

# BENCHTOP PRESSURE STANDARDS WITH INTERCHANGEABLE RANGE MODULES

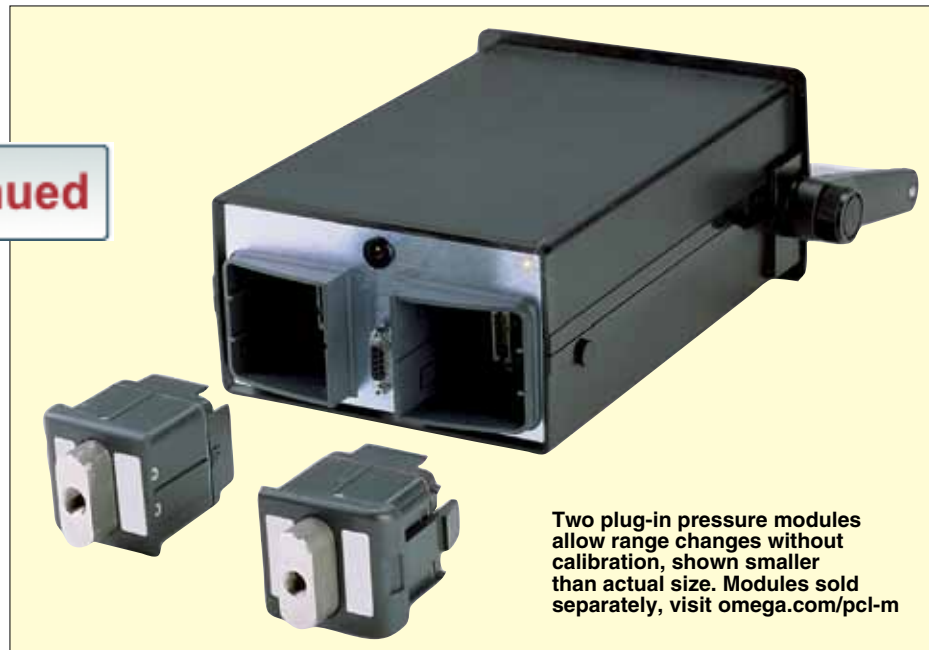


PCL-2A, with 2 pressure modules, PCL-MB-010G, and PCL-MB-1KG.

## PCL-2A Series

**Product Discontinued**

- ✓ Interchangeable Pressure Modules Available for Ranges from 0.25 inH<sub>2</sub>O to 7500 psi
- ✓ Large Display Indicates Dual Readings Simultaneously
- ✓ Accurate to 0.06% FS



The PCL-2A is the perfect companion product to OMEGA's PCL-1B handheld calibrator. For the ultimate in measurement flexibility, this benchtop or panel mount unit uses the same PCL-M pressure modules as the PCL-1B (for details, visit [omega.com/pcl-m](http://omega.com/pcl-m)).

An intuitive menu-driven user interface puts all of the PCL-2A power at the simple press of a key. It uses PCL-M plug-in modules to provide the ultimate in measurement flexibility.

Now you can purchase a calibration system to serve your field and bench mounting requirements while enjoying the significant cost savings gained through the availability of common pressure modules and software.

# BENCHTOP PRESSURE CALIBRATORS

## Standard Features

- Measurement of pressure, temperature, voltage and current
- Two-channel—simultaneous measurement and display of pressure, temperature, voltage or current in any combination
- Accuracy ratings of to 0.05% FS (pressure)
- Pressure ranges from 0.25 inH<sub>2</sub>O to 7500 psi
- Multiple engineering units—12 factory-programmed plus 1 user-programmable engineering unit
- Programmable damping
- Tare capability
- Display hold
- RS232 two-way communications
- Standard NIST-traceable certificate of calibration
- Data logging—automatic, manual and delayed actuation (user programmable)
- Relays—Hi/lo programmable configurations—N/O and N/C

- High-static differential pressure measurement with dual sensor
- Battery power—5 “AA” Ni-Cads with built-in charger (included)

## Application Capabilities

- Switch testing, including trip, reset and deadband
- Leak detection in either leak rate or pressure decay modes

- Flow velocity and volume measurement using standard pitot tubes and anubars
- Automatic % error calculation simplifies transmitter or transducer calibration
- Valve test and set using the minimum/maximum tracking feature

To Order	
MODEL NO.	DESCRIPTION
PCL-2A	Base unit, including data logging, high and low alarm relays and backlit display (requires 1 or more plug-in pressure modules, visit <a href="http://omega.com/pcl-m">omega.com/pcl-m</a> )

