Digital Pneumatic Pressure Calibrator

Features

- High accuracy: 0.1% of full scale
- Calibrates pneumatic and electro-pneumatic instrumentation on line
- By simply changing connections, measures absolute, gauge or differential pressure
- Measures current or voltage at the flip of a switch
- Switch selects readout in one of 4 pressure units, 2 mA ranges, or voltage
- Portable, easy to set up and connect
- Operates on 115 volts or rechargeable battery pack
- 24 or 48-volt output, hand pump for test pressures to 35 psi

SPECIFICATIONS

Accuracy	0.1% of full scale
Resolution	1 digit, .03% to .005% of full scale, dependent upon range
Positional Sensitivity	Negligible
Readout	4½ digit LCD display, 7 segment, ⅜" high
Power Supply	In: 115 volt ac or self-contained rechargeable nickel-cadmium battery pack. Out: 24V or 48V capability
Fully charged batteries will provide 6 hours continuous operations under maximum demand (48V at 50 mA): 300 hours under normal operation without external-loop load. Low battery power indicated by a blinking display. Batteries can be recharged while calibrator is operating.	
Pressure Ranges	-4 to 30 psi
Percent of 3-15 psi	-100 to 860" H_2O -8 to 65 inches Hg
Current Ranges	Percent of 10-50mA Percent of 4-20mA
Voltage Scale	0-200 volts dc.
Voltage Measurement Error	Less than 0.1% full scale over temperature range of 10C to 30C.
Temperature Operating Range	Standard operating range is 10C to 30C. Maximum range is -10C to 50C. Temperature effect is less than 0.02% of reading per each degree within standard range.
Air Supply	Maximum input pressure is 65 psi. A pressure-relief valve protects the transducer. Pressure connections are ⅛" female NPT.
Maximum Differential Pressure	65 psi on P3 port with 35 psi on S port
Carry Case	ABS plastic 17½" x 12" x 7½"
Shipping Weight	(net weight) 26 lbs (21 lbs)
NOTE: Calibrator for use with non-corrosive gases. It should not be used with liquids.	

Engineered for Easy Operation

The AC power connection is on the outside wall of the case clear of pressure tubing. The battery pack can be recharged with the calibrator in service. It will operate on AC with the batteries dead or removed. The adjustments, indicators, electrical and pressure connections are on the face panel. A schematic on the panel identifies components and their functions, shows the proper connections at a glance. The case is only slightly larger than an attache case. Its cover has a compartment for accessories (tubing, fittings, adapters, instruction book) and is easily removed. The case is easily set up and connections quickly made on site.

Multiple Capabilities

This series of Calibrator can be used to calibrate both electro-pneumatic and pneumatic instrumentation. It can measure absolute, gauge, and differential pressures from external sources. Readout can be selected in a choice of four pressure scale units: psi, inches H_2O, Inches Hg, or percent psi. Electric current can be measured and displayed on the digital readout in percent of 4-20 mA or percent of 10-50mA. Voltage input can also be verified and read on the digital display.

Provides Own Power Supply and Pressure Source

This is a rugged, battery-powered electro-pneumatic calibrator designed for on-site use. A hand-operated pump provides a ready source of pressurized air for use in static systems. This eliminates the need for moving heavy cylinders of compressed air to the location. The two air regulators have fine adjustment controls and can accurately simulate process signals (set and variable) for true calibration.

State-Of-The-Art Electronics

Readout is indicated on a sharp 4½ digit, LCD display: a switch selects scale units. All the circuitry, including the strain-gauge-transducer sensing element, is 100% solid state. This unit provides 0.1% of full scale accuracy.

Reliable Power Supply

The nickel-cadmium battery pack can supply loop-compliance voltage to external devices in either 24 volts or 48 volts, both with 50mA capability. Battery at zero charge can be recharged to full capacity in 14 to 16 hours. Low battery voltage is automatically indicated by blinking digital display. There is an automatic battery disconnect for preventing reversal of polarity in a deep discharge situation. With fully charged batteries, the calibrator can operate at maximum capacity supplying 48 volts at 50 mA for a minimum of 6 hours. Without loop-compliance demand, the calibrator can operate for a minimum of 300 hours from battery power.

An Extra Measure of Accuracy

All Electro-Pneumatic Calibrators are subjected to rigorous and extensive testing. Each has to perform at better than the rated accuracy (0.1% fs) to be accepted. This precision portable unit is accurate enough to double as shop standard.

Calibration Traceable to NIST

Calibration is with primary standards which are directly traceable to the National Institute of Standards and Technology.

ORDERING INFORMATION

Catalog No.	Model	Description
WT555601	6512500	Digital Pneumatic Pressure Calibrator
NISTPR102	—	NIST Traceable Certificate
NISTPR103	—	NIST Traceable Certificate with Data