



Smart Handheld Manometers

A digital manometer is a microprocessor-based instrument that can be stationary or portable. Meriam digital manometers offer excellent handheld performance at a value price. Features include min/max capture, data record, averaging and timed pressure tests. Digital or "smart" manometers are well suited for field measurement and process control. Meriam is considered a leader in the manufacture of smart manometers as well as analog manometers.

PICTURE.
PERFECT.
PRECISION.

Since 1911, Meriam has been a proud supplier of measurement and calibration solutions. Founded on the application of emerging technologies to solve measurement problems, Meriam remains committed to apply and develop new and emerging technologies to best meet the needs of today's industry.



Model 35EE Portable Digital Manometer/Calibrator

The Meri-Cal is a portable digital device designed for very precise pressure or differential pressure measurements. It is also capable of voltage and current measurements. This dual (simultaneous) measurement and display capability, high accuracy and traceability to the NIST uniquely qualify it for calibration of electronic transducer/transmitters as well as mechanical gauges and recorders.

Our Meri-Cal I calibrators have a single pressure sensor with integral voltage and current meters, for convenient pressure transmitter calibration. Accuracy specifications and temperature performance are the best available and NIST certifications are standard.



M2 Series Smart Manometer

Designed to facilitate pressure calibration and monitoring processes, the M2 Smart Manometer offers 11 selectable user units as well as 1- or 5-point field recalibration for zero, span, and linearity. Ranges handle gauge, differential, absolute, or vacuum pressure, and Min/Max feature captures varying signal extremes. With accuracy to serve as pressure reference standard, the unit also provides leak test and flow functions. The compact polycarbonate enclosure measures 6.5 x 3.6 x 2.25 in.



M202 Precision Absolute Manometer

Meriam's M202 Precision Absolute Manometer is very useful as a surveyor's tool because it accurately measures changes in altitude. Like Meriam's other smart manometers, it is hand-held for convenience and portability.

Powered by field replaceable 4 AA alkaline batteries, the unit includes a 0.25 in. display that can be read out in 9 engineering units. The combination of accuracy and fluid compatibility makes the M202 ideal for environmental, test or real-time process measurements of pressure relative to absolute zero.



M1 Series Digital Manometer/Calibrator

Our M1 Series of digital manometers/calibrators offer excellent handheld performance at a value price. Choose from the M100 Digital Manometer with a $\pm 0.25\%$ FS accuracy. Need better accuracy but don't want to pay the high-prices associated with it? Then the M101 Calibrator is for you. Along with its additional features, it provides more exacting measurements ($\pm 0.10\%$ FS accuracy) and still saves you money.



The M2 features NIST traceable accuracy of $\pm 0.025\%$ F.S., independent of temperature from 23° to 122°F (-5° to 50°C).

OUR COMPETITORS DON'T EVEN COME CLOSE!



CUSTOMER TESTIMONIAL

Meriam was the obvious choice when it came to ordering my M2 Smart Manometer. This was the first time I have bought a handheld manometer – and their level of expertise impressed me as I did have a lot of questions. I have used the manometer numerous times in the field and am happy with the accuracy and reliability of the product.

-Field Engineer



Model 35EE

Meriam Portable Digital Manometer / Calibrator

The Meri-Cal is a portable digital manometer/calibrator for pressure and differential pressure measurement. It features high accuracy and rugged design which brings laboratory test and calibration capability to the field.

Meri-Cal's display simultaneously indicates pressure (or differential pressure) and electronic transducer/transmitter output in any of 8 key selectable engineering units. Meri-Cal continues to be the most cost effective and useful method of precise measurements.

Meri-Cal is available with CSA certification for intrinsic safety for use in Class I, Groups A, B, C and D areas.

Merical Model 35EE Features

Engineering Units

In H₂O at 20°C, cm H₂O, PSI, in Hg at 0°C, mm Hg, Kg/cm², kPa, mBar and user scaled.