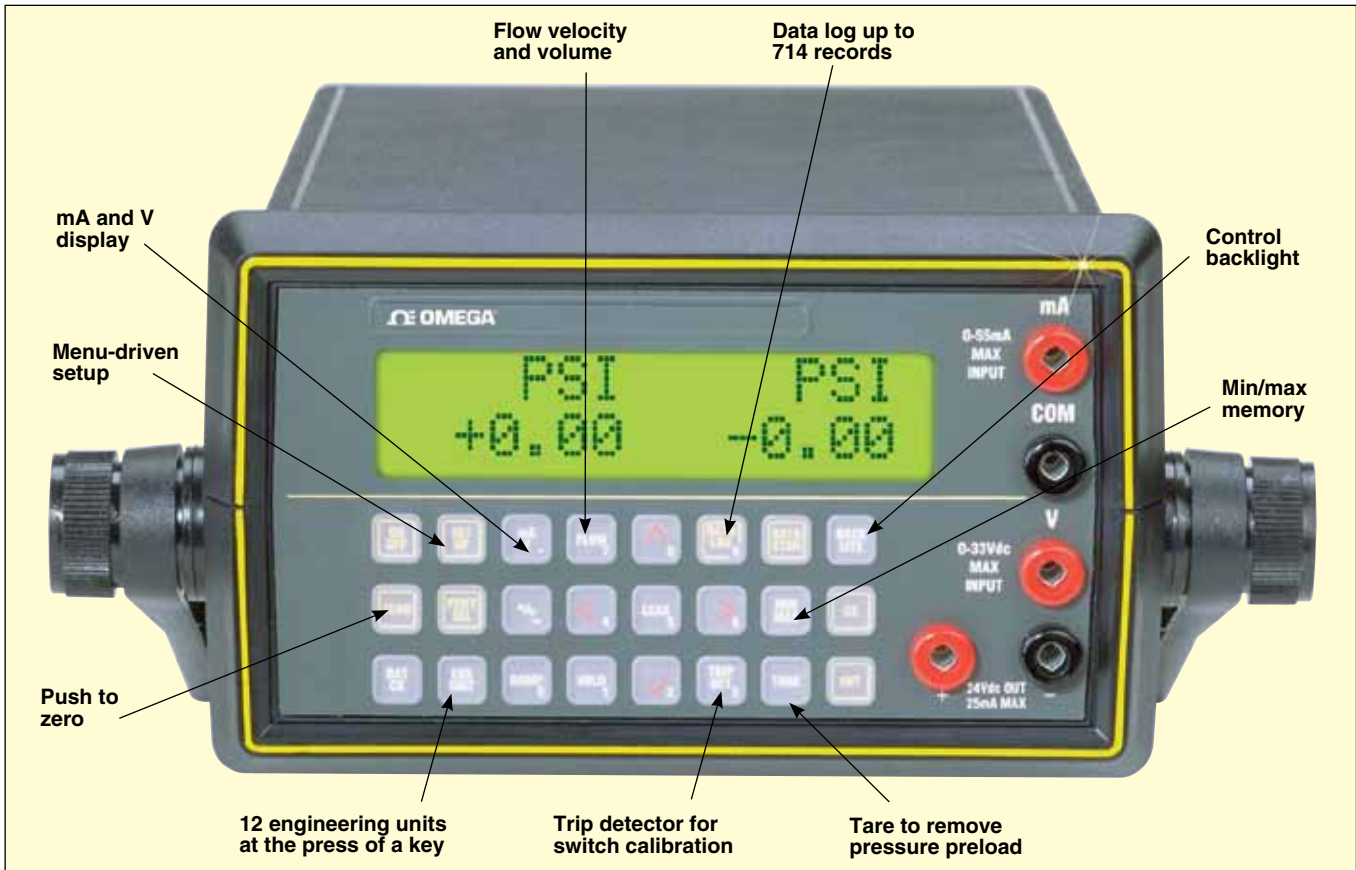
ORDER SUFFIX	DESCRIPTION
-B	Rechargeable Ni-Cad batteries
-E	Built-in 24 Vdc loop power supply

Comes complete with calibration certificate and operator's manual.

**Ordering Example:** PCL-2A-B, benchtop pressure calibrator with Ni-Cad battery option, PCL-MA-100BWC, ±100 inH<sub>2</sub>O, and PCL-MB-030G, 0 to 30 psig plug-in pressure module. For modules visit [omega.com/pcl-m](http://omega.com/pcl-m)

