

360Polycarbonate wind direction transmitter (Analog type)

SN-3000-FXJT-*-360

Ver 2.0

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1.1Product Overview

SN-3000-FXJT--*Wind direction transmitter, compact 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, with good anti-corrosion, anti-erosion and other characteristics, anti-exposure, high impact strength, while with the internal smooth bearing system, to ensure the accuracy of information collection, and the traditional analog signal (4-20mA, 0-10V, 0-5V) for data output. It is widely used in greenhouses, environmental protection, weather stations, ships, docks, breeding and other environments for wind direction measurement.

1.2Features

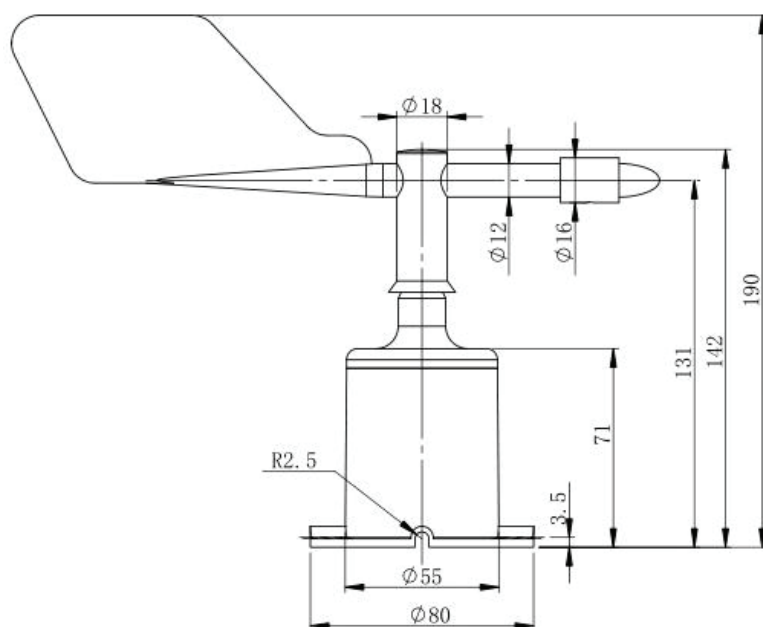
- Range:0~359.9°
- Anti-electromagnetic interference processing
- Adopt high-performance imported bearings, small rotation resistance and accurate measurement
- Polycarbonate shell, strong mechanical strength, high hardness, corrosion resistance, long-term use outdoors
- The structure and weight of the 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)	10~30V DC	
Maximum power consumption	Current output	0.75W
	Voltage output	0.75W
Transmitter circuit operating temperature	-40℃~+60℃,0%RH~80%RH	
Measuring range	0~359.9°	
Accuracy	±1°	

Dynamic response time	$\leq 0.8s$	
Output signal	Current output	4~20mA
	Voltage output	0~5V/0~10V
Load Capacity	Voltage output	Output resistance $\leq 250\Omega$
	Current output	$\leq 600\Omega$

Product size:



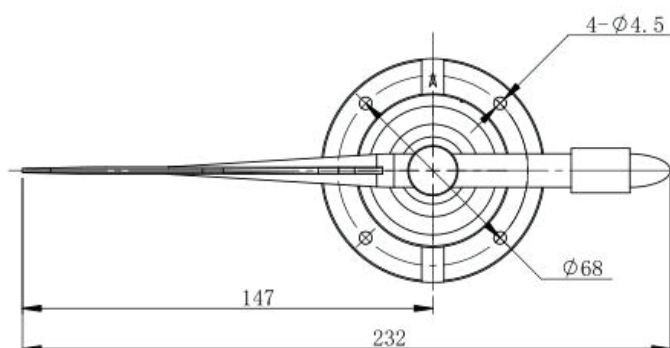
整体高度：190

主轴高度：142

底座高度：71

底座直径： $\phi 80$

单位 (mm)



