

## I. Product Features

- The diaphragm silicone rubber elastic material is resistant to high temperature and scratches, effectively preventing the hard particles in the measured medium from damaging the isolation diaphragm.
- There is no blockage of viscous medium in the measurement process, and it is resistant to corrosion, vibration and particle impact.
- Specific cable connection, directly into the field installation.
- All stainless steel laser welding structure, tensile resistance, corrosion resistance, water resistance.
- This product is composed of circuit board, sensor and other important components

## II. Uses

It is suitable for fluid pressure monitoring of high viscosity or particles, such as measurement of viscous flowing media in sewage treatment, paper making, paint, pharmaceutical and food processing industries, such as chocolate and milk.

## III. Technical parameters

### Main parameters:

1. Output Form: 4mA ~ 20mA  
□ 0V ~ 5V □ RS-485
2. Power supply: DC 24V (12V ~ 32V)
3. Measurement range: Within 0m ~ 100m  
(Minimum measuring range 0.5m)
4. Accuracy grade: 0.5 level
5. Media temperature:  $-20^{\circ}\text{C} \sim 70^{\circ}\text{C}$
6. Ambient temperature:  $-20^{\circ}\text{C} \sim 60^{\circ}\text{C}$
7. Response time:  $\leq 50\text{ms}$
8. Load Capacity (DC 24V): Current type  $\leq 500\Omega$   
Voltage type  $\geq 3\text{k}\Omega$
9. Reproducibility:  $\pm 0.1\% \text{F}\cdot\text{S}$
10. Annual long-term stability:  $\pm 0.1\% \text{F}\cdot\text{S}$
11. Nonlinear:  $\pm 0.2\% \text{F}\cdot\text{S}$
12. Thermal zero temperature drift per degree:  $\pm 0.02\% \text{F}\cdot\text{S}$
13. Overload pressure: 2 times the range
14. Electrical connection: Cable connection
15. Measuring media: oil, water and other media compatible with 316 stainless steel.
16. Shell material: ordinary stainless steel / 316L stainless steel
17. Protection level: IP 68

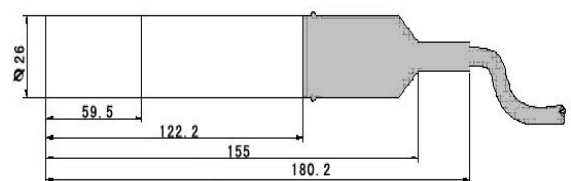
### Working conditions:

Avoid installation in environments with mechanical vibration and strong electromagnetic interference.

### Shape and size:



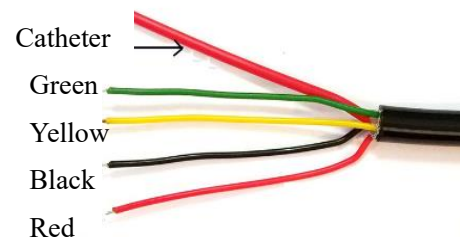
Input double diaphragm level transmitter configuration



## IV. Installation

1. transmitter can be vertical in the tank, tank, should ensure to avoid sediment and other Impurities buried or blocked transmitter probe part.
2. in the medium fluctuations, measures should be taken to fix the transmitter probe part, such as adding counterweights to the transmitter, etc.;
3. In addition to power supply and signal transmission, the air conduction cable also plays the role of air off compensation. When installing, it should be avoided to lock the cable too tight or bend at an acute Angle to prevent the air duct from being blocked or broken.
4. The shell is installed vertically above or near the tank on a bracket, while ensuring sunlight protection and ventilation, the installation position is convenient for wiring and commissioning.

