



Pressure Calibration Station PCS-5070

- Complete calibration set pressure including pressure calibrator, control valves, multiway valves connections block, mounted in a practical plastic case of high resistance.
- Small and portable, ideal for field use, presents performance levels comparable only to laboratory standards.
- Accuracy of 0.025 % of full scale.
- Measures pressure, mA and volts and generates mA and volts. Provides a 24 Vdc power supply for 2-wire transmitters, and contact input for pressure switch verification.
- Includes input for optional temperature probe.

The Pressure Calibration Station PCS-5070 operates with rechargeable battery. Provided with a default pressure sensor from 0 to 30 psig and up to three direct pressure sensors for ranges from 250 mm H₂O to 10,000 psi gage or absolute pressure including vacuum, and differential between any pair of sensors. It has two control valves for 30 psi pressure, sensitive to variations of up to 6.3 mmH₂O and 5 way valve for maximum pressure of 1,000 psi and a maximum leak 0.1 Ncm³ / min. Communication with the computer is established via RS-232/485 serial communication port. When used together with ISOPLAN[®] calibration software, it takes advantage of the documenting calibration concept which automatizes the calibration process, allowing data storage and sharing between calibrator and computer, improving efficiency in handling information, preparing reports, issuing certificates, storage and registration of process instruments and sensors for an overall coverage of the quality procedure requirements, specially those related to ISO 9000.

Order Code

PCS - 5070 - - - **4** - **G** - - - - - - -

Number of Inputs

- 1 - one default sensor, 0 to 30 psi gage pressure
- 2 - two sensors
- 3 - three sensors
- 4 - four sensors

RANGES	Input 1	RESOLUTION	ACCURACY	REMARKS
0 - 0	- 250 mmH ₂ O	0.001	± 0.05 % FS*	Gage pressure
1 - 0	- 1 psi	0.0001	± 0.05 % FS	Used with air or inert gases
2 - 0	- 5 psi	0.0001	± 0.025 % FS	
3 - 0	- 15 psi	0.0001	± 0.025 % FS	
4 - 0	- 30 psi	0.0001	± 0.025 % FS	Gage or absolute pressure.
5 - 0	- 100 psi	0.001	± 0.025 % FS	Used with fluids (gases or liquids)
6 - 0	- 250 psi	0.001	± 0.025 % FS	compatible with 316L stainless steel
7 - 0	- 500 psi	0.01	± 0.025 % FS	
8 - 0	- 1,000 psi	0.01	± 0.025 % FS	
9 - 0	- 3,000 psi	0.01	± 0.025 % FS	
10 - 0	- 5,000 psi	0.1	± 0.025 % FS	
11 - 0	- 10,000 psi	0.1	± 0.05 % FS	
12 - Others	- upon request			

Pressure Type

- A - Absolute (Only for ranges 3 to 8)
- G - Gage
- 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)

Pressure Type Input 4**

(*)FS= Full Scale (**) Same code as Input 1 (***) From -15 psi to the full scale of range

Code Example: PCS-5070-4-4-G-3-V-5-G-8-A, defines a four sensors calibrator, which input 1 range from 0 to 30 psi (gage pressure), input 2 from 0 to 15 psi (vacuum), input 3 from 0 to 100 psi (gage pressure) and input 4 from 0 to 1,000 psi (absolute pressure). All inputs are used with fluids compatible with 316 L stainless steel.

Electrical Specifications

Input Ranges	Resolution	Accuracy	Remarks
volt -10 to 11 V	0.0001 V	± 0.02 % FS	R _{input} > 1MΩ
11 to 45 V	0.0001 V	± 0.02 % FS	
mA -5 to 24.5 mA	0.0001 mA	± 0.02 % FS	R _{input} < 160 Ω
Output Ranges	Resolution	Accuracy	Remarks
volt -1 to 11 V	0.0001 V	± 0.02 % FS	R _{input} < 0.3 Ω
mA 0 to 22 mA	0.0001 mA	± 0.02 % FS	R _{maximum} = 700 Ω
Two-wire transmitter (XTR) 4 to 22 mA	0.0001 mA	± 0.02 % FS	V _{maximum} = 60 V
Probe Range	Resolution	Accuracy	Remarks
Pt-100 -200 °C to 850 °C / -328 °C to 562 °F	0.01 °C / 0.01 °F	± 0.1 °C / ± 0.2 °F	IEC-60751

FS = Full Scale

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

Engineering Units: psi, atm, kgf/cm², inH₂O, mH₂O, cmH₂O, mmH₂O, inHg, cmHg, mmHg, bar, mbar, Pa, kPa and torr.

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

Pneumatic Connection: 1/4" NPTF (1/8" NPTF only for the range 0 - 10,000 psi).

Overpressure: up to twice the value of full scale pressure (to sensors up to 5,000 psi).

Serial Communication: Modbus® RTU Protocol (RS-232/RS-485).

Dimensions: 180 mm x 420 mm x 340 mm (HxWxD).

Weight: 7.5 kg approx.

Warranty: 1 year, except for rechargeable battery.

Included items: Test leads, manual and power cord.

Optional Accessories:

Temperature Sensor: 1/5 DIN Probe-R - Order Code: 04.06.0001-21; 1/5 DIN Probe-A - Order Code: 04.06.0007-21;

1/5 DIN Probe-A-L - Order Code: 04.06.0002-21;

Communication Interface - Order Code: 06.02.0002-00.