

Polycarbonate360Spen d5V Wind direction transmitter (Analogtype)

SN-3000-FXJT05-V*-360

Ver 2.0

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No. 1chapter Product Introduction

1.1Product Overview

SN-3000-FXJT05-V*-360 wind direction transmitter is small and light, easy to carry and assemble. The new design concept can effectively obtain wind direction information. The shell is made of polycarbonate composite material, which has good anti-corrosion and anti-erosion characteristics, anti-exposure, high impact strength, and with the smooth internal bearing system, it ensures the accuracy of information collection and outputs data with voltage signals (0-5V, 0-3V, 0-2.5V, 1-5V). It is widely used in wind direction measurement in greenhouses, environmental protection, weather stations, ships, docks, breeding and other environments.

1.2Features

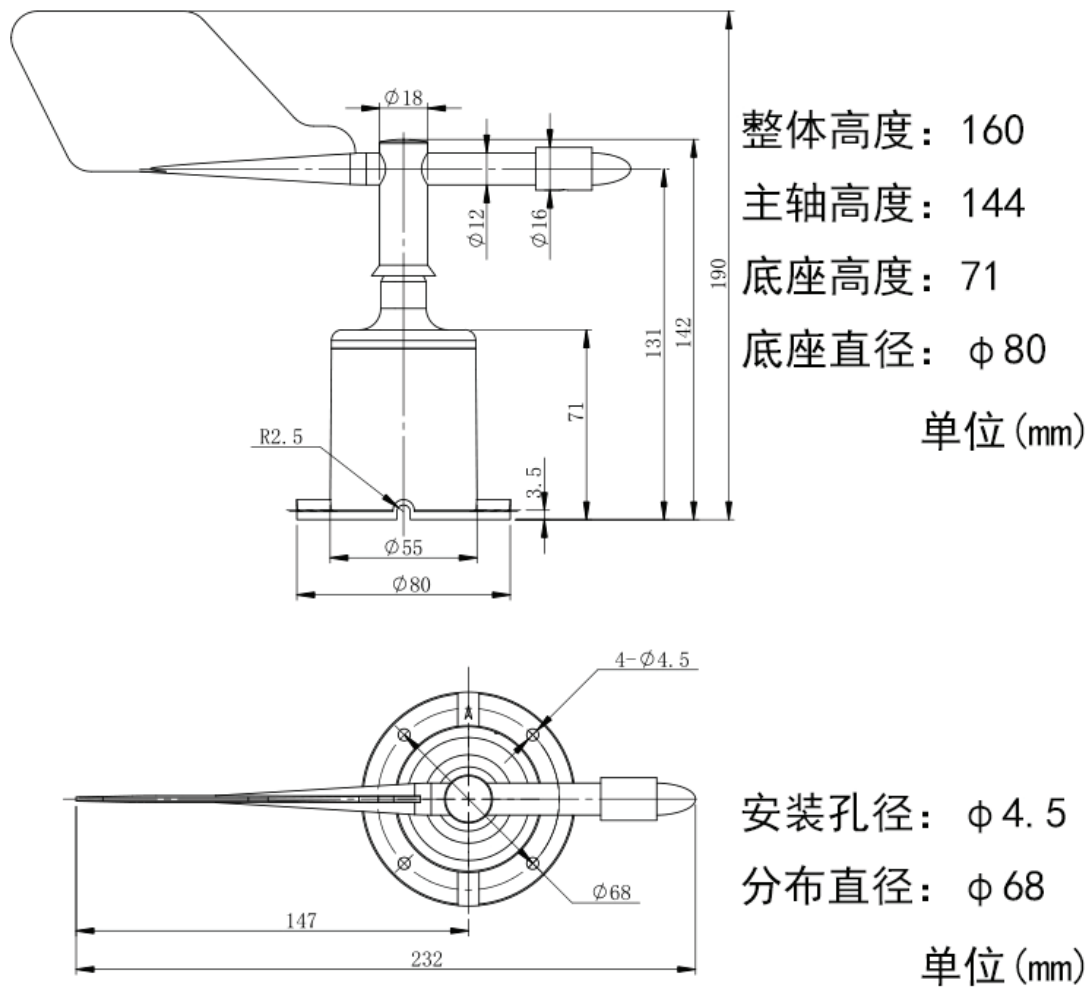
- Range: 0~359.9 degrees
- 5V power supply, anti-reverse connection protection, anti-overvoltage protection function
- Anti-electromagnetic interference processing
- Adopt high-performance imported bearings, small rotation resistance and accurate measurement
- Polycarbonate shell, strong mechanical strength, high hardness, corrosion resistance, long-term use outdoors
- The structure and weight of the equipment are carefully designed and distributed, with small moment of inertia and sensitive response.
- It is applicable to both four-wire and three-wire connection methods.

