

# Micro pressure differential air pressure transmitter manual

## SP06

### V1.0



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# 1.Product Description

## 1.1 Product introduction

The SP06 differential pressure transmitter is a sensor used to measure the difference between two pressures. It is usually used to measure the pressure difference between the front and rear ends of a certain device or component. The shell is made of aluminum alloy and stainless steel. Two pressure interfaces are widely used in textile workshops, boiler air supply, underground ventilation and other fields of electric power, coal, spinning cotton boxes, dust removal equipment, and industrial pressure process control.

## 1.2 Working Principle

The measured pressure acts directly on the diaphragm of the sensor, causing the diaphragm to produce a micro-displacement that is proportional to the water pressure, causing the capacitance value of the sensor to change. This change is detected using an electronic circuit, and Convert and output a standard measurement signal corresponding to the pressure.

## 1.3 Technical Parameter

| Parameter index          |   |
|--------------------------|---|
| Measuring range          | $\pm(100\text{Pa}\sim 200\text{Pa}\sim 1\text{KPa}\sim 10\text{KPa}\sim 100\text{KPa})$ |
| Output signal            | 4~20mA(2-Wire)、0~5V、1~5V、0~10V(3-Wire)  |
| Supply voltage           | 24VDC(9~36VDC)  |
| Temperature              | (-20~85℃)   |
| Zero temperature drift   | $\leq\pm 0.05\%FS^{\circ}\text{C}$  |
| Range temperature drift  | $\leq\pm 0.05\%FS^{\circ}\text{C}$  |
| Compensation temperature | 0~70℃   |
| Safe overload            | 150%FS  |

|                              |   |
|------------------------------|---|
| Extreme overload             | 200%FS  |
| Response time                | 1 mS(rising to 90%FS)   |
| Load Resistance              | Current output type: maximum 800Ω;<br>voltage output type: greater than 5KΩ                       |
| Insulation resistance        | >2000MΩ (100VDC )   |
| Sealing level                | IP65  |
| Long-term stable performance | 0.1%FS/year   |
| Vibration effects            | Within the mechanical vibration frequency of 20Hz ~ 1000Hz, the output change is less than 0.1%FS |

## 2.Attention

- During installation, check whether the on-site interface is consistent with the product interface based on the product connection method and thread type. The wiring should be strictly in accordance with the instructions of our company.
- This product is a precision transducer instrument. It is prohibited to disassemble, collide, drop, hit with force, or poke the pressure hole with sharp instruments.
- The transmitter can work when powered on, but the output will be stable after preheating for 30 minutes.
- If any abnormality is found during use, turn off the power, stop using it, and conduct inspection.