

PRECISION LOOP CALIBRATOR

VERY HIGH ACCURACY

PCL120, shown smaller than actual size.

PCL120



- ✓ **±0.015% Reading Accuracy**
- ✓ **0.001 mA Very High Resolution**
- ✓ **% Error Function—Eliminates Manual Error Calculation**
- ✓ **Extended Adjustment Range—Digital Knob and User-Selectable Decade Output Allow Large and Incremental (0.001 mA Step) Output Changes**
- ✓ **Reads 0 to 28 Vdc**
- ✓ **Built-In 250 Ω Resistor Facilitates Calibration of Hart® Devices**
- ✓ **Remote Calibration Through Automatic Step and Ramp Functions**
- ✓ **Loop Power Measurement Capability**
- ✓ **Simulates, Powers, and Measures 2-Wire Transmitters**
- ✓ **5-Preset Outputs (4, 8, 12, 16, 20 mA)**
- ✓ **Fuseless Input Protection Up to 250 Vac**
- ✓ **Protected by Full Rubber Boot**

With an accuracy of 0.015% of reading and 0.001 mA resolution, the PCL120 has the highest precision in its class. Other features that make the PCL120 stand out include a "% error" function, which eliminates manual error calculation and allows the display of actual versus ideal error at any calibration point. The PCL120 can simulate, power, and measure 2-wire transmitters. Its' automatic step and ramp functions enable remote calibration of 4 to 20 mA devices.

The PCL120 has many innovative, powerful features that make calibration easy. A few clearly marked keys give the user access to the full functionality of the unit. The STEP and RAMP output modes automate either a discrete 4-8-12-16-20-16-12-8-4 mA stair step output or 2 speeds of a linear 4-20-4 mA ramp output. Pressing the AUTO key (1) activates this time-saving function. To further aid remote calibration, the PCL120 features a minimum/maximum value recall function. In the measure mode, holding the AUTO/(MAX) key (1) gives a direct readout of the maximum value, while holding the 25%/(MIN) key (4) gives a direct readout of the minimum value. Holding the % ERROR key (2) while turning the large knob provides instant feedback on the difference between the ideal and actual current values required for a given device response. This tells the user whether the device is within its accuracy range. No further calculations are necessary. A LOOP POWER key (3) provides instant 24 Vdc loop power output. The 25% (4) key provides instant outputs of 4, 8, 12, 16, and 20 mA loop current, with increments occurring each time the key is pushed.

SPECIFICATIONS (@ 25°C)

Input
Current Range: 0 to 24 mA; -25 to 125%
Voltage (Reading): 0 to 28 Vdc
Input Protection:
 Fuseless up to 250 Vac

Output
Source/Simulate Range:
 0 to 24 mA; -25 to 125%

Drive Capability:
Without Hart®: 1200 Ω
With Hart®: 950 Ω



Loop Supply Voltage: 24 Vdc
Range Select: Decade; incremental in 0.001 mA steps
Resolution: 1 μA
Accuracy: ±0.015% of reading ±2 μA
Environmental
Operating Temperature: -10 to 55°C (14 to 131°F)
Storage Temperature: -20 to 70°C (-4 to 158°F)
Power: 9 Vdc; battery included
Mechanical
Dimensions (Without Boot):
 144.7 H x 80 W x 3.63 mm D (5.7 x 3.15 x 1.43")
Weight: 340 g (12 oz)



OMEGACARESM extended warranty program is available for models shown on this page. Ask your sales representative for full details when placing an order. OMEGACARESM covers parts, labor and equivalent loaners.

To Order Visit omega.com/pcl120 for Pricing and Details

| MODEL NO. | DESCRIPTION |
|--------------|---|
| PCL120 | Precision loop calibrator |
| PCL-ACA | 120 Vac, power adaptor, PCL422A-BATT required |
| PCL422A-BATT | 9V NiCad battery |

Comes complete with test leads, 9V battery, NIST-traceable certificate and operator's manual.
Ordering Examples: PCL120, precision loop calibrator.
 OCW-1 OMEGACARESM extends standard 1-year warranty to a total of 2 years.

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