



M2 SERIES SMART MANOMETERS

Meriam's M2 Series Smart Manometers bring high precision and value to handheld, digital manometer users. The M2 features NIST traceable accuracy of $\pm 0.025\%$ of F.S., independent of temperature effect, at the lowest prices available. Pressure ranges from 28" H₂O F.S. to 2000 PSIG F.S. are available.

M2 pressure sensors are available to measure gauge, differential, absolute 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: $\pm 0.025\%$ FS or optional $\pm 0.05\%$ F.S. No temperature effect from 23° to 122° F.

Engineering Units

Inches of H₂O (select 4° C, 20° C, or 60° F), PSI, mm of Hg, inches of Hg, mBars, Bars, 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.

Pressure Limits

Twice range on Gauge and Absolute (GI and AI) units. Twice range on Differen-

tial (DN) units when pressurized on high side only and 150 PSI (10.5 Kg/cm²) static when applied to both sides of the sensor simultaneously.

Leak Test

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

Damping Rates

Exponential damping with user selectable time constant from 0.1 to 25 seconds.

Min/Max Capture

Capture speed is equal to the selected damping rate.

Auto Record

Document up to 240 readings (automatically or manually) to reduce paperwork and field time. Saved readings can be recalled at any time.

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. This feature enables users with accurate primary standards to calibrate their devices locally if desired.

Auto Shut-Off

User selectable shut-off time period. Programmable at 10, 20, 30, 45, 60 minutes.

M2 Series Smart Manometer

Technical Specifications

Base Unit

14 ounce (6.5" X 3.6" X 2.25") polycarbonate, permanently dissipative, ESD protection.

Keypad

Sealed membrane type with 5 dome contact style buttons.

Display

5 significant digit LCD (0.25" 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: $\pm 0.025\%$ of F.S. or $\pm 0.05\%$ F.S. (all ranges except DN0028 $\pm 0.1\%$ of F.S. See "Pressure Ranges" table for full scale value.)

Ordering Information

Model No & Description

M200 - (specify pressure range) - Smart Manometer

M201 - (specify pressure range) - Roots Meter Tester

(only available with DN0028 or DN0200 sensor range and includes integral push to read valve assembly)

All Models Include

- Protective Red Boot
- 4 AA Alkaline batteries
- Hard copy user's manual

Temperature Specifications

Storage: -40°F to 140°F (-40°C to 60°C)

Operating: 23°F to 122°F (-5°C to 50°C)

Pressure Ranges

DN0028	0-28" H ₂ O	Differential	(0.1% F.S.)
DN0200	0-200" H ₂ O	Differential	
DN2000	0-2000" H ₂ O	Differential	
GI0015	0-15 PSI	Gauge	
GI0030	0-30 PSI	Gauge	
GI0200	0-200 PSI	Gauge	
GI2000	0-2000 PSI	Gauge	
AI0900	0-900 mmHg	Absolute	
AI2000	0-2000 mmHg	Absolute	

Certifications



IS and ATEX (pending)

EEx ia IIC T4 (pending)

(Tamb. -5°C to $+50^{\circ}\text{C}$) (pending)

Optional Accessories

9P000107 Hard Carrying Case

9P000108 Hard Carrying Case with Vacuum Pump

9P000109 Hard Carrying Case with Pressure Pump

A34386 Connector Kit

