

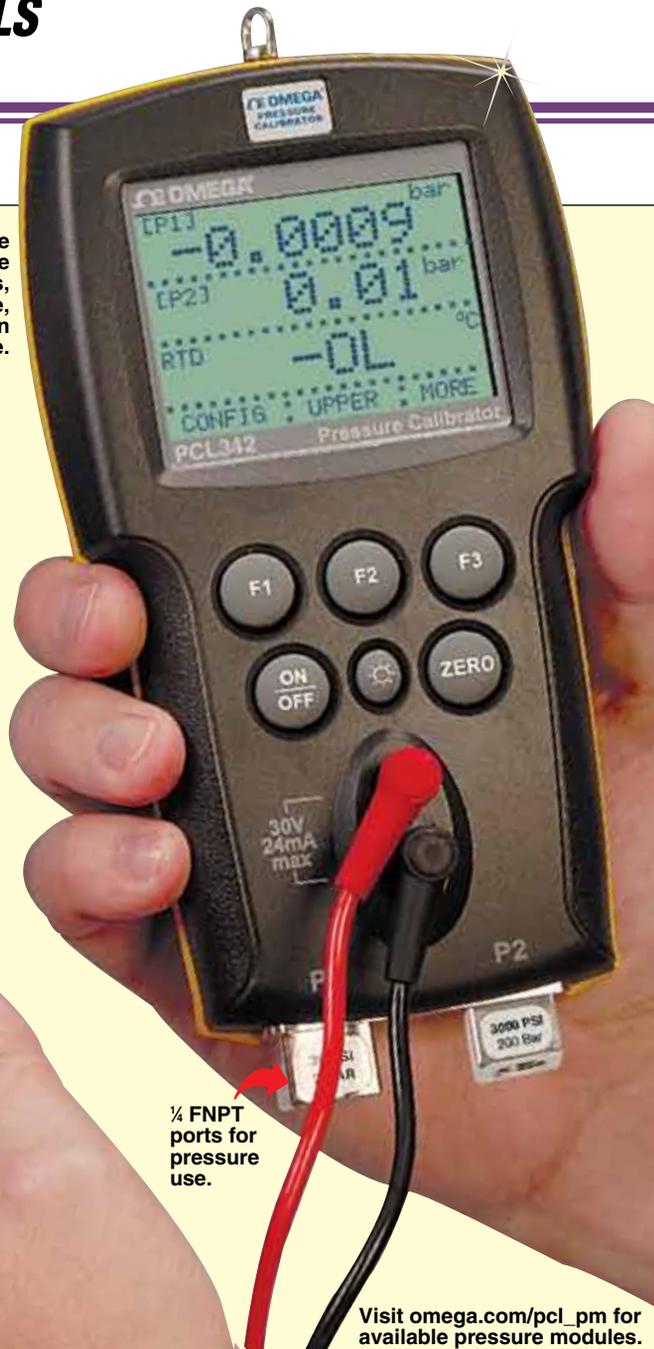
# HIGH-ACCURACY PRESSURE CALIBRATORS

## SINGLE AND DUAL RANGE MODELS

### PCL341 Series



PCL342-30 pressure calibrator complete with 4 "AA" batteries, test leads, soft case, and NIST calibration certificate.



1/4 FNPT ports for pressure use.

Visit [omega.com/pcl\\_pm](http://omega.com/pcl_pm) for available pressure modules.

- ✓ Triple Display: Pressure, Temperature, Process Voltage and Current
- ✓ Isolated, Stainless Steel Pressure Sensors with 0.025% FS Accuracy
- ✓ Temperature Compensation Ensures Accuracy in Field Applications
- ✓ External Connection Supports All OMEGA® PCL-PM Series Pressure Modules (25 Ranges) for Greater Measurement Capability
- ✓ Pt100 RTD Input for Temperature Measurement—Accurate to 0.1°C (0.2°F)
- ✓ Measures 4 to 20 mA Input
- ✓ Internal 24 V Loop Power Supply Can Power a Transmitter Under Test
- ✓ Measures Up to 30 Vdc
- ✓ Large, Graphic-Style LCD with Backlight

- ✓ Can Display Up to 3 Inputs Simultaneously (e.g., Pressure 1, Pressure 2, and RTD)
- ✓ Ideal for Gas Flow Calibration (Custody Transfer) Applications
- ✓ Switch Test on Pressure 1, Pressure 2, or External Pressure Module
- ✓ Operating-Mode Layers Support Both

- Simple and Complex Applications
- ✓ Up to 5-Setups Can be Stored; Last Setup Automatically Recalled on Power-Up
- ✓ % Error and Damping Functions
- ✓ Small, Rugged, Compact Design
- ✓ Operates on 4 Standard "AA" Batteries (Included)

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PRESSURE INSTRUMENTS

# HIGH-ACCURACY PRESSURE CALIBRATORS

PCL340-030,  
Visit us online for  
more information.