Rugged Design

The case is made of impact resistant, injection molded ABS material. The keyboard is a sealed membrane type having a chemical resistant polyester surface with tactile feedback type keys. Internal components have a protective conformal coating.

Applications

The Meri-Cal may be used for test measurement of pressure or differential pressure and as a calibrator for mechanical recorders, gauges, pneumatic controls and electronic transducers and transmitters.

Auto Zero

A push of a button automatically establishes zero. There is no need to compute compensation factors for local gravity, temperature or head difference due to the location of the tester versus the unit under test.

Model 35EE

Meriam Portable Digital Manometer / Calibrator

Ordering Information

Models/Ranges	
LP200I and DP200I	200" H ₂ O (500 mbar)
LP2000I and DP2000I	2000" H ₂ O (5.0 bar)
All Models	Voltage: 0 to 30 Vdc Current: 0 to 30 mAdc

LP models measure gauge pressure only. DP models can be used to measure differential pressure, gauge pressure and vacuum.

Accessories/Options

- Hand Pump - can generate 145 PSI. Built in vernier provides precise adjustment of pressure while a needle valve allows for a controlled release of pressure.
- AC powered battery charger is switchable from 110 Vac to 220 Vac, 50/60 Hz.
- Test Lead Kit contains electrical connectors for adapting the Meri-Cal to read outputs from transmitters and transducers.

Meri-Cal kit includes the Meri-Cal, ABS plastic carrying case with die cut foam inserts, pressure pump, pneumatic quick connect fittings and tubing, electrical test leads kit and AC powered battery charger. All kit items can be purchased separately.

All Meri-Cals ordered without the kit have a soft vinyl, padded carrying case.

Specifications

Accuracy	Pressure: $\pm 0.1\%$ of reading, ± 1 count Voltage/Current: $\pm 0.1\%$ of reading, ± 2 counts Accuracy includes the combined effects of linearity, hysteresis, repeatability and temperature over the calibrated range. All units are provided with certificates of NIST traceability.
Display	8 digit (4 pressure or D/P and 4 voltage or current) LCD type with .3" high (7.6 mm) digits.
Resolution	4 digit auto-ranging for optimal accuracy and resolution of the display for both pressure and electrical inputs.
Temperature Range	Storage: -40°F to 140°F (-40°C to 60°C) Operating: -20°F to 122°F (-29°C to 50°C) Effect: None within the range of -4°F to 104°F
Media Compatibility	For use with clean, dry, non-corrosive and non-conductive gases only.
Enclosure	Weighs less than 1.1 pounds (0.5 kg). Overall dimensions are 4" x 7.5" x 1.9" (102mm x 191mm x 48mm).



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 H₂O @ 20°C, mm of H₂O @ 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

M100: ±0.25% FS

M101: ±0.10% FS

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

Battery Life

300 hours without backlight

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%).

M1 Series

Digital Manometer/Calibrator

Ordering Information

Model Number & 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

ZA34386 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

ZA34477 Basic Test Kit, Includes:

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

Z9A000053 ABS plastic carrying case

Z9P000058 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 ₂ O	Differential
DN0138	0 to 138.0" H ₂ O	Differential
DN0416	0 to 416.0" H ₂ O	Differential
DN0832	0 to 832.0" H ₂ O	Differential
DN2000	0 to 2000" H ₂ 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

Specifications

Base Unit	Lightweight and ergonomic, 12 oz. 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 316SS. 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)





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. 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.

M2 Series Advantages

Accuracy

$\pm 0.025\%$ FS or optional $\pm 0.05\%$ F.S. No temperature effect from 23° to 122°F (-5° to +50°C).

Certifications

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

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. See Meriam's M200-DI for wet/wet DP requirements.

Pressure Limits

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

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.

