

CPG 2500 Barometer

Mensor/WIKA Data Sheet CPG 2500 Barometer 02/2012



Applications

- Barometric pressure monitoring
- Weather stations
- Replacement of Mercury manometers
- Calibration of barometers

Features

- 0.01% of reading accuracy
- Range: 8 to 17 psia (~560 to 1170 mbar)
- Alternate Ranges: 17 to 34 in Hg @ 0C
- Color touch screen
- Sea level adjustment
- Peak, null, and rate functions



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Description

The CPG 2500 Barometer is a high accuracy barometer with a range of 8 to 17 psia. Alternative ranges can be specified in a variety of units including inches of Mercury (in Hg A), millibar (mbar) and kilo pascals (kPa). 0.01% Percent of reading accuracy for the full span of the barometric range sets the CPG 2500 apart from other barometers. Availability of the peak, rate and null functions provide a way to analyze barometric trends. Remote communications via a RS-232, ethernet or optional IEEE-488.

Applications

The CPG 2500 Barometer is used as a desk top or rack mounted barometric reference for weather stations, laboratories, clean rooms, nuclear power plants, pharmaceutical processing and health care equipment manufacturing. The CPC2500 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 CPG 2500 Barometer is configured as a single channel pressure indicator, but a barometric range can be configured in a dual range CPG 2500 to include an additional channel to measure and read pressures up to 10, 000 psi

Communications

The CPG 2500 Barometer includes an RS-232 and Ethernet interface with an optional IEEE-488 port or an analog output (0 to 10 VDC). The display includes a remote status indicator providing a visual indication for analyzing remote communications errors in the syntax or command. Firmware updates can be performed over the included RS-232 or Ethernet interfaces.

Specifications

CPG 2500 Barometer

Uncertainty		0.01%R
Pressure range	psia	8 to 17 psia (other unit ranges are available within the equivalent psi range)
Resolution	Digits	6
Over pressure limits	% FS	200
Operating temperature	degrees C	15 to 45
Storage temperature	degrees C	-20 to 70
Warm-up time	Min.	<15
Reading rate	/sec	50 sensor readings
Response time	mS	<200
Case size	in.	3.5 high x 8.5 wide x 9.0 deep
Weight	lbs.	<5
Orientation		Negligible, can be removed with re-zeroing
Communications		Ethernet, RS-232, (Optional: IEEE-488 or analog)
Media compatibility		Pressure port: Clean, dry, non-corrosive, non-combustible, non-oxidizing gases for all ranges. Ranges ≥ 5 psi: Media compatible with 6000 series aluminum, 316 & 316L stainless steel, viton, oil, inconel 718. Cannot guarantee accuracy on media other than gases. Not designed for oxygen service. Reference port: Clean, dry, non-corrosive gases.
Power input		90 to 264 VAC, 47-63 Hz, 90VA max – optional international power plugs
Pressure interfaces		7/16 - 20 female SAE/MS. 1/8" FNPT adapters provided
Rate units		/sec, /min, /hr, /3 hrs.
Pressure units		35 pressure units plus 2 user defined units
Display		6.2 inch diagonal, 640 x 480 pixel color LCD touch screen

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 Corporation is registered to ISO9001:2008.



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