

CPG2500 Precision Pressure Indicator Sub-Module - Vacuum Calibrator

Data Sheet CPG2500 Sub-Module - Vacuum Calibrator 10/2025



Applications

- Zero transfer standard for absolute transducers
- Pressure instrument manufacturing
- Vacuum calibration reference

Features

- 4 mTorr or better accuracy
- Range: 100 to 1000 mTorr
- Color touch screen
- Zero function
- Two year warranty



CPG2500 Sub-Module - Vacuum Calibrator

Description

The CPG2500 Vacuum Calibrator is a high accuracy vacuum indicator with a range of 100 to 1000 mTorr. 0.4% percent of reading accuracy throughout the range sets the CPG2500 apart from other vacuum standards. Availability of the zero function provide a way to correct for zero drifts in device under test. Remote communications is via IEEE-488, RS-232, USB or Ethernet.

Functionality

The CPG2500 Vacuum Calibrator is configured with a vacuum standard and optionally a second internal transducer. The remote transducer port on the back of the enclosure is dedicated to reading and correcting the zero offset of the device under test (DUT). It can automatically adjust the zero offset of Mensor digital pressure transducers. Note: Some transducers will need calibration sleds to access pressure ports or electrical connections.

User Interface

The CPG2500 Vacuum Calibrator is designed with a 7" color LCD touchscreen and an intuitive user interface to aid its operation. Navigation within the intuitive menu structure is easily learned. Recognizable touchscreen icons open screens for configuration. The vacuum reading displayed along with the current DUT reading on the home screen.

Communications

The vacuum calibrator communicates with the device under test (DUT) through a powered RS-232 port at the back. Remote operation of the standard can be achieved through RS-232, Ethernet, IEEE-488 or USB. Communication commands and queries are consistent with Mensor command set.

Specifications

Vacuum Transducer

Accuracy ⁽¹⁾	4 mTorr or less
Pressure range	100 ... 1,000 mTorr
Pressure type	Absolute
Calibration interval	365 days
Pressure media	Clean dry air or Nitrogen (ISO 8573-1:2010 class 5.5.4 or better)
Reading rate	33 readings/second
Calibration orientation	Horizontal

Basic Instrument

Instrument

Instrument version	Table top with tilt feet
Dimensions	See technical drawing
Weight	12.5 lbs./ 5.7 kg (with all internal options)
Warm-up time	Approximately 15 minutes

Display

Screen	7" color LCD
Resolution	Selectable from 4 to 7 digits
Data entry	Touch screen keypad
Languages	English, German, Spanish, French, Italian, Portuguese, Polish, Russian, Chinese, Japanese, Korean

Connections

Pressure connection	1/4" NPT female
Pressure adaptors	Standard: 1/4" NPT male to 1/4" tube adaptor
Overpressure limits	4 psi max

Voltage supply

Power input requirements	AC 100 ... 120 V, 50/60 Hz; AC 220 ... 240 V, 50/60 Hz
Switching power supply	Output: 12 VDC, 1.67 A (includes 4 region specific plugs adapters)

Permissible ambient conditions

Storage temperature range	0 to 70 deg C
Operating environment	0 ... 95 % RH (relative humidity, non-condensing)
Operating temperature range	15 ... 40 deg C

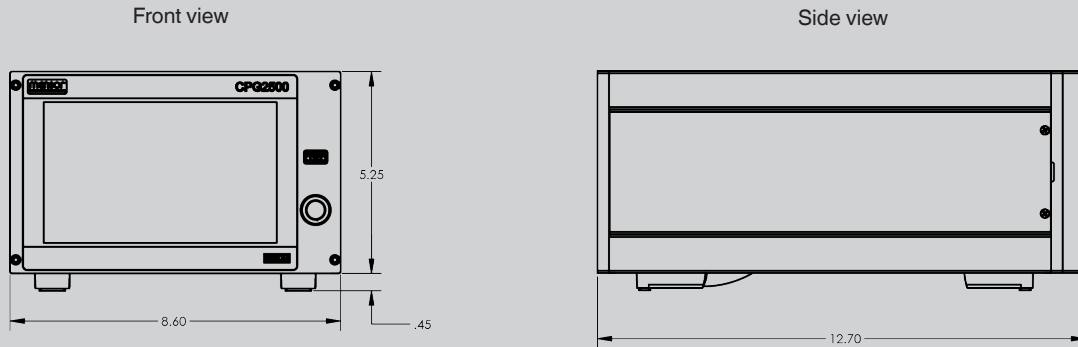
Communications

Remote interface	IEEE 488, RS-232, USB and Ethernet
Communication to DUT	RS-232 through Remote Transducer port and a communication cable
Command sets	Mensor, WIKA SCPI