M2 Series

Smart Manometers



Ordering Information

Model Number & Description




M200 (specify pressure range) Smart Manometer

All Models Include

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

Optional Accessories

Z9A000069 Hard Carrying Case
 Z9P000108 Hard Carrying Case with Vacuum Pump
 Z9P000109 Hard Carrying Case with Pressure Pump
 ZA34386 Connector Kit, brass

Specifications																																	
Base Unit	14 oz. (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 over-range 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. typical. DN0028 $\pm 0.1\%$ of F.S. Accuracy statement includes all affects of temperature over specified operating range.																																
Temperature Specifications	Storage: -40°F to 140°F (-40°C to 60°C) Operating: 23°F to 122°F (-5°C to 50°C) I.S. Models -4°F to 122°F (-20°C to 50°C) G.P. Models																																
Pressure Ranges	<table border="0"> <tr> <td>DN0028</td> <td>0-28" H₂O</td> <td>Differential</td> <td>(0.1% F.S.)</td> </tr> <tr> <td>DN0200</td> <td>0-200" H₂O</td> <td>Differential</td> <td></td> </tr> <tr> <td>DN2000</td> <td>0-2000" H₂O</td> <td>Differential</td> <td></td> </tr> <tr> <td>GI0015</td> <td>0-15 PSI</td> <td>Gauge</td> <td></td> </tr> <tr> <td>GI0030</td> <td>0-30 PSI</td> <td>Gauge</td> <td></td> </tr> <tr> <td>GI0200</td> <td>0-200 PSI</td> <td>Gauge</td> <td></td> </tr> <tr> <td>GI2000</td> <td>0-2000 PSI</td> <td>Gauge</td> <td></td> </tr> <tr> <td>AI0038</td> <td>0-2000 mm Hg/ 0-38 PSIA</td> <td>Absolute</td> <td></td> </tr> </table>	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		AI0038	0-2000 mm Hg/ 0-38 PSIA	Absolute	
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Certifications	<p>  0539  II 1 G Ex ia IIC T4 DEMKO 06 ATEX 0615699 IP 40 </p> <p> 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 </p> <p>  LISTED 22W1 </p>																																



M200-DI

Wet/Wet Differential Pressure Smart Manometer

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. Wetted parts are 316L SS with Viton O-rings (consult factory for other materials). The M200-DI features NIST traceable accuracy of $\pm 0.05\%$ FS ($\pm 0.025\%$ FS optional) independent of temperature effect from 23° to 122°F for Intrinsically Safe models. The accuracy statement is good from -4° to 122°F for general purpose models.

Pressure ranges are available from 0 - 1 PSID to 0 - 500 PSID. All ranges are rated for 1000 PSI common mode pressure. HI side overpressure rating is 3X F.S. while the LO side overpressure rating is 3X F.S. or 150 PSI, whichever is less. Optional flushing ports (pending) allow solvent clean-out of P1 and P2 ports or can be used to vent air from the connecting tubing of liquid applications.

The display can read in any of 11 pressure units or can be linearly scaled for special user units. A square root flow function allows the M200-DI to display flow in user defined engineer units. The user selectable damping feature minimizes pulsation effects. The Min/Max function captures the extremes of pulsating pressure signals and the Hold function freezes the display for convenient reading if needed. Auto Record documents up to 240 reading for future recall.

M200-DI Advantages

Accuracy

$\pm 0.05\%$ FS or optional
 $\pm 0.025\%$ F.S. No temperature effect over specified operating temperature

Certifications

CE (standard)
 Ex ia IIC T4
 Class I, Div.1 Groups A,B,C,D, T4

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, user selectable scaling, sq. root.

Media Compatibility

DI: Isolated differential sensor for fluids compatible with 316L SS and Viton.

Pressure Limits

Common mode:
 1,000 PSI
 P1 (HI) only: 3X F.S.
 P2 (LO) only: 3X F.S. or 150 PSI, whichever is less

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.

Min/Max Capture

Capture speed is equal to the selected damping rate.

Damping Rates

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

Field Re-cal

The M200-DI 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 unit locally if desired.

