

# PCON-Y17 Pressure Controller/Calibrator



Desktop  
version



Direct Printing of Calibration Report (pass / fail)  
(PDF or connected USB printer)

- ★ Control pneumatic pressure from vacuum up to 3,000 psi (210 bar).
- Automatic calibration of pressure switches and pressure transmitters.
- 24 Vdc regulated power supply for 2-wire transmitters.
- Optional barometric reference to emulate absolute pressure.
- Configurable stabilization and control settings.
- Optional Hart.
- Protection of calibration data for 21 CFR Part 11 Compliance.
- Auto tuning to different input supply pressures.



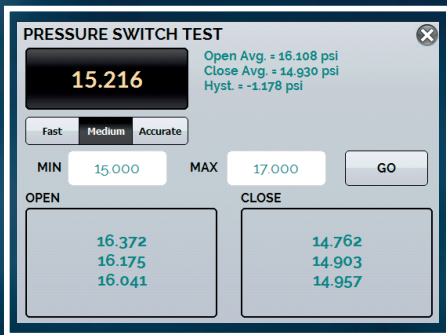
**HART**  
COMMUNICATION PROTOCOL

19" Rack  
Mounting  
version

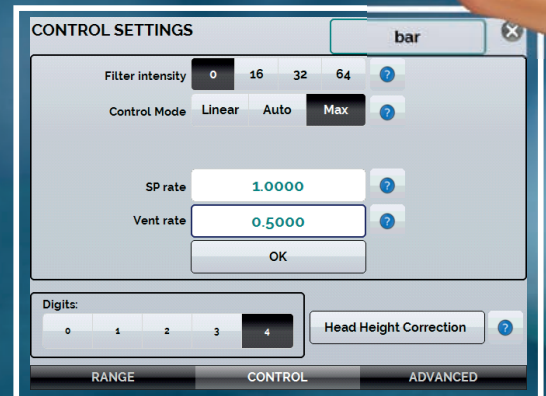
**PRESYS** Instruments Inc.  
[www.presyscorp.com](http://www.presyscorp.com)

# PRESYS® Pressure Controller/Calibrator

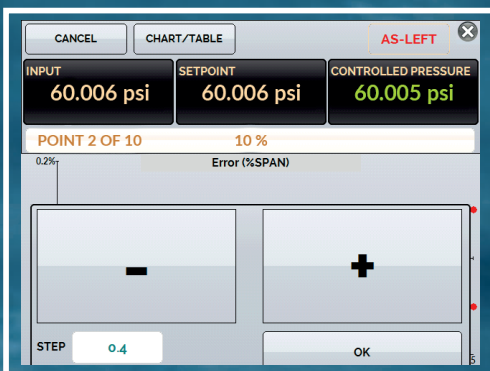
- ✓ Touch Screen display provides easy-to-read data and shows 2 simultaneous variables.
- ✓ Intuitive menu navigation helps to identify calibrator information for any operational mode.
- ✓ Hart Calibration shortcut for easy and direct adjust of upper and lower range of the sensor-transmitter loop.



- ✓ PRESET STEPS creation to optimize calibrations.
- ✓ Automatic testing of pressure switches.



- ✓ Different pressure control settings to avoid overshoot or to limit pressure increase/decrease rate.
- ✓ Pressure height of head correction.



- ✓ Fast calibration of gauges using jog keys to reach cardinal points.
- ✓ Calibrate your gauges in 5 minutes and directly print the report without writing anything down.

- ✓ SCPI Protocol to communicate with your existing application and replace your obsolete controller.
- ✓ Creation of Automatic Calibration Procedure.

AS FOUND PERFORMED BY:				
POINT	EXPECTED	OBTAINED	ABS. ERR.	SPAN ERR.
0.000 psi	4.0000 mA	3.9988 mA	-0.0012 mA	-0.007%
2.500 psi	8.0000 mA	7.9988 mA	-0.0012 mA	-0.008%
5.000 psi	12.0000 mA	11.9964 mA	-0.0036 mA	-0.023%
7.499 psi	15.9984 mA	15.9964 mA	-0.0020 mA	-0.013%
10.001 psi	20.0016 mA	19.9987 mA	-0.0029 mA	-0.018%

AS LEFT PERFORMED BY:				
POINT	EXPECTED	OBTAINED	ABS. ERR.	SPAN ERR.
0.005 psi	4.0080 mA	4.0002 mA	-0.0078 mA	-0.049%
2.498 psi	7.9968 mA	7.9925 mA	-0.0043 mA	-0.027%
5.004 psi	12.0064 mA	11.9946 mA	-0.0118 mA	-0.074%
7.499 psi	15.9984 mA	15.9871 mA	-0.0113 mA	-0.071%
10.001 psi	20.0016 mA	19.9874 mA	-0.0142 mA	-0.089%

- ✓ Video to show tutorials or registered procedures
- ✓ Automatic cycling and generation of the calibration report on a direct connected USB printer or generation of a PDF file.

