

## Features

- Ranges from  $\pm 1.0$  to  $\pm 60$  in  $H_2O$
- Accuracy 0.05% of span
- Generates pressure and vacuum
- Dedicated tasks and dual readout
- Automatic zero equalization
- RS232 interface and documenting versions

## Applications

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

The DPI 610/615 LP performs dedicated tasks for transmitters, transducers, gauges, micromanometers and switches, and simplify commissioning, maintenance and calibration.

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

# DPI 610/615 LP Series

## Druck Portable Low Pressure Calibrators

DPI 610/615 LP Series is a Druck product. Druck has joined other GE high-technology sensing businesses under a new name—GE Sensing.



# GE Sensing

## 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.

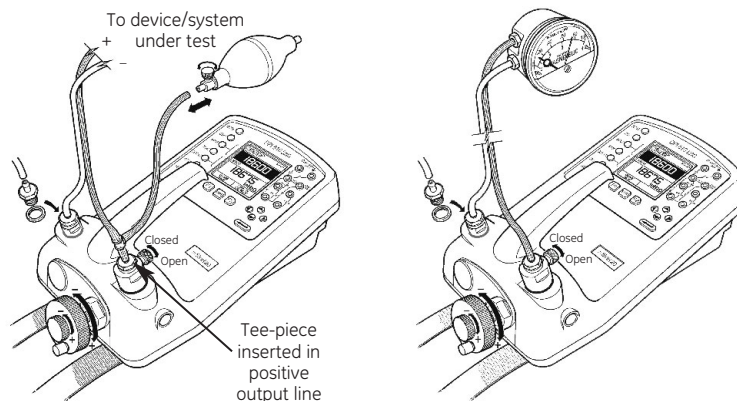
The key to the simple operation of the DPI 610/615 LP is the task menu. Specific operating modes such as P-I task sets the calibrator to source pressure and measure mA, and the P-Display task allows indicator readings to be manually entered and recorded, for example, when checking devices such as Magnehelic 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 that uses an internal solenoid valve to equalize the differential pressure prior to zero correction.

The DPI 610 has data storage and RS232 interface. Data can be transferred directly from the 610 to a PC (into a computer) for analysis, certificate printing and archiving.

The DPI 615 simplifies field use by calculating the device under test error and the pass/fail status, and integrates with calibration management software systems, such as Intecal.

The DPI 615 also has data storage and RS232 interface and has two-way communication for downloading procedures and uploading results.



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

# DPI 610/615 LP 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 in H <sub>2</sub> O | Accuracy % Span | Max Line Pressure | Max Differential Pressure |
|------------------------------------|-----------------|-------------------|---------------------------|
| ±2.5 mbar differential             | 0.05            | 5 bar             | 100 mbar                  |
| ±12.5 mbar differential            | 0.05            | 20 bar            | 500 mbar                  |
| ±25 mbar differential              | 0.05            | 20 bar            | 500 mbar                  |
| ±50 mbar differential              | 0.05            | 20 bar            | 1000 mbar                 |
| ±75 mbar differential              | 0.05            | 20 bar            | 1000 mbar                 |
| ±150 mbar differential             | 0.05            | 20 bar            | 1000 mbar                 |

### Accuracy

- Non-linearity, hysteresis and repeatability
- Temperature effects ±0.004% rdg/°F (averaged with respect to 68°F)

### Stability

<0.1% FS/annum

### Calibrator Pressure Ports

2 x 1/8 in female with 1/8 in ID tube adapters

### Pressure Media

Non-corrosive gases

### Remote Sensor

Model LPE 9400

Specifications and ranges as above. Pressure connection 2 x 1/8 in ID hose adaptor.

## Electrical

| Input       | Range       | Accuracy                    | Resolution        | Remarks              |
|-------------|-------------|-----------------------------|-------------------|----------------------|
| Voltage*    | ±50 VDC     | 0.05% Reading<br>±0.004% FS | 100 µV<br>maximum | Autoranging, 10 MΩ   |
| Current*    | ±55 mA      | 0.05% Reading<br>0.004% FS  | 0.001 mA          | 10Ω, 50 V<br>maximum |
| Temperature | 15 to 105°F | 2°F                         | 0.1°F             | Local ambient        |
| Switch      | Open/Closed |                             |                   | 5 mA                 |
| Voltage     | 10 VDC      | 0.1%                        |                   | Maximum load 10 mA   |
|             | 24 VDC      | 5%                          |                   | Maximum load 26 mA   |
| Current*    | 0 to 24 mA  | 0.05% Reading<br>±0.01% FS  | 0.001 mA          |                      |

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

### Electrical Stability

0.03% of reading/annum

## 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

### RS232 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 in x 2.4 in graphic LCD with backlight ±99999 readout, two readings per second

# GE Sensing

## Environmental

### Temperature

- Operating range: 15°F to 120°F
- Calibrated range: 15°F to 105°F

### Humidity

0 to 90% non-condensing

### Conformity

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

### Physical

Weight: 7.7 lb, size 11.8 in x 6.7 in x 5.5 in

### Batteries

6 x 1.5 V alkaline C cells (65 hrs nominal use at 20°C)

## Options

### (A) Spare rechargeable batteries and charger

Rechargeable battery pack (P/N 191-A022) and 110 VAC charger/power supply (P/N 191-A023). A 220 VAC charger/power supply (P/N 191-129) is also available.

### (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, please contact GE Sensing. A mating cable is required- see Option (B2).

### (B2) Mating cable for remote sensors

A 6 ft (1.8 m) mating cable for connecting remote sensors to the calibrator. At least one cable should be ordered when ordering Option (B1).

### Calibration Management Systems

The DPI 615LP is compatible with Intecal calibration management software. Please visit [www.gesensing.com](http://www.gesensing.com) for more information and free downloads.

## Accessories

Supplied with carrying case, test leads, 0.13 in (3.18 mm) ID hose, user guide, a manual pressure/vacuum squeeze pump and 0.13 in (3.18 mm) ID hose "T" connector and calibration certificate.

## Calibration Standards

Instruments manufactured by GE are calibrated against precision calibration equipment traceable to international standards.

## Related Products

- Portable field calibrators
- Laboratory and workshop instruments
- Pressure transducers and transmitters

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

## Ordering Information

Please state the following (where applicable):

1. Type DPI 610 LP or DPI 615 LP
2. Integral pressure range
3. Pressure connection 1/8 in NPT female
4. Options
5. Supporting Services (order as separate items)

*Option (B1): state the pressure range and pressure connection and order as a separate line item.*

## Supporting Services

Our highly trained staff can support you, no matter where you are in the world. We can provide training, nationally accredited calibration - both initially and at periodic intervals - extended warranty terms, maintenance and even rental of portable or laboratory calibrators. Further details can be found in [www.gesensing.com/productservices/service.htm](http://www.gesensing.com/productservices/service.htm)



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