

PRESYS®

Dry Block
Temperature
Calibrators

Universal
Process
Calibrators

Automatic
Pressure
Calibrators

SMART CALIBRATORS

Field Version



Desktop Version



Ready for Metrology 4.0

HART
COMMUNICATION PROTOCOL



Rack Mounting Version
For use in 19" rack

PCA-570 Advanced Pressure Calibrator

Integrating real advanced documenting
and communication functions

www.presys.com.br

Advanced Pressure Calibrator PCA-570

- ✓ Up to four pressure sensors from 250 mmH₂O to 700 bar.
- ✓ Support of External Pressure Modules.



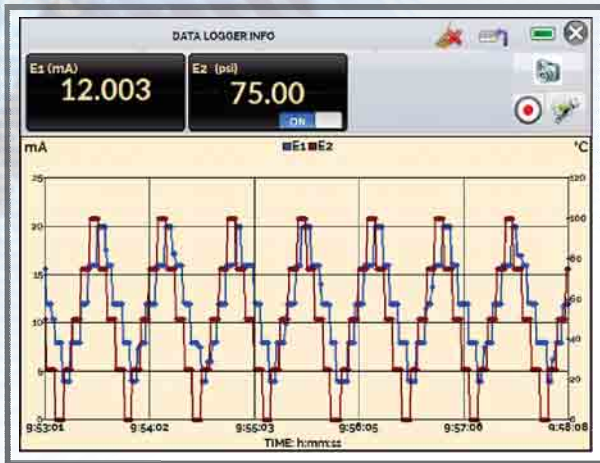
- ✓ Touch Screen display provides easy-to-read data and shows 2 simultaneous variables.
- ✓ Intuitive navigation menu helps in identifying calibrator information for any operational mode.
- ✓ Optional Barometric Reference for indication of absolute pressure.
- ✓ Display input and output simultaneously.
- ✓ Help menu showing how to make the connections.
- ✓ Contact input for pressure switch calibration.



Item	Value	Units
Manufacturer	PR electronic...	
Model	PR 5335	
Tag	T01	
Descriptor	TRANSM TEM...	
Message	TECNICA PRE...	
Date	05/05/2015	
Write protect	Not write prot...	
Snsr s/n	0	
Final asbly num	0	
Distributor	PR Electronic...	
Hardware rev	23	
Software rev	34	
Universal rev	5	
Flt dev rev	1	
Sensor errors	0x00	
ADC errors	0x00	
Misc. errors	0x00	
OEM data 0	0xff	
OEM data 1	0xff	
OEM data 2	0xff	

Tag: T01 Device: PR 5335 - DD: 6d/ef/01/01 HART Msg

- ✓ Full Hart configurator (optional), which configures all available HART® devices, with DD library from FieldComm Group.
- ✓ 24 Vdc power supply for 2-wire transmitters, 250 Ω internal resistor configurable.



- ✓ Data Logger function for data acquisition and graphical visualization.
- ✓ Ethernet, Wi-Fi, Pen drive, HART®, USB connection Host / Device.

- ✓ Automated calibrations and generation of calibration report on direct connected USB printer or generation of PDF file.

Direct printing of the Calibration (pass / fail) (PDF or USB printer)



Technical Specifications

Specifications - Inputs

Input Ranges	Resolution	Accuracy	Remarks
volt			
-10 to 11 V	0.0001 V	± 0.02 % FS**	$R_{input} > 1 M\Omega$
11 V to 45 V	0.0001 V	± 0.02 % FS	
mA			
-5 to 24.5 mA	0.0001 mA	± 0.01 % FS	$R_{input} < 120 \Omega$
probe*			
-200 to 850 °C / -328 to 1562 °F	0.01 °C / 0.01 °F	± 0.1 °C / ± 0.2 °F	IEC-60751

(*) The Probe is a separate input used as reference thermometer. The related accuracy is relative only to the PCA-570.
 (**) FS = Full Scale.

Specifications - Outputs

Outputs Ranges	Resolution	Accuracy	Remarks
volt			
-0.5 to 12 V	0.0001 V	± 0.02 % FS*	$R_{output} < 0,3 \Omega$
mA			
0 to 24 mA	0.0001 mA	± 0.02 % FS	$R_{maximum} = 700 \Omega$
2-wire transmitter (XTR)			
4 to 24 mA	0.0001 mA	± 0.02 % FS	$V_{maximum} = 60V$

(*) FS = Full Scale.
 The values of accuracy cover one year period and for a temperature range between 20 and 26 °C. Outside this range, the thermal stability is 0.001% FS / °C with reference to 23 °C.