安装孔径： $\phi 4.5$

分布直径： $\phi 68$

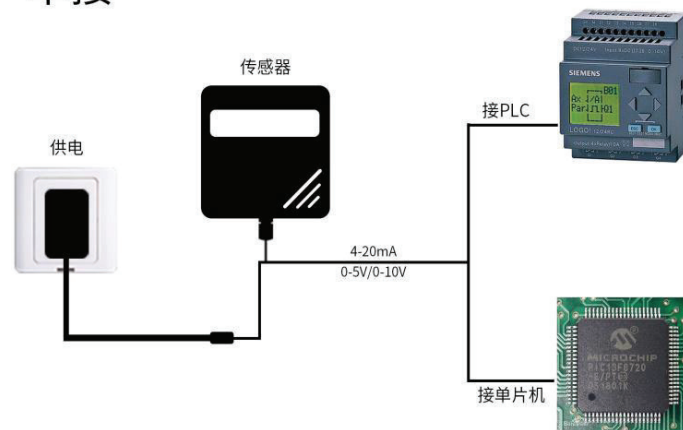
单位 (mm)

1.4 System framework diagram

When the system needs to connect an analog version sensor, you only need to

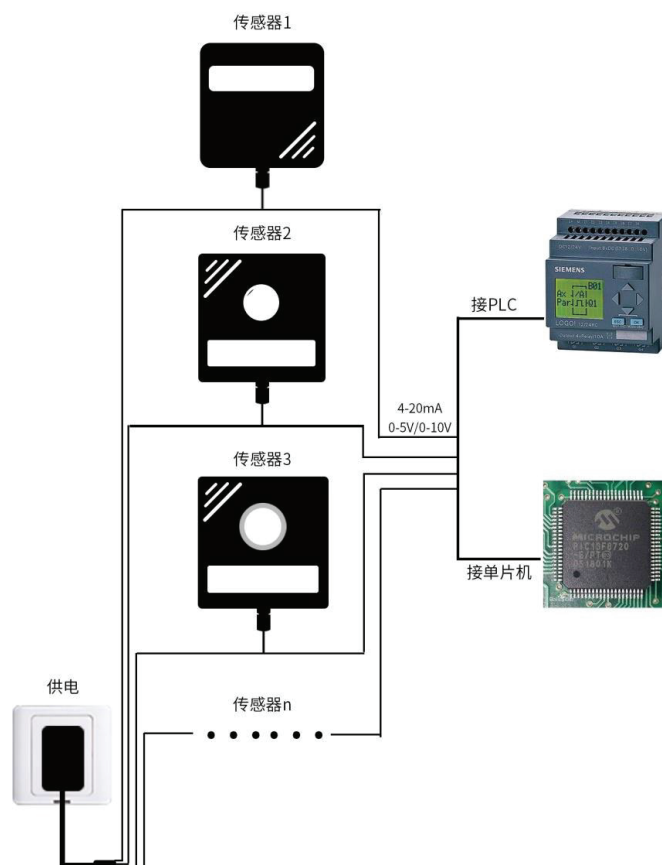
power the device and connect the analog output line to the microcontroller or PLC of Dinterface, and write the corresponding acquisition program according to the conversion relationship described later.

单接



When the system needs to connect multiple analog sensors, each sensor needs to be connected to a different analog acquisition port of the microcontroller or PLC of Dinterface, and write the corresponding acquisition program according to the conversion relationship described later.

多接



1.5 Product Selection

SN-			Company Code
	FXJT-		Polycarbonate Wind Direction Transmitter
		I20- -360	4~20 mA Current output
		V05- -360	0~5V Voltage output
		V10- -360	0~10V Voltage output

No. 2 chapter Hardware Hookup

2.1 Equipment pre-installation inspection

Equipment List:

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

2.2 Interface Description

Wide voltage 10~30VDC power input. 0-10V Output devices can only be used 24V powered by.

