ReBorn®
睿宝科技

RBP-101$_{V01}$ 系列

★产品标准：JB/T10074-2004

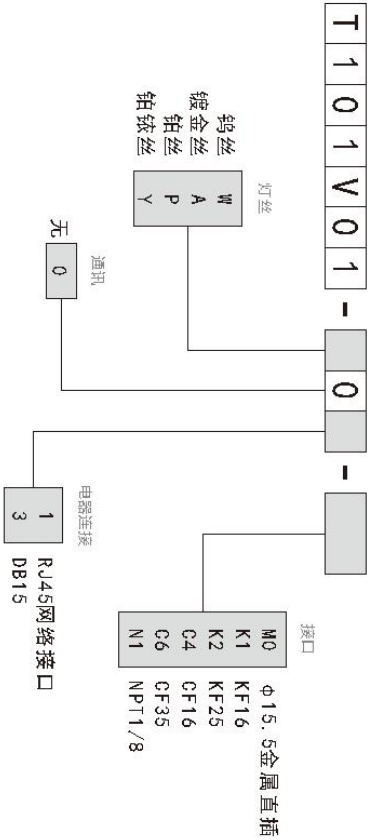
★校准规范：JJF1050-2023

★产品特点：

RBP-101$_{V01}$ 变送器为 RBP-101 变送器的升级版，两者使用方式基本相同，V01 系列在外壳材质以及传感器部件都发生了变化，在内部电路上做了更多的改进使其更有利于低真空的测量和控制。该电阻真空变送器封装在坚固耐用小型管壳内。温度补偿提供快速与最稳定的真空测量并消除了对大气压强反应慢的问题。坚固耐用的不锈钢传感单元更适用于半导体系统以及常规用途，如镀膜机前级真空管道中。

★该变送器中单独传感器部件可以更换。

★订货信息



★主要技术参数：

1、测量范围：1×10^{-2}～1×10^{5}Pa。

2、输出电压：0.50～ 10.00V。

3、有效电压：1.00～ 10.00 V。

4、准确度（氮气）：

5×10^{-1}--3×10^{3}Pa ≤读数的±30%

1×10^{-1}--5×10^{-1}Pa ≤读数的±50%

3×10^{3}--1×10^{5}Pa ≤读数的±50%

校准后得到的误差，其他量程仅供参考。

5、供电电源：24±20%V/DC 5W。

6、安装方式：推荐竖直安装。

7、本变送器标准接口为 DN10/16KF

其他接口请咨询我公司。

8、错误信号：0—0.5 V (灯丝断)

9、变送器标识： 27.0kΩ

10、设备连接件：FCC 68/RJ45，网线。

11、输出公式: $P=10^{((U-3.572)/1.286)}$

P单位：Pa。 U单位：V。

（需要其他计算公式请提前说明）

特殊要求：$P=10^{(U-3.5)}$

特殊有效电压U输出：2.5～8.5 V

★使用须知：

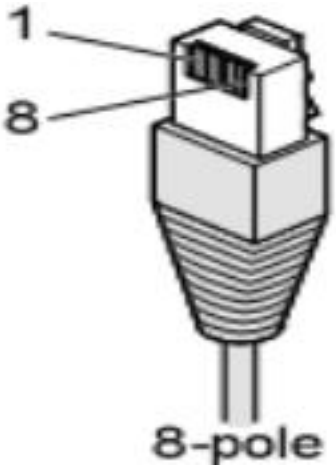
1、RBP-101$_{V01}$ 系列变送器出厂时已经校准好，可以直接使用。如果在现场使用或由于污染造成一定的误差，则应做满度和零点校准。先“满度”校准，方法如下：将 RBP-101$_{V01}$ 暴露在大气下，预热 15 分钟以上，用小签按住顶部小孔内按键“Adj”至少 1 秒，使其输出电压为：10.00V。再校准“零点”，方法如下：将 RBP-101$_{V01}$ 安装在真空管路上，将管路真空抽至高于 0.01 Pa，用小签按按住顶部小孔内按键“Adj”至少 1 秒，使输出电压为：1.00V，反复两次完成校准。如变送器长时间未通电或安装方式有变化，第一次上电后，大气状态下，变送器电压输出可能不为 10.00V，请预热 15 分钟以上，校准满度使其输出为 10.00V，如对 3Kpa 到 100Kpa 真空度要求不高，也可以不做校准直接测量，测量准确度在 1Pa 到 3000Pa 之间不会影响或者影响很小。

