DPI 603

Portable Pressure Calibrator

- Accuracy ±0.075% F.S.
- Integral Pressure Generation
- Standard ranges up to 300 psi g
- 5 digit LCD, multiple engineering units
- Dual pressure & electrical readout
- Transmitter supply & measurement
- Current loop verification test
- Vacuum Generation available

The DPI 603, which extends the Druck range of rugged portable battery powered pressure calibrators, with standard ranges of -14.7 to +15 psi, 30 psi, 100 psi or 300 psi gauge with an accuracy of ±0.075% F.S.

Designed for use in remote locations where AC power is not available, the DPI 603 enables pressure instrumentation to be serviced and calibrated.

The instrument features the capability to generate pneumatic test pressures with an integral hand-pump up to 300 psi. A volume adjuster provides fine control of the desired test value and a venting valve enables pressure release without disconnection of the device under test.

An optional pressure/vacuum switching facility can also be provided, which enables the hand-pump to source vacuum down to -22” Hg or pressure up to 300 psi g.

To facilitate pressure transmitter testing and calibration a 24Vdc power supply is provided and the ability to monitor the current loop from 0 to ±55mA dc.

For loop verification, the DPI 603 can also output a single 12mA test value, or provide a passive sink if required.

The clear LCD display allows readout of pressure, voltage and current parameters with the ability to show current or voltage simultaneously with pressure.
Portable Pressure Calibrator

**DISPLAYS**

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<td>Ammeter FS=55mA</td>
<td>Voltmeter FS=50V</td>
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**KEYPAD NOMENCLATURE**

- Main Display: ±0.075% F.S. accuracy, 999999 capability
- On/Off control
- Zero Display: Protected against accidental operation
- Voltage Measurement Selection
- Current Measurement Selection
- Pressure Units and Scroll for 24 engineering units
- Secondary Display: 16 text character for scaling and electrical readout
- DPI 603
Portable Pressure Calibrator

STANDARD SPECIFICATION

Pressure Measurement Specification

Operating Pressure Ranges
Standard full scale ranges can be specified of -14.7 psi g to:
+16 psi, +30 psi, 100 psi, or 300 psi gauge.

Overpressure
The rated pressure can be exceeded by 2 x causing negligible calibration change, subject to a maximum safe working pressure of 350 psi.

Pressure Media
Dry, non-corrosive, non-conductive gasses compatible with 316 Stainless Steel, Hastelloy C276, BUNA-N and Nylon.

Accuracy
Combined non-linearity, hysteresis and repeatability ±0.075% F.S. for positive or negative pressures ±1 digit.

Temperature Effects
Over 32° to 105°, the averaged Span temperature coefficient will not exceed 0.00% of reading/°F.

Digital Indicator
Readout and Display
±99999 capability, 0.54” LCD digits with additional 16 text characters.

Pressure Scale Units
24 scale units are provided:
Pressure Scale Units
±50V
±15% of reading
±0.015% F.S.
Temperature Coefficient : ±0.006% reading/°F.

Current Measurements:
Range : ±55mA
Accuracy : ±0.075% of reading
Temperature Coefficient : ±0.006% reading/°F.

Electrical Outputs
Voltage outputs:
24V nominal, floating,
Current Output: Loop check,
50V
25mA maximum
55mA
100mA maximum
200mA maximum

Power Supply
Battery powered 4 x 1.5V zinc carbon ‘D’ cells, 50 hours nominal continuous operation with no load on output terminals. Battery low condition indicated by display symbol.

Optional rechargeable batteries and external power adaptor/charger unit available.

Environmental Specification

Temperature
Operating 15° to 120°F
Calibrated 32° to 105°F
Storage -5° to +140°F.

Sealing
Sealed to NEMA 4.

Safety
IEC 1010
EMC Immunity to IEC 801-804
Certification : CE Marked.

Physical Specification
Weight
9 lbs

Dimensions
12.6” x 7.7” x 5.0” nominal

Pressure Connection
1/8” NPT female.

Certification : CE Marked.

EMC Immunity to IEC 801-804

IEC 1010

Sealed to NEMA 4.

Safety

Physical Specification

Weight

9 lbs

Dimensions

12.6” x 7.7” x 5.0” nominal

Pressure Connection

1/8” NPT female.

Carrying Case
Supplied with the instrument as standard and includes a complete set of accessories.

ORDERING INFORMATION

Please state the following (where applicable):
1) Type number
2) Pressure range
3) Options
4) Pressure media

RECOMMENDED ACCESSORIES

Carrying Case, Electrical test probes, 4 standard "D" cells*, calibration certificate and User Handbook supplied with instrument.

*Not fitted when Option B is ordered.

PNEUMATIC OPTIONS

Options

(A) Pressure/ Vacuum Capability
A switch facility enables the integral handpump to generate pressure in the down stroke to a maximum of 300 psi or vacuum on the reverse stroke to -22 inHg.

(B) Rechargeable Batteries
NiCad rechargeable cells supplied complete with an external 110 Vac charger unit.

Note: European 230Vac charger available as P/N 191-057 alternate.

Druck manufactures a comprehensive range of pressure transducers, transmitters, indicators, controllers, calibrators and temperature calibrators. The range of portable calibrators also covers temperature and electrical parameters including RTDs thermocouples, volts, current, Ohms, frequency and digital sensor trim for frequency.

Please refer to manufacturer for further information and data sheets.

CALIBRATION STANDARDS

Instruments manufactured by Druck are calibrated against precision pressure calibration equipment which is traceable to the National Institute of Standards and Technology (NIST).

Druck is an ISO 9001 registered company.
Portable Pressure Calibrator

Carrying Case

CALIBRATION CONNECTION SCHEMATIC

Representative

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