Auto Shut-Off

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

M200-DI

Wet/Wet Differential Pressure Smart Manometer

Ordering Information

All Models Include

- Protective Red Boot
- 4 AA Alkaline batteries
- User's manual

Order Options

- Intrinsic Safety Certification
- Flushing ports (pending)
- $\pm 0.025\%$ of F.S. or $\pm 0.05\%$ F.S.

Optional Accessories

Z9A000069	Hard Carrying Case
Z1066-11	M10-KT Hydraulic scissor pump, 0-10,000 PSIG includes hoses, fittings & carry bag
Z1089	3-valve manifold assembly, 316 SS



Specifications

Base Unit 30 oz. (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 over-range indication.

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

Wetted Parts 316L SS, Viton O-rings
Consult factory for other O-ring materials

Connections 1/8" female NPT, 316L SS, HI and LO ports 5/16 - 24 SAE/MS J1926 flushing ports with 316L SS plugs (2 each, optional)

NIST Traceable Accuracy Pressure: $\pm 0.025\%$ of F.S. or $\pm 0.05\%$ F.S. (including all effects of temperature over specified operating range)

Temperature Specifications
Storage: -40°F to 140°F (-40°C to 60°C)
Operating: 23°F to 122°F (-5°C to 50°C) I.S. Models
-4°F to 122°F (-20°C to 50°C) G.P. Models

Pressure Ranges	DI0001	0-1 PSID	Differential (pending)
	DI0005	0-5 PSID	Differential
	DI0015	0-15 PSID	Differential
	DI0030	0-30 PSID	Differential
	DI0100	0-100 PSID	Differential
	DI0300	0-300 PSID	Differential
	DI0500	0-500 PSID	Differential

Certifications
 CE 0539 Ex II 1 G
 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





M201

Rotary Gas Meter Tester

The M201 Rotary Gas Meter Tester is specially programmed to measure the differential pressure, and display the true average of those measurements. The amount of time over which the averaging occurs is controlled by the user. This feature addresses the flow surge and pulsation concerns.

The M201 Rotary Gas Meter Tester has an accuracy of 0.1% FS (28" H₂O range) or 0.05% FS (200" H₂O range). This provides better accuracy in the low DP ranges as compared to mechanical gauges or manometers. The M201 Rotary Gas Meter Tester is well suited for use in the field, its accuracy is not affected by temperature over its calibrated range of 23°F to 122°F. This temperature effect on mechanical gauges, liquid manometers and some digital indicators can result in serious accuracy errors.

The digital display eliminates parallax errors, and depending on the range of the gauge, it can have a resolution of 0.01 or 0.001" H₂O. A min/max feature also allows the user to see the minimum and maximum pressures recorded during the test. The unit is portable, and with the integral push to read manifold, the M201 Rotary Gas Meter Tester can safely be used with lines having a static pressure of up to 150 PSIG.

M201 Advantages

Accuracy

DN0028: ±0.1% FS 0-28"
 DN0200: ±0.05% FS 0-200"
 No temperature effect from 23° to 122°F
 (-5° to +50°C).

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.

Field Re-cal

The M201 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.

Pressure Limits

Twice range on Differential (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.

Min/Max Capture

Capture speed is 10X per second.

Operation

A push-to-read valve keeps HI and LO sides equalized during connection across meter. Turn M201 "ON" to get message "Press Hold to Acquire Data." Press "Hold" key to start test. User determines test time, ending test by pressing the "Hold" key again. Display will show the averaged differential pressure across the meter from test start to test stop. Press the "Hold" key again to start a new test.

Auto Shut-Off

User selectable shut-off. Programmable at 10, 20, 30, 45, 60 minutes and disable.

