

# Digital Pressure Gauge

## Instruction Manual





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## 1. INTENDED USE AND FEATURES

This instrument can measure the air pressure of the single pipe or the pressure difference between two detection ports. It offers 12 units of measurement and advanced features like DATA HOLD, MIN-MAX-AVG mode, ZERO, DATA RECORD, and AUTO POWER OFF. It is widely used in natural gas pipelines, air-conditioning refrigeration, and ventilation systems, mechanical hydraulics, plastic molding, biopharmaceutical molding, mining area pressure detection, gas, liquid, and production industrial equipment pressure detection.

Thank you for purchasing this digital manometer. We recommend that you read and follow the manual carefully before use.

### FEATURES

- 12 selectable units of Measurement
- Pressure difference measurement
- Maximum / minimum / average data mode
- Data hold function
- Data storage function with a time stamp
- Zero function
- Low battery alarm
- Automatic power off function
- Over range indicator: Hi, Lo
- USB for power supply



### 3. SPECIFICATIONS

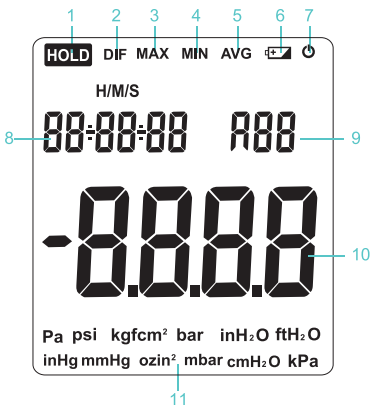
<b>Pressure Range</b>	±2 .000 Psi
<b>Unit of Measure</b>	Pa, psi , kgfcm <sup>2</sup> , bar, inH <sub>2</sub> O, ftH <sub>2</sub> O, inHg, mmHg , ozin <sup>2</sup> , mbar , cmH <sub>2</sub> O, and kPa
<b>Accuracy</b>	±0.3% FSO(a t 25°C )
<b>Repeatability</b>	±0.2% (Max±0.5%FSO)
<b>Linearity/Hysteresis</b>	±0.29% FSO
<b>Data Storage</b>	99 groups
<b>Response Time</b>	0.5s
<b>Out of Range Indicator</b>	Hi or Lo
<b>Automatic Power Off Conditions</b>	No operation for 10 mins
<b>Operating Conditions</b>	0 to 50°C(32 to 122°F)
<b>Storage Conditions</b>	-10 to 60°C( 14 to 140°F)
<b>Power Supply</b>	1.5Vx 3pcs AAA batteries
<b>Dimensions</b>	165 X 70 X33mm
<b>Weight</b>	150g (without batteries)



## 4. RANGE SPECIFICATIONS

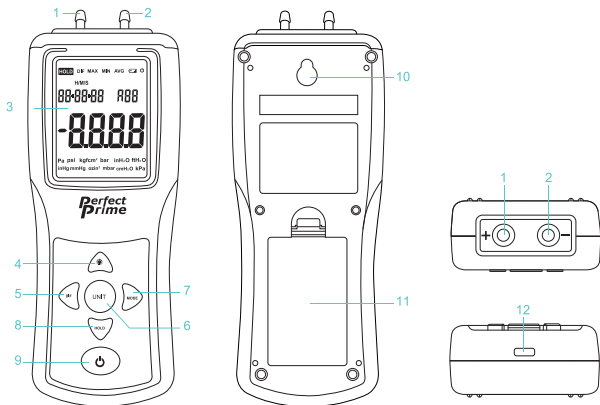
Function	Range	Resolution
Pa	±9999	1
psi	±2.000	0.001
kgfcm <sup>2</sup>	±0.140	0.001
bar	±0.137	0.001
inH <sub>2</sub> O	±55.40	0.01
ftH <sub>2</sub> O	±4.613	0.001
inHg	±4.070	0.001
mmHg	±103.4	0.1
ozin <sup>2</sup>	±32.00	0.01
mbar	±137.8	0.1
cmH <sub>2</sub> O	±140.6	0.1
kPa	±13.78	0.01

## 5. DISPLAY



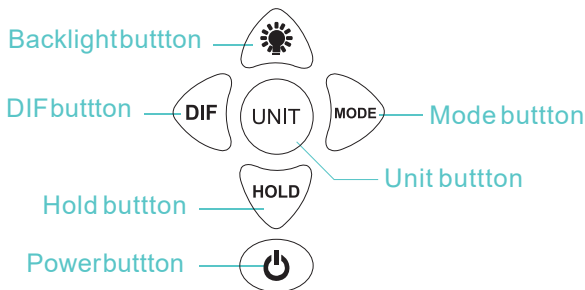
- |                               |                                     |
|-------------------------------|-------------------------------------|
| 1. Data Hold Function         | 7. Auto power off disable Indicator |
| 2. Differential Pressure Mode | 8. Elapsed Time                     |
| 3. Max Indicator              | 9. Total number of records          |
| 4. Min Indicator              | 10. Reading Display                 |
| 5. Avg Indicator              | 11. Pressure Units                  |
| 6. Low Battery Indicator      |                                     |

## 6. METER DESCRIPTION







- |                         |  |
|-------------------------|--|
| 1. P1Tube Connector (+) | 7. MODEButton                          |
| 2. P2Tube Connector (-) | 8. HOLDButton                          |
| 3. LCDDisplay           | 9. Poweron/off Button                  |
| 4. BACKLIGHTButton      | 10. Hanging Hole                       |
| 5. DIF Button           | 11. Battery Cover                      |
| 6. UNT Button           | 12. USB Socket (for power supply only) |

## 7. KEY OPERATION



### 1. Power on/off Button

- When the power is off, short press the  button to turn the meter on.
- When the power is on,
  - a. Short press the  button to disable and enable the automatic power off function.
  - b. Press and hold the  button to turn off the meter.

