

**M1 Series**  
 Digital Manometer / Calibrator



# M1 Series

## Digital Manometer / Calibrator

The M1 Series of handheld manometers from Meriam Process Technologies combines form, fit and function to deliver precision pressure measurement for field, plant or lab use. For reference indication and shirt pocket convenience, select the low cost M100 Digital Manometer with its +/- 0.25% FS accuracy. Or specify the M101 Calibrator when better accuracy is needed for more exacting measurements. The M101 delivers +/- 0.10% FS accuracy and additional features normally found on higher priced instruments. Both models are available in differential, gauge and absolute pressure versions.

### Applications

- Leak testing for low pressure gas systems
- Pressure drop monitoring across filters
- Monitoring vacuum on condensers or pumps
- Verification of CPAP or BIPAP systems for home or hospital settings

### M1 Series Advantages

#### Engineering Units (8-selectable)

Inches of H<sub>2</sub>O @ 20°C, mm of H<sub>2</sub>O @ 20°C, mm of Hg @ 0°C, Inches of Hg @ 0°C, kPa, mBar, Bar, PSI and user selectable.

#### Media Compatibility

Non-isolated sensor for clean, dry, non-corrosive gases.

#### Pressure Limits

(DN) units - 3 x F.S. on high side only or 200 PSI, whichever is less.

(GN or AN) units - 3 x F.S. range or 200 PSI, whichever is less.

#### Accuracy

No temperature effect over the entire operating range 14F° to 122°F (-10C° to +50°C).

#### Min/Max (M101 only)

Displays the MIN and MAX pressures.

#### Hold (M101 only)

Freezes the pressure measurement on the display, however, the bar graph is still active.

#### Ave (M101 only)

Displays a continuous filtered average of the pressure measurements.

#### Temp

Displays the internal ambient temperature of the M1 in °C or °F.

#### Record Mode

The M1 can store up to 240 pressure measurements.

- Automatic – the current value is automatically stored every 5 seconds, for up to 20 minutes.

- Manual – the current value is stored every time the Units key is pressed, up to 240 times.

#### Backlight

A green backlight is user activated via the backlight key. A red backlight is automatically activated during an error/over range condition.

#### Auto Shutoff

To conserve battery life, the M1 will automatically power off after 20 minutes of keypad inactivity.

#### Field Recalibration

M1 can be calibrated in the field for zero and span.

#### Low Battery Indication

BAT icon is displayed when batteries require replacement. Approximately 2 hours of run time is provided on a low battery condition.

#### Bar Graph

Horizontal bar for full scale pressure reference (0-100%)



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### Technical Specifications

#### Base Unit

- Lightweight and ergonomic
- 12 ounces and (6.0" x 3.0" x 1.0") with ESD
- Dissipative polycarbonate

#### Keypad

- Sealed membrane type with 4 dome style contact buttons
- Temperature Specifications
- Storage: -40°F to +140°F (-40°C to +60°C)
- Operating: 14°F to +122°F (-10°C to +50°C)

#### Power

- 3 AA batteries providing over 300 hours of continuous use.

#### Connections

- 1/8" female NPT 316 S.S.
- All models have a P1 and P2 port. GN and AN units have a sintered metal disc installed on P2.

#### NIST Traceable Accuracy

- M100 Digital Manometer: ± 0.25% F.S.
- M101 Calibrator: ± 0.10% F.S.

#### Certifications

- CE Mark comes standard with product
- NIST Traceable Certificate with Data (optional)

#### Temperature Specifications

- Storage: -40°F to +140°F (-40°C to +60°C)
- Operating: 14°F to +122°F (-10°C to +50°C)

### Ordering Information

#### Model No & Description

M100 – (specify pressure range) – Digital Manometer

M101 – (specify pressure range) – Calibrator

All models include the protective red rubber boot, 4 AA batteries, and hard copy of the user's manual

#### Optional Accessories

A34386 Calibration Kit, Includes:

- (3) Nylon tubing, 6 ft., PN: A34103-3,
- (2) Tee, Brass, 1/8" O.D. Tubing PN: A34112,
- (1) Adapter, 3/16" Hose Barb to 1/8" MNPT PN:A34142-2,
- (6) Adapter, 1/8" O.D. Tube to 1/8" MNPT PN: A34012

A34477 Basic Test Kit, Includes:

- Nylon Tubing, 10 FT., PN: A34103-2
- Adapter, Brass, Tubing to 1/8" MNPT PN:A34102

9A000053 ABS plastic carrying case

9P000058 Spare Protective Boot – Red  
(each M1 comes standard with a protective boot)

Z1055 NIST Traceable Certificate with Data

Type	Range	D/G/A
DN0028	0 to 28.00" H <sub>2</sub> O	Differential
DN0138	0 to 138.0" H <sub>2</sub> O	Differential
DN0416	0 to 416.0" H <sub>2</sub> O	Differential
DN0832	0 to 832.0" H <sub>2</sub> O	Differential
DN2000	0 to 2000" H <sub>2</sub> O	Differential
GN0005	0 to 5.000 PSI	Gauge
GN0015	0 to 15.00 PSI	Gauge
GN0030	0 to 30.00 PSI	Gauge
GN0050	0 to 50.00 PSI	Gauge
GN0100	0 to 100.0 PSI	Gauge
AN0775	0 to 775.0 mm Hg	Absolute
AN1551	0 to 1551 mm Hg	Absolute
AN2585	0 to 2585 mm Hg	Absolute