Order Code

_____ - _____ - _____ - _____ - _____ - _____ - _____ - _____ - _____ - _____ - _____ - _____ - _____

Model

- PCA-570 - Calibrator PCA-570 Portable
- PCA-570-RM - Calibrator PCA-570 Rack Mounting Version
- PCA-570-DT - Calibrator PCA-570 Desktop Version

Hart® Communication

- CH - Hart® Calibrator (basic commands: zero, span, trim mA)
- FH - Full-Hart® Configurator, with DD library from FieldComm Group.

Number of Pressure Inputs

- 1 - one sensor 3 - three sensors
- 2 - two sensors 4 - four sensors

RANGE	Input 1	RESOLUTION	ACCURACY	REMARKS
(0)	25 mbar	0.0001	± 0.05 % FS*	Gage pressure
(1)	70 mbar	0.001	± 0.05 % FS	Used with air or inert gases
(2)	350 mbar	0.001	± 0.025 % FS	
(3)	1 bar	0.00001	± 0.025 % FS	Gage or absolute pressure
(4)	2 bar	0.00001	± 0.025 % FS	
(5)	7 bar	0.0001	± 0.025 % FS	Used with fluids
(6)	20 bar	0.0001	± 0.025 % FS	(Gases or liquids)
(7)	35 bar	0.001	± 0.025 % FS	compatible with 316 L stainless steel
(8)	70 bar	0.001	± 0.025 % FS	
(9)	210 bar	0.001	± 0.025 % FS	
(10)	350 bar	0.01	± 0.025 % FS	
(11)	700 bar	0.01	± 0.05 % FS	
(12)	Others on request			

Pressure Type Input 1 (Only for version with one sensor or more)

- A - Absolute (Only for ranges 3 to 8)
- G - Gage (Ranges 0 to 11)
- V - Vacuum (Only for range 3)
- C - Compound*** (Only for ranges 3 to 8)
- D - Differential**** (Only for ranges 0 to 2)

RANGE Input 2** (Only for version with two sensors or more)

Pressure Type Input 2**

RANGE Input 3** (Only for version with three sensors or more)

Pressure Type Input 3**

RANGE Input 4** (Only for version with four sensors or more)

Pressure Type Input 4**

Optional (Only for version with up to three sensors)

BR - Barometric Reference (1 barA - Accuracy: 0.2 mbar)

Sensor for ambient pressure measurement. Can be used for simulated indication of absolute pressure on the other sensors.

(*) Percentage of full scale (**) Same code as input 1

(***) From -1 bar to full scale of range (****) The differential sensor occupies two pressure outlets.

Accuracy values are valid within a year and for a temperature range between 20 and 26 °C. Outside these limits add 0.005 % FS / °C, taking 23 °C as the reference temperature.

Engineering units: Presion: psi, bar, mbar, MPa, kPa, Pa, atm, at, mmH₂O@4°C, cmH₂O@4°C, ftH₂O@4°C, inH₂O@4°C, inH₂O@60°F, torr, mmHg@0°C, cmHg@0°C, inHg@0°C, inHg@60°F, gf/cm², kgf/cm², kgf/m². Temperature: °C, °F, K.

Pneumatic Connection: 1/4" NPTF (Note: 1/8" NPTF only for range 0 - 10000 psi).

Overpressure: up to twice the sensor full scale pressure (for capsules to 5000 psi).

Operating ambient: 0 to 50 °C and 90 % maximum relative humidity.

Dimensions: Portable: 140 mm x 250 mm x 80 mm (HxWxD) / Desktop: 132 mm x 308 mm x 275 mm (HxWxD) / Rack Mounting: 132 mm x 483 mm x 250 mm (HxWxD).

Weight: Portable: 2.6 kg approx. / Desktop: 3.0 kg approx / Rack Mounting: 2.0 kg approx.

Warranty: 1 year

Rechargeable battery: Charging time: 3 hours

Autonomy: Up to 10 hours, 8 hours with output at 12 mA and screen brightness at 50%. (only for the portable version)

Included accessories:

- Technical manual;
- Carrying bag (only for portable version);
- Set of test leads;
- Fuse;
- Charger 100 - 240 Vac 50/60Hz (only for portable version);
- Ethernet Cable / USB Cable / Touch Screen Pen.

Optional accessories:

- USB Wi-Fi Adapter - Order code: 06.04.0004-00.