M201



Rotary Gas Meter Tester

Ordering Information

Model Number & Description



M201 (specify pressure range) Rotary Gas Meter Tester
(only available with DN0028 or DN0200 sensor range
and includes integral push to read valve assembly)

Order Options

Z9A000069 Hard Carrying Case
Z9P000108 Hard Carrying Case with Vacuum Pump
Z9P000109 Hard Carrying Case with Pressure Pump
ZA34386 Connector Kit
ZA900016-90727 Pete's Plug Adapter Kit Y 1/8" Needle
ZA900016-90733 Pete's Plug Adapter Kit Y 1/16" Needle

All Models Include

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

Specifications	
Base Unit	14 oz. (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. Backlight included.
Power	4 each AA batteries providing over 100 hours of continuous use.
Wetted Parts	DN: 316L SS, brass, viton
Connections	1/8" female NPT, 316L SS
NIST Traceable Accuracy	DN0028: $\pm 0.1\%$ of FS DN0200: $\pm 0.05\%$ of FS Accuracy statement includes all affects of temperature over specified operating range.
Temperature Specifications	Storage: -40°F to 140°F (-40°C to 60°C) Operating: 23°F to 122°F (-5°C to 50°C) I.S Models -4°F to 122°F (-20°C to 50°C) G.P Models
Pressure Ranges	DN0028 0-28" H ₂ O Differential (0.1% F.S.) DN0200 0-200" H ₂ O Differential (0.05% F.S.)
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 



M202

Precision Absolute Manometer

Meriam's model M202 Precision Absolute Manometer brings calibration bench accuracy to a portable, handheld unit. The pressure sensor is all 316SS allowing it to be used with liquids, gasses and corrosives compatible with 316SS. This combination of accuracy and fluid compatibility makes the M202 ideal for environmental, test or real-time process measurements of pressure relative to absolute zero.

The M202 includes features for minimum and maximum (Min/Max) value capture, tare readings and user selectable engineering units. A selectable altitude function allows users to enter site altitude above sea level in order to display local barometric pressure or barometric pressure corrected to sea level. User referenced altitude (referenced to map or trig markers) or altitude based on US Standard Atmosphere of 1962 can be selected for display. Using the altitude function with the Min/Max and Tare features makes the M202 very useful as a surveyor's tool to accurately measure changes in altitude.

M202 Advantages

Approvals

CE compliant
Optional Intrinsically safe per ATEX and cULus

NIST Traceability

NIST certificate supplied for all models

Media Compatibility

Isolated AI sensor for fluids compatible with 316SS

Pressure Limits

77 PSIA (4,000 mm Hg Abs) for both AI0017 and AI0038

Tare

Nulls applied pressure to allow measurement of vacuum, gauge pressure or change in pressure or altitude from a reference point

Min/Max Capture

Capture speed is equal to the selected damping rate

Damping Rates

User selectable from 0.1 to 25 seconds

Backlight

Green; changes to Red for over pressure
Engineering Unit Selection – mm Hg, PSI, in. Hg, mbar, bar, kPa, Torr, feet, meters

Altitude

Displayed in feet or meters. Can be set by user based on map or trig marker information or standard altitude uses U.S. Standard Atmosphere of 1962 data

Contrast Adjustment

Adjusts display for best viewing

Field recalibration

Supported through firmware feature

M202

Precision Absolute Manometer

Ordering Information

Model Number & Description

M202 (specify pressure range)

All Models Include

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

Order Options

Z9A000069 Hard Carrying Case
Z9P000108 Hard Carrying Case with Vacuum Pump
Z9P000109 Hard Carrying Case with Pressure Pump
ZA34386 Connector Kit, brass

Specifications	
Base Unit	14 oz. (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
Power	4 AA batteries with user-enabled automatic shutoff
Wetted Parts	Al: 316L SS
Connections	1/8" female NPT, 316SS
NIST Traceable Accuracy	AI0017 ±0.02% FS, Intrinsically Safe (cULus and ATEX) AI0038 ±0.015% FS from 0 to 1000 mm Hg Absolute ±0.025% FS from 0 to 2000 mm Hg Absolute, Intrinsically Safe (cULus and ATEX)
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	AI0017 0-17 PSIA (0-900 mm Hg) Absolute AI0038 0-38 PSIA (0-2000 mm Hg) Absolute
Certifications	CE 0539 Ex II 1 G 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