OMEGA's PCL341 and PCL342 set a new standard for handheld pressure calibrators. Both models have internal, isolated, stainless steel pressure sensors with 0.025% FS accuracy. For greater measurement capability, an external connection supports all OMEGA PCL-PM Series pressure modules. A Pt100 RTD input allows temperature readings accurate to 0.1°C (0.2°F) (One Pt100 RTD probe comes with the "-KIT" models). The PCL341 and PCL342 measure 4 to 20 mA loop current and up to 30 Vdc. An internal 24V loop power supply can power a transmitter under test.

The PCL342 can display up to 3 measurements simultaneously—for example, 3 pressure measurements. The ability to display 2 pressure readings along with an RTD temp makes the PCL342 ideal for gas flow calibration (custody transfer) applications.

The PCL341 is available in 9 ranges from 5 to 10,000 psig. The PCL342 comes in 2 standard ranges—15/1500 psi or 30/3000 psi—or the user can select 2 ranges from 5, 15, 100, 300, 500, 1000, 3000, 5000, or 10,000 psig. It also comes in a kit, which includes the PCL342 pressure calibrator, Pt100 RTD probe, 4 "AA" batteries, operator's manual, NIST-traceable certificate, test leads, and hard-sided carrying case.

## SPECIFICATIONS

(18 to 28°C Unless Otherwise Noted)

### General

Can store up to 5 setups; recalls last used on power-up

**Operating Temperature:** -10 to 50°C (14 to 122°F)

**Storage Temperature:** -20 to 60°C (-4 to 140°F)

**Power Requirement:** 6 Vdc

**Batteries:** 4 standard "AA" cells (included)

**Battery Life:** >35 hours, typical usage

**Dimensions:** 211 H x 99 W x 46 mm D (8.3 x 3.9 x 1.8")

**Weight:** 0.57 kg (1.25 lb)

**Connectors/Ports:** Pressure one (PCL341) or two (PCL342), 1/8 NPT OMEGA-P pressure module and RTD



Visit [omega.com/pcl\\_pm](http://omega.com/pcl_pm) for available pressure modules.

### Ranges

**Available Pressure (Select Any Two):**

5, 15, 30, 100, 300, 500, 1000, 3000, 5000, 10,000 psi

**mA:** 0 to 24 mA

**V:** 0 to 30 Vdc

**RTD:** -40 to 105°C (-40 to 220°F)

**Engineering Units (Keypad Selectable):**

psi, bar, mbar, kPa, kg/cm<sup>2</sup>, cmH<sub>2</sub>O @ 4 or 20°C, mH<sub>2</sub>O @ 4 or 20°C, inH<sub>2</sub>O @ 4 or 20°C, inH<sub>2</sub>O @ 60°F, mmHg, inHg, ftH<sub>2</sub>O @ 4 or 20°C, or 60°F

### Accuracy

**Pressure:** 15 to 3000 psi ±0.025% FS; for all ranges 5, 5000, 10,000 psi ±0.035% FS

**mA:** ±0.015% of rdg ±0.002 mA

**V:** ±0.015% of rdg ±0.002 V

**RTD:** ±0.015% of rdg ±0.02 Ω or ±0.1°C @ 0°C for Pt100  
**Temperature Effect:** No effect on accuracy from 15 to 35°C. Add ±0.002% FS/°C for temps falling outside the 15 to 35°C range.

