

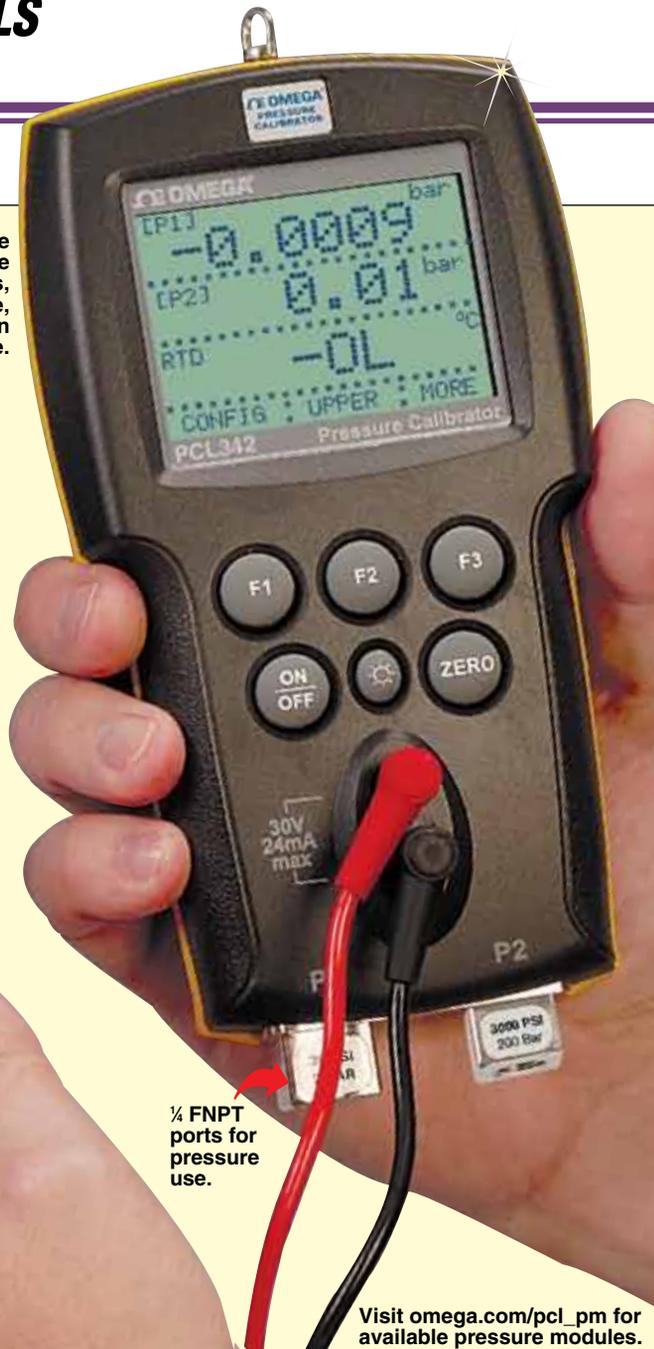
HIGH-ACCURACY PRESSURE CALIBRATORS

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 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)

HIGH-ACCURACY PRESSURE CALIBRATORS

PCL340-030,
Visit omega.com 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 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/cm², cmH₂O @ 4 or 20°C, mH₂O @ 4 or 20°C, inH₂O @ 4 or 20°C, inH₂O @ 60°F, mmHg, inHg, ftH₂O @ 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

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



To Order Visit omega.com/pcl341 for Pricing and Details

MODEL NO.	DESCRIPTION		
SINGLE PRESSURE SENSOR MODELS			
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		
DUAL PRESSURE SENSOR MODELS			
PCL342-15	Pressure calibrator with 15 and 1500 psig sensor		
PCL342-30	Pressure calibrator with 30 and 3000 psig sensor		
PCL342-[xxx/yyyy]*	Pressure calibrator with user-specified pressure modules		
CALIBRATOR KITS			
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/yyyy]-KIT*	Pressure calibrator kit with user-specified pressure modules		
EXTERNAL PRESSURE MODULES—MOST POPULAR RANGES**			
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/yyyy], specify “-xxx” for low pressure and “-yyy” for high pressure.

** Visit omega.com 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.

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