1.3Main parameters

DC power supply (default)	5 DC
Maximum power consumption	0.12W
Transmitter circuit operating temperature	-40°C~+60°C, 0%RH~80%RH
Measuring range	0~359.9°
Accuracy	±1°
Dynamic response time	≤0.8s

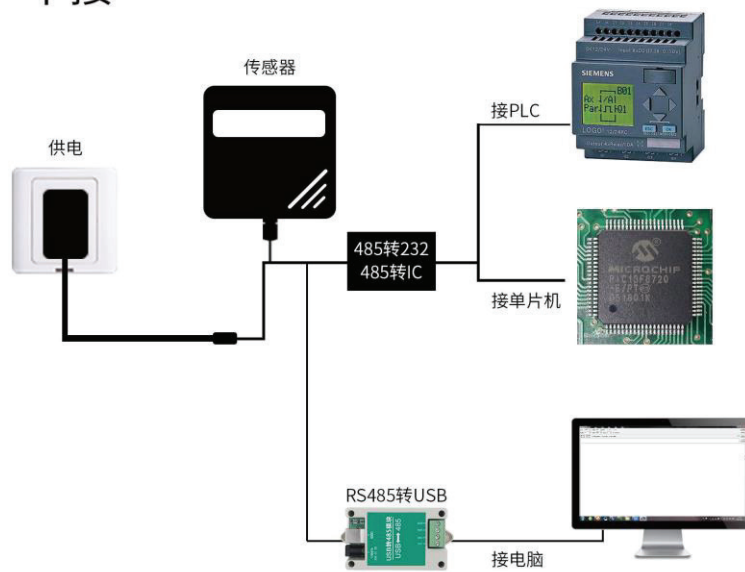
Output signal	Voltage output	0-5V, 0-3V, 0-2.5V, 1-5V optional
Load Capacity	Output resistance $\leq 250\Omega$	

Shell size



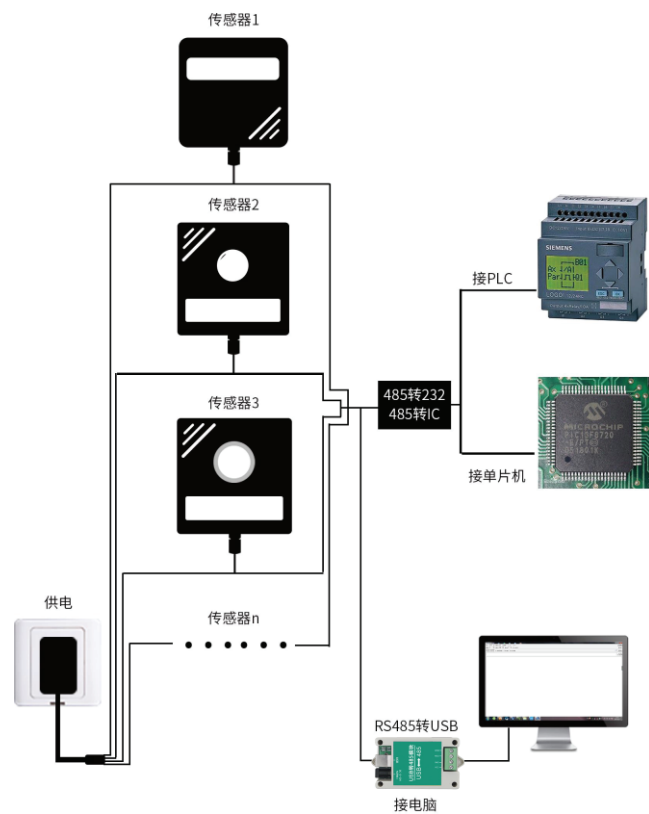
1.4System framework diagram

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This product can also combine multiple sensors in one 485Bus usage, theoretically a bus can 254 individual 485. The other end of the sensor is connected to 485Interface PLC, pass 485Interface chip connected to the microcontroller, or use USB change 485. It can be connected to the computer and use the sensor configuration tool provided by our company to configure and test (only one device can be connected when using this configuration software).

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1.5 Product Selection

SN-				Company Code
	3000-			Shell code
		FXJT05-	5V powered polycarbonate wind direction transmitter	
			V05	0~5V voltage output
			V03	0~3V voltage output
			V025	0~2.5V voltage output
			V15	1~5V voltage output
				360° Type

No. 2chapter Hardware Hookup

2.1Equipment pre-installation inspection

Equipment List:

- Transmitter equipment 1 tower
- Mounting Screws 4 individual
- Certificate of conformity, warranty card

2.2Interface Description

5V DC power input. With reverse connection protection and overvoltage protection functions.

