



Pressure Calibrator PC-507

- Small and portable, ideal for field use, presents performance levels comparable only to laboratory standards.
- Available and upgradeable with up to four pressure input sensors.
- Ranges from 250 mmH₂O to 10,000 psi gage or absolute pressure, including vacuum and differential between any pair of sensors.
- 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 user can increase the number of sensors of the PC-507 by installing new ones in the calibrator.
- Interface with Windows-based Calibration Software ISOPLAN[®] to provide a true Computer-Aided Calibration System with documenting capability.
- Real-time data acquisition capability when connected to a computer.

PC-507 pressure calibrator is an instrument of reduced dimensions, compact, operates with rechargeable battery, including a practical carrying case to make easier its field use. Its technical features indicate performance levels comparable only to laboratory standards, it presents accuracy of 0.025 % of full scale. It can be provided with up to four pressure sensors, i.e., one calibrator may contain different ranges, for example, vacuum, 0 to 100 psi, 0 to 1,000 psi and 0 to 3,000 psi, or any other possible combination among the available ranges. The calibrator may be purchased with a certain number of sensors, which may be later increased. 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

PC - 507 - [] - [] - [] - [] - [] - [] - [] - [] - []

Number of Inputs

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

RANGE	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	Gage or absolute pressure.
4 - 0	- 30 psi	0.0001	± 0.025 % FS	Used with fluids (gases or liquids) compatible with 316L stainless steel
5 - 0	- 100 psi	0.001	± 0.025 % FS	
6 - 0	- 250 psi	0.001	± 0.025 % FS	
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 Input 1

- 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: PC-507-4-2-G-3-V-5-G-8-A, defines a four sensors calibrator, which input 1 range from 0 to 5 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). Input 1 used with air or inert gases and inputs 2, 3 and 4 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} > 1 MΩ
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 _{output} < 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 °F to 562 °F	0.01 °C / 0.01 °F	± 0.1 °C / ± 0.1 °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: 80 mm x 144 mm x 72 mm (HxWxD).

Weight: 1.0 kg approx.

Warranty: 1 year, except for rechargeable battery.

Included items: carrying case, test leads, manual, holding device for PC-507 - Order Code: 02.06.0096-20 and battery charger.

Optional Accessories:

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

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

Communication Interface - Order Code: 06.02.0001-00.