

## DPI 320/325 Series

### Portable High Pressure Pneumatic Calibrators

- High accuracy 0.025% FS
- Generates pneumatic pressures to 3000 psi
- Dual channel readout: pressure and electrical
- Self contained rechargeable gas cylinder
- RS 232 interface and documenting versions
- Coarse/fine adjust selection



# DPI 320/325 Series

## Portable High Pressure Pneumatic Calibrators

### THE FAST AND CONVENIENT SOLUTION FOR PRESSURE CALIBRATION.

For over twenty years, Druck has led the world in portable pressure calibrator technology and function. The DPI 320/325 Series of high pressure pneumatic calibrators are the latest additions to a comprehensive range of compact and rugged instruments.

This range of portable calibrators is designed to make testing and calibration of high pressure instruments and systems both quick and simple. Two versions are available, the DPI 320 which is the standard model and the DPI 325 which has full documenting capability.

These self-contained portable calibrators from Druck provide unparalleled accuracy and control performance. A built-in gas cylinder provides source pressures up to 3000 psi, a precision pressure regulator and fine volume adjuster ensures optimum control and a digitally characterized sensor measures pressure to better than 0.025% of full scale.

### Field and workshop operation

The DPI 320/325 pressure calibrators are designed for use in the workshop, on the plant or out in the field. The large capacity gas cylinder ensures maximum productivity between refills. In addition, the calibrators can be operated directly from an external pressure source connected to the charging port.

### Dual channel display

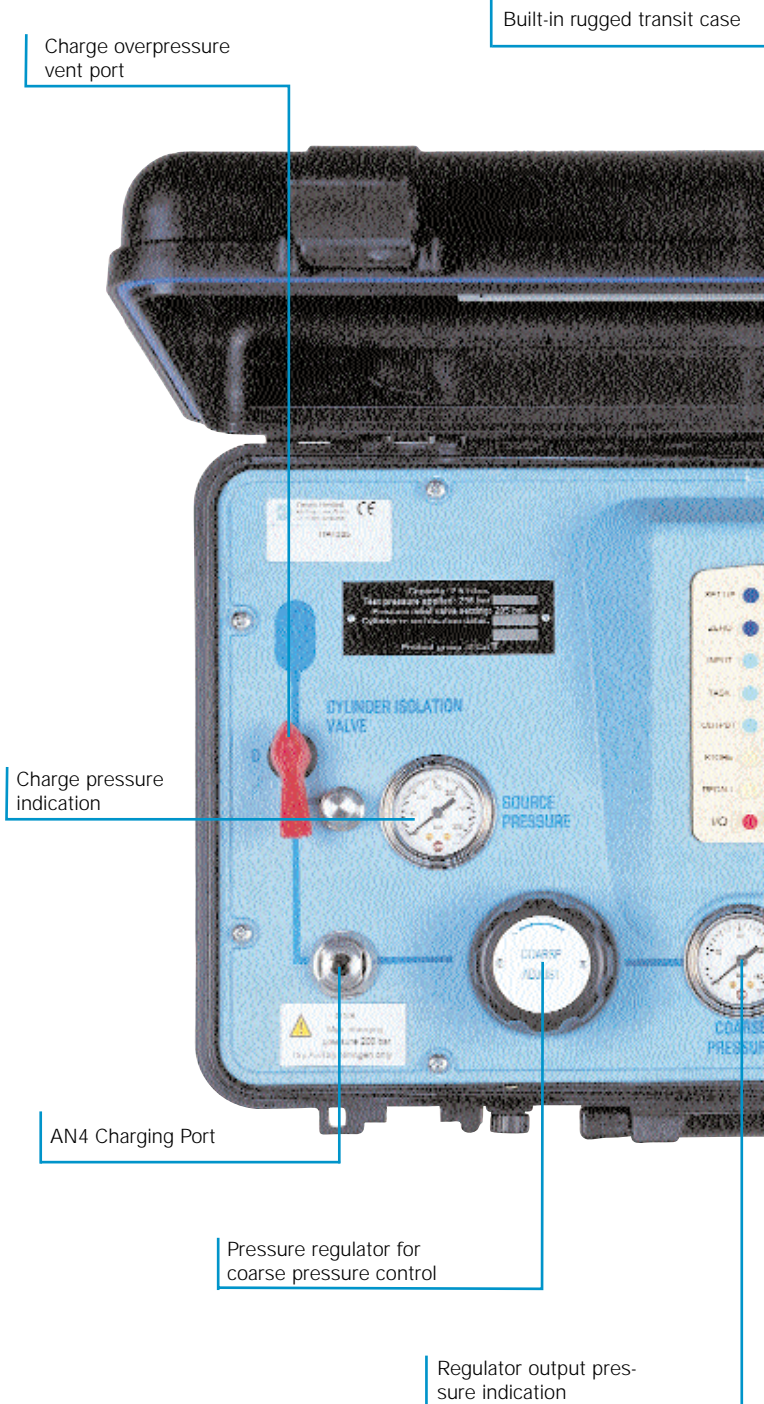
The DPI 320/325 are dual channel instruments able to display both the input and output values simultaneously. The calibrators are capable of providing current and voltage excitation to the unit under test (UUT) and can measure d.c. voltage, d.c. current and ambient temperature. Electrical terminations are made by industry standard 4mm sockets and the large backlit display provides a clear readout of the process parameters.