**Calibration report for tag PIT-001**

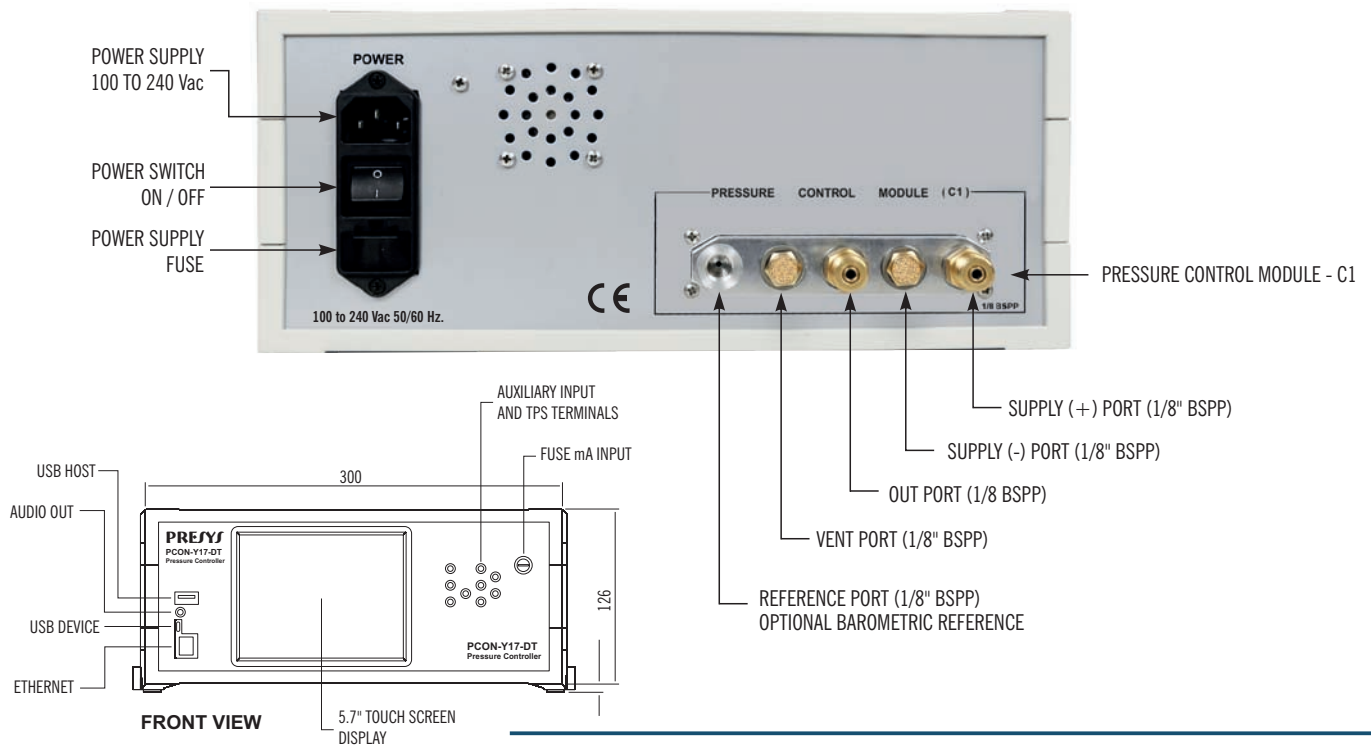
**PRESYS**

TASK DETAILS  
 CREATED IN: 12/04/16  
 INSTRUMENT DETAILS:  
 TAG: PIT-001  
 SERIAL NUMBER: 12345  
 MODEL: ST-3000  
 MANUFACTURER: HoneyWell  
 Pressure Control: 0 to 10 psi  
 OUTPUT RANGE: 4 TO 20 mA  
 MAX ERROR: ± 0.5% SPAN (SPAN = 16 mA)  
 LEAD TIME: 15 SECONDS

As-left performed by:					
POINT	EXPECTED	OBTAINED	ERROR	SPAN ERR.	PASS/FAIL
0.030 psi	4.0487 mA	4.0361 mA	-0.0126 mA	-0.079%	Pass
2.518 psi	8.0283 mA	7.9968 mA	-0.0315 mA	-0.197%	Pass
5.018 psi	12.0295 mA	11.9960 mA	-0.0335 mA	-0.210%	Pass
7.503 psi	16.0048 mA	15.9584 mA	-0.0464 mA	-0.290%	Pass
10.005 psi	20.0078 mA	19.9540 mA	-0.0538 mA	-0.336%	Pass
10.011 psi	20.0180 mA	19.9545 mA	-0.0635 mA	-0.397%	Pass
7.503 psi	16.0055 mA	15.9610 mA	-0.0445 mA	-0.278%	Pass
5.020 psi	12.0317 mA	11.9942 mA	-0.0375 mA	-0.234%	Pass
2.506 psi	8.0090 mA	7.9892 mA	-0.0198 mA	-0.123%	Pass
0.014 psi	4.0216 mA	4.0038 mA	-0.0178 mA	-0.111%	Pass

