

# Druck DPI 705 IS Intrinsically Safe Digital Pressure Indicator User Guide



Druck

This intrinsically safe pressure indicator is certified by BASEEFA and CSA and has successfully met the examination and test requirements:



EN50014 : 1992 and EN50020 : 1994

EEx ia IIC T4 (-10°C Tamb +50°C)

This pressure indicator may be used in zones 0, 1 or 2 for industries with any gas group.

Maximum component temperature class T4 (135°C).

Power Supply ..... only use 3 x LR6 (AA) made by Ever Ready, Varta, Duracell or Procell

Do not apply a pressure greater than 1.1 bar absolute to the -ve pressure port of differential pressure indicators.



CAN/CSA-E79-0-95 and CAN/CSA-E79-11-95

EEx ia IIC T4, Class 1, Div.1 Groups A, B, C & D

Ambient Temp. -10°C to +50°C

## Safety



This symbol, on the pressure indicator, tells the user to refer to the user guide or manual.

**Batteries** **WARNING: ONLY REMOVE THE BATTERIES IN A SAFE AREA.**

Remove batteries immediately when discharged and before storage.

Dispose in accordance with local regulations and battery manufacturers' instructions.

When storing and transporting batteries make sure they cannot be short circuited.

**Pressure** Do not apply pressure greater than the maximum safe working pressure.

**Cleaning** Clean the pressure indicator with a damp cloth.



This pressure indicator meets the essential protection requirements of the relevant EEC directives.

## Specification

Accuracy:

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

Temperature effects: Span ..... ±0.02%rdg/°C

Zero ..... ≤ 1 bar ±0.05%FS/°C (absolute ranges only)

..... > 1 bar ±0.02%FS/°C (absolute ranges only)

Maximum safe working pressure ..... 2 x FS

Pressure connector ..... 6 mm o/d and 4 mm i/d hose or G1/8 female thread

Environmental ..... IP54

Electrical safety ..... BS EN 61010 as applicable

Electromagnetic compatibility ..... EN50081-1 (emissions)

..... EN50082-2 (immunity)

## Calibration

Refer to the Calibration and Configuration Instructions, Druck publication K215 or contact the nearest Druck Subsidiary or Agent.

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## Display Symbols



Batteries are low, replace, in a safe area, observing polarity shown on case



Filter applied  
(10 reading rolling average)



Displayed reading - maximum value

**TARE** Tare applied



Displayed reading - minimum value

**A** Alarm - pressure value  
(flashing) more than alarm setting



Displayed reading - leakage (per minute)



Leak test in progress  
(count down)

Switch Tare on or off (changes the display reading to zero)

Switch filter on or off



Change units  
(1 of 16 pressure units, °C or °F)

View maximum, minimum or perform leak test (max/min is reset at switch on)




Switch on or off

## Operation


### TIME OUT

If a key is not pressed within 10 minutes then the instrument times out and switches off. To disable this automatic time out, hold the LEAK key when switching on the pressure indicator.

### LEAK TEST

To perform a leak test, press the LEAK key 3 times. The  symbol flashes on the display with the number 60. To start the leak test press the LEAK key again. The instrument counts down 60 seconds displaying the leakage at the end of the 60 second period. Press the LEAK key at any time during the leak test to quit and return to normal measurement.

### ZERO

A zero should be performed on gauge and differential instruments before measuring pressure. To perform a zero: Open all pressure ports to atmospheric pressure. Press the  and TARE keys together, the display briefly shows ZErO and the instrument calculates a new zero.

**Note:** *A zero can only be performed on absolute pressure indicators if a vacuum is first applied to the pressure port.*

### Alarm

A single alarm can be set to operate when the displayed pressure value rises above the alarm setting. The alarm causes the display to flash and a beeper to sound for one minute. Pressing TARE and UNITS keys together displays the alarm value, pressing the FILTER key increases the alarm value, pressing the UNITS key decreases the alarm value. When the display shows the required alarm value, press the TARE key to set the alarm.

### Software Version

This guide contains operating instructions for pressure indicators with software version 1.XX. Further changes to the pressure indicator's software may require a change to the operating instructions and an issue number change of the guide.