In order to conserve battery life, the meter has an automatic power off function (without operation after 10 minutes). The auto power off disable indicator  will appear on the display when the auto power off function is disabled. The meter will now remain on until the user turns it off or until the battery runs out.



Note that the Auto Power OFF function will be reactivated the next time the meter is turned off and then on.







## 7. KEY OPERATION

### 2. BACKLIGHT BUTTON


- Short pressthe  button to store the current measured pressure value with a time stamp (can store up to 99 groups).
- Pressandhold the  button to open/close the backlight.


### 3. HOLD BUTTON


- Short pressthe  button to freeze/releasethe displayed reading.
- Pressandhold the  button to clear the stored data.





### 4. MODEBUTTON

- Short pressthe  button to enter the MAX, MIN, and AVGmode.

**MAX MODE-** When in thismode, only the highest (MAX)reading recorded since the  button wasfirst pressedwill appear on the reading display.

**MIN MODE-** When in thismode, only the lowest (MIN)reading recorded since the  button wasfirst pressedwill appear on the reading display.




**AVG MODE -** When in thismode, only the average (AVG)reading recorded since the  button wasfirst pressedwill appear on the reading display.

- Pressandhold the  button to view the stored data, the no. indicator will appear on the right-hand corner of the LCDdisplay, to indicate that it is in the data review mode. Pressthe  or  button to view the data one by one.
- Pressandhold the  button again to exit the data review mode.






## 7. KEY OPERATION

### 5. DIF BUTTON

- Short press the  button to enter P1 and P2 dual channel differential pressure mode. DIF icon will appear on the display.
- Short press the  button again to exit differential pressure mode.
- Press and hold the  button to clear the drift zero. (The data before measurement does not return to zero and without fittings attached to the meter).

### 6. UNIT BUTTON

- Short press the  button to select the desired measurement unit. This meter offers up to 12 pressure units.
- Press and hold the  button to enter the time setting mode.
- While on the time setting mode, short press on the  button to exit the time setting mode or save the setting.











### 7. OVERRANGE


**H<sub>i</sub> symbol** will appear on the display when the pressure reading is over the Maximum range.





**L<sub>o</sub> symbol** will appear on the display when the pressure reading is below the Minimum range.



## 8. BASIC OPERATION



1. Short press the  button to turn on the meter and select the desired measurement unit by pressing the .
2. The reading before measurement and without fittings attached to the meter should return to zero. If not, need to **ZERO** the meter by pressing and holding the  button for 3 seconds or until the display shows all zeros.
3. Press and hold the  button to enter the time setting if needed. The current setting value will be blinking on the LCD, press the  or  button to increase or decrease the value. Once the current setting value is done, press the  or  button to move forward or backward to the next value setting. Short press the  button to save the setting when all are done.
4. Connect the tubing to the P1, P2 (or both) input port(s). If both inputs are used (DIF mode), the meter displays a positive pressure reading if the P1 pressure is greater than P2 and a negative reading if P2 is greater than P1.
5. Short press the  button to store the current measured pressure value with a time stamp (can store up to 99 groups).

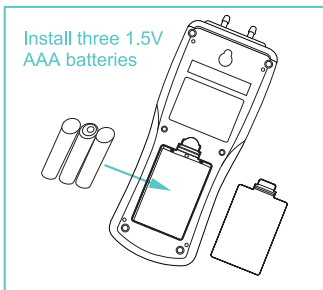
Note that once the stored data reached the 99 groups, it will start to record from scratch (the first group R01) if you still press the  button to record. The previous records will be cleared up.

6. Press and hold the  button to view the stored data, the no. indicator will appear on the right-hand corner of the LCD display, to indicate that it is in the data review mode. Press the  or  button to view the data one by one.
7. To clear up the stored data, press and hold the  button for 3 seconds.



## 9. BATTERY REPLACEMENT

If the meter is not turning on even when the  button is pressed or if the display shows , replace the batteries with 3 pieces of AAA 1.5V battery.



Dispose of the battery in an environmentally safe recycling point.

DO NOT DISPOSE IN YOUR BIN



## 10. TROUBLESHOOTING

## 11. CONVERSIONS

### TROUBLESHOOTING

1. Power on but no display or the display disappears
  - a. Check the batteries if they are in place (in proper contact with the pins) and incorrect polarity.
  - b. Remove the battery for one minute and re-install.
  - c. Replace the batteries.
2. For all other issues please contact your supplier.

### CONVERSIONS

#### Useful conversion Factors

From	To	Multiplier
in of H <sub>2</sub> O	in of Hg	0.07355
in of H <sub>2</sub> O	cm of H <sub>2</sub> O	2.54
mm of Hg	in of H <sub>2</sub> O	0.03937