

CPG2500 Barometer

Data Sheet CPG2500 Barometer 09/2014



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
- Peak, null, and rate functions



CPG2500 Barometer

Description

The CPG2500 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 CPG2500 apart from other barometers. Availability of the peak, rate and null functions provide a way to analyze barometric trends. Remote communications is via IEEE-488, RS-232, USB or Ethernet.

Applications

The CPG2500 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 CPG2500 Barometer is configured as a single channel pressure indicator, but a barometric range can be configured in a dual range CPG2500 to include an additional channel to measure and read pressures up to 42, 000 psi. In addition, an external transducer with ranges up to 6000 psi can be connected to display a third pressure channel.

Communications

The CPG2500 Barometer includes IEEE-488, RS-232, USB and Ethernet port. 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, USB or Ethernet interfaces.

Specifications CPG2500 Barometer

Accuracy	0.01%R
Pressure range	8 to 17 psia (other unit ranges are available within the equivalent psi range)
Resolution	4 to 6 Digits (selectable)
Over pressure limits	150 %FS
Operating temperature	15 to 40 °C
Storage temperature	-20 to 70 °C
Warm-up time	<15 minutes
Reading rate	10 sensor readings/second
Case size	5.7" high x 8.6" wide x 17.70" deep (desk top with feet retracted)
Weight	<12.5 lbs./ 5.7 kg
Orientation	Negligible, can be removed with re-zeroing
Communications	IEEE-488, Ethernet, RS-232 and USB
Materials in contact with pressure media	Metals:6000/7000 series Aluminum, 316 SS, brass. Non Metals: PTFE (Teflon®), Urethane, Silicone, RTV, Silicone grease, PVC, Epoxy, Buna-N, fluoroelastomers (Viton®). Not designed for oxygen service.
Power input	100-120 or 200-240 VAC, 50-60Hz, 24VA max
Pressure interfaces	7/16 - 20 female SAE/MS. 1/8" FNPT, adapters provided
Pressure units	35 pressure units plus 2 user defined units
Display	7" color LCD display
Auxiliary pressure readings	Pressure rate in selected units /sec, /min, /hr, or /3 hrs. Pressure reading in alternate units Min / Max Peak
Rack mount options	-19" rack-mounting kit for single instrument mount. -19" rack-mounting kit for dual instrument mount.

Accuracy is defined by total measurement uncertainty with the coverage factor (k=2) and includes the intrinsic performance of the instrument (linearity, hysteresis, repeatability), the measurement uncertainty of the reference instrument, long term stability, influences of ambient conditions, drift and temperature effects over the calibrated range, with periodic zero point adjustment.

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

Represented by:

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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