

HANDHELD PRESSURE CALIBRATOR WITH INTEGRAL ELECTRIC PRESSURE PUMP

Ω OMEGA®

PCL819 Series



- ✓ Internal Electric Pressure Pump Generates Pressure from -0.8 to 20 bar (-12 to 300 psi)
- ✓ Accuracy to 0.025% FS
- ✓ Source and Measure 4 to 20 mA
- ✓ 24 Vdc Loop Power Supply to Power Device Under Test
- ✓ Rugged, Compact Design, Just 1.2 kg (2.5 lb)
- ✓ Operates on 8 Standard "AA" Alkaline Batteries
- ✓ Pt100 RTD Input for Temperature Measurement
- ✓ Accepts All PCL-PM Series External Pressure Modules (PCL-PMA Module Adaptor Required)
- ✓ Large Graphic Style LCD with Backlight Can be Configured to Display Up to 3 Inputs Simultaneously
- ✓ 15 User Selectable Pressure Units



PCL819

OMEGA's PCL819 combines a high performance handheld pressure calibrator with an integral electric pressure pump in a small, lightweight, handheld unit. Before this innovation, users had to manually generate pressure using cumbersome manual pumps or large, heavy boxes with limited portability and battery life. The PCL819 is only slightly larger than the PCL340 series and weighs in at a mere 1.2 kg (2.5 lb). The housing is easily contoured to fit a technicians hand with good balance top to bottom. The internal pump

can generate vacuum or pressure from -12 to 300 psig.

The PCL819 has an internal isolated pressure sensor with 0.025% of full scale accuracy and comes in three gauge and two absolute pressure ranges. It is also compatible with the PCL-PM series external pressure modules which come in ranges from 5 to 5000 psig and also differential, absolute and compound ranges. A PCL-PMA module adaptor is required to use external modules.

In addition to pressure the unit also has an input for Pt100 RTD sensors for temperature and can measure and simulate 4 to 20 mA current loops. The large LCD graphic display can be configured to display up to 3 variables at the same time by the user. It provides a number of convenience features such as switch testing, percent error, and a damping function. Up to 5 frequently used configuration can be stored and retrieved with one button recall.

A

PRESSURE INSTRUMENTS



SPECIFICATIONS

Accuracy:

Pressure: $\pm 0.025\%$ FS from 15 to 35°C (59 to 95°F) (add 0.002%/°C outside of 15 to 35°C)

mA: $\pm 0.015\%$ of reading ± 2 counts (simulation and measurement)

Volts: $\pm 0.015\%$ of reading ± 2 counts (measurement only)

Temperature: $\pm 0.1^\circ\text{C}$ (0.2°C) (measurement only)

Operating Temperature:

-10 to 50°C (14 to 122°F)

Storage Temperature:

-20 to 60°C (-4 to 160°F)

Internal Pump: Electrically operated pneumatic pump generates -0.8 to 20 bar (-12 to 300 psi)

Batteries: 8 "AA" Alkaline batteries (included)

Battery Life: 100 pump cycles to 300 psi or 1000 cycles to 30 psi minimum

Pressure Connection: 1/8 NPT female

Electrical Connection: Standard banana jacks

RTD Connection: 4 pin LEMO style

External Module: 6 pin LEMO style

Dimensions: 200 H x 100 W x 60 mm D (8 x 4 x 2 3/8")

Weight: 1.2 kg (2.5 lb)

PCL-PM1KG,
pressure module,
shown smaller
than actual size.



PCL-PMA,
pressure module
adaptor, shown
smaller than
actual size.



PCL-PMA, pressure module adaptor, shown with PCL-PM1KG, 0 to 1000 psi external pressure module, sold separately. See OMEGA for more information and complete listing of available modules.

To Order

MODEL NO.	RANGE	TYPE
PCL819-30	-0.8 to 2 bar (-12 to 30 psi)	Gage
PCL819-150	-0.8 to 10 bar (-12 to 150 psi)	Gage
PCL819-300	-0.8 to 20 bar (-12 to 300 psi)	Gage
PCL819-30A	0 to 2 bar (0 to 30 psi)	Absolute
PCL819-150A	0 to 10 bar (0 to 150 psi)	Absolute

Comes complete with operator's manual, 8 "AA" batteries, test leads, test hose, dirt trap, fittings, calibration certificate, and carrying case.

ACCESSORIES

MODEL NO.	DESCRIPTION
PCL819-TRAP	Spare liquid and dirt trap
PCL819-BATT-KIT	Rechargeable battery kit
PCL-PMA	Pressure module adaptor (required to use PCL-PM series external pressure modules)

Ordering Examples: PCL819-150, -12 to 150 psig portable calibrator with built-in electric pump.

PCL819-30A, 0 to 30 psia portable calibrator with built-in electric pump, PCL-PMA, pressure module adaptor and PCL-PM100G, 0 to 100 psig external pressure module.