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DPI 705 Series



Handheld Pressure Indicators

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



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 handheld 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...
- No warm up time
- 16 pressure units
- 1 minute leak test
- Dual pressure fitting - G 1/8 and hose
- Ambient temperature measurement

The calibration tools require 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 generator, is simple, low cost solution complementing the wide range of Druck portable process calibrators.

SPECIAL FEATURES

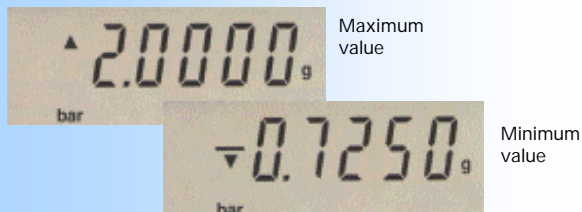
Standards ranges - available ex-stock.

Pressure units - mbar, bar, psi, mH₂O, inH₂O (4 and 20 °C), ftH₂O (4 and 20 °C), inHg, mmHg, mHg, Pa hPa, Kpa, Mpa, Kgf/cm² and 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 - °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 G1/8 (female)/6mm OD pressure fitting and is available **ex-stock**. The DPI 705R remote sensor version includes a detachable 1m cable and sensor with G1/4 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 70 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

$\pm 0.1\%$ FS non-linearity, hysteresis and repeatability.

ENVIRONMENTAL

Temperature performance (average 0 to 50°C)

$\pm 0.02\%$ rdg/ °C, operational -10 to 50 °C
For absolute ranges ≤ 1 bar add $\pm 0.05\%$ FS/°C
For absolute ranges > 1 bar add $\pm 0.02\%$ FS/°C

Humidity

0 to 95% non condensing.

Overpressure

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

Media compatibility

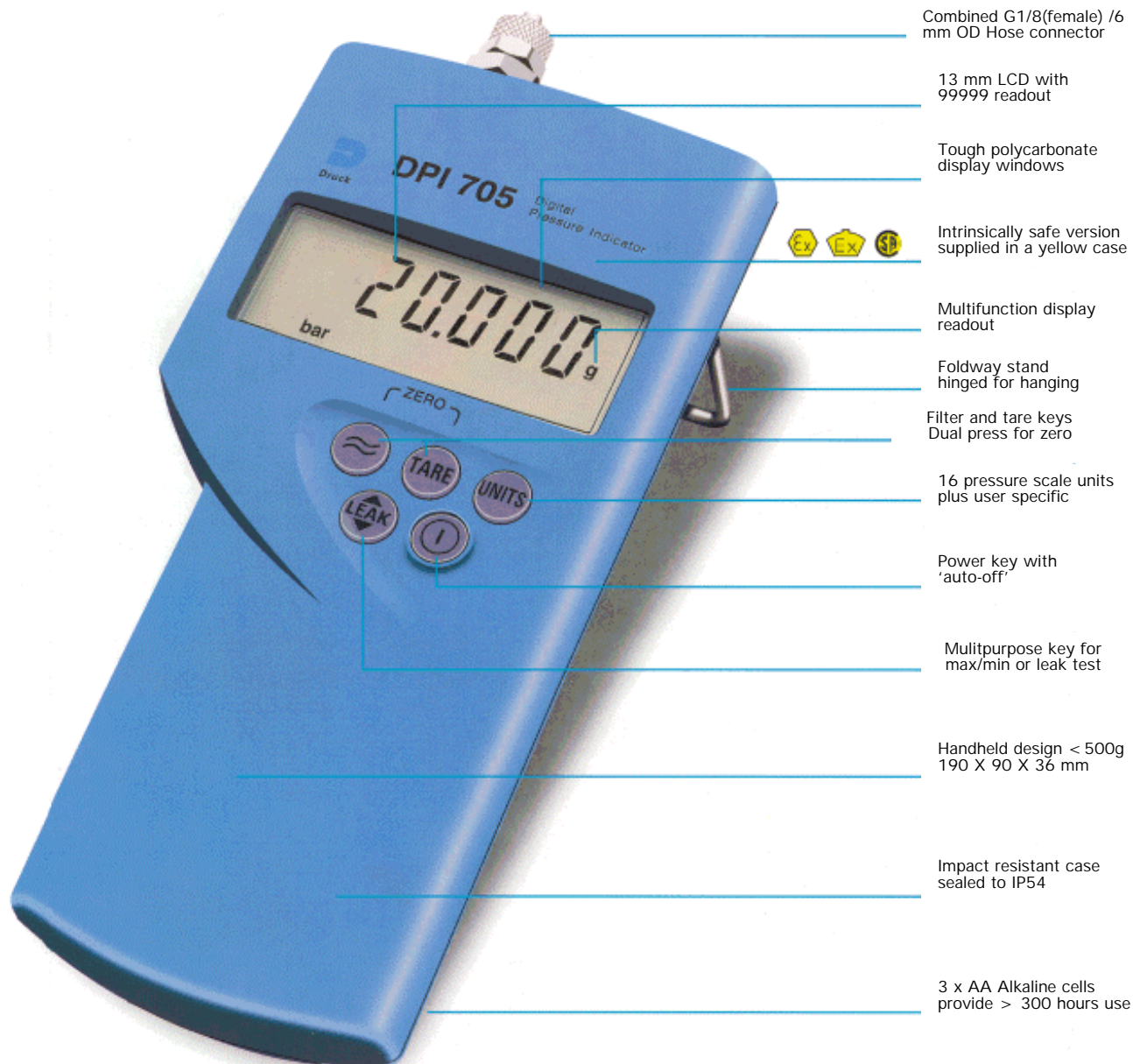
Internal sensor: stainless steel, except positive differential non-corrosive fluid and negative differential dry gas.
Remote sensor: stainless steel, except negative differential non-corrosive fluid.