Standard serial number: 197.03.16  
 Standard last calibration: 01/04/2016  
 Operator signature: \_\_\_\_\_

## Pressure ports - rear view (DT)



## PCON common features

- ▶ 5.7" Touch Screen Color Display. Dual Core 1 GHz processor and Flash memory of 16 GB
- ▶ Ethernet, Wi-Fi via USB/Ethernet router adapter, Serial USB with SCPI protocol
- ▶ Integrated WebServer, client-server technology to pick-up tasks on remote server
- ▶ Host/Device USB port
- ▶ Optional HART Communication
- ▶ Pressure switch automatic testing
- ▶ Input Current: -1 to 24.5 mA,  $\pm 0.02\%$  FS
- ▶ Transmitter Power Supply: 24 Vdc regulated
- ▶ Leak test
- ▶ Temperature compensated accuracy from 0°C to 50°C
- ▶ User selectable pressure unit: Pa, hPa, kPa, MPa, bar, mbar, psi, mmHg@0°C, cmHg@0°C, mHg@0°C, inHg@0°C, inH<sub>2</sub>O@4°C, mmH<sub>2</sub>O@4°C, cmH<sub>2</sub>O@4°C, mH<sub>2</sub>O@4°C, mmH<sub>2</sub>O@20°C, cmH<sub>2</sub>O@20°C, mH<sub>2</sub>O@20°C, kg/m<sup>2</sup>, kg/cm<sup>2</sup>, mtorr, torr, atm, lb/ft<sup>2</sup>
- ▶ Media: clean gas (air or inert), pressure input 50 % to 120 % of full scale
- ▶ Control speed: 10 s (for 10 % FS pressure increase in a 50 ml test volume)

## PCON-Y17-FS

Our pressure controller integrated in a rugged case with a powerful battery for your field services.



# Technical Specifications

## Order Code

**PCON-Y17** - [ ] - [ ] - [ ] - [ ] - [ ] - [ ]

Pressure Control Module (C1)

Barometric reference (Optional)

### Mounting Version

**DT** - Desktop Version (for Workbench use)

**RM** - Rack Mounting Version (Fixed in a 19" Rack or Workbench)

### Hart Communication

**NH** - Without Hart Communication

**CH** - Hart Calibrator (basic commands: zero, span, trim mA)

**FH** - Full-Hart® Configurator, with DD library from *FieldComm Group* and one year updates.

### Pressure Controller Range (C1)

Ranges	psi	bar	SI-Pascal	Control Stability	Accuracy
(0)	0.35 psi	25 mbar	2.5 kPa	± 0.04 % FS*	± 0.025 % FS
(1)	0-1 psi	70 mbar	7 kPa	± 0.02 % FS	± 0.025 % FS
(2)	0-5 psi	350 mbar	35 kPa	± 0.004 % FS	± 0.012 % FS
(3)	0-15 psi	1 bar	100 kPa	± 0.002 % FS	± 0.012 % FS
(4)	0-30 psi	2 bar	200 kPa	± 0.002 % FS	± 0.012 % FS
(5)	0-100 psi	7 bar	700 kPa	± 0.002 % FS	± 0.012 % FS
(6)	0-250 psi	20 bar	2.5 MPa	± 0.002 % FS	± 0.012 % FS
(7)	0-500 psi	35 bar	3.5 MPa	± 0.004 % FS	± 0.012 % FS
(8)	0-1000 psi	70 bar	7 MPa	± 0.004 % FS	± 0.012 % FS
(9)	0-3000 psi	210 bar	21 MPa	± 0.004 % FS	± 0.012 % FS

### Pressure Type (C1)

**G** - Gage

**V** - Vacuum (Only for range 3)

**C** - Compound\*\*\* (From range 3 to 8)

**Note:** For **Absolute** Pressure, must be included the **BR** optional (Barometric Reference)

### Optional

**BR** - Barometric Reference to measure and emulate absolute pressure  
Accuracy 0.025 % FS, range 15 psig

**Pneumatic Connections (Pressure Control Module - C1):** 1/8" Female BSPP (Supply (+) / Supply (-) / Output / Reference).

**Power Supply:** 100 to 240 Vac 50/60 Hz.

**Operating Ambient:** 0 to 50 °C, 90 % maximum relative humidity.

**Dimensions:** 125 mm x 300 mm x 265 mm (DT Version) / 132 mm x 483 mm x 105 mm (RM Version) (HxWxD).

**Weight:** 6.2 kg (DT Version) / 8.5 kg (RM Version) nominal.

**Warranty:** 1 year.

**PRESYS**  
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Your Distributor: