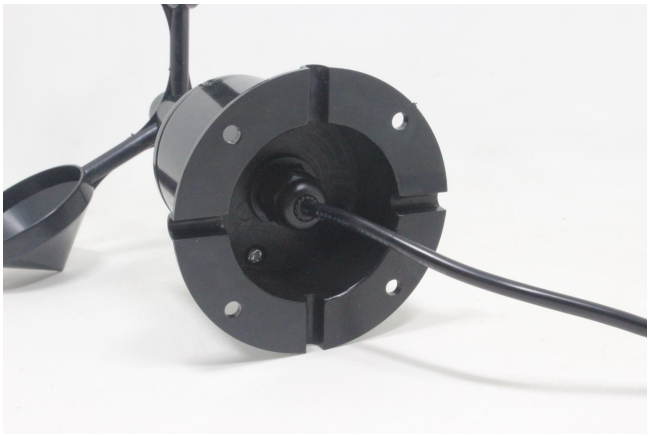
FS04
Wind speed transmitter user's Guide (Pulse type)



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1. product description

1.1product description

FS04 wind speed transmitter (pulse type), small and light shape, easy to carry and assemble, three cup design concept can effectively obtain wind speed information, the shell is made of polycarbonate composite material, has good corrosion resistance, anti-corrosion, etc. The characteristics can ensure that the transmitter is used for a long time without rusting, and at the same time, it cooperates with the internal smooth bearing system to ensure the accuracy of information collection. It is widely used in the measurement of wind speed in the environment of greenhouse, environmental protection, weather station, ship, wharf, breeding, etc.

1.2Features

1. Range: 0-70m/s, resolution 0.0875m/s
2. Anti-electromagnetic interference treatment
3. The bottom outlet method is used to completely prevent the aging problem of the rubber plug of the aviation plug, and it is still waterproof for long-term use.
4. Using high-performance imported bearings, low rotation resistance, accurate measurement
5. All aluminum shell, high mechanical strength, high hardness, corrosion resistance, no rust can be used outdoors for a long time
6. The structure and weight of the equipment have been carefully designed and distributed, with small rotational inertia and sensitive response

1.3Main Specifications

DC power supply (default)	5~30V DC	
Transmitter circuit operating temperature	-20℃~+60℃，0%RH~80%RH	
Communication Interface	Pulse output	
Resolution	0.0875m/s	
Accuracy	±0.3m/s	
Measuring range	0~70m/s	
Dynamic response time	≤0.5s	
load capacity	PNP	≥100mA
	NPN	≥100mA
Starting wind speed	Default 0.5m/s, high-precision bearings can be selected, upgrade to 0.2m/s	

2. product model

FS04-		Wind speed transmitter
	PNP	PNP output
	NPN	NPN output
	NPNR	Internal pull-up resistor NPN output

3. Equipment installation instructions

3.1 Check before installation

Equipment List:

■1 transmitter device

■4 mounting screws

■Certificate of conformity, warranty card, wiring instructions, etc.

3.2Interface Description

The wide voltage power input can be 5~30V.

3.3 Electrical wiring

	Thread color	Explanation
power supply	brown	Positive power supply (5~30V DC)
	black	Negative power supply
Pulse signal	green	PNPOUT
	blue	NPN（NPNR）OUT

3.4Installation method

Flange installation is adopted, and the threaded flange connection makes the lower pipe fitting of the wind speed sensor firmly fixed on the flange. The chassis is Ø65mm. Four mounting holes of Ø6mm are opened on the circumference of Ø47.1mm. On the bracket, the whole set of instruments is kept at the best level to ensure the accuracy of the wind speed data. The flange connection is easy to use and can withstand greater pressure.

3.5Precautions

1. The user should not disassemble it by himself or touch the sensor core to avoid damage to the product.

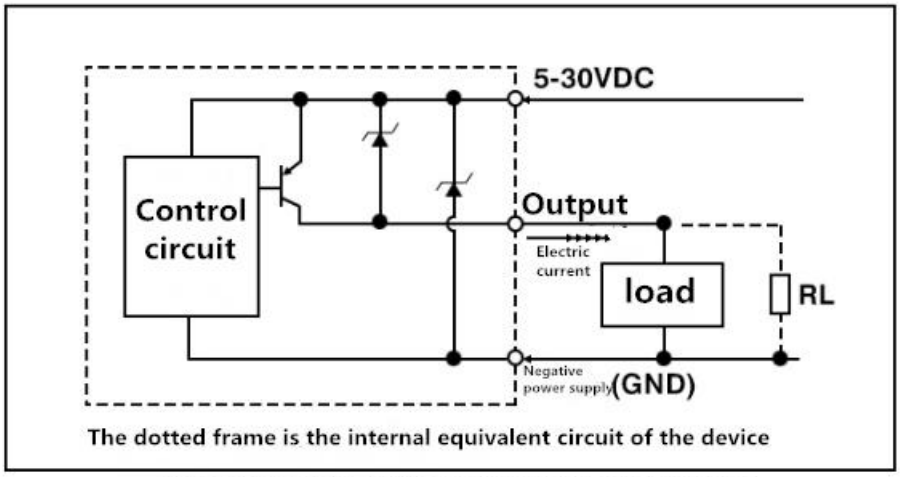
2. Try to stay away from high-power interference equipment, so as not to cause inaccurate measurement, such as frequency converters, motors, etc., when installing and removing the transmitter, you must first disconnect the power supply. Water entering the transmitter can cause irreversible changes.

3. To prevent chemical reagents, oil, dust, etc. from directly invading the sensor, do not use it for a long time in the environment of condensation and extreme temperature, and strictly prevent cold and hot shocks.

4. Instructions for use

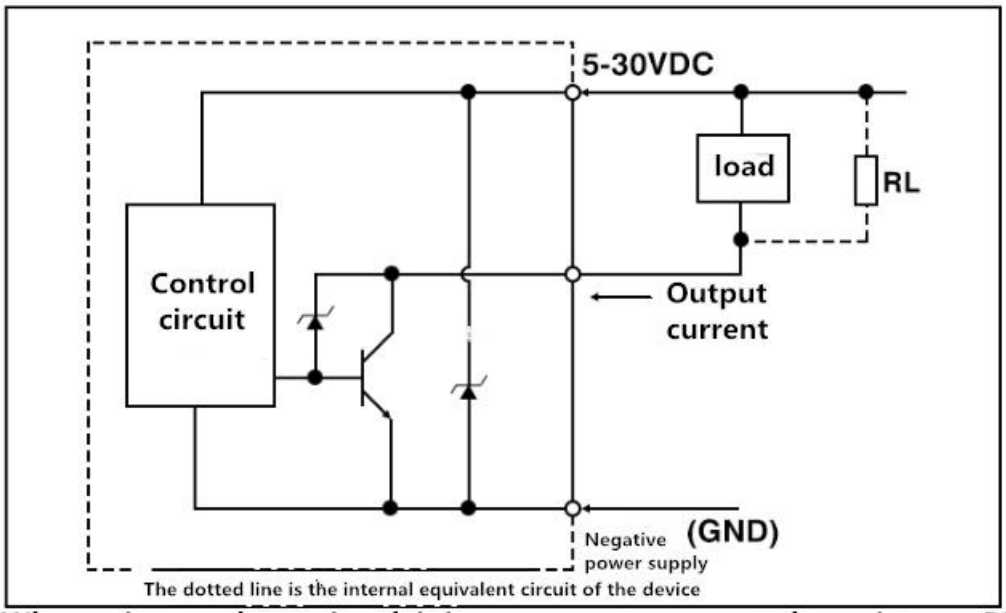
4.1Output circuit diagram

The PNP output circuit diagram is as follows: (Maximum output current = 100mA)



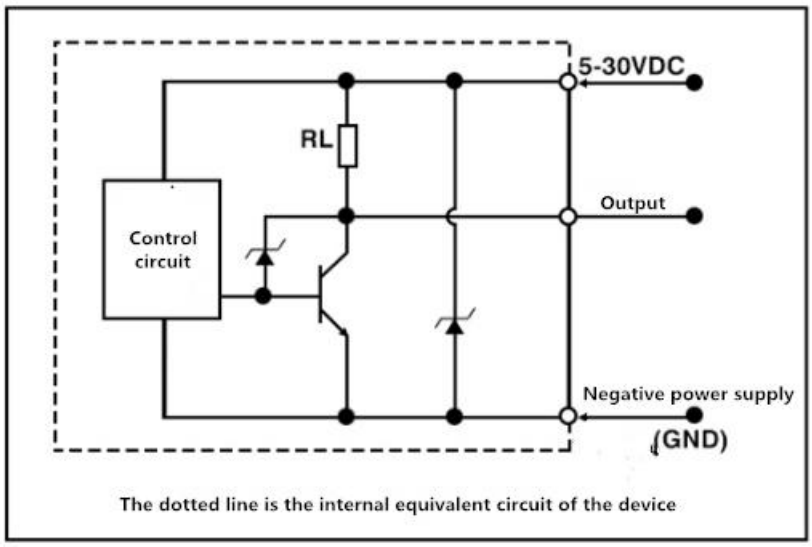
When using voltage signals, it is necessary to connect the resistance RL, the recommended group value is 5.1KΩ, and the power is ≥0.

The NPN output circuit diagram is as follows: (Maximum sink current=100mA)



When using a voltage signal, it is necessary to connect the resistance RL the recommended group value is 5.1KΩ, and the power is ≥0.25w

The internal NPN output circuit diagram with pull-up resistor is as follows: (RL=5.1KΩ)

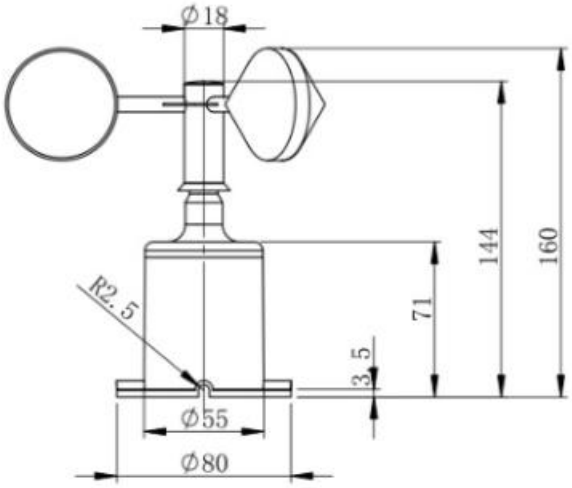


4.2Pulse output type calculation

The transmitter turns 1 turn and outputs 20 pulses

For example, when the wind speed transmitter 1S makes 1 revolution, the transmitter 1S outputs 20 pulses at this time, which represents a wind speed of 1.75m/S.

5. Dimensions



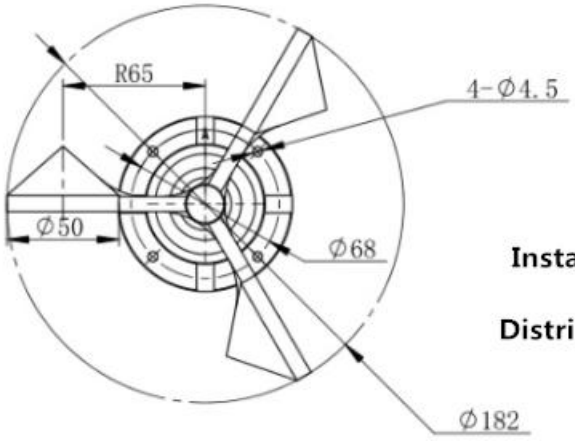
Overall height : 160

Spindle height : 144

Base height : 71

Base diameter : ϕ80

unit (mm)



Installation aperture : ϕ4.5

Distribution diameter : ϕ68

unit (mm)