## **DIFFERENTIAL PRESSURE GAUGE**

- MANUAL

# I: NOTICE

- 1.After receiving the product, please check whether the packaging and appearance are intact, and check whether the product model and specifications are consistent with the product you purchased.
- 2.Install the product correctly and reliably according to the installation method provided by the product.
- 3.Please pay attention to the technical specifications and operating conditions of the product during use, such as the allowable medium and temperature, overload pressure, power supply voltage, etc.
- 4.The digital pressure gauge is a precision device. Please do not disassemble it by yourself, and do not touch the diaphragm with hard objects to avoid damage to the product.
- 5.Please block a group of holes on the other side, otherwise it will lead to inaccurate pressure.
- 6.When installing, please use a suitable wrench to install or disassemble. Do not forcibly twist the housing by hand to tighten or disassemble, otherwise the damage will not be covered by the warranty.
- 7.It is normal to install the power-on test. It usually takes a few minutes for the output of the product to stabilize output and work normally.
- 8. The power-on test after installation shows an abnormal phenomenon. Unless you have the product adjustment equipment and skills, please contact the after-sales technical staff of our company.
- 9.During the installation process, it may be affected by the installation stress. After the installation is complete, if the reading is not at the zero position, please clear it before use.
- (!)Product damage caused by non-professional operations that do not follow the operating specifications is not covered by the warranty.

## II: WARNING

- 1.Failure to operate in accordance with the operating specifications, the resulting losses are not covered by the warranty.
- 2.The company is not responsible for any direct or indirect losses other than the product itself.
- 3. The company reserves the right to change the product manual without notice.
- 4.Customized products may not be consistent with the functions listed in this manual.



## **III: DESCRIPTION**

Differential pressure gauge adopts imported differential pressure sensor as pressure-sensing element and ultra-low power digital conditioning circuit, which has the characteristics of high precision and long-term stability. The installation method is the same as that of the mechanical differential pressure gauge, which is convenient for engineering personnel to install and debug on site.

This series of differential pressure gauges can be used for the measurement and control of high-precision differential pressures in clean rooms, ventilation systems, fan tests, etc.

- ☆ Multiple pressure units
- ☆ Can set high / low pressure alarm, sound and light alarm
- ☆ Multiple functions: power on / off / clear / peak value / acoustic alarm
- ☆ Powered by 2 AA batteries, it lasts for more than 12 months
- $\ ^{\ }_{\ }$  Products have passed CE and Ex intrinsic safety explosion-proof certification



#### IV: SPECIFICATION

Measuring Range:

- -30~30/-60~60/-100~100/-250~250/-500~500Pa
- -1.0~1.0/-2.5~2.5/-5~5kPa

Overload Capacity: 7kPa (≤1kPa) 5 times the range (> 1kPa)

Accuracy: 2% FS (≤100Pa) 1% FS (> 100Pa) (subject to label)

Long-term stability:  $\pm$  0.5% / year (typical value)

Operation temperature: -10~60°C

Storage temperature: -40~80°C

Alarm type: low alarm (ON-L), high alarm (ON-H)

Alarm method: sound and light alarm

Power supply voltage: 2 AA batteries

Dial display: LCD display

Pressure interface: 3×5 mm air pipe

Shell material: PA66

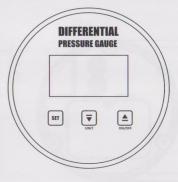
Measuring medium: non-corrosive dry gas

Storage conditions: temperature (-40 ~ 80 °C)

Humidity (0 ~ 95% RH)

Product accessories: mounting bracket

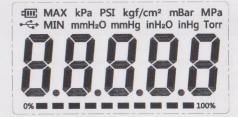
#### V: KEY NOTE



#### **5.1:KEY NOTE**

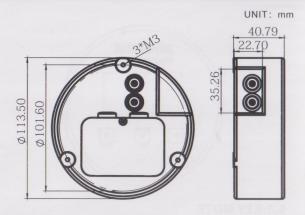
KEY	FUNCTION	DESCRIPTION
SET	Set key	Short press to set the alarm point Press and hold for 2 seconds, log in 1111 to enter the system settings
	Increase key	Short press to turn on,long press to turn off,ln working state, short press to display the max and mini values in sequenceIn the setting state, it is the increase key
•	Decrease key	In working state, press and hold for 4 seconds to switch the pressure unit. In the setting state, it is the decrease button

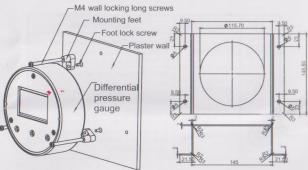
#### 5.2: LCD DISPLAY



SIGN	DESCRIPTION	
Pa mmH2O mmHg Torr	Pressure unit	
MAX	Max pressure	
MIN	Min pressure	
<b>400</b>	Battery power	
0% 100%	Pressure percentage	

#### VI: DIMENSION DIAGRAM





Bracket mstallation diagram

Dimension drawing of mouting bracket

# VII: FUNCTION

Short press (a) button to turn on, long press (a) button for 2 seconds to turn off.