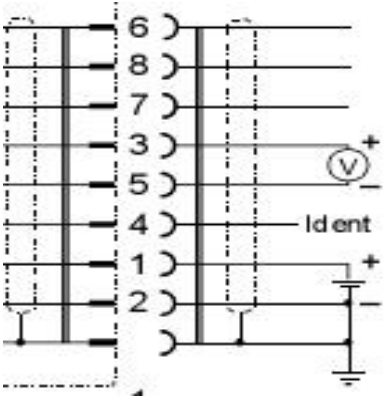
2、零点校准在真空条件不能满足的情况下最好不做校准，以免校准失败对该变送器测量零点部分产生更大误差。

3、RBP-101$_{V01}$ 不耐强腐蚀。选型为含有 Pt 元素的变送器，对有少量水蒸气的测量环境非常适用；选型为镀金丝的变送器对弱酸有一定抗腐蚀性。

4、RBP-101$_{V01}$ 只能测量空气和氮气，其他气体成分比例较大的场合需另外修正。

5、由于 RBP-101$_{V01}$ 属于耗材，因此 RBP-101$_{V01}$ 在使用或未使用但搁较长时间（6 个月）后，本公司不予更换，敬请谅解。但 RBP-101V0 的电路部分保修一年。





★管脚说明:

Pin1：电源 24v±20%V/DC “+”

Pin2：电源公共端“-”

Pin3：电压输出 0.50 ～ 10.00V “+”

Pin4:变送器标识 27.0kΩ(到 Pin2 的阻抗)

Pin5：电压输出公共端 “-”

合格证

本变送器经检验合格，准予出厂。

检验员：

★本公司对 RBP-101V01 系列变送器拥有最终解释权，保留对产品/服务及相关信息进行调整和修正的权利。

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RBP-101V01

★Product Standards: JB/T10074-2004

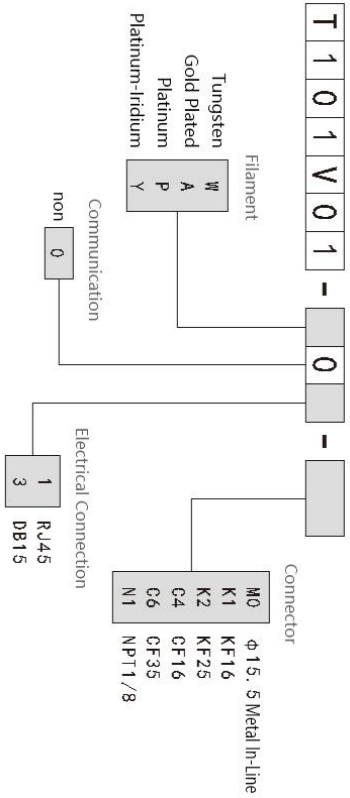
★Calibration Norms: JJF1050-2003

★Product Features:

The RBP-101v01 guage is an upgraded version of the RBP-101 guage, which is used in much the same way, but the V01 series has changed in terms of housing materials and sensor components, and more improvements have been made to the internal circuitry to make it more conducive to low vacuum measurement and control. The resistive vacuum guage is encapsulated in a rugged, compact tube housing. Temperature compensation provides the fastest and most stable vacuum measurement and eliminates the problem of slow response to atmospheric pressure. The rugged stainless steel sensing unit is suitable for use in semiconductor systems as well as for general purpose applications such as in pre-coater vacuum lines.

★The Sensor devices can be replaced.

★Ordering Information:



★Specifications:

1. Measuring Range: 1×10^{-2}~ 1×10^{5}Pa
2. Output Voltages: 0.50 ~ 10.00V
3. Effective Accurate Voltage:1.00 ~10.00 V
4. Accuracy (N_2) :

5×10^{-1}---3×10^{3} Pa ⩽ ±30% (of reading)

1×10^{-1}---5×10^{-1} Pa ⩽ ± 50% (of reading)

3×10^{3}---1×10^{5} Pa ⩽ ± 50% (of reading)

Errors obtained after calibration, other ranges are for reference only.

