

## DPI 610/615 LP Series

Portable Low Pressure Calibrators

- Ranges from  $\pm 1.0$  to  $\pm 60$ inH<sub>2</sub>O
- Accuracy 0.05% of span
- Generates pressure and vacuum
- Dedicated tasks and dual readout
- Automatic zero equalization
- RS 232 interface and documenting versions



# DPI 610/615 LP Series

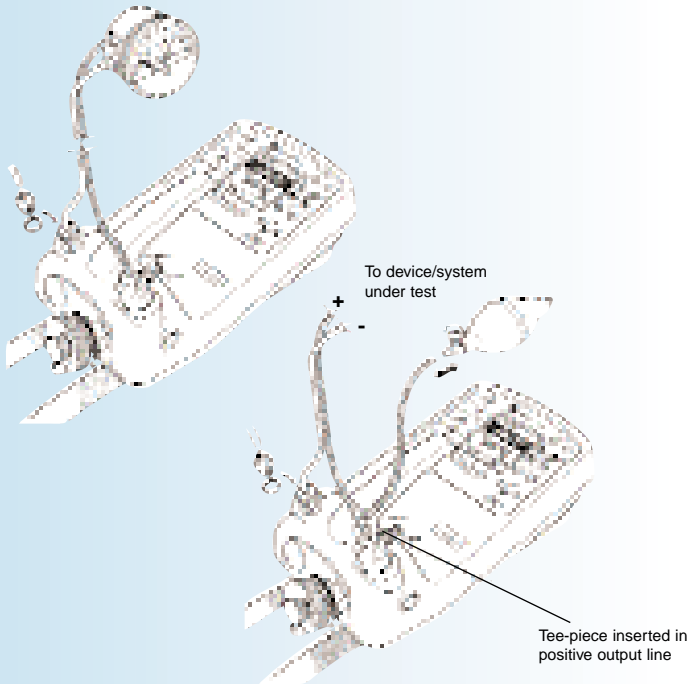
## Portable Low Pressure Calibrators

### SETTING THE STANDARD FOR LOW PRESSURE CALIBRATORS

The Druck DPI 610/615 LP series incorporates a precision low pressure sensor and pneumatic generation, to provide a fully self contained, portable low pressure calibrator.

The key to the simple operation of the DPI 610/615 LP is the task menu. Specific operating modes such as P-I task sets the calibrator to source pressure and measure mA, P-DISPLAY task allows indicator readings to be manually entered and recorded, for example when checking devices such as Magnehelic gauges.

At low differential pressures, even connecting the device under test can induce significant pressure. To compensate for this, an "auto zero" facility is provided which uses an internal solenoid valve to equalize the differential pressure prior to zero correction.



The DPI 610 has data storage and RS 232 interface, compatible with Linkpak-W calibration software and Intecal-W calibration management software. Data can be transferred directly from the 610 for analysis, certificate printing and archiving.

The DPI 615 also has data storage and RS 232 interface but has two way communication for downloading procedures and uploading results.

The DPI 615 simplifies field use by displaying and recording PASS/FAIL status of the device under test and integrates with calibration/asset management software systems such as Intecal-W (see options) and Rosemount AMS.

\*An external squeeze pump is supplied to supplement pressure generation into large volumes.

#### Applications

The DPI 610/615 LP is the ideal reference standard to reduce instrument maintenance time and errors for quality systems compliance.

Dedicated tasks for transmitters, transducers, gauges, micromanometers and switches, simplify commissioning, maintenance and calibration.

The 610/615 is designed to calibrate-in-place for very low pressure sensors.

### SPECIFICATIONS

#### Pressure

All models include an internal pressure sensor. Up to 10 external sensors can be ordered (option B). Select the internal sensor pressure range from the table below:

Pressure Range inH <sub>2</sub> O	Accuracy % Span	Max Line Pressure	Max Differential Pressure
±1.0 inH <sub>2</sub> O differential	0.05	70 psi	40 inH <sub>2</sub> O
±5.0 inH <sub>2</sub> O differential	0.05	300 psi	200 inH <sub>2</sub> O
±10.0 inH <sub>2</sub> O differential	0.05	300 psi	200 inH <sub>2</sub> O
±20.0 inH <sub>2</sub> O differential	0.05	300 psi	400 inH <sub>2</sub> O
±30.0 inH <sub>2</sub> O differential	0.05	300 psi	400 inH <sub>2</sub> O
±60.0 inH <sub>2</sub> O differential	0.05	300 psi	400 inH <sub>2</sub> O

Accuracy is defined as non-linearity, hysteresis and repeatability. Temperature effects (averaged with respect to 68°F) ±0.004% rdg/°F.

