

# 3900/3910 Digital Pressure Gauge



The MERIGAUGE digital pressure gauge from Meriam Instrument successfully addresses the modern demands of process pressure measurement. Pressure ranges are available to 6,000 PSIG at standard accuracy of  $\pm 0.25\%$  of Full Scale and optional accuracy of  $\pm 0.10\%$  of full scale. A combination gauge that can be used for positive pressure measurements and vacuum measurements is also available. The standard gauge is powered by two 9 volt alkaline or lithium batteries. Externally powered units are available. The pressure display is a 4 1/2" digit LCD with 0.6" high numerals. Each gauge includes 12 field selectable engineering units. The selectable units include PSIG, feet of water, inches of water, inches of the mercury, Bar, millimeters of mercury, kilopascals and user configurable units. In addition to numeric pressure indication, visual indication of the pressure is represented by an adjustable vertical bar graph on the left side of the display. Other standard features include Min/Max query, Zeroing, selectable Damping, selectable program Lock-out, adjustable display shutoff and field recalibration and adjustable display shutoff (for battery powered models). The housing is 304 stainless steel and NEMA 4 rated. Wetted components are 316 stainless steel for compatibility with many process fluids. Process connection is via a 1/4" MNPT 316 stainless steel stem.

Typical applications are instrumentation and control in the process industries, hydraulics, pneumatics, industrial gases and OEM's. Options such as panel mounting, 24 Vdc powered units, 4 to 20 mA output, adjustable SPDT relay outputs, and various style diaphragm seals add to the versatility of the MERIGAUGE.

## 3900/3910 MERIGAUGE Ordering Information

$\pm 0.25\%$ FS Models	Pressure Ranges	Options
3900-GI0010-XX-Y-ZZ	0 - 10 PSIG	XX= 01: Pipe Mount (battery power)
3900-GI0050 "	0 - 50 PSIG	02: Pipe Mount (external power)
3900-GI0100 "	0 - 100 PSIG	03: Panel Mount (battery power)
3900-GI0500 "	0 - 500 PSIG	04: Panel Mount (external power)
3900-GI1000 "	0 - 1000 PSIG	Y= 1: Battery Power
3900-GI1500 "	0 - 1500 PSIG	2: 24VDC Power (2 wire)
3900-GI3000 "	0 - 3000 PSIG	3: 4-20mA output (2 wire)
3900-GI5000 "	0 - 5000 PSIG	4: 24VDC, 4-20mA (4 wire)
3900-GI6000 "	0 - 6000 PSIG	5: 24VDC, 2 relay outputs
3900-VI0050 "	Vacuum - 0 - 50 PSIG	6: 24VDC, 2 relays, 4-20mA
		7: 24VDC, 1-5 VDC (4 wire) output
$\pm 0.10\%$ FS Models		8: 24VDC, 2 relays, 1-5 VDC
3910-Same pressure ranges and options as 3900		ZZ= 01: CE Approval
		02: CSA/Intrinsically Safe Approval

# 3900 / 3910 Digital Pressure Gauge

## Specifications

- **ACCURACY:**  
3900:  $\pm 0.25\%$  of Full Scale at calibrated temperature.  
3910:  $\pm 0.10\%$  of Full Scale at calibrated temperature. Temperature Effect: All units compensated to  $\pm 0.01\%$  of F.S. per  $^{\circ}\text{C}$ .
- **DISPLAY:** 4 ½ digit LCD (0.6" high), 0 - 100% vertical bar graph, Unit Indication, Low battery indicator.
- **POWER:**  
Options: • Two 9 volt alkaline batteries (included).  
• Lithium batteries for use below 32°F (0°C)  
• 24VDC or 110 VAC with optional adaptor.
- **ENCLOSURE:** NEMA 4, 304 stainless steel
- **MEDIA COMPATIBILITY:**  
Isolated sensor for processes compatible with 316SS
- **PROCESS CONNECTION:** ¼" male NPT, 316SS
- **OVER-PRESSURE LIMITS:**  
Twice the full scale range
- **WEIGHT:** 25 ounces.
- **TEMPERATURE:**  
Storage: -40° F to 158° F (-40° C to 70° C)  
Operating: 32° F to 140° F (0° C to 60° C)

## Standard Features

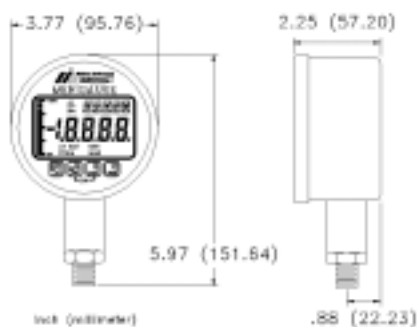
- **SELECTION OF ENGINEERING UNITS:**  
PSIG, Ft. H2O, In. H2O (60° F, 20° C, 4° C), In. Hg, Bar, mm Hg, kPa, & user selectable units
- **FIELD RECALIBRATION:**  
Recalibration can be done at any time using an accurate standard pressure reference.
- **SHUTOFF TIMER:** (available on battery powered units) Selectable from off to 50 minutes.
- **MIN/MAX:** Capture and display pressure extremes.
- **DAMPING:** Provides a stable pressure indication by averaging pressure measurements. Selectable from off to 50 seconds.
- **BARLo & BARHi:** A user scalable Bar Graph for visual indication of any pressure range. Default is 0 to 100% of full scale range.

## Options

- **24 VDC POWERED UNITS:**  
External powered units for extended gauge operation and for gauges with output options. Compliance voltage: 17 VDC to 30 VDC.
- **Intrinsically Safe (CSA) and CE APPROVAL:**  
Intrinsically Safe/CSA approval for use in Class 1, Division 1, Groups A,B,C,D environments (battery units only, others pending). CE approval for use in the European markets.
- **4 to 20 mA or 1-5 VDC OUTPUT:**  
Provides remote pressure monitoring. Fully adjustable throughout the gauge full scale range. Two wire configuration with a 6 foot pigtail and four wire configuration available for 4-20 mA. Four wire configuration for 1-5 VDC.
- **SPDT RELAY OUTPUTS:**  
Provides two adjustable SPDT relays that can be integrated in a control circuit to activate an external device such as a warning light, valve, solenoid, etc... Adjustable throughout the gauge full scale pressure range with adjustable deadband. Relay contacts are rated for 0.5 Amp @120 VAC and 1 Amp resistive @ 30 VDC.
- **PANEL MOUNTING:** Provides integral panel mounting bracket with rear pressure connection.
- **DIAPHRAGM SEALS:** Various sizes and styles of diaphragm seals including threaded, flanged and sanitary provide gauge to process isolation. Sanitary diaphragm seals are available for food and pharmaceutical applications.

## Dimensions

PIPE MOUNT



PANEL MOUNT