5. Power: 24±20%V/DC 5W
6. Installation: Vertical installation is recommended.
7. The standard interface of this transmitter is DN10/16KF . Other interfaces, please consult our company.
8. False Signal: 0 - 0.5 V (filament break)
9. Output Impedance: 27.0Ω
10. Device connectors: FCC 68/RJ45, network cable.
11. Output formulas: $P=10^{((U-3.572)/1.286)}$

P unit: Pa U unit: V

Special requirement: $P=10^{(U-3.5)}$

Special effective voltage output: 2.5-8.5 V

★Instructions:

1. RBP-101V01 series guage has been calibrated at the factory and can be used directly. If used in the field or due to contamination caused by certain errors, it should do fullness and zero calibration. First "fullness" calibration, the method is as follows: RBP-101V01 exposed to the atmosphere, preheat for more than 15 minutes, use a small stick to hold down the top of the hole in the key "Adj" for at least 1 second, so that the output voltage: 10.00 V. Then calibrate the "zero point". Then calibrate the "zero point" as follows: install the RBP-101V01 on the vacuum line, pump the vacuum of the line higher than 0.01 Pa, press and hold the key "Adj" in the top hole for at least 1 second with a small sticker, so that the output voltage will be 1.00 V. Repeat this twice to complete the calibration. Repeat twice to complete the calibration. If the guage has not been energised for a long time or the installation method has been changed, the voltage output of the guage may not be 10.00V under the atmospheric condition after the first time of powering up, please pre-start for more than 15 minutes and calibrate the fullness so that the output will be 10.00V. If you do not have a high demand for vacuum from 3Kpa to 100Kpa, you can also measure directly without calibration, and the accuracy of measurement will not be affected or affected very little from 1Pa to 3,000Pa. The measurement accuracy between 1Pa and 3000Pa will not be affected or the influence is very small.

2. Zero calibration in the vacuum conditions can not be met in the case of the best not to do calibration, so as to avoid calibration failure of the guage measurement of the zero part of the larger error.

3. RBP-101V01 does not resist strong corrosion. Selected for the guage containing Pt elements, a small amount of water vapour measurement environment is very suitable; selected for the gold-plated wire guage has a certain corrosion resistance to weak acids.

4. RBP-101V01 can only measure air and nitrogen, other gases with a large proportion of occasions need to be corrected separately.

5. Because RBP-101V01 is a consumable, so RBP-101V01 will not be replaced if it is used or left unused for a long period of time (6 months), please understand. However, the RBP-101V01's circuitry is guaranteed for one year.

★Pin Description:

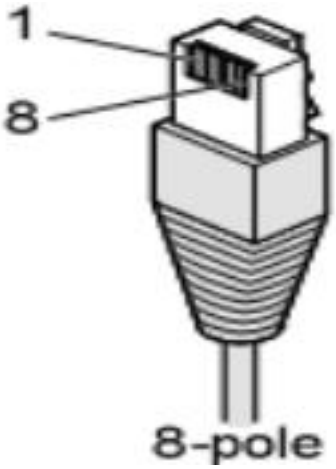
Pin1: Power supply 24v ± 20% V/DC "+"

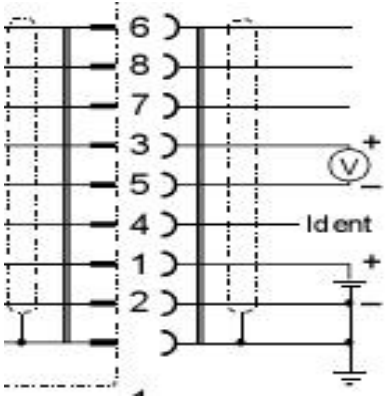
Pin2: Power supply common "-"

Pin3: Voltage output 0.50 ~ 10.00V "+"

Pin4: Guage identification 27.0kΩ
(impedance to Pin2)

Pin5: Voltage output common "-"





★The company has the final interpretation of the RBP-101V01 series gauge, and reserves the right to make adjustments and corrections to the products, services and related information.

Certificate

This vacuum gauge has passed the inspection and is authorized to leave the factory.

Inspector:

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