



**GE Druck**

## **DPI 705 Series**

Handheld Pressure Indicators

- Ranges 0 to 70 mbar through to 700 bar
- 0.1% FS accuracy
- Rugged, lightweight handheld design
- Leak test, tare, max/min and filter
- Intrinsically safe version
- Pneumatic and hydraulic test kits



# DPI 705 Series

## Handheld Pressure Indicators

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. Intrinsically safe (I.S.) versions are available certified to European and American standards for use in hazardous areas.

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

The DPI 705 is ready for use anywhere, anytime ...

- I.S. version for hazardous areas
- Impact resistant, sealed to IP54
- Clear high resolution LCD
- Carry case with belt loop
- Long battery life
- Integral desk stand and hanger

... and improves test efficiency ...

- Fast warm up time
- 16 pressure units
- 1 minute leak test
- Dual pressure fitting - G 1¼8 and hose
- 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, 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 ex-stock.

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

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



**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** - °C and °F reading of local condition (+/- 1.5°C).

**Calibration** - used with the optional pneumatic or hydraulic test kits the DPI 705 becomes a low cost calibration tool for gauges and indicators.

**Power management** - low battery indicator and selectable 'Auto Off'.



### PRESSURE RANGES

The DPI 705 internal sensor version features a combined G1¼8 (female)/6 mm OD hose pressure fitting and is available **ex-stock**. The DPI 705R remote sensor version includes a detachable 1m cable and sensor with G1¼4 pressure connector.

| Pressure range           | Internal sensor DPI 705 | Remote sensor DPI 705R |
|--------------------------|-------------------------|------------------------|
| 70 or 200 mbar           | d                       |                        |
| 350 mbar                 |                         | g, a, d                |
| 700 mbar                 | g                       | g, a, d                |
| 1 bar                    | d                       | g, a, d                |
| 2 bar                    | g, a                    | g, a, d                |
| 3,5 bar                  |                         | g, a, d                |
| 7 bar                    | g                       | g, a, d                |
| 10 bar                   |                         | g, a, d                |
| 20 bar                   | g                       | g, a, d                |
| 35 bar                   |                         | g, a, d                |
| 70 bar                   |                         | g, a                   |
| 135, 200, 350 or 700 bar |                         | a                      |

a = absolute, d = differential (line pressure: 2 bar for internal ranges and 35 bar for remote sensors (1.1 bar abs for IS version)), g = gauge

### Accuracy

+/-0.1% FS non-linearity, hysteresis and repeatability.

### ENVIRONMENTAL

#### Temperature performance (averaged 0 to 50°C)

+/-0.02% rdg/°C. Calibrated 0 to 50°C, operational -10 to 50°C  
 For absolute ranges <= 1 bar add +/-0.05%FS/°C,  
 For absolute ranges > 1 bar add +/-0.02%FS/°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

II 1 G EEx ia IIC T4 (-10°C to 50°C)

To EN50014: 1997 + amds 1 & 2

EN50020: 1994

EN50284: 1999


To CAN/CSA - E79 - 11 - 95 and CAN/CSA E79 - 0 - 95 (Division 1, class 1, Groups A, B, C and D)



Combined G1 ¼8 (female)/  
6 mm OD hose connector

13 mm LCD with  
99999 readout

Tough polycarbonate  
display window

 Intrinsically safe version  
supplied in a yellow case

Multifunction  
display readout

Foldaway stand  
hinged for hanging

Filter and tare keys  
Dual press for zero

16 pressure scale units  
plus user specific

Power key with  
selectable 'auto-off'

Multipurpose key for  
max/min or leak test

Handheld design <500g  
190 x 90 x 36 mm

Impact resistant  
case sealed to IP54

3 x AA Alkaline cells  
provide >300 hours use

Actual size



# DPI 705 Series

## Handheld Pressure Indicators

### OPTIONS

#### (A) Pneumatic and hydraulic test kits

Each test kit includes the PV 411A Multifunction hand pump:

- 60 bar pneumatic, 700 bar hydraulic
- Generates vacuum to 95%
- Vacuum priming for hydraulic systems
- Excellent low pressure control
- Adjustable overpressure protection

Also included are the following accessories:

- 50cm high pressure hose with 1/4" BSP female connection rated to 700 bar.
- A set of stainless steel test point adaptors including 1/8", 3/8", 1/4", 1/2" BSP female and 1/8" and 1/4" BSP male.
- Set of assorted bonded and "O" ring seals.

The PV 411A and accessories are housed in durable transit cases with closed cell foam inserts.

Option (A2) also includes a hydraulic reservoir to convert the pump from pneumatic to hydraulic pressure generation.

#### (A1) PV 411A-P Pneumatic test kit

#### (A2) PV 411A-HP Pneumatic and hydraulic test kit



For full details please refer to the PV 411A datasheet.

#### (B) Carrying case

A protective fabric case with convenient wrist strap, belt loop and storage pocket to accommodate a remote sensor and accessories. (Should not be taken into hazardous area)

#### (C) Custom pressure unit

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

#### (D) Negative calibration

Ranges below 1 bar are calibrated to +/-FS e.g. +/-350 mbar. Ranges of 1 bar and above are calibrated -1 bar to FS. Accuracy is 0.1% of the compound range. Certificate provided.

### ACCESSORIES

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

### CALIBRATION STANDARDS

Instruments manufactured by GE Druck are calibrated against precision pressure calibration equipment which is traceable to International Standards.

### RELATED PRODUCTS

#### Portable field calibrators

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



#### Laboratory and workshop instruments

GE Druck also manufacture 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

The DPI 705 is the ideal maintenance tool for GE Druck transducers and transmitters, including the RTX process pressure transmitter. Please refer to manufacturer for further information on related products.

### 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 705S (internal sensor) or DPI 705SR (remote sensor).
2. Pressure range required.
3. Pressure reference gauge, absolute or differential.
4. Options required. For option (C) state Pa conversion.

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



0221  
Group

