

DPG 2400 Barometer

Data Sheet DPG 2400 Barometer 07/2013

mentor

Applications

- Barometric pressure monitoring
- Weather stations
- Replacement of Mercury manometers
- Calibration of medical radiation devices

Features

- 0.03% of reading accuracy
- Range: 8 to 17 psia (~560 to 1170 mbar)
- Alternate range: 17 to 34 inHg A @ 0C
- Peak, null functions



DPG 2400 Barometer

Description

The DPG 2400 Barometer is low cost single channel Barometer with a range of 8 to 17 psia. With an accuracy of 0.03% of reading it is considered an excellent replacement for Mercury manometers. Alternative ranges can be specified in a variety of units including inches of Mercury (inHg A), millibar (mbar) and kilo pascals (kPa). Built in peak and null functions provide a convenient way to analyze barometric trends.

Applications

The DPG 2400 Barometer is used as a desk top or rack mounted barometric reference for weather stations, laboratories, clean rooms, nuclear power plants, pharmaceutical processing, health care equipment manufacturing and Calibration of medical radiation equipment. The DPG 2400 Barometer is used wherever there is a need to have a precise measurement of barometric pressure in manufacturing, testing, calibration or monitoring of atmospheric pressure.

Functional Flexibility

The DPG 2400 Barometer 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.

Communications

The DPG 2400 Barometer 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 barometric pressure is required. 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.

Specifications

DPG 2400 Barometer

Uncertainty		0.03% R
Pressure range	psia	8 to 17 psia (other unit ranges are available within the equivalent psi range)
Resolution	Digits	5
Overpressure limits	% FS	150
Compensated temperature	degrees C	15 to 45
Storage temperature	degrees C	-20 to 70
Warm-up time	Min.	<1
Reading rate	/sec	~4.6 sensor readings
Response time	mS	<252
Case size	in.	2.6 high x 4.2 wide x 4.9 deep
Weight	lbs.	<2
Orientation		Negligible, can be removed with re-zeroing
Communications		RS-232 or RS-485 (100 ft cable length recommended)
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.
Power input		12 VDC, .125 A
Pressure interfaces		7/16 - 20 female SAE/MS. 1/8" FNPT adapters provided
Pressure units		psi, inHg @0°C, inHg @60°F, inH ₂ O @4°C, inH ₂ O @20°C, bar, mbar, mmHg @0°C, cmHg @0°C, Pa, hPa, kPa, MPa, kg/cm ² , cmH ₂ O @4°C, cmH ₂ O @20°C, MSW @0°C
Display		Monochrome 128 x 64 LCD with white LED backlight

Total Uncertainty is the combined uncertainties of all components of a measurement at the approximate 95% confidence level (K=2). 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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