

Model: GT5101

Pressure Manometer Instruction Manual



Version: GT5101-EN-00

H. Operation instructions

- 1. Power on/off
- (1) Power on: When shutting down, short press the Power button to turn on the device.

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- (2) Shutdown: After power on, long press the Power button to shut down; (3) Automatic shutdown: via PC software: Connect the
- product, open PC software Settings AutoShutdown (m): Check the box first, then fill in the automatic shutdown time, which can be set to range from 01 to 99 minutes. After disconnecting, the product will automatically shut down; (4) Cancel automatic shutdown:

- a. Single cancellation: After turning on, (automatic shutdown has been enabled through the PC software), short press the Power button, and the LCD will display [uoff], which means that the automatic shutdown will be canceled this time. The automatic shutdown function will still be enabled for the next startup; b. Permanent cancellation: Cancel through PC software:
- Connect the product, open PC software Settings AutoShutdown (m): Uncheck the box.

2. Measurement mode switching: After power on, short press the MODE button to switch modes: DIFFERENTIAL PRESSURE - MAX - MIN - AVG Exit(long press MODE button to exit). (1) Differential Pressure = real-time value - reference

- value (The value at the time of entering difference mode is used as the reference value)
- (2) MAX/MIN/AVG: After entering this mode, the maximum/minimum/average value of the measured data is obtained.
- 3. Pressure unit switching:

After power on, short press the UNIT button to switch units: bar - mbar - Kpa - Kgf/cm² - mmHg - cmH₂O - Ozf/in² -Psi - inHg - inH2O - ftH2O - HPa - Pa.

- Long press the UNIT button to skip to Kpa
- 4. Data HOLD

After power on, short press the HOLD/D button, LCD display [HOLD], which means data is locked. Press again to release data

- 5 Buzzer alarm
- (1) Product:

After power on, long press the HOLD/ \cD button,LCD displays [ALAR][OPE] means open the buzzer alarm.

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Pressure Manometer can be widely used to measure fan and blower pressure, filter resistance, wind speed, furnace pressure, orifice differential pressure, etc. It is also used for air gas ratio control and automatic valve control during combustion, as well as blood pressure and respiratory pressure monitoring in healthcare equipment

B. Feature

- 1. 13 Pressure units available: bar, mbar, Kpa, Kgf/cm², mmHg, cmH2O, Ozf/in2, Psi, inHg, inH2O, ftH2O, HPa, Pa 2. Differential pressure/Maximum/Minimum/Average mode 3. Overvalue alarm
- 4. Data hold
- 5. Time/Date display
- 6. Zero calibration 7. Low battery alert
- 8. Data record/Data storage/Data delete (clearing) 9. USB charging and PC software communication

C. Attention

- 1. Time and Date failure: If [Err] is displayed in the LCD time and date display area, it indicates that the real-time clock has not been started successfully, and users can shut down and start it again. If it still cannot be started successfully, it indicates that the firmware is damaged
- 2. Time and Date error adjustment: The time and date are affected by the temperature and the life of the product parts, and there will be errors after a long time of operation. Users can connect the computer directly, and the product will update the time and date synchronously Alternatively, through PC software - Settings -AdjustSecondFreg - Upload, the setting reduces the error, the larger the setting value, the more the clock is slowed down, the value range: 0~31;
- 3. If the dynamic pressure value exceeds the alarm value, it will flash alternately with the pressure value to display [Hi]/[Lo], and if it exceeds the range, it will display [Lo] (can not be exceeded for a long time, otherwise it is easy to damage the pressure sensor);
- 4. Shutdown state, connect the adapter or connect the computer, automatically start up and charge, [USB] icon flashes; When the lithium battery is fully charged, the battery icon stands still; When the battery is low, the battery icon beats, indicating that it is charging;
- 5. LCD display [bAt] means that the battery will automatically shut down when the battery is low;
- 6. Due to the large range of pneumatic dynamic state, the -2-

Long press the HOLD/ button again, the LCD displays [ALAR][CLO], indicating that the buzzer alarm is turned off. The alarm value can not be set in the product, which needs to be set in the PC software; (2) PC software

- a. Connect the product, open the PC software Settings -SetHighAlarm/SetLowAlarm, fill in the value turn on the switch - click Upload, the setting is successful b. The high alarm value must be greater than the low alarm
- value (3) When pressure value exceeds the alarm value, the
- product emits a high-frequency "didi" (4) The alarm value unit is consistent with the product unit.
- 6. Date/Time switch:
- After power on, short press the TIME/DATE/ZERO button to switch the Date/Time.

