models.