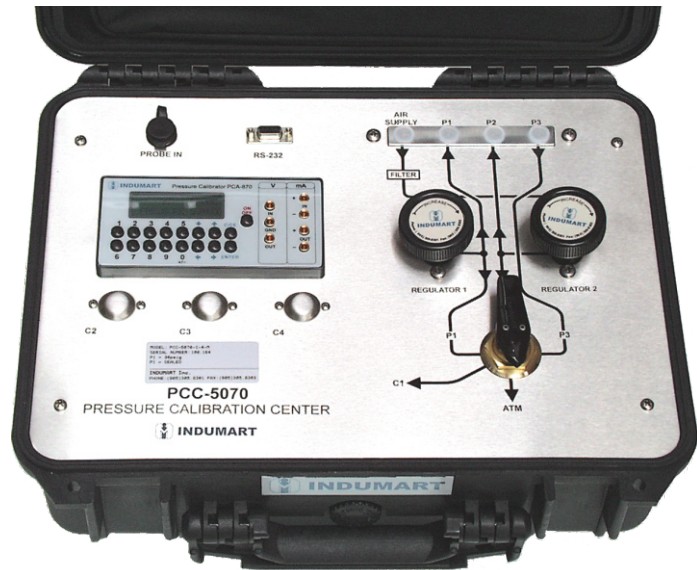


## MODEL: PCS-5070



- **±0.05% ACCURACY**
- **UP TO 4 PRESSURE INPUTS**
- **GENERATES mA AND VOLTS**
- **MEASURES PRESSURE, VACUUM, DP, mA AND VOLTS**
- **CONTACT INPUT FOR PRESSURE SWITCH VERIFICATION**
- **PROVIDES A 24 VDC POWER SUPPLY FOR 2-WIRE TRANSMITTERS**
- **POTABLE AND COMPACT, IDEAL FOR IN-FIELD USE**
- **RTD TEMPERATURE PROBE (OPTION)**
- **CALIBRATION SOFTWARE (OPTION)**
- **RS-232/485 COMMUNICATIONS**

### INTRODUCTION

The *PCS-5070 Pressure Calibration Center* is a compact, battery operated instrument for calibration of pressure instruments and sensors. It is offered with one standard pressure input (1<sup>ST</sup> INPUT) for up to 30 psig, and can have up to three other pressure sensors (total four) to measure pressures as low as 10" H<sub>2</sub>O to a maximum of 3000 psi. It also measures vacuum and differential pressures between any pair of sensors. It is capable of measuring and generating mA and voltage signals with 0.02% accuracy. A 24 VDC power supply is also provided to power 2-wire transmitters.

Designed for both laboratory and field use, the calibrator comes with connecting cables in a sturdy carrying case. If *PCS-5070* was not ordered with all four pressure sensors, the number of sensors may be increased to four by adding sensors at a later time.

The instrument has two pressure regulators for 30 psig range, sensitive to ¼" H<sub>2</sub>O (0.63 mbar) variations, and a 5-way valve, designed to stand pressures up to a maximum of 1000 psi.

An input terminal is included for attaching the optional RTD precision temperature probe with 0.1°C accuracy.

Communication with computer is established via the RS-232/485 serial communication port. When the calibrator is used together with the SCA850 software, it takes advantage of the documenting calibration concept which automatizes the calibration process, allowing storage of data and sharing them between calibrator and computer, improving efficiency in handling information, preparing report, issuing certificates and registering the process instruments and sensors. This feature is important for those complying with the ISO9000 requirements.

Values are displayed on a high contrast, 11 mm high, graphic LCD display for better viewing in poor conditions. Rechargeable battery and a high-size memory to store values obtained for a later upload are other standard features of this versatile and accurate pressure calibrator.

The *PCS-5070 Pressure Calibration Centre* is virtually an advanced version of WALLACE™ boxes, with the exception of having a digital pressure calibrator with electronic inputs and outputs instead of a mechanical manometer, and with the capability of having three more pressure modules than the WALLACE™ boxes.

## SPECIFICATIONS

### General

**Engineering Units** psi, kPa, bar, mbar, atm, mmH<sub>2</sub>O, cmH<sub>2</sub>O, inH<sub>2</sub>O, mH<sub>2</sub>O, mmHg, cmHg, inHg and torr

**Over Pressure** Up to twice the sensor full scale pressure

**Pneumatic Connection** c" NPTF

Specifications may change without notice.

**Thermal Stability** ±0.005% FS/°C in operation range

**Temp. Probe (Option) Ambient** Pt-100  
0 to 50°C and up to 90% relative humidity

**Dimensions (H x W x D) Weight** 180 x 420 x 340 mm  
Approximately 7.5 kg

### Electrical Specifications

	Input Ranges	Resolution	Accuracy	Remarks
Volt	-10 to 45 V	0.0001 V	±0.02% FS	R <sub>input</sub> > 1MΩ
mA	-5 to 24.5 mA	0.0001 mA	±0.02% FS	R <sub>input</sub> < 160 Ω
	Output Ranges	Resolution	Accuracy	Remarks
Volt	-1 to 11 V	0.0001 V	±0.02% FS	R <sub>output</sub> < 0.3 Ω
mA	0 to 22 mA	0.0001 mA	±0.02% FS	R <sub>max</sub> = 700 Ω
Transmitter	4 to 22 mA	0.0001 mA	±0.02% FS	V <sub>max</sub> = 60 V
	Output Ranges	Resolution	Accuracy	Remarks
Pt-100	-200 to 850°C	0.01°C	±0.1°C	IEC-751

### ORDER CODES

**MODEL: PCS-5070**

#### NUMBER OF INPUTS

One  
Two  
Three  
Four

#### RANGE FOR INPUT 1

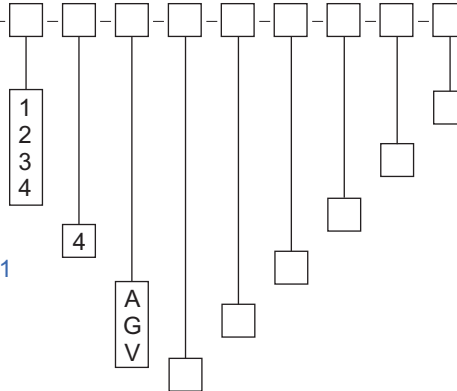
Choose from the below table

#### PRESSURE TYPE FOR INPUT 1

Absolute

Gage

Vacuum (only for range 3)



#### PRESSURE TYPE FOR INPUT 4

Same as input 1

#### RANGE FOR INPUT 4 (if needed)

Choose from the below table

#### PRESSURE TYPE FOR INPUT 3

Same as input 1

#### RANGE FOR INPUT 3 (if needed)

Choose from the below table

#### PRESSURE TYPE FOR INPUT 2

Same as input 1

#### RANGE FOR INPUT 2 (if needed)

Choose from the below table

Code	Range	Resolution	Accuracy	Remarks
0	0...250 mmH <sub>2</sub> O	0.001	0.1%	Gage pressure used with air or inert gases
1	0...1 psi	0.0001	0.1%	
2	0...5 psi	0.0001	0.05%	
3	0...15 psi	0.0001	0.05%	Gauge or absolute pressure
4	0...30 psi	0.0001	0.05%	
5	0...100 psi	0.001	0.05%	
6	0...250 psi	0.001	0.05%	Used with fluids compatible with 316L St. Steel
7	0...500 psi	0.01	0.05%	
8	0...1000 psi	0.01	0.05%	
9	0...3000 psi	0.01	0.05%	



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