## Optional Features

- Supplies 24 Vdc to power transmitters, transducers, switches



# BENCHTOP PRESSURE CALIBRATORS

## SPECIFICATIONS

### Physical

**Dimensions:** 102 H x 171 W x 277 mm D  
(4.00 x 6.74 x 10.9")

**Panel Cutout:** 90 H x 167 mm W (3.53 x 6.56")

**Weight:** 9.0 kg (4.08 lb) with 2 modules maximum

**Case:** High impact ABS

**Sensor Module Capacity:** 2 bays for PCL-M series plug-in modules

**Display:** Backlit 2 line LCD, 0.94 mm (0.037") height per line; display of two plug-in modules simultaneously

**Electrical Connection:** Standard banana jacks

**Calibration:** Both plug-in modules and electronics base unit may be field calibrated

### Operating

**Operating Ambient:** 0 to 49°C (32 to 120°F)

**Storage Ambient:** -20 to 70°C (-4 to 158°F)

**Update Rate:** 130 ms nominal, with one sensor installed

**Resolution:** ±0.002% span, 60,000 count maximum

**Warm-Up:** 5 m for rated accuracy

**Serial Interface:** RS232, baud rates of 300/1200/2400/9600

**Power:** 110 Vac; optional NiCad batteries with built-in charger (or 5 "AA" alkaline batteries, non-rechargeable)

**Battery Life:** Up to 20 hr with no backlight, 2 hr with backlight on

**Data Logging:** Manual or automatic; store up to 715 measured values for upload to PC (utility software included)

**High-Low Relay:** Programmable setpoints for activation of alarms or control valves

### Voltage/Current Input

Input Range	Accuracy
0 to 10 Vdc	±0.025% FS
0 to 30 Vdc	±0.10% FS
0 to 20 mA	±0.03% FS
0 to 50 mA	±0.05% FS

**Temperature Effect:** ±0.0005% span per °C (0.001% span per °F) over compensated range

### PCL-M PLUG-IN MODULES

Visit [omega.com/pcl-m](http://omega.com/pcl-m) for ranges and specifications and ordering information

#### Gage/Differential/Compound Pressure Modules

**Input Ranges:** 0.25 to 200 inH<sub>2</sub>O gage; ±0.125 to ±100 inH<sub>2</sub>O differential; non-isolated, for clean, dry, non-conductive, non-corrosive gases

**Accuracy:** ±0.07% span (ranges below 2 inH<sub>2</sub>O); ±0.06% span (2 to 200 inH<sub>2</sub>O ranges)

**Media:** Clean, dry, non-conductive, non-corrosive gas

**Under/Overpressure:** -15 to 50 psi

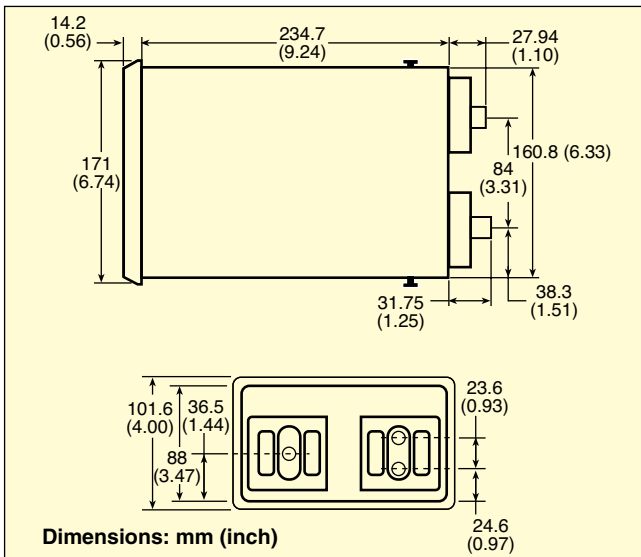
**Max Static (Line) Pressure:** 100 psi

#### Gage/Absolute/Vacuum/Differential Pressure Modules

**Input Ranges:** 5 to 7500 psig or psia; 5 to 15 psi vacuum; ±5 to ±15, -15 to 30 or -15 to 60 psi compound

**Accuracy:** 0.05% span (0.1% for 10k psi range)

**Media:** Any medium compatible with 316 SS isolation; 5 psi modules are non-isolated, for clean, dry, non-conductive, non-corrosive gases only



Dimensions: mm (inch)

**Overpressure:** 200% for ranges up to 1000 psi; 150% for ranges over 1000 psi

### MODULE COMMON SPECIFICATIONS

**Engineering Units:** psi, inHg, inWC, ftSW, bar, mbar, kPa, mPa, mmHg, cmWC, mmWC, kg/cm<sup>2</sup> and any single user-defined, field-programmable engineering unit

**Damping (Measurement Averaging):** Programmable, averaging from zero through 16 consecutive readings

**Compensated Temperature Range:** -6 to 49°C (20 to 120°F)

**Reference Temperature:** 21±2°C (70±3°F)

**Temperature Effect:** ±0.002% per °C (0.004% per °F) over compensated range

**Repeatability:** ±0.01% span (ranges above 0.5 inH<sub>2</sub>O); ±0.02% span (ranges below 1 inH<sub>2</sub>O)

**Sensitivity:** ±0.002% span, typical

**Process Connection:** 1/8 FNPT

**Thermocouple and RTD Modules Available for Temperature Calibration.**

Visit us online.