DPG 2400 Series Digital Pressure Gauge

Data Sheet DPG 2400 • 02/2012

Applications

- Desk top monitoring of barometric pressure changes
- Production and test environments
- Pressure test benches

Features

- Ranges to 6000 psi
- 0.03% FS uncertainty
- RS-232 or RS-485 communications
- 17 selectable pressure units and 1 user defined unit
- Monochrome LCD display
- Display of max. and min. readings
- Null capability
- Unique and simple user interface
- Absolute, gauge, bidirectional or vacuum
- CE compliant
- Compact size



Digital Pressure Gauge Model DPG 2400

Description

General

Mensor's DPG 2400 Digital Pressure Gauge is a low cost, single range pressure measuring instrument. With an uncertainty of 0.03% FS and a small package design, this unit is perfect as a desktop pressure monitor or a barometer. The unique design of the DPG 2400 provides peak and null features, selectable from the main menu screen. Pressure units are selectable from a choice of 17 different units and one user defined unit. The small package, combined with lower uncertainty levels, make this a perfect choice where high levels of uncertainty are not required and cost is a concern.

Applications

The DPG 2400 is ideal for use as a desktop pressure monitor, barometer, or in production and test environments as a replacement for test gauges. The DPG 2400 is temperature compensated from 15 to 45 degrees Celsius and can be used in this range without degradation of accuracy. Pressure ranges are available in either absolute, gauge or bidirectional modes from as low as 10 in H_2O to as high as 6,000 psi. The price and accuracy of the DPG 2400 makes it an ideal replacement for a mercury manometer in environments where mercury may be a hazard. It is used in the health care industry, weather monitoring (as a barometer), and as a process or laboratory pressure indicator.

Functional Flexibility

The DPG 2400 has a clear LCD display with an intuitive menu structure for easy navigation within the setup screens. A membrane key pad provides the user the capability to navigate within these menus to set display features such as peak, null, pressure units. It also allows access to a password protected calibration section for recalibration of the internal sensor. The DPG 2400 can be operated from a remote computer via a RS-232 or RS-485 serial port connection. The serial port can be used to configure, read or calibrate the sensor. This is useful when remote indication of the pressure is required. RS-232 is used for communication over short distances and the RS-485 for longer distances and multidrop applications.

Related Products:
DPG 2300 Portable Digital Pressure Gauge
CPG 2500 Digital Pressure Gauge

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Specifications

Pressure types		Absolute, gauge, bidirectional, vacuum
Pressure ranges		Gauge: 0.36 to 6000 psig Absolute: 7.5 to 6000 psia Bidirectional: -0.36 to 0.36 min. psig Vacuum: -atm to 6000 max.
Total uncertainty		0.03% FS over compensated temperature range for 180 days.
Resolution		5 digits
Compensated temperature	°C	15 to 45
Storage temperature	°C	-20 to 70
Pressure units		psi, inHg @0°C, inHg @60°F, inH_2O @4°C, inH_2O @20°C, bar, mbar, mmHg @0°C, cmHg @0°C, Pa, hPa, kPa, MPa, kg/cm^2, cmH_2O @4°C, cmH_2O @20°C, MSW @0°C
Pressure interfaces		7/16 - 20 SAE, Ref: 10-24, 1/8 and 1/4" FNPT adapters included
Media compatibility		**Pressure port:** Clean, dry, non-corrosive, non-combustible, non-oxidizing gases for all rated ranges. Ranges ≥ 7.5 psi: All other media compatible with aluminum, 316 stainless steel, brass, Buna N, Viton, sealant, silicone grease and RTV. Not designed for oxygen service. Cannot guarantee accuracy on media other than gases. **Reference port:** Clean, dry, non-corrosive gases.
Warm-up time	min	<1 minute
Communications		RS-232 or RS-485
Baud rate	baud	9600 baud, N,8,1
Reading rate	sec	~4.6
Response time	mS	<252
Orientation		Negligible >30 psi zero offset resettable w/zero – can be completely removed with re-zeroing
Power input		12 VDC, .125 A
Display		Monochrome 128x64 LCD, with white LED backlight
Weight	lbs.	<1.5
Case size	in.	2.6" H x 4.2" W x 4.9" D
Warranty		One year
CE		Compliant to EN50081, EN50082.
Options		Relief valves for ranges >100 psi mounted externally. Rack mount kit.

Total Uncertainty includes the uncertainties of the following: calibration standard, repeatability, pressure hysteresis, creep, linearity, and temperature effects over the compensated temperature range.

Since product innovation is a continuous process at Mensor, we reserve the right to change specifications without notice.

The calibration program at Mensor is accredited by A2LA as complying with both the ISO/IEC 17025:2005 and the ANSI/NCSL Z540-1-1994 standards. All Mensor primary standards are traceable to NIST. Mensor is registered to ISO9001:2008.

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