**Calibrator pressure ports** - 2 x 1/8 NPT female with 1/8 in. ID tube adapters.

**Pressure Media** - non-corrosive gases.

#### Electrical

Input	Range	Accuracy	Resolution	Remarks
Voltage *	±50Vdc	0.05% Rdg. 0.004% FS.	100mV max	Autoranging, 10MΩ
Current *	±55mA	0.05% Rdg. 0.004% FS.	0.001mA	10W, 50V max
Temperature	15 to 105°F	2°F	2°F	Local ambient
Switch	Open/Closed			5mA whetting

Output	Range	Accuracy	Resolution	Remarks
Voltage	10Vd.c.	0.1%		Max. load 10mA
	24Vd.c.	5%		Max. load 26mA
Current*	0 to 24 mA	0.05% Rdg. 0.01% FS.	0.001mA	

\*Temperature coefficient 0.004% reading/°F w.r.t. 68°F

#### Features

**Pressure units** - 25 scale units plus one user defined

**mA source** - automatic 10 second step cycle and programmable ramp (60 seconds end to end)

**Data logging** - multi-parameter with 10,000 value memory

**RS 232 Interface** - DPI 610 Uni-directional for uploading results to a PC. DPI 615 Bi-directional for downloading procedures and uploading results

**Process functions** - filter, max/min, tare, flow, % span

**Language** - English, French, German, Italian, Portuguese and Spanish

**Power management** - auto power OFF, auto backlight off, battery status indicator

**Display** - 2.4 x 2.4 in. graphic LCD with backlight ±99999 readout, 2 readings per second

#### Environmental

**Temperature** - Operating range 15° to 120°F

Calibrated range 15° to 105°F

**Humidity** - 0 to 90% non-condensing

**Conformity** - EN61010, EN50081-1, EN50082-1, CE marked

**Physical** - 7.7 lbs., 11.8 x 6.7 x 5.5 in.

**Batteries** - 6 x 1.5 V alkaline C cells (65 hrs nominal use at 68°F).



**Druck**



Multi-lingual firmware supported by Intecal-W calibration software

RS 232 and remote sensor connectors

Battery charger/power supply

Input and output connectors

Sealed tactile elastomeric keypad

Function keys used in response to display prompts

Task key for quick configuration to pre-defined test modes such as P-I, Switch Test and Leak Test

Documenting keys to store and recall screen 'snapshots', multi-channel data log, calibration procedures and results

Unique integral handle with compliant finger grip

Pressure release valve

Pressure input/output test ports

Automatic internal isolation/equalization valve

Dual piston volume adjuster for coarse/fine pressure settings

Multi-purpose strap for carrying or hanging the calibrator



# DPI 610/615 LP Series



## Options and Related Products

### OPTIONS

#### (A) Spare rechargeable batteries and charger

A rechargeable Ni-cad battery pack to replace the standard dry cells. Supplied with 110 Vac 60 Hz wall mount charger/power supply which allows the instrument to be used while charging. 20 hrs nominal use.

#### (B1) Remote pressure sensors

The range of the DPI 610/615 LP can be extended with up to ten remote pressure sensors. For standard low pressure ranges please refer to specification. For higher range gauge, absolute or differential sensors up to 10,000 psi refer to Druck. A mating cable is required - see Option (B2).

#### (B2) Mating cable for remote sensors

A 6 feet mating cable for connecting remote sensors to the calibrator. At least one cable should be ordered when ordering Option (B1).

#### (C) Intecal-W calibration database software (P/N ICDPI)

Intecal-W Windows based software supports both portable field calibrators and on-line workshop calibrators. Manual data entry is also a key feature for recording data. Intecal-W is an easy to learn and easy to use calibration management software for process plants, workshops, contractors, manufacturers and service companies. It offers high productivity of calibration scheduling, calibration work and documentation. Device information, calibration procedures and calibration results are stored in an instrument database and multiple databases can be created for organizing client accounts, processes or areas. Extensive management features are provided including a database search engine, time based calibration due queries and standard reports.



Visit [www.druck.com](http://www.druck.com) for an Intecal-W demonstration

### ACCESSORIES

Supplied with carrying case, test leads, 1/8 in. ID hose, user guide, a manual pressure/vacuum squeeze pump and 1/8 in. ID hose "T" connector, calibration certificate, rechargeable batteries and charger.

### CALIBRATION STANDARDS

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

### RELATED PRODUCTS

#### Portable field calibrators

Druck manufactures a wide range of portable pressure, temperature and electrical field calibrators. A selection of these are shown below.



#### Laboratory and workshop instruments

Druck also manufactures a comprehensive range of pressure indicators and controllers. Included in this range are the Pressurements industrial deadweight testers and the Ruska high precision controllers and primary standard piston gauges.

#### Pressure transducers and transmitters

Druck manufacture a wide range of pressure transducers and transmitters, including the LP Series of low pressure sensors.

*Please refer to Druck for further information.*

### ORDERING INFORMATION

Please state the following (where applicable):

1. Type DPI 610 LP or DPI 615 LP.
2. Integral pressure range.
3. Options including range(s) for any remote sensors required.

Note option (B1) and (C) should be ordered as separate line items.

*Continuing development sometimes necessitates specification changes without notice.*

**Druck is an ISO 9001 registered company**



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