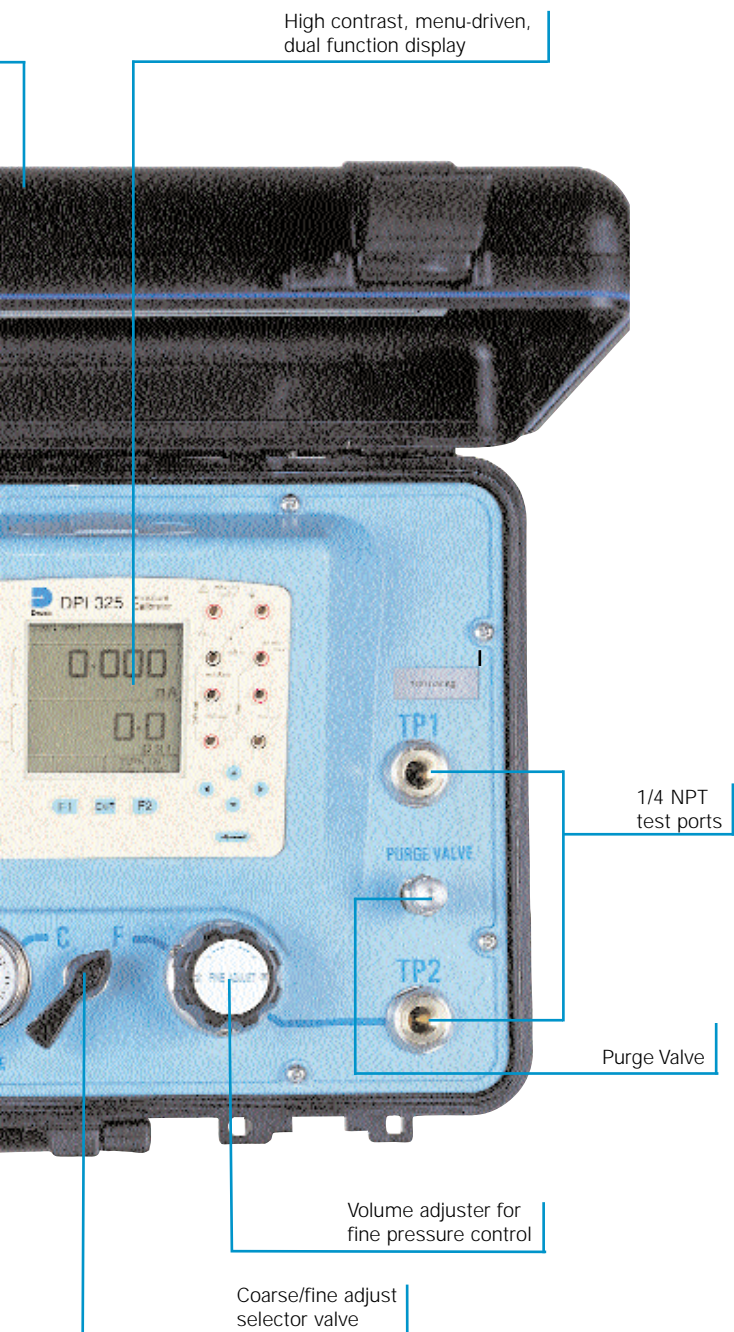
### Application specific Task Menu

A dedicated task key provides instant access to the task menu permitting the calibrator to be configured for specific applications, for example, the P-I task configures the calibrator to source pressure and measure current, 24Vd.c. loop power is also available to allow complete pressure transmitter calibration. Running the pressure switch task captures the open and closed switch values and calculates switch hysteresis. The contact resistance of the switch under test can also be monitored.

### Reduce process downtime

The DPI 325 version enables calibration criteria to be easily entered via the keypad allowing fast diagnosis of field instruments and automatic reporting of errors with a Pass or Fail status. When used in conjunction with Intecal-W calibration management software, it will be possible to download test procedures from a PC to the DPI 325. The calibrator will prompt the technician during the calibration routine and the results will be recorded electronically, reducing downtime and eliminating human errors.





## DPI320/325 STANDARD SPECIFICATIONS

### Pressure

The DPI 320 and 325 include an built-in pressure sensor and matched pressure regulator. The pressure range should be selected from the table below.

