



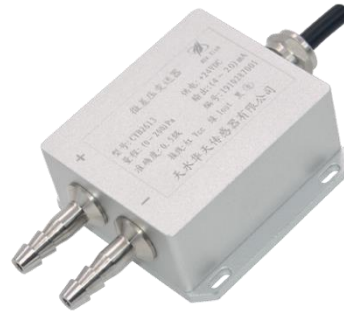
TIANSHUI HUATIAN SENSOR

CYB1800 SERIES MICRO DIFFERENTIAL PRESSURE TRANSMITTER



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CYB1800

1 Introduction

CYB1800 series micro differential pressure transmitter adopts silicon MEMS micro pressure chip. After temperature compensation, linear compensation, signal amplification, V / I conversion, surge, reverse polarity protection and other transmission circuit signal processing, the transmitter outputs industrial standard 4-20mA signal. All digital calibration, no movable potentiometer, temperature drift performance, stability has been improved. This series of products adopt two isolation methods. Less than 5kPa, the chip is protected by elastic silicon gel. It is mainly used for differential pressure measurement of non-corrosive gases for silicon and silicon gel. The range of 5kPa and above is measured. The chip is protected by 316L stainless steel isolation diaphragm, and is filled with silicone oil. It is suitable for medium measurement of stainless steel without corrosion.



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CYB1800 SERIES MICRO DIFFERENTIAL PRESSURE TRANSMITTER

2 Application

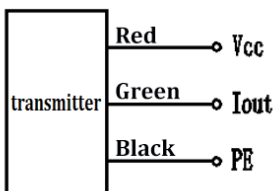
This series of transmitter is used in petroleum, chemical, metallurgy, electric power, textile, electronics, medicine, food, environmental protection and other fields, and more widely used in HVAC, purification plant and boiler automatic detection.

3 Technical indicators

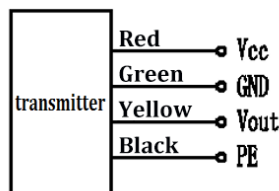
Range	Pa	0 ~ ±100、500.....1000		
	KPa	0、2、10.....100		
Pressure form		Differential pressure		
Output signal (mA)		4 ~ 20		
		0~ 5V (0 ~ 10) three wire system		
Accuracy		0.25	0.5	1.0
Nonlinear (FS%)		≤0.2	≤0.4	≤0.8
Hysteresis, repeatability (FS%)		≤0.05	≤0.1	≤0.2
Zero and sensitivity temperature drift (%FS/°C)		≤0.025	≤0.05	≤0.08
Long term stability(%FS/year)		≤0.2	≤0.5	≤1.0
Operating voltage (VDC)		+12 ~ +36 (calibration value is + 24)		
Compensation temperature (°C)		0 ~ +50		
Operating temperature (°C)		-40 ~ +85		
Overload capacity (%)		200		
Static pressure (kPa)		≤200		
Load resistance (Ω)		R= (U-12.5) /0.02-RD notes: U is the power supply voltage, RD is the internal resistance of the cable		
Response time (10% - 90%) ms		≤1		
Measuring medium		< 5kPa, non corrosive gas. ≥5kPa, compatible with 316L and silicon.		
Diaphragm material		Silicon gel /316L membrane		
Housing material		LY12		
Interface		304/316 stainless steel, Φ 7 tower nozzle		
Protection level		IP66		