7 Zero calibration:

After power on, in the environment without gas flow, disconnected trachea, and the displayed pressure value of the product is not 0. Long press the TIME/DATE/ZERO button, and the LCD displays [CAL0] to complete zero calibration; Zero calibration operation is prohibited during measurement

8. Data record

- (1) Product: a. After power on, short press the CLEAR/RECORD button, LCD displays [RECORD] to start recording. Press the CLEAR/RECORD button again to exit the record.
- b. View records: View in PC software Download.
- c. Recording interval: Set on the PC software.
- d. Stored Amount: Maximum storage: 15,996 data. PC software - Settings - StoredAmount, You can view the number of records and space occupied.
- (2) PC software: a. Connect the product, PC software - Click [>] to start
- recording. Click []] to stop recording. b. View records: In the measurement data interface, you can view: measurement value, unit, time, date, When
- measuring, change the unit, mode, etc., and update the PC simultaneously. c. Recording interval: PC software - Settings - Storage
- Interval(s), fill in the value turn on the switch click Upload, the setting is successful. Setting range: 1 to 9999.
- d. Stored Amount: Unlimited. Note: The more data, the longer the PC output data

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differential pressure gauge with a range of ±40Kpa ~ ±100Kpa will have zero drift of 20~50Pa. Users can long

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press TIME/DATE/ZERO button to return to zero; 7. The instrument should be kept in dry natural room temperature environment as far as possible. Remember to keep it far away from high temperature, and not to use it to measure liquid pressure and corrosive gas.

D. Name of parts

- 1. Pressure input 2. Pressure input
- 3. LCD display 4. MODE button: Measurement
- mode switching 5. TIME/DATE/ZERO button: Time/Date switching, Zero
- calibration 6. UNIT button: Pressure unit switching
- 7. U button: Power button
- 8. HOLD/Q button: Data lock and unlock, buzzer alarm on/off
- 9. CLEAR/RECORD button: Data record/Data delete (clearing)
- 10. USB interface

E. LCD display

- 1. Data HOLD 2. Data record 3. Data deletion 4. USB connection status 5. Battery/charging status display 6. Difference
- 7. Maximum value 8. Minimum value 9. Average
- 10. Pressure value 11. Pressure units 12. Time/Date

F. PC software

1. Enter the website "www.benetechco.net" in the browser, press enter and enter the page to find the menu Support Download Catalog .Click into the page to find the software installation package "Pressure Manometer 5101.zip". Click the download button to directly extract the "zip package" after downloading. Double click on "setup_Pressure Manometer.exe" to install. -3-

9. Data delete

- (1) Product: After power on, long press the CLEAR / RECORD button, LCD displays [CLR], delete all storage
- data (2) PC software: Click [iii] to delete all storage data

I. Technical parameters

Model	Range	Error	Resolution
GT5101	±125Pa	±2%FS	1Pa
GT5101	±250Pa	±2%FS	1Pa
GT5101	±500Pa	±2%FS	1Pa
GT5101	±1Kpa	±1%FS	5Pa
GT5101	±2Kpa	±1%FS	10Pa
GT5101	±2.5Kpa	±1%FS	10Pa
GT5101	±4Kpa	±1%FS	10Pa
GT5101	±5Kpa	±1%FS	10Pa
GT5101	±10Kpa	±1%FS	10Pa
GT5101	±40Kpa	±1%FS	20Pa
GT5101	±50Kpa	±1%FS	20Pa
GT5101	±100Kpa	±1%FS	100Pa
Temperature compensation		-5~50°C	
Operating temperature		-10~60°C	
Standby current		3.5µA	
Power		400mW(Turn off the buzzer alarm)	
Battery		1000mAh 3.7V Lithium battery	
Charge mode		5V 1A power adapter or connect to a computer	
Dimension		160*65*35mm	
Weight		About 176g	

Notes: 1. FS: full range.

- 2. Temperature compensation : The temperature range in which the sensor can produce output roportional to
- pressure under specific performance limits. 3. This product has the function of preventing lithium
- battery overcharge and overdischarge protection. 4. When the voltage <2.9V, automatic shutdown.
- 5. The overload pressure is three times the maximum range, and overloading is strictly prohibited.

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2. Connect the product, with the LCD displaying [USB] and the PC status bar displaying [Connected], indicating successful connection. Otherwise, check whether the USB cable or computer interface works properly.

G. PC software interface







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Specific Declarations:

Our company shall hold no any responisibility resulting from using output from this product as an direct or indirect evidence.

We reserves the right to modify product design and specification without notice.