2.2.1 Sensor 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

2.3 Installation

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

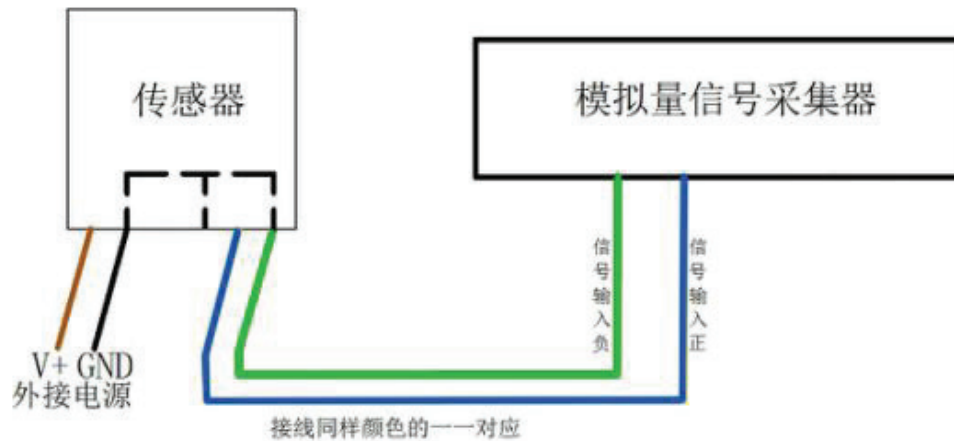
1. Users are not allowed to disassemble or touch the sensor core to avoid damage to the product.

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.

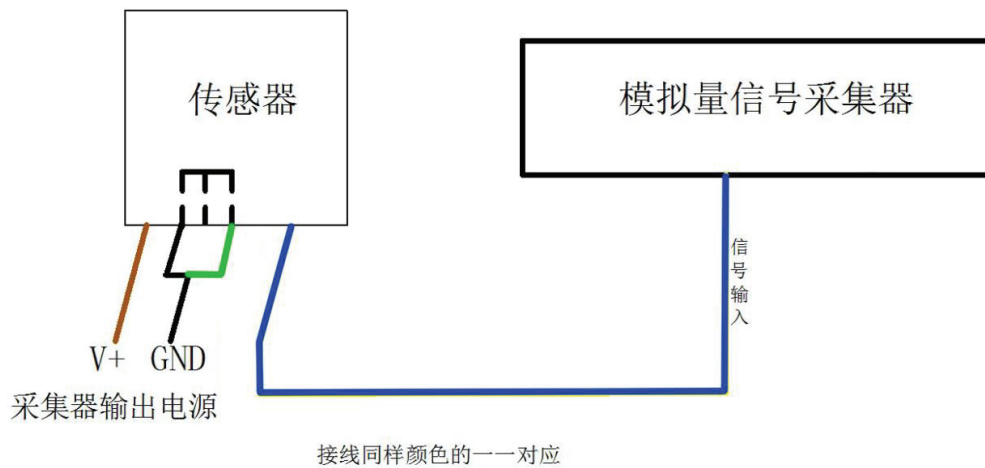
3. Prevent chemical reagents, oil, dust, etc. from directly damaging the sensor. Do not use it for a long time in an environment with condensation or extreme temperature. Prevent cold and hot shocks.

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

4-20mA Output comparison table		0-10V Output comparison table		0-5V Output comparison table	
Output value (mA)	Corresponding angle value	Output value (V)	Corresponding angle value	Output value (V)	Corresponding angle value
≈ 4	0°	≈ 0	0°	≈ 0	0°
≈ 20	359.9°	≈ 10	359.9°	≈ 5	359.9°

Range 0~360, by 0-10V Output as an example, when the output signal is 5V Calculate the current wind direction when . The span of the wind vector range is 360, use 10V The voltage signal is used to express $360/10V = 36/V$, that is, the voltage changes 1V Corresponding to wind direction changes 36° . Measurements $5V - 0V = 5V$. $5V * 36/V = 180^\circ$. The current wind direction is 180° .