## INTERNAL PRESSURE MODULE RANGES

<b>psig</b>	5.0000	15.000	30.000	100.00	300.00	500.00	1000.00	3000.0	5000.0	10,000.0
<b>bar</b>	0.7000	1.0342	2.0684	6.8947	20.684	34.474	68.9475	206.84	344.74	689.475
<b>kPa</b>	70.000	103.42	206.84	689.48	2068.4	3447.4	6894.75	20684	34474	68947.6



## To Order

MODEL NO.	DESCRIPTION		
<b>SINGLE PRESSURE SENSOR MODELS</b>			
PCL341-005	Pressure calibrator with one 5 psi sensor		
PCL341-015	Pressure calibrator with one 15 psi sensor		
PCL341-030	Pressure calibrator with one 30 psi sensor		
PCL341-100	Pressure calibrator with one 100 psi sensor		
PCL341-300	Pressure calibrator with one 300 psi sensor		
PCL341-500	Pressure calibrator with one 500 psi sensor		
PCL341-1K	Pressure calibrator with one 1000 psi sensor		
PCL341-3K	Pressure calibrator with one 3000 psi sensor		
PCL341-5K	Pressure calibrator with one 5000 psi sensor		
PCL341-10K	Pressure calibrator with one 10,000 psi sensor		
<b>DUAL PRESSURE SENSOR MODELS</b>			
PCL342-15	Pressure calibrator with 15 and 1500 psig sensor		
PCL342-30	Pressure calibrator with 30 and 3000 psig sensor		
PCL342-[xxx/yyy]*	Pressure calibrator with user-specified pressure modules		
<b>CALIBRATOR KITS</b>			
PCL342-15-KIT	Pressure calibrator kit with 15 and 1500 psig sensors		
PCL342-30-KIT	Pressure calibrator kit with 30 and 3000 psig sensors		
PCL342-[xxx/yyy]-KIT*	Pressure calibrator kit with user-specified pressure modules		
<b>EXTERNAL PRESSURE MODULES—MOST POPULAR RANGES**</b>			
MODEL NO.	PARAMETER RANGE GAGE (psig)	ACCURACY	OVERPRESSURE
PCL-PMA	Pressure module adaptor (one required)		
PCL-PM030G	0 to 30 (0 to 2 bar)	±0.025%	300%
PCL-PM050G	0 to 50 (0 to 3.5 bar)	±0.03%	300%
PCL-PM100G	0 to 100 (0 to 7 bar)	±0.025%	300%
PCL-PM300G	0 to 300 (0 to 20 bar)	±0.025%	200%
PCL-PM1KG	0 to 1000 (0 to 70 bar)	±0.05%	200%
PCL-PM3KG	0 to 3000 (0 to 200 bar)	±0.1%	200%
PCL-PM5KG	0 to 5000 (0 to 340 bar)	±0.1%	200%
PCL-PM015VAC	0 to -15 (0 to -1 mbar)	±0.025%, ±0.0025 psi	300%
PCL-PM015A	0 to 15 (0 to 1 bar) absolute	±0.025%, ±0.0025 psi	300%
PCL-PM030A	0 to 30 (0 to 2 bar) absolute	±0.025%	300%
PCL-PM015C	-15 to 15 (-1 to 1 bar)	±0.025%, ±0.0025 psi	300%
PCL-PM030C	-15 to 30 (-1 to 2 bar)	±0.025%, ±0.0025 psi	300%
PCL-PM030D	0 to 30 (0 to 2 bar) differential	±0.025%	300%

\* For PCL342-[xxx/yyy], specify “-xxx” for low pressure and “-yyy” for high pressure.

\*\* Visit us online for all ranges.

Comes complete with soft case, batteries, manual, NIST-traceable certificate and test leads. Pressure calibrator kits include calibrator, RTD Pt100 probe, 4 “AA” batteries, operator’s manual, NIST-traceable certificate, test leads and hard-sided carrying case.

**Note:** Gage, absolute and compound types are isolated and accept any media compatible with 316 SS. Vacuum and differential types are compatible with pressure media that are clean, dry, non-corrosive air or gas.

**Ordering Examples:** PCL341-030, single sensor pressure calibrator, 30 psig sensor.

PCL342-15, dual sensor pressure calibrator, 15 and 1500 psig internal sensors.

PCL342-30-KIT, pressure calibrator kit with 30 and 3000 psi sensors. For external pressure modules, specify 1 PCL-PMA adaptor and modules.

**Example:** PCL-PMA, PCL-PM015A, 15 psi absolute pressure module, and PCL-PM030C, vacuum to 30 psig module.