2. Unit switch

Short press ( key to switch unit, cycle switch.

3. Zero clear function

next recording cycle.

Without connecting the air pipe, long press (\$\oplus\$)key for 4 seconds to clear the zero error.

4. View max / min

In working mode, short press the \( \bigseq \) key, at this time MAX lights up, and the screen displays the max value, short press the (A) key again, and then MIN lights up and the screen displays the min value. Short press the  $(\triangle)$  key again to exit the viewing function. When the MAX or MIN value is displayed, press and hold the wey for 4 seconds to clear the current recorded value and restart the

\* In working mode, if the backlight is off, press any key to turn on the backlight to make various settings.

## **VIII: SET HIGH & LOW ALAM**

Enter setting: Short press the SET key to display the current alarm status. At this time, you can select low pressure alarm (ON-L) or high alarm (ON-L) H) by pressing the (A) key shortly. After selection, short press the (SET) key to enter the setting. After entering the setting, the number flashes, indicating that the alarm value can be set.

Alarm value setting: After entering the setting, increase by the key and decrease by the key. Long press the key to shift, the cursor will move to the next digit, after setting, short press the(SET) key to save

\* When an alarm occurs, an audible and visual alarm will be issued. Short press any key to exit the alarm state.



## **IX: SYSTEM FUNCTIONS**

Press and hold the (SET)key for two seconds to enter the system function, display Loc, short press the (a) key to display 0000, log in the password 1111, press the (SET) key to confirm, enter the system parameter settings.

When logging in the password, long press (4) to shift. Short press key to increase, short press ( ) key to decrease.

CODE	NAME	METHOD OF OPERATION	REMARKS
Fltr	Filter coefficient	Short press SET button to display the current value, press Increase or decrease to enter the modified value, press SET key to save and enter the next parameter. The larger the value, the better the filtering effect, 1 ~ 10 adjustable	Default 01
F000	Zero position shield coefficient	Setting method is the same as above Screening value = range * F000 The setting range is 0.000 ~ 0.010	

After the setting is completed, the screen will be fully displayed and exit the current setting state.



## X: PROBLEM & SOLUTION

NO.	QUESTION	REASON	SOLUTION
1	NO. in the zero position	Zero drift or body position effect	Zero clear
2	Batteries sign flashes	Battery power shortage	Change batteries
3	Pressure no change	1.Pressure hole blockage 2.Clear zero with pressure 3.The other side air hole is not blocked	1.Check the pressure hole 2. Re-zeroing without pressure 3.Depot repair
4	Display EH	1.Pressure over range 2.Sensor damage	1.Attention not to over pressure 2.Return to factory for repair
5	Often alam	Alarm point setting is unreasonable	Modify the alarm settings
6	Can not open	The battery has no electricity	Replace with a new battery
7	The display keeps beating	Large pressure fluctuations in the field	Increase the filter constant
8	The buzzer does not alarm	The alarm function is turned off	Short press the setting to open the function to replace the new battery



## XI: CODE DESCRIPTION

NO.	SYMBOL	SIGNIFICANCE
1	E-E	Sensor communication is abnormal or the sensor is damaged
2	E-P	Enter pressure calibration procedure, If enter by mistake, please power off and exit
3 -	OFF	Turn off the alarm function
4	ON-L	Low pressure alarm, sound and light alarm when the pressure is lower than the current setting
5	ON-H	High pressure alarm, sound and light alarm when the pressure is higher than the current setting



#### XII: AFTER-SALE SERVICE

After sales service and warranty clause

1. The warranty period is 12 months from the date of delivery. Our company's products from the date of sale within 7 days of normal use if there is a failure, consumers can choose refund, exchange, maintenance and other services. After the purchase of our company's products, it will be guaranteed free of charge within one year if there is a non-human damage. For consumers who do not meet free replacement or free warranty services, our company still provides technical services.

The time of purchase is based on the invoice issued by distributor or the date of receipt.

2. Products are mainly divided into shell, control elements and pressure sensitive components

The shell is normal wear, use the old, these are not responsible for warranty and replacement.

Wiring error or control element damage of excessive load caused by circuit board is not responsible for warranty.

Pressure-sensitive original damage caused by over pressure or hard material touching the diaphragm is not responsible for warranty.

- 3. One of the following circumstances can not enjoy the "Three Guarantees" service:
- 1) Human factors damage and use in abnormal working environment, failures and damages caused by not using in accordance with the instructions or not accordance with the instructions of using in the
- 2) Without the consent of our company, users disassemble, repair and refit products without permission.
- 3) Damage caused by bad transportation after purchase of our
- 4) Damage caused by other force majeure (such as floods, lightning strikes, earthquakes, abnormal voltages).
- 5) Normal using the old, wear, rupture and immersion etc.
- 6) Products that do not belong to our company (such as fake goods).
- 7) Can't show the valid shopping voucher, no warranty card, etc.