



**TIANSHUI HUATIAN SENSOR**

**CYB0900 SERIES PRESSURE TRANSMITTER**



**Tianshui Huatian Sensor Co., Ltd**

天水华天传感器有限公司

**HUA TIAN**



**CE**

**CYB0901**

## 1 Brief introduction

CYB0900 series pressure transmitter selects sapphire pressure sensor as the sensitive core, and outputs standard industrial application and networking signals through temperature compensation, digital circuit correction and signal conditioning. The sensor consists of two diaphragms: titanium alloy pressure sensing diaphragm and titanium alloy measuring diaphragm. The heteroepitaxial silicon strain sensitive circuit sheet on sapphire is fused to the titanium alloy measuring sheet. The measured pressure is transmitted to the measuring diaphragm. Under the action of pressure, the titanium alloy diaphragm produces micro stress deformation, which makes the bridge output change, and the amplitude of change is



proportional to the measured pressure. The bridge circuit converts the unbalance signal of the bridge into a voltage signal for output.

### 2 Features

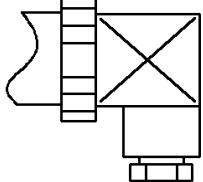
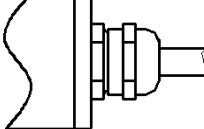
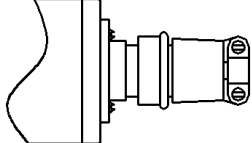
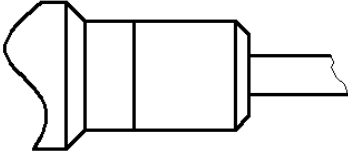
- Titanium alloy diaphragm, strong corrosion resistance
- Wide temperature range and high precision
- Explosion proof and IP68 protection
- It can be used in polluted, humid, flammable and explosive environment

### 3 Main technical data3

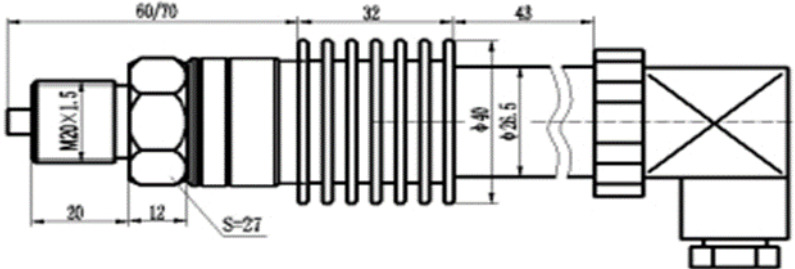
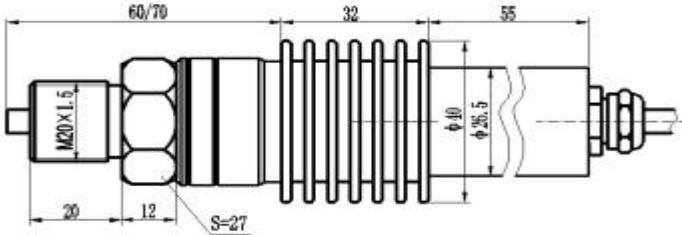
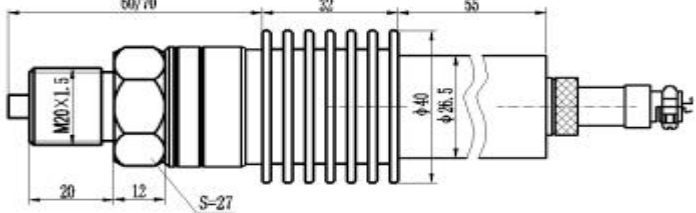
ITEM	PARAMETERS		
Range	-0.1MPa...0kPa~10kPa...100MPa		
Overload capacity	<10MPa ≤2 times full scale	≥10MPa ≤1.5 times full scale	
Pressure form	Gauge	Absolute	Sealed gauge
Accuracy	0.1 (customized)	0.25 (typ)	0.5 (max)
Long term stability	±0.1%FS/year (typ)		±0.2%FS/year (max)
Zero temperature drift	±0.015%FS/°C		±0.02%FS/°C
Sensitivity temperature drift	±0.015%FS/°C		±0.02%FS/°C
Compensation temperature	-10°C~70°C		-20°C~80°C
Measuring medium	-60°C~150°C		-30°C~65°C (throw-in type)
Operating voltage	12VDC~30VDC		
Output signal	4mA~20mA (+HART)	RS485	0V~10V (customized)
Load resistance	Current type: ≤ (U-12) /0.02(Ω)		
Protection	IP65 (IP67/IP68 customized)		



**4 Connector selection**

Connection	Drawing
1、 Standard hosman connector 2、 M20 * 1.5 thread, customizable adapter 3、 Pressure interface material is stainless steel	
1、 Waterproof connector 2、 M20 * 1.5 thread, customizable adapter 3、 Pressure interface material is stainless steel	
1、 Aviation connector ; 2、 M20 * 1.5 thread, customizable adapter 3、 Pressure interface material is stainless steel	
1、 Cable direct outlet, IP68 ; 2、 M20 * 1.5 thread, customizable adapter 3、 Pressure interface material is stainless steel	

**5 Model selection**

Model	Drawing
CYB0901	
CYB0902	
CYB0903	



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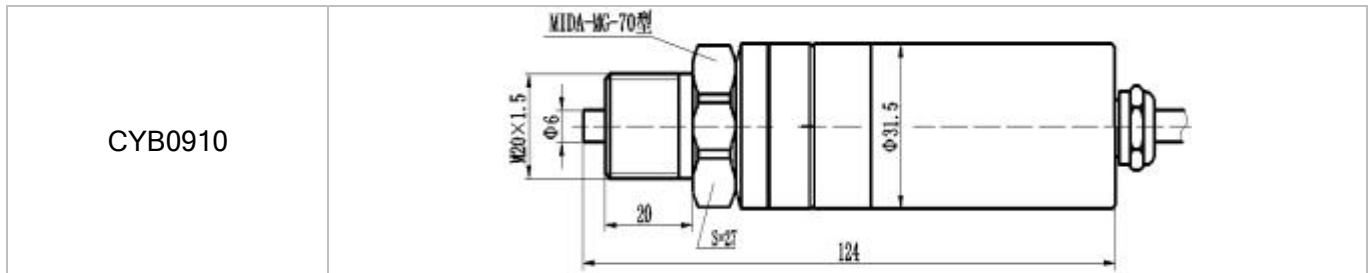
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<p>CYB0908</p>	
<p>CYB0909</p>	



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## 6 Attention

- Good and effective sealing measures shall be taken at the connection of pressure interface to prevent the leakage of pressurized liquid, which may cause pollution or scald.
- According to the environmental humidity, cleanliness and use needs, select the appropriate outlet mode.
- The high temperature sensor is sensitive to vibration and impact. It is strictly forbidden to drop and touch. Good and effective anti-shock and anti-impact measures shall be taken at the installation position.