

Manometer User Manual

1.Introduction

The device measures Gauge/Differential Pressure from 0 to 5 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.

2.Specifications

| Function | Range | Resolution | Function | Range | Resolution |
|--------------------|-------|------------|--------------------|-------|------------|
| inH ₂ O | 138.3 | 0.1 | ozin ² | 80.00 | 0.01 |
| psi | 5.000 | 0.001 | ftH ₂ O | 11.53 | 0.01 |
| mbar | 344.7 | 0.1 | cmH ₂ O | 351.5 | 0.1 |
| kPa | 34.47 | 0.01 | kgcm ² | 0.351 | 0.001 |
| inHg | 10.18 | 0.001 | bar | 0.344 | 0.001 |
| mmHg | 258.5 | 0.1 | | | |

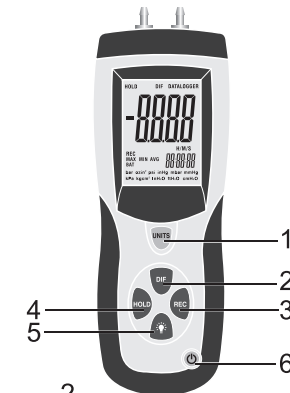
| | |
|------------------------------|-------------------------------|
| Display | Dual LCD |
| Accuracy | ±0.3%FSO (25°C) |
| Repeatability | ±0.2% (Max.±0.5% FSO) |
| Linearity/Hysteresis | ±0.29% FSO |
| Pressure Range | ±5 psi |
| Maximum Pressure | 20psi |
| Response Time | 0.5 Seconds typical |
| 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 | 1×9V Battery or external 9VDC |

Optional RS232 software (Disk & PC cable)
Serial format Baud rate: 9600 Baud, 8 Data Bits.

3.Button

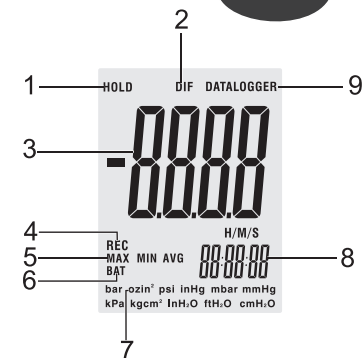
The Meter Has Six Buttons

- 1-UNITS
- 2-DIF
- 3-REC
- 4-HOLD
- 5-BACKLIGHT
- 6-ON/OFF



4.Display Description

- 1-Hold Function
- 2-Differential Mode
- 3-Primary Data screen
- 4-Record Mode
- 5-MAX/MIN/AVG
- 6-Low Battery indicator
- 7-Pressure Unit indicator
- 8-Relative Time Clock
- 9-Data output from Rs232



5.Operation

5-1.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.

5-2.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 "o o o o" 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.

5-3.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.

5-4.Record

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

- 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.
- 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.
- Press the REC button to display the minimum MIN reading with the relative time.
- Press the REC button to display the average value AVG reading with the relative time.

- Press the REC button again to continue recording MAX/MIN /AVG measurements.
- To exit the MIN/MAX/AVG mode, press the REC button for 3 seconds to return to normal operation.

5-5. Backlight Display

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

5-6. 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.

5-7. 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.

6. 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.

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

7. Battery Replacement

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



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