4 Electrical connection

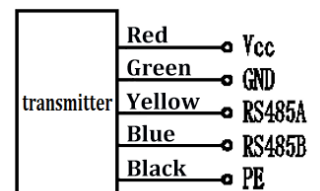
Current type



Voltage type

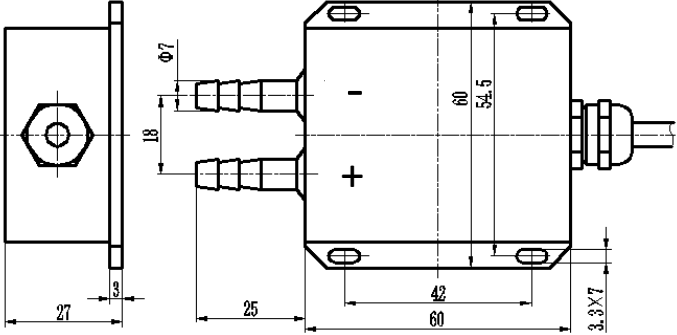
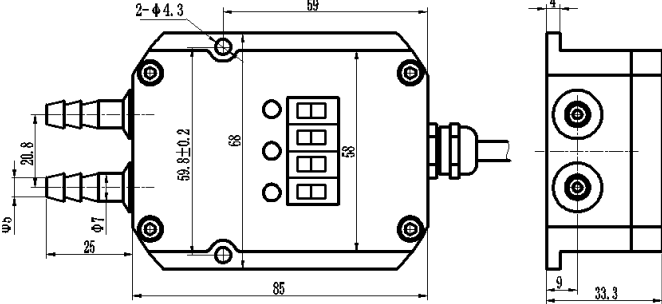
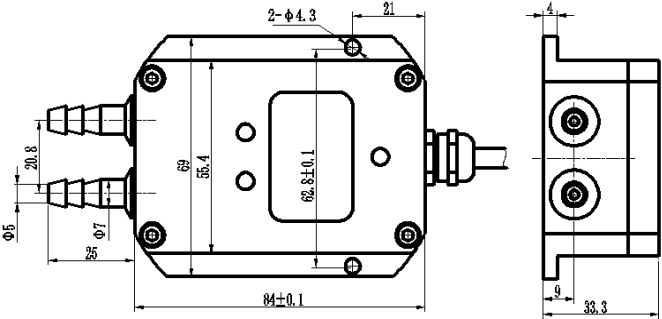
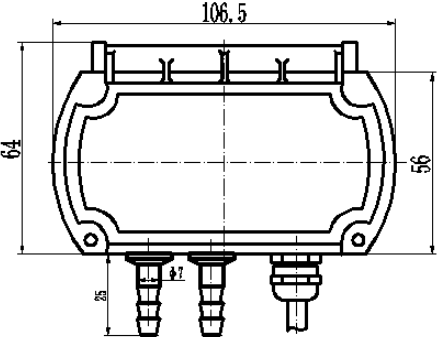


RS485 type



5 Selection Guide

5.1 Model and outline drawing

Model	Pattern
CYB1825	
CYB1827	 <p style="text-align: center;">LED display</p>
CYB1828	 <p style="text-align: center;">LCD display</p>
CYB1829	



5.2 Selection Guide

CYB1800	Differential pressure transmitter			
range	±100Pa...100kPa			
10n	In PA, the first two digits are multiplied by the n-square of 10, and N is the third digit			
	Code	Form of pressure		
	D	Differential pressure type		
			Code	Supply voltage
			U ₁	24VDC
			U ₂	12VDC
			U ₃	5VDC
			U ₄	3VDC (3.3VDC)
			U ₅	Other power supply modes
			Code	output signal
			E ₁	4mA~20mADC
			E ₂	0mA~10mADC
			E ₃	0mA~20mADC
			V ₁	1VDC~5VDC
			V ₂	0VDC~5VDC
			V ₃	0VDC~10VDC
			V ₄	0.5VDC~4.5VDC
			V ₅	Other voltage output
			R ₄	RS485 communication interface
II	I ² C Protocol communication			
CYB1825 [102] D U₁ E₁ Indication: CYB1825 type 1kPa differential pressure power supply, 4 ~ 20mA output.				

6 Precautions

- 6.1 When receiving the product, please check whether the package is in good condition, and check whether the transmitter model and specification are consistent with the product you purchased.
- 6.2 Please keep the verification certificate and certificate, and return it with the product during maintenance.
- 6.3 Pay attention to the installation direction of the transmitter. Generally, the transmitter should be horizontally debugged and installed horizontally; the vertical installation should be explained when ordering or adjusting the zero point of the secondary instrument.
- 6.4 The transmitter shall not be installed in the environment of mechanical vibration and strong electromagnetic interference.
- 6.5 In low temperature environment, in order to ensure the accurate measurement of pressure, it is necessary to ensure the fluidity of the measured medium.
- 6.6 The transmitter is a precision instrument and should be stored in a dry and ventilated indoor environment to avoid direct sunlight.