



Tursdale Technical Services Ltd
Unit N12B
Tursdale Business Park
Co. Durham
DH6 5PG
United Kingdom
Phone: +44 (0) 191 377 3398
Fax: +44 (0) 191 377 3357
info@tursdaletechnicalservices.co.uk
<http://www.industrial-needs.com/>

MANUAL PCE-P01





Introduction.....	3
Specifications	3
Button.....	4
Display Description	4
Operation.....	4
1.Power	4
2.Zero Adjust and Offset.....	4
3.Data Hold.....	4
4.Record.....	5
5.Backlight Display.....	5
6. Automatic Power Off.....	5
7.Units.....	5
RS-232	5
Error Codes	5
Battery Replacement.....	5

Introduction

The device measures Gauge/Differential Pressure from -55.4inH2O to+55.4 inH2O (± 2 psi) , it features 11 selectable units of measure: inH2O , psi , bar , mbar, kPa , inHg , mmHg ,ozin² ,ftH2O , cmH2O, kgcm² . Additional features include Data Hold. Auto Power Off disabled , and an RS-232 for capturing reading to a PC using optional software . Careful use of this meter will provide years of reliable service.

Specifications

Function	Range	Resolution	Function	Range	Resolution
inH2O	55.40	0.01	ozin ²	32.00	0.01
psi	2.000	0.001	ftH2O	4.612	0.001
mbar	137.8	0.1	cmH2O	140.6	0.1
kPa	13.79	0.01	kgcm ²	0.140	0.001
inHg	0.407	0.001	bar	0.137	0.001
mmHg	103.4	0.1			

Display Dual LCD
 Accuracy $\pm 0.3\%$ FSO (25 °C)
 Repeatability $\pm 0.2\%$ (Max.+/-0.5% FSO)
 Linearity/Hysteresis $\pm 0.29\%$ FSO
 Pressure Range ± 2 psi
 Maximum Pressure 10psi
 Response Time 0.5 Seconds typical
 Low Battery Indicator Yes
 Over range Indicator Err.1
 Under range Indicator Err.2
 Operating Conditions 0 to 50 °C
 Storage Conditions -10 to 60 °C
 Power Supply 1x9V Battery or external 9VDC
 Optional RS232 software (Disk & PC cable)
 Serial format: Baud rate: 9600 Baud , 8 Data Bits.

Button

The meter has six

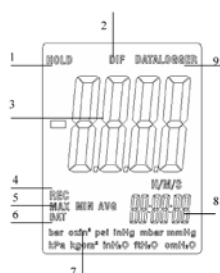
buttons.

1. UNITS
2. DIF
3. REC
4. HOL D
5. BACKLIGHT
6. ON/OFF



Display Description

1. Hold Function
2. Differential Mode
3. Primary Data
4. Record Mode
5. MAX/MIN/AVG
6. Low Battery
7. Pressure Unit
8. Relative Time



screen

indicator
indicator
Clock

Data output from RS232

Operation

1. Power

Press the **ON/OFF** button to turn power on or off. The meter will perform a short self-test when turned on. The meter defaults to the setting used during the last operation.

2. Zero Adjust and Offset

Before use and without fittings attached to the meter, press the **HOLD** button for more than 2 seconds to zero the meter. The meter will reset and display "0000" from right to left. **0.000** will be display.

If it is desired to offset the meter and display, press the **DIF** button while taking a measurement. Subsequent reading will be the difference between the current measurement and the measurement that was on the display when the **DIF** button was pressed.

3. Data Hold

Press the **HOLD** button momentarily to freeze the displayed reading. The 'HOLD' icon will appear on the upper left-hand side of the display. If the pressure value is over the range, error codes will show on the screen.

Press the **HOLD** button again to return to normal operation.

4. Record

The MAX/MIN mode allows the user to view only the highest (**MAX**), lowest (**MIN**) or average (**AVG**) readings with relative time stamp.

1. Press the **REC** button once and **REC** appears on the display (All other functions are locked out except for Power & Backlight). The relative time clock also appears in the secondary display and starts counting.
2. Press the **REC** Button again and **MAX** appears on the display .The display is now showing the maximum pressure and relative time that it was recorded.
3. Press the **REC** button to display the minimum **MIN** reading with the relative time.
4. Press the **REC** button to display the average value **AVG** reading with the relative time.
5. Press the **REC** button again to continue recording **MAX/MIN /AVG** measurements.
6. To exit the **MIN/MAX/AVG** mode, press the **REC** button for 3 seconds to return to normal operation.

5. Backlight Display

Press the **Backlight** button to turn on the backlight. It will remain on for 40 seconds.

6. Automatic Power Off

The meter will automatically shut off after 20 minutes to conserve battery life. To disable Auto Power Off , hold down the **HOLD** button and turn on the meter on , An “n” will appear in the display indicating that Auto Power Off mode is disabled. The meter will return to normal operation when it is turned off.

7. Units

Press the Unit button momentarily and the meter will cycle through the 11 available units of measure as indicated by the cursor on the bottom of the display.

RS-232

The meter has a built-in RS-232 serial port for use with the optional PC interface Data Acquisition Software/Hardware kit.

Error Codes

An error message will appear on the display if the meter fails an internal diagnostic test. And it will freeze all the buttons.

1. Err.1: Pressure value is over the range.
2. Err.2: Pressure value is below the range.
3. Err.3: DIF function, the differential pressure value is over range.
4. Err4: DIF function, the differential pressure value is below range.

Battery Replacement

When the battery power falls low, “**BAT**” will appear on the LCD. Replace the 9V battery .

In this direction will find a vision of the measurement technique:
<http://www.industrial-needs.com/measuring-instruments.htm>

NOTE: "This instrument doesn't have ATEX protection, so it should not be used in potentially explosive atmospheres (powder, flammable gases)."