2.2.1Sensor Wiring



	Line Color	illustrate
power supply	brown	Power positive
	black	Negative power supply
Output	blue	Wind direction signal positive
	yellow(green) color	Wind direction signal negative

2.3Installation

Flange installation and threaded flange connection make the lower pipe of the wind direction sensor firmly fixed on the flange plate and chassis. Ø80mm, exist Ø68mm Open four equal Ø4.5mm The mounting holes are used to

fix it tightly on the bracket with bolts to keep the whole set of instruments at the best level and ensure the accuracy of wind direction data. The flange connection is easy to use and can withstand greater pressure.



2.4 Notes

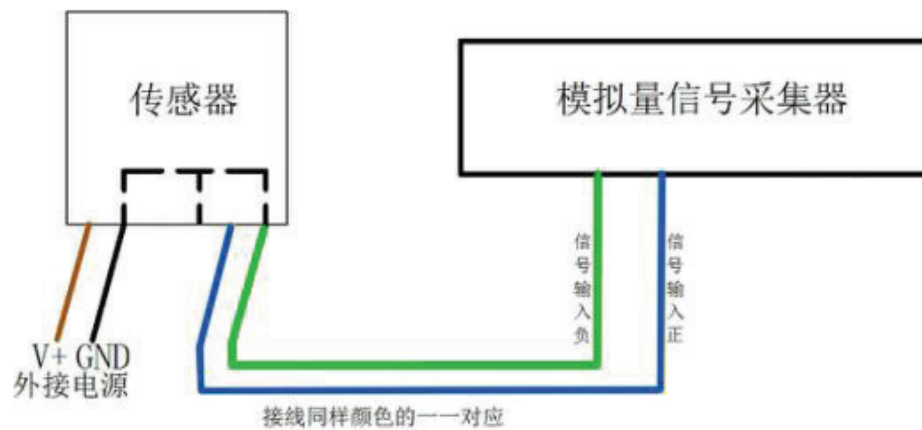
1.Users are not allowed to disassemble or touch the sensor core to avoid damage to the product.

2. Try to stay away from high-power interference equipment to avoid inaccurate measurements, such as frequency converters, motors, etc. When installing or removing the transmitter, the power supply must be disconnected first. Water entering the transmitter may cause irreversible changes.

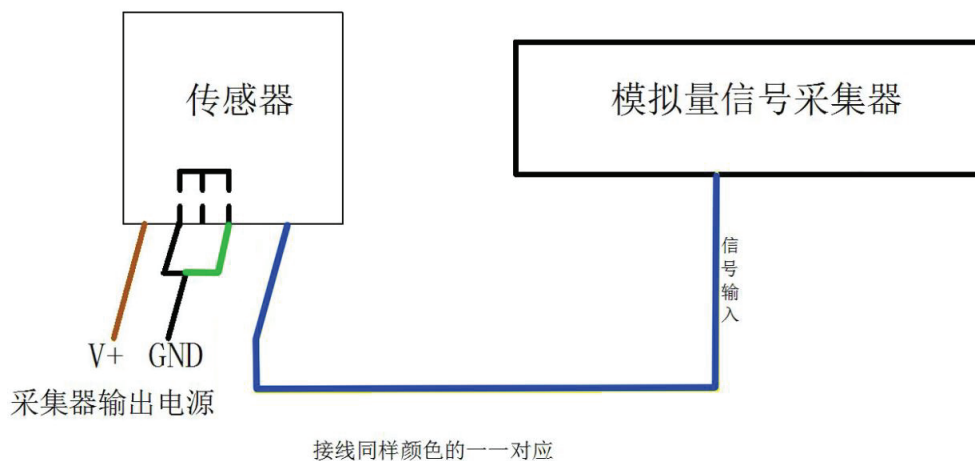
3. Prevent chemical reagents, oil, dust, etc. from directly damaging the sensor. Do not use it for a long time in an environment with condensation or extreme temperature. Prevent cold and hot shocks.

No. 3chapter Wiring Instructions

The analog sensor wiring is simple, just connect the wire to the designated port of the device. 2Independent analog output. Suitable for both three-wire and four-wire systems



Four-wire connection diagram



Three-wire connection diagram

No.4Chapter Analog Parameter Meaning

0-5V output comparison table		0-3V output comparison table		0-2.5V output comparison table		1-5V Output Comparison Table	
Output value (V)	correspo nd angle	Outpu t value (V)	correspo nd angle	Output value (V)	correspo nd angle	Outpu t value (V)	corresp ond angle
≈ 0	0 degrees	≈ 0	0 degrees	≈ 0	0 degrees	≈ 1	0 degrees
≈ 5	359.9 degrees	≈ 3	359.9 degrees	≈ 2.5	359.9 degrees	≈ 5	359.9 degrees

Range 0~360, take 0-5V output as an example, when the output signal is 2.5V, calculate the current wind direction. The span of the wind direction range is 360, expressed by a 5V voltage signal, $360/5V=72/V$, that is, every 1V change in voltage corresponds to a 72° change in wind direction, and the measured value is $2.5V-0V=2.5V$. $2.5V*72/V=180$ degrees. The current wind direction is 180° .