Pressure Range	Accuracy* (% F.S.)	Max. Overpressure	Type**
500 psi	0.025%	1000 psi	G or A
1000 psi	0.025%	2000 psi	G or A
1500 psi	0.025%	3000 psi	G or A
2000 psi	0.025%	4000 psi	G or A
3000 psi	0.025%	6000 psi	G or A

\*Combined non-linearity, hysteresis and repeatability.

\*\*G = Gage, A = Absolute (pressure reference).

Temperature Effects (averaged and w.r.t. 68 F) 0.002% of rdg/ F.

**Pressure source:** Built-in Nitrogen/Air cylinder, (max refill pressure 3000psi). Storage volume 122 cubic inches. Capacity 14.0 cubic feet.

**Recommended media:** Oxygen Free Nitrogen (OFN).

**Remote Pressure Sensors:** Please consult factory for list.

### Electrical

In addition to pressure, the dual display can simultaneously monitor mA, V, switch, continuity and ambient temperature. Also, 10Vd.c. and 24Vd.c. power supplies are available for the Device Under Test.

Input	Range	Accuracy	Resolution	Remarks
Voltage*	-50Vd.c.	0.05% Rdg 0.004% FS.	100 microV <sub>max</sub>	Autoranging >10MΩ
Current*	-55mA	0.05% Rdg 0.004% FS.	0.001mA	10Ω , 50V max.
Temperature	15 F to 105 F	±2 F	0.1 F	Case ambient
Switch	Open/Closed			5mA whetting

Output	Range	Accuracy	Resolution	Remarks
Voltage	10Vd.c.	0.1%		Max. load 10mA
Voltage	24Vd.c.	5%		Max. load 26mA
Current*	0 to 24mA	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** - Auto10-sec. step cycle and programmable (60 sec. end to end) ramp

**Process functions** - Filter, max/min, tare, flow, and % span.

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

**Display** - 2.36 x 2.36 inches graphic LCD with backlight. +/-99999 readout, 2 reading per second.

**Data Storage** - 92 kbytes memory.

### Environmental

**Temperature** - Operating range 15 to 120 F, Calibrated 15 to 105 F

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

**Sealing** - Nema 12 (IP54).

**Conformity** - EN61010, EN61326 Class A, CE marked.

**Physical** - 28 lbs, dimensions approx. 16.9 x 10 x 6.5 inches.

**Power supply** - Battery powered 6 x 1.5 V NiCad cells (20 hrs nominal use at 68 F). The unit will operate from AC power supply, and allow the battery pack to recharge. Display indicates a low battery condition.

### DPI 325 ADDITIONAL SPECIFICATIONS

The fully documenting DPI 325 also provides the following additional features:

Calibration mode, showing on-line error analysis indicating Pass/Fail status.

Storage of As Found and As Left results.

Graphical analysis of results showing Pass/Fail tolerance.

Two way PC interface for transferring test procedures and results.

Compatible with Intecal-W software. Confirm availability with your Druck Representative.

# DPI 320/325 Series



## Portable High Pressure Pneumatic Controllers

### OPTIONS

#### Remote pressure sensors

The calibrators have a second pressure channel which can be configured with up to 10 remote sensors (one at a time). The sensors are supplied with an electrical connector and 1/4" NPT female pressure ports. Mating cable is required.

#### Mating cable for remote sensor

A 6 foot mating cable for connecting remote sensors to the calibrator. At least 1 should be ordered when ordering remote pressure sensor.

#### Intecal-W calibration management 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 and standard reports.



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

### ACCESSORIES

The DPI 320/325 Series is supplied with a battery charger, test leads, RS 232 cable, user manual, pressure test certificate, calibration certificate and accessory bag as standard.

**Please note:** The Nitrogen cylinder will be supplied empty for filling on site.

### CALIBRATION STANDARDS

Instruments manufactured by Druck are calibrated against precision calibration equipment traceable to NIST.

### RELATED PRODUCTS

#### Portable field calibrators

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



#### 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 Ruska high precision controllers and primary standard piston gauges.

#### Pressure transducers and transmitters

Druck manufactures a wide range of high performance pressure sensors, including Transducers and Transmitters based upon its own proven precision micromachined and resonant silicon technologies. Please refer to Druck for further information on related products.

### ORDERING INFORMATION

Please state the following (where applicable):

1. DPI 320 or DPI 325 type number.
2. Internal pressure range required.
3. Options, (if required) including range for remote sensor.

Note: Remote pressure sensor and Intecal-W should be ordered as separate line items.

**Continuing development sometimes necessitates specification changes without notice.**

Druck is an ISO 9001 registered company.



Druck Incorporated  
4 Dunham Drive  
New Fairfield, CT 06812  
Tel: (203) 746-0400  
Fax: (203) 746-2494  
E-mail: [usa.sales@druck.com](mailto:usa.sales@druck.com)  
[www.druck.com](http://www.druck.com)  
[www.pressure.com](http://www.pressure.com)

Representative