Safety conformance

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

Intrinsically safe version

EEx ia IIC T4 (-10 to 50 °C)
To EN50020 : 1994 and EN50014 : 1992
Ex ia IIC T4 (-10 to 50 °C)
To CAN/CSA - E79 - 11 - 95 and CAN/CSA E79 - 0 - 95 (Division 1, class 1, Groups A, B, C and D)



Combined G1/8(female) /6 mm OD Hose connector

13 mm LCD with 99999 readout

Tough polycarbonate display windows



Intrinsically safe version supplied in a yellow case

Multifunction display readout

Foldway stand hinged for hanging

Filter and tare keys Dual press for zero

16 pressure scale units plus user specific

Power key with '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

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OPTIONS

(A) Pneumatic and hydraulic test kits

Pneumatic and hydraulic hand pumps with appropriate hoses and adaptors, housed in a durable transit cases which can also accommodate the DPI 705 (Including remote sensor). A test kit contains the following:-

Transit case with protective foam inserts.

Pneumatic (-0.8 to 25 bar) or hydraulic (0 to 700 bar) hand pump.

Pressure hose.

Female BSP or NPT gauge adaptors (1/8, 3/8, 1/4 and 1/2 ins), Nylon seal kit.

Filling bottle (hydraulic version only)

(A1) Pneumatic test kit with BSP adaptors

(A2) Hydraulic test kit with BSP adaptors

(A3) Pneumatic test kit with NPT adaptors

(A4) Hydraulic test kit with NPT adaptors



Pneumatic

Hydraulic

For further details on the pneumatic and hydraulic test kits please refer to PV111 and PV112 product notes.

(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 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 \pm FS e.g. \pm 200 mbar. Ranges of 1 bar and above are calibrated -1bar 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 Druck are calibrated against precision pressure calibration equipment which is traceable to International Standards.

RELATED PRODUCTS

Portable field calibrators

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



Laboratory and workshop instruments

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 ideal maintenance tool for Druck transducers and transmitters, including the RTX and Smart/HART @STX process pressure transmitters.

Please refer to manufacture 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.



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