PRG500 Digital Display Pirani Vacuum Gauge

Manual(Quick Version)

宜福泰科，让真空测量更简单！

Infitech, Makes Vacuum Measurement ***Easy and Simple.***

1 Safety Issues

PRG500 is a precision instrument for vacuum measurement, and its internal sensors are susceptible to damage under the following conditions

1）Withstand shock vibrations, such as accidental falls, if the drop height exceeds 0.8 meters, then the probability of sensor damage is greater than 80% when the;

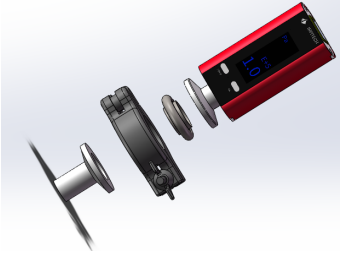
2) The tested medium gas contains strong oxidizing or corrosive components, making the sensor vulnerable to damage ;

3）While the protect plate in front of the flange inlet is missing, and withstand strong airflow impact, making the sensor vulnerable to damage ;

Therefore, it is necessary to check and avoid the occurrence of the above three situations before installing and using the vacuum gauge. The product damage caused by the above situations is not covered by the warranty.

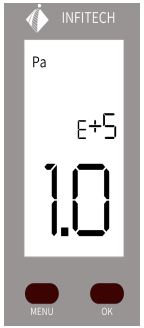
2 Installation method

1）Standard KF16 flange installation



2）Please consult the manufacturer for other connection methods

3 Panel Layout Description



The vacuum data is displayed by Scientific Notation by default, The values shown in the above figure represent 1.0E+5Pa. Convert the Scientific Notation vacuum data to normal data as follows：

Vacuum =coefficient ✖ The exponential power of 10

For example：

1.0E05=1.0*10^5=1.0*100000=100000Pa

3.2E03=3.2*10^3=3.2*1000=3200Pa

2.5E00=2.5*10^0=2.5*1=2.5Pa

1.8E-1=1.8*10^-1=1.8*0.1=0.18Pa

4 Button operation

MENU button——Activate the menu and switch between options in the menu or submenu

OK button——Confirm the selected option or operation

Menu Description

Code	function
ATP	atm calibration
HVC	vac calibration
UNIT	display unit
ADDR	485 address
RESET	reset parameters
EXIT	back to online

Using Switching Vacuum Units as an Example to Explain Menu Operation

Step1：Press the MENU button to activate menu mode in vacuum data display mode

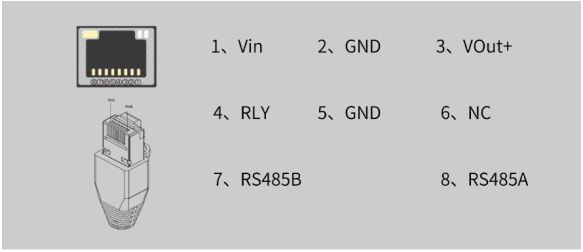
Step2：Continue to switch between various menu function codes by pressing MENU until UNIT appears

Step3：Press the OK button to confirm the unit switching operation

Step4：Enter the submenu and select the desired unit, press the MENU key to switch between different units

Step5：When the desired unit appears, press the OK button to confirm the selection, and the screen will automatically exit the menu mode. The new vacuum data display interface will display the vacuum using the unit just selected

5 Wiring diagram



①-24VV In+　②-GND　③-AnalogOutput+

④-Setpoint+　⑤-Output GND　⑥-NC

⑦-RS485 Data-　⑧-RS485 Data+

6 Formula for Analog Output

$$P = 10^{(V-3.572)/1.286}$$

here：

P—Vacuum，unit Pa

V—Analog voltage，unit V

7 Calibration Method

Calibration for atmosphere:

1）Ensure that the vacuum gauge sensor is at atmospheric pressure (if the vacuum gauge is already installed on the flange, it is necessary to ensure that the connected pipeline or chamber is depressurized to atmospheric pressure),

2）Press the MENU button to activate the menu, call up the function code ATP, press the OK to select,

3）Press OK to confirm in the pop-up confirmation interface,

4）Atmospheric calibration starts, and the interface shows calibration……

5）Until interface shows **calibrate done successful**, indicates calibration successful, and exit the calibration interface。

Calibration for high-vacuum:

1) Ensure that the vacuum gauge sensor is in a vacuum environment below 0.01Pa,

2）Press the MENU button to activate the menu, call up the function code HVC, press the OK to select,

3）Press OK to confirm in the pop-up confirmation interface,

4）High-vacuum calibration starts, and the interface shows calibration……

5）Until interface shows **calibrate done successful**, indicates calibration successful, and exit the calibration interface。

Notes：

（1）The vacuum gauge needs to be powered on for 5-10 minutes to ensure that the vacuum gauge sensor is in a stable state;

（2）Before calibration, it is necessary to confirm the vacuum status to ensure that the vacuum is either below 0.01Pa or in the atmosphere. When the button is pressed, the vacuum gauge will automatically recognize and perform corresponding hig-vacuum or atmospheric calibration。If the vacuum state is incorrect, it will cause the calibration of the vacuum gauge to be incorrect。

8 GaugeReader Software

Install GaugeReader software (free) on the computer, and then connect to the vacuum gauge with InfiGuageCon data acquisition module (paid, optional) . You can read the vacuum degree value through data communication, set control points, modify the 485 communication address, etc., The GaugeReader software can be downloaded through the official website www.infitech cn.com。

9 To get more support

Log in to the official website or scan the WeChat public account at below (recommended), reply "PRG500" you can get the detailed version of the PRG500 manual and other related information about the product. All the latest updated information will be published on the WeChat public account and the company's official website as well.

10 Warranty

The product is guaranteed for 12 months from the date of receipt, and the components directly in contact with the vacuum are not covered by the warranty. In addition, tearing off the warranty seal is invalid and may result in automatic loss of warranty eligibility.

11 Contact information

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