

# M2110 Series Smart Gauge

## Pressure, Flow or Level Versions



**M2110P  
Shown**



**Back of  
M2110P**

Meriam's M2110 Series Smart Gauge is back by popular demand! It features Meriam's new Embedded Pressure Instrument (EPI) for the latest technology while retaining the same enclosure and user interface as the original design. The large display, flexible mounting (Panel, Pipe or Bench top) and power options (24 VDC, Battery or AC) make it the ideal gauge for almost any application. The M2110 features NIST traceable accuracy of  $\pm 0.05\%$  F.S., independent of temperature effect, at a very reasonable price.

Pressure ranges are now available to measure differential, gauge, compound gauge and absolute for a variety of gases and liquids. The display can be read out in any of the selectable engineering units or be scaled for flow rate or tank level depending on model selected.

An adjustable damping feature minimizes the effects of pulsating pressures. SPDT relays on AC powered units or the 4-20mA output on 24VDC units make the M2110 an ideal choice for many control and recording functions. Both models also include RS232C communications for additional control and data logging capabilities.

### Pressure Accuracy

Accuracy:  $\pm 0.05\%$  FS. No temperature effect from  $-4^{\circ}$  to  $122^{\circ}$  F ( $-20^{\circ}$  to  $+50^{\circ}$  C).

### Engineering Units

#### M2110P (Pressure)

mmHg, PSI, in Hg, mbar, Bar, kPA, Inches H<sub>2</sub>O (Select  $20^{\circ}$  C,  $4^{\circ}$  C or  $60^{\circ}$  F), Kg/cm<sup>2</sup>, cmH<sub>2</sub>O and user defined.

#### M2110F (Flow) & M2110L (Level)

gallons, pounds, cubic feet, liters, percent, kilograms, cubic meters, Inches H<sub>2</sub>O and user defined.

### Damping Rates

Exponential damping with user selectable time constant from 0.1 to 50 seconds.

### Media Compatibility

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

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

GI, CI or AI: Isolated gauge or absolute sensor for fluids compatible with 316L SS.

### Pressure Limits

DN: 2x F.S. when pressurized on high side only and 150 PSI static when applied to both sides simultaneously.

DI: 3x F.S. (P1-Hi) on Differential units - 1000 PSI static.

DI: 3x F.S. (P2-Lo) or 150 PSI, whichever is less.

GI, CI and AI: 2x F.S.

### Selectable Timeout (Battery Models)

User selectable shut-off. Programmable at 1, 2, 5, 10, 15, 25 minutes.

### Lockout

Two digit code to prevent inadvertent resetting of configurations.

### Adjustable Deadband (SPDT Relay Models)

Value can be set to 0, 0.1, 0.2, 0.5, 1, 2, 5 and 10% of F.S.



Meriam Process Technologies 10920 Madison Avenue, Cleveland, OH 44102

# Rely On The Trusted Leader In Measurement And Calibration

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### Technical Specifications

#### Enclosure

4 pounds. 1/4" DIN (3.8"x3.8"x6.5") aluminum enclosure with epoxy finish.  
Standard unit is NEMA 4X on front panel only. Battery and 4-20mA units are NEMA 4X throughout.

#### Keypad

Sealed membrane type with 4 dome contact style buttons.

#### Display

4.5 digit LCD, 0.6" high (15.24 mm)  
LED Backlight

#### Power

Standard unit has selectable 110 VAC 50/60 HZ, 240 VAC 50/60 HZ or 24 VDC power.  
Lithium Battery (2 - "D" Cells on battery board).

#### Wetted Parts

DN: 316L S.S., Brass, Viton  
DI: 316L S.S., Viton O-rings  
CI, GI and AI: 316L S.S.

#### Connections

1/8" FNPT, 316L SS  
DI Sensors Only: 5/16 - 24 SAE/MS J1926 flushing ports with 316L SS plugs (2 each optional) (Consult factory for other materials)

#### Accuracy

Pressure:  $\pm 0.05\%$  FS.  
Analog Output (3 Wire):  $\pm 0.05\%$  FS. + 3 Counts  
Zero Drift:  $\pm 0.015\%$  FS. - Zero prior to use eliminates this effect.

#### Temperature Specifications

Storage: -40° F to 140° F (-40° C to 60° C)  
Operating: -4° F to 122° F (-20° C to 50° C)

#### Pressure Ranges

(DN) Differential, Non-Isolated, Dry  
0-10", 0-28", 0-415", 0-2,000" H2O

(DI) Differential, Isolated, Wet  
0-5, 0-15, 0-30, 0-100, 0-300, 0-500 PSID

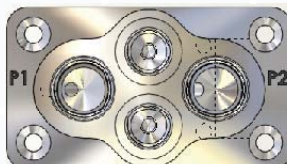
(GI) Gauge, Isolated  
0-15, 0-30, 0-50, 0-100, 0-300, 0-500, 0-1,000,  
0-3,000 PSIG

(CI) Compound Gauge, Isolated  
-15 to 15, -15 to 30, -15 to 50, -15 to 100,  
-15 to 300, -15 to 500, -15 to 1,000, -15 to 3,000 PSIG

(AI) Absolute, Isolated  
0-17, 0-38, 0-100, 0-1,000 PSIA



DN or DI Standard Manifold



DI - Option 4 Port Manifold with Flushing Ports



GI, CI, or AI Standard Manifold

### Ordering Information

#### Model No & Description

M2110P: (Specify Range) - (Mounting Option) - (Power Option)  
M2110F: (Specify Range) - (Mounting Option) - (Power Option)  
M2110L: (Specify Range) - (Mounting Option) - (Power Option)

#### Mounting Options

01 = Panel Mount  
02 = 2" Pipe Mount  
03 = Portable Bench Top

All Models Include: NIST Cert and Data

#### Power Options

1 = 110 VAC, 240 VAC, 24 VDC/RS232C, 2 SPDT Relays  
2 = Lithium Batteries with No Outputs - NEMA 4X  
3 = 24 VDC/4-20mA (3 Wire), RS232C - NEMA 4X  
4 = 1-5 Volt Output

Example: M2110P-DN0028-03-1  
Pressure Unit, 0-28" H2O, Portable,  
User Configurable

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