

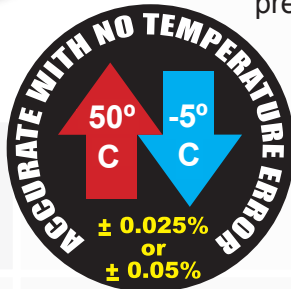


M2 SERIES SMART MANOMETERS

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 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: $\pm 0.05\%$ FS or optional $\pm 0.025\%$ FS No temperature effect from -5° to $+50^{\circ}$ C.

Certifications

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

Engineering Units

Inches of H_2O (select 4° C, 20° C),
PSI, mm of Hg, inches of Hg, Mbar,
bar, kPa, kg/cm^2 , cm of H_2O 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 10bar (10.5 Kg/cm^2) 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.

Auto Record

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

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.

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.

Meriam Process Technologies 10920 Madison Avenue, Cleveland, OH 44102

www.meriam.com Main Line: 216.281.1100 Fax: 216.281.0228 Email: sales@meriam.com

Rely On The Trusted Leader In Measurement And Calibration

M2 Series Smart Manometer

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 $\pm 0.025\%$ FS (DN0010 is $\pm 0.05\%$ FS only). Accuracy statement includes all affects of temperature over specified operating range. Note: For "CI" type pressure sensors use Upper Range Limit (URL) as full scale in accuracy calculations.

Ordering Information

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)

All Models Include

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

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

| | | |
|---------|---|--------------|
| DN0010 | 0 to 3.000 kPa +/- 0.05% FSV - Full Scale Value | Differential |
| DN0028 | 0 to 7.0000 kPa +/- 0.05% FSV | Differential |
| DN0200 | 0 to 35.000 kPa +/- 0.05% FSV | Differential |
| DN0415 | 0 to 120.00 kPa +/- 0.05% FSV | Differential |
| DN2000 | 0 to 500.00 kPa +/- 0.05% FSV | Differential |
| GI0015 | 0 to 100.00 kPa +/- 0.05 % FSV | Gauge |
| GI0030 | 0 to 200.00 kPa +/- 0.05% FSV | Gauge |
| GI0050 | 0 to 350.00 kPa +/- 0.05% FSV | Gauge |
| GI0100 | 0 to 700.00 kPa +/- 0.05% FSV | Gauge |
| GI0300 | 0 to 2000.0 kPa +/- 0.05% FSV | Gauge |
| GI0500 | 0 to 3500 kPa +/- 0.05% FSV | Gauge |
| GI1000 | 0 to 7000.0 kPa +/- 0.05% FSV | Gauge |
| GI3000 | 0 to 20000 kPa +/- 0.05% FSV | Gauge |
| CI0015* | -100.00 to 100.00 kPa +/- 0.05% FSV | Compound |
| CI0030* | -100 to 200.00 kPa +/- 0.05% FSV | Compound |
| CI0050* | -100 to 350.00 kPa +/- 0.05% FSV | Compound |
| CI0100* | -100 to 700.00 kPa +/- 0.05% FSV | Compound |
| CI0300* | -100.0 to 2000.0 kPa +/- 0.05% FSV | Compound |
| CI0500* | -100 to 3500 kPa +/- 0.05% FSV | Compound |
| CI1000* | -100 to 7000.0 kPa +/- 0.05% FSV | Compound |
| CI3000* | -100 to 20000 kPa +/- 0.05% FSV | Compound |
| AI0017 | 0.05% FSV 0-17 PSIA (0-120.00 kPa A) | Absolute |
| AI0038 | 0.05 % FSV 0-38 PSIA (0-300.00 kPa A) | Absolute |
| AI0100 | 0.05% FSV 0-100 PSIA (0-700.00 kPa A) | Absolute |
| AI1000 | 0.05% FSV 0-1000 PSIA (0-7000.0 kPa A) | Absolute |

*CI accuracy calculated using URL as FS

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



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-DI FOR WET/WET DP APPLICATIONS

Meriam's M200-DI 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-DI. NIST traceable accuracy of $\pm 0.05\%$ FS ($\pm 0.025\%$ 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.



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