## V. Wiring (This wiring diagram is a schematic, the site wiring to the actual product shall prevail)

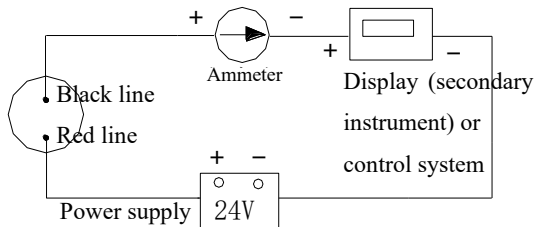


## Two-wire current 4mA ~ 20mA output wiring diagram (JYB-KO-LA\*-S)

Red line: Power +

Black line: Current output

Yellow line: shielded ground

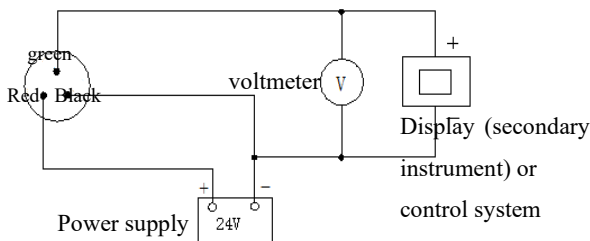


## Three-wire system voltage 0V ~ 5V output wiring diagram (JYB-KO-LV\*-S)

Red line: Power +

Black line: Power -

Green line: Voltage output



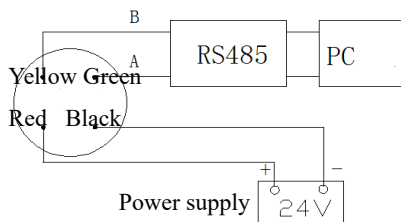
## Network rs485 output (JYB-KO-LW1\*-S)

Red line: power supply

Black line: power supply

Green line: RS485 A+

Yellow line (white) : RS485 B-



1. Please note that the cable should be connected correctly to the wiring diagram, such as using the shield cable should be the shield layer to the shielding ground and ensure reliable connection.

2. For network-based communication protocols see:

《 Pressure (level) transmitter network type communication protocol accessories V3.3 》

## VI. Trial run

To ensure that the transmitter can work properly with stability and accuracy, the level should be tested before Power on and preheat for 15min.

## VII. Safety instructions

1. The installation process should ensure that the transmitter is tightened firmly before power measurement; disassemble Disconnect the power supply before removing.

2. This product is not explosion-proof, use in explosion-proof area will cause serious personal injury and significant material loss.

3. The transmitter is banned from the frozen medium, otherwise the transformer will be damaged.

4. This product is an electronic product, scrapping will produce environmental pollution, scrapping should follow the national electronic device scrapping related standards.

## VIII. Product maintenance and troubleshooting

If the transmitter is faulty, please contact our after-sales service to confirm the problem and send the transmitter back to our company for repair, please include the following Information:

- Site Environment Description;
- Failure phenomenon;
- Description of the measurement medium and its physical and chemical properties;

When the transmitter needs to be repaired or calibrated, be sure to clean up any residual media before sending it back, especially substances that are harmful to human health, such as corrosive, toxic, carcinogenic or radioactive substances.

### Common fault analysis and troubleshooting

Failure phenomenon	Cause Analysis	Exclusion method
No output signal from transmitter	Transmitter not powered Wiring error	Power the transmitter correctly according to the wiring diagram
Irregular jumps in output at constant pressure	Transmitter shell grounding terminal is not grounded Strong RF interference on site Shielded cable not used	Use shielded cable and ground the shield Transmitter housing ground terminal and earth reliable connection
When the transmitter is not connected to the pressure, the	Transmitter is not working in its required environment	Move the transmitter to the specified environment or take measures

corresponding output value is incorrect		to make the environment conform to the requirements
Transmitter output does not match measured pressure	Incorrect supply voltage External load is too large	Make the supply voltage DC 24V Adjust the external load

If the failure phenomenon does not belong to the above scope, please contact with our after-sales service.

## IX. Maintenance

1. Only use neutral reagents to clean the transmitter, avoid using corrosive reagents to clean, such as acid, alkaline solvents, household detergents, etc.

2. Transmitter is a precision instrument, should be stored in a dry and ventilated indoor environment, avoid direct sunlight.

## X. Cautions

1. Please check whether the packaging is intact and verify whether the transmitter model matches the product you have purchased;

2. Confirm whether the power output voltage is correct; the positive and negative power supply corresponds to the positive and negative wiring of the product; the maximum height of the liquid level is within the range of the product;

3. The sensor of the probe is a precision device, users should not disassemble it by themselves when using it, let alone touching the diaphragm, so as not to cause damage to the product;

4. Please avoid the level transmitter cable terminal (where the warning label is affixed) to be immersed in water, resulting in water in the ventilation line, resulting in water damage to the transmitter;

5. Please avoid the level transmitter cable line being scratched by knives or other sharp metal objects, resulting in water damage to the transmitter;

6. Please save the calibration certificate and certificate of conformity, and return with the product when repairing.

### Packing list:

- |   |           |
|---|-----------|
| 1. Water level transmitter                                    | 1 set     |
| 2. Instructions for use                                       | 1 serving |
| 3. Certificate of Conformity                                  | 1 serving |
| 4. Water level cable installation right Angle bracket (black) | 1 set     |