

## Features

- Ranges 0 to 1 psi through to 10,000 psi (0 to 70 mbar through to 700 bar)
- 0.1% full scale (FS) accuracy
- Rugged, lightweight handheld design
- Leak test, tare, max/min and filter
- Intrinsically safe version
- Standard ranges available from stock
- Optional pneumatic and hydraulic hand pumps

The Druck DPI 705 Series of handheld pressure indicators combine tough and rugged design with accurate and reliable pressure measurement. New materials and technical innovations from over fifteen years experience with portable pressure testers has resulted in this advanced new product.

Compact, robust and lightweight, the DPI 705 Series is designed for single handed operation and provides many essential features required for routine maintenance and system troubleshooting.

# DPI 705 Series

## Druck Handheld Pressure Indicators

DPI 705 Series is a Druck product. Druck has joined other GE high-technology sensing businesses under a new name—GE Industrial, Sensing.



## DPI 705

- Impact resistant, sealed to Type 12/IP54
- Clear high resolution LCD
- Carrying case with belt loop
- Long battery life
- Integral desk stand and hanger

### Improves Test Efficiency

- No warm up time
- 16 pressure units
- One minute leak test
- Ambient temperature measurement

The calibration tools required to comply with quality assurance programs such as ISO9000 put ever increasing demands on maintenance budgets. The DPI 705 Series, used in conjunction with pneumatic or hydraulic pressure generators, is a simple, low cost solution complementing the wide range of Druck portable process calibrators.

## Special Features

**Standard ranges**—available from stock.

**Pressure units**—psi, inHg, inH<sub>2</sub>O (4°C, 20°C and 60°F), ftH<sub>2</sub>O (4°C, 20°C and 60°F), mmHg, mHg, mbar, bar, mbar, Pa, hPa, KPa, MPa, Kg/cm<sup>2</sup> and an optional user defined scale.

**Leak test**—a standard 60 second leak test.



**Max/Min**—captures both maximum and minimum readings.



**Zero**—zero pressure correction.

**Tare**—0 to 100% FS zero offset capability.

**Filter**—a 10 reading rolling average for unstable pressures.

**Alarm**—adjustable high pressure alarm with visual and audible warning.

**Ambient temperature**—F and °C reading of local condition  $\pm 3^\circ\text{F}$  ( $\pm 1.5^\circ\text{C}$ ).

**Calibration**—used with the optional pneumatic or hydraulic pumps, the DPI 705 Series becomes a low cost calibration tool for gauges and indicators.

**Power management**—low battery indicator and selectable 'auto off'.



## Pressure Ranges

### DPI 705 internal sensor version

The DPI 705 includes an internal sensor and has a 1/8 in NPT female or G 1/8 female (with 4 mm ID hose adaptor) pressure connector. Most internal ranges are available from stock.

### DPI 705R remote sensor version

The remote sensor of the DPI 705R has an integral cable connector, a 3 ft (1 m) mating cable and a 1/4 in NPT female or G 1/8 female pressure connector.

Pressure Range	Internal Sensor DPI 705	Remote Sensor DPI 705 R
1 or 3 psi (70 or 200 mbar)	d	
5 psi (350 mbar)		g, a, d
10 psi (700 mbar)	g	g, a, d
15 psi (1 bar)	d	g, a, d
30 psi (2 bar)	g, a	g, a, d
50 psi (3.5 bar)		g, a, d
100 psi (7 bar)	g	g, a, d
150 psi (10 bar)		g, a, d
300 psi (20 bar)	g	g, a, d
500 psi (35 bar)		g, a, d
1000 psi (70 bar)		g, a, d
2000, 3000, 5000 or 10,000 psi (135, 200, 350 or 700 bar)		g, a, d

a = absolute, d = differential (line pressure: 30 psi (2 bar) for internal ranges and 500 psi (35 bar) for remote sensors), g = gauge  
Do not apply pressure greater than 16 psi (1 bar) absolute to the negative port of differential pressure indicators.

### Accuracy

±0.1% FS non-linearity, hysteresis and repeatability.

## Environmental

### Temperature Performance Averaged 32°F to 122°F (0°C to 50°C)

- ±0.01% rdg/°F (±0.02% reading/°C)
- For absolute ranges <= 15 psi (1 bar) add ±0.025% FS/°F (±0.05% FS/°C)
- For absolute ranges > 15 psi (1 bar) add ±0.01% FS/°F (±0.02% FS/°C)
- Calibrated range: 32°F to 122°F (0°C to 50°C)
- Operating range: 15°F to 122°F (-10°C to 50°C)

### Humidity

0 to 95% non condensing.

### Overpressure

Safe to 2 x FS. Display flashes at 110% FS.

### Media Compatibility

- Internal sensor: stainless steel, except positive differential non-corrosive fluid and negative differential dry gas.
- Remote sensor: stainless steel, except negative differential non-corrosive fluid.

### Safety Conformance

EN61010, EN50081-1, EN50082-2, CE marked

### Intrinsically safe version

- Ex ia IIC T4 (-10°C to 50°C) to CAN/CSA E79-11-95 and CAN/CSA E79-0-95, (Class I, Division 1, Groups A, B, C & D)
- EEx ia IIC T4 (-10°C to 50°C) to ATEX EN50020:1994 and EN500014:1992

## Options

### (B) Carrying Case

A protective fabric case with convenient wrist strap, belt loop and storage pocket to accommodate a remote sensor and accessories.

### (C) Custom Pressure Unit

The DPI 705 Series can be scaled with an additional linear pressure unit. Please provide an equivalent pascal (Pa) conversion when ordering.

### (D) Negative calibration

Ranges below 15 psi (1 bar) are calibrated to ±FS e.g. ±3 psi (±200 mbar). Ranges of 15 psi (1 bar) and above are calibrated -15 psi (-1 bar) to FS. Accuracy is 0.1% of the compound range. Certificate provided.

## Pneumatic and Hydraulic Test Kits

### PV210 Low Pressure Pneumatic Hand Pump

- 45 psi (3 bar)
- 90% vacuum

### PV211 Pneumatic Hand Pump

- 350 psi (25 bar)
- 96% vacuum

### PV212 High Pressure Hydraulic Hand Pump

15,000 psi (1000 bar) hydraulic

### PV411A Multifunction Hand Pump

- 600 psi (40 bar) pneumatic
- 10,000 psi (700 bar) hydraulic
- 95% vacuum
- Low pressure with excellent sensitivity

### Accessories

The DPI 705 and 705R are supplied with a user guide and calibration certificate as standard.

### Calibration Standards

Instruments manufactured by Druck are calibrated against precision pressure calibration equipment, which is traceable to the international standards.

### Related Products

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

### Ordering Information

Please state the following (where applicable)

1. Type number DPI 705 (internal sensor) or DPI 705R (remote sensor). For intrinsically safe version order DPI 705IS (internal sensor) or DPI 705ISR (remote sensor). Please state CSA or ATEX.
2. Pressure range
3. Pressure reference gauge, absolute or differential
4. Pressure connection 1/8 NPT female or G 1/8 female
5. Options as required

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