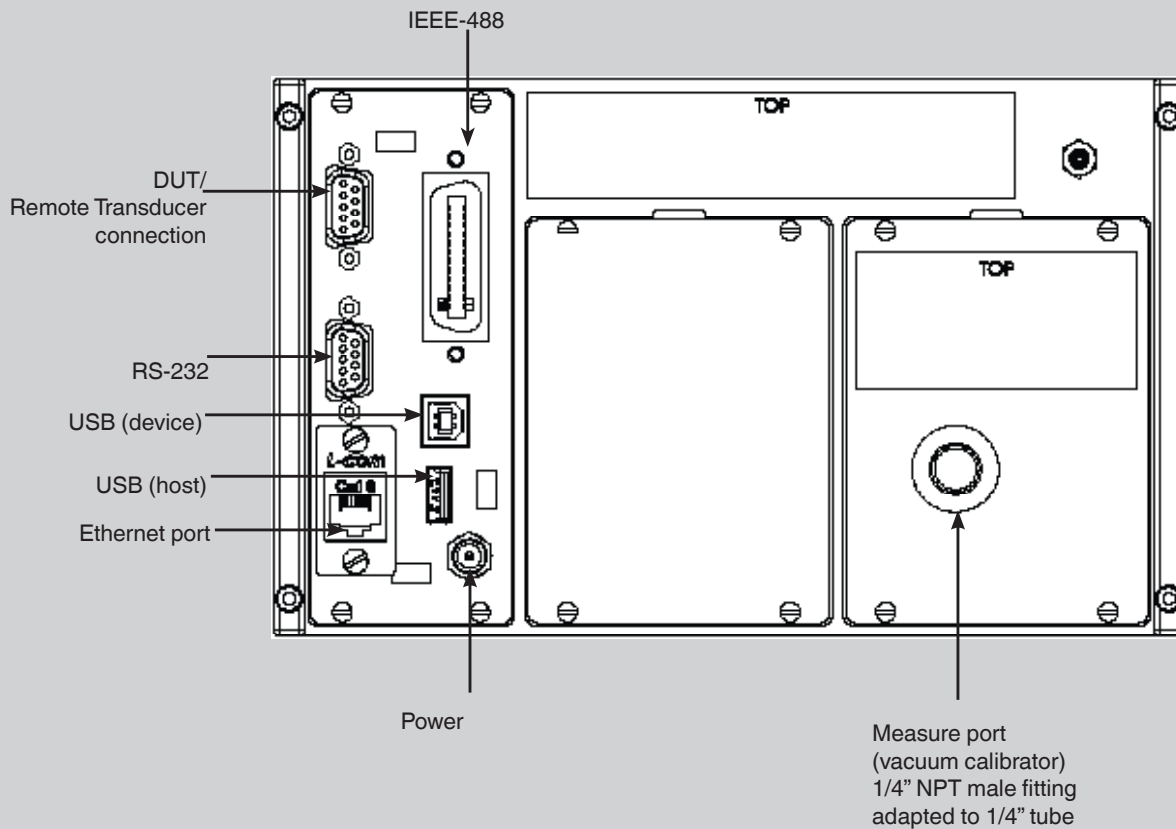
It is defined by the total measurement uncertainty, with the coverage factor ($k = 2$) and includes the intrinsic performance of the instrument, the measurement uncertainty of the reference instrument, long-term stability, influence of ambient conditions, drift and temperature effects over the compensated range.

Dimensions in inches

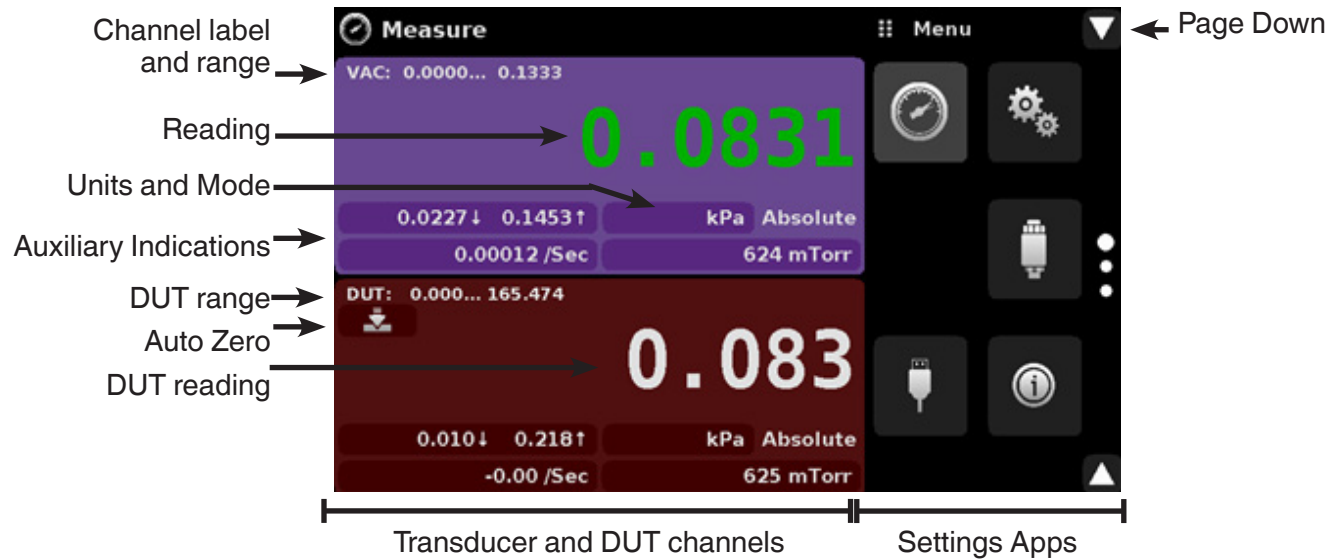
Desk top case



Rear Panel



Home Screen



Accessories



The CPG2500 Vacuum Calibrator can be configured with a vacuum pump and hose kit including a 2.1 CFM flow rate and 250 micron vacuum pump, a needle valve, 1/4" T-connector and 1/4" pressure tubes to DUT and vacuum calibrator. This kit is used to regulate and generate vacuum supply to the vacuum calibrator and the DUT.



Mensor
 201 Barnes Drive
 San Marcos, Texas 78666
 phone: 512.396.4200
 toll free: 800.984.4200
 fax: 512.396.1829
 e-mail: sales@mensor.com
 http://www.mensor.com