AUTOOL®

Digital Manometer

User Manual

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Product introduction

This instrument is designed with imported pressure sensors, high precision ADC and low power consumption MCU. It features professional digital pressure gauge with high precision, wide range, high resolution, large screen display and indoor temperature measurement; with a single channel it is possible to quickly measure the current detection pressure value
(relative to the current atmospheric pressure), whereas the dual channel allows simultaneous detection of the pressure difference between the two detection ports (P1-P2).

Product Usage

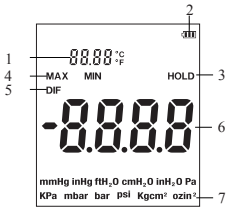
This product can be extensively used in natural gas pipelines, air conditioning and refrigeration ventilation systems, mechanical hydraulics, plastic molding, ceramic products manufacturing, biopharmaceutical molding, mining pressure testing, petrochemical Industrial smelting, gas, liquid and production industrial equipment pressure detection, liquid level detection, Laboratory calibration, medical environment micro-pressure testing, etc.

Technical Parameters

Measuring range	± 2.999Psi/±7.57psi ±12.99psi
Measurement unit	Psi,kg/cm²,ozin²,bar,mbar,Pa inHg,mmHg,inH2O,ftH2O,kPa
Accuracy	± 0.3%FSO(25℃)
Repeatability	± 0.2% （Max± 0.5%FSO）
Linearity/hysteresis	± 0.29%FSO （25℃）
Measurement rate	0.5s
Data storage	100 groups
Maximum pressure	20KPa /52kPa/89kPa
Indoor temperature measurement	Optional ℃/℉ unit
Automatic shut-down	After about 15 minutes without any operation
Exceed the positive pressure range display	Err0
Exceed the negative pressure range display	Err1

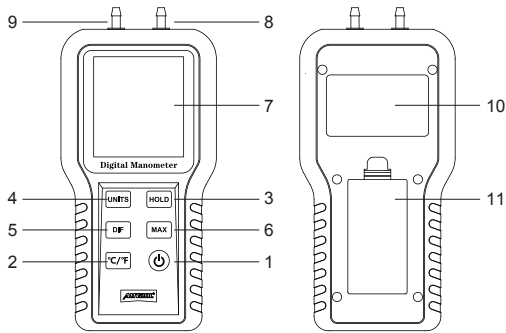
Working temperature	0~50℃(32~122℉)
Storage temperature	－10~60℃(14~140℉)
Power supply	9V
Appearance dimensions	164X70X32mm
Weight	200g

Details description



1. Temperature data\storage serial number
2. Low battery reminder
3. Keep the data mode
4. Maximum\Minimum Mode
5. Differential pressure mode
6. Pressure data
7. Pressure unit

Structure description



1	Power on\backlight on\off	Shut down
2	Storage temperature	Celsius \ Fahrenheit switch
3	Hold data value button	Clear drift data
4	Measurement unit switching	Clear all stored data
5	Checking records upwards when viewing stored data	DIF (differential value) mode
6	Checking records downwards when viewing stored data	Max/ Min Data Mode
7	Pressure data and units display interface	
8	Positive pressure input channel P1	
9	Negative pressure input channel P2	
10	Battery compartment cover	

Operation instruction of Buttons

1. POWER button
a. Short press to turn on.
b. Short press to turn on/off the backlight in the power-on state.
c. Press and hold to shut down (automatically shut down after 15 minutes of no operation).

2. ℃/℉button
a. Short press to store the current measured pressure value (up to 100 groups).
b. Long press to exit the storage mode.
c. Long press for more than 2 seconds to switch the temperature unit.

3. HOLD button
a. Short press to lock and hold the current data value.
b. Long press for more than 2 seconds to clear the drift data (Please press and hold this button if the data is not reset before measurement).

4. UNITS button
a. Short press to switch between up to 12 pressure units.
b. Long press for more than 2 seconds to clear the stored data.

5. DIF button
a. Short press to go up to view stored data.
b. Long press for more than 2 seconds to enter the P1 and P2 dual-channel differential pressure mode.

c. In DIF mode, press and hold for more than 2 seconds to exit the differential pressure mode.

6、MAX button

a. Short press to go up to view stored data.
b. Long press for more than 2 seconds to enter the maximum and minimum mode
c. Long press for another more 2 seconds to return to the normal measurement mode.

Features and specifications

Unit	Range	Resolution	Unit	Range	Resolution
Kpa	±20.68	0.001	inHg	±6.106	0.001
Psi	±2.999	0.001	mmHg	±151.1	0.1
kgcm2	±0.210	0.001	inH2O	±83.02	0.01
ozin2	±47.99	0.01	ftH2O	±6.918	0.001
Bar	±0.206	0.001	cmH2O	±210.8	0.1
mbar	±206.8	0.1	Pa	±20680	1

Precautions

● The instrument should be kept away from vibration sources, strong electromagnetic fields and areas with drastic temperature changes to avoid inaccurate data caused by vibration and electromagnetic interference, temperature fluctuations, etc.

● When measuring corrosive and toxic gases or liquids, please pay attention to take protective measures to avoid personal danger or damage to the instrument.

● When the instrument reminds low battery , please replace the battery in time. Please take out the battery when you don't use the instrument for a long time, so as not to damage the instrument by liquid leakage.

● Please do not exceed the maximum value of input ±20KP/52kPa/89kPa/52kPa/89kPa, when measuring pressure

5.When measuring the pressure of a single channel, please do not block the other channel, nor should it face the windy direction. At this moment, the instrument displays the differential value between the current measurement port and atmospheric pressure.

● When the interface displays over the range during measurement, please

disconnect the vent, and then the displayed data will automatically back to normal; (Pa unit can only be displayed up to 9999, and it can be switch to the next KPa unit).

● Please press and hold the HOLD button to clear the zero point drift of the data under the current mode before measurement (before connecting to the air tube).

Warranty

● Thank you for choosing our products, we will provide you with the following services and promises.

● The warranty period of this product is 1 year.

● After the warranty period expires, repairs will be charged for replacement parts.

● After the failure, please contact the manufacturer, we will give you the most complete service in the
shortest time.

The following items are not covered by the warranty:

● Vulnerable parts are not covered by the warranty, including: glass tube, signal
sire, stickers, connectors pressure gauge, oil outlet pipe.

● When no cleaning agent is added to the ultrasonic tank, turning on the ultrasonic
cleaning switch will damage the ultrasonic system, which is not covered by the warranty.

● If the testing agent is not replaced in time after long-term use, the oil pump filter
screen is blocked and the oil pump is burned out of the warranty.

● The use of fuel injector cleaning agent as fuel injector testing agent will cause the
fuel pump to burn out, which is not covered by the warranty.

● Man-made faults are not covered by the warranty.

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