LaskaKit

LaskaKit CG-FS Wind Speed Sensor

LaskaKit CG-FS Wind Speed Sensor Instruction Manual

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Product overview

This product mainly uses polymer carbon fiber as raw materials, has good corrosion, corrosion prevention and other characteristics, can ensure that the instrument long-term use of rust, at the same time with the internal smooth bearing system, to ensure the accuracy of information collection. Small and light, easy to carry and assemble, the three-cup design concept can obtain external environment information.

Functional characteristics

- Small size, easy to carry, simple installation
- High measurement accuracy, wide measurement range, and good stability
- Reasonable structure design, good appearance quality
- Good data information linearity, long signal transmission distance, strong resistance to external interference ability

Scope of application

It can be widely used in greenhouse, environmental protection, weather station, ship, wharf, aquaculture and other environments.

Working, storage conditions

- Operating temperature: -40~85°C
- Working Humidity: 0 ~ 100% RH
- Storage temperature: -40~125°C
- Storage humidity: <80% (no condensation)

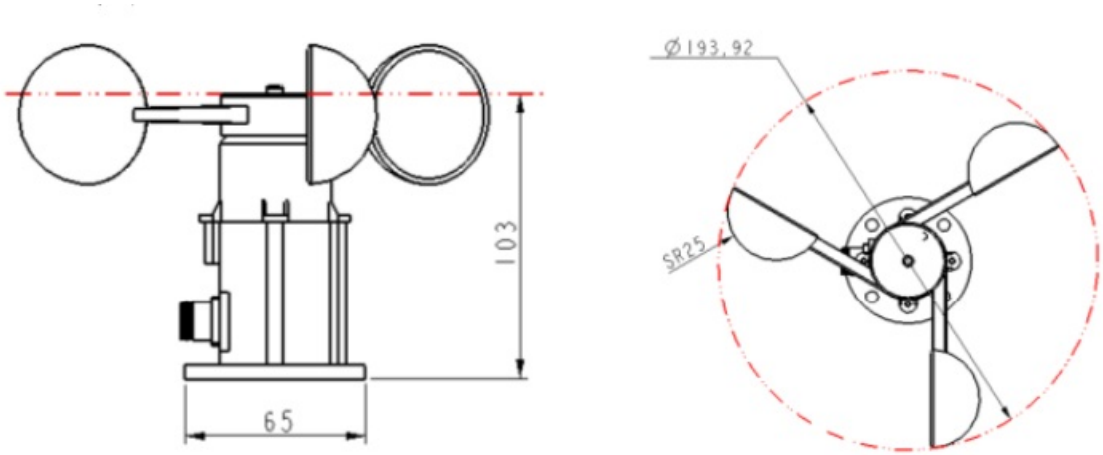
Technical parameter

- Measurement accuracy: ± (0.3+0.03V) m/s (V indicates wind speed value)
- Signal output: (mark is the model you purchased)
- Voltage-mode

- Range: 0-32.4 m / s
- Power supply voltage: 7 V~24 V DC
- Output signal: 0.4~2V
- Wind speed value = (output voltage-0.4) / 1.6 * 32.4
- Power supply voltage: 12V~24 V DC
- Output signal: 0~5 V, 1~5 V
- Wind speed value = output voltage / 5 * 32.4
- Wind speed value = (output voltage-1) / 4 * 32.4 current-mode
- Range: 0-32.4 m / s
- Power supply voltage: 12V~24V DC
- Output signal: 4 ~ 20 mA
- Load capacity: 200 Ω
- Wind speed value = (output current-4) / 16 * 32.4 Pulse type
- Range: 0-60 m / s
- Output signal: Pulse (0.88 m/s per pulse)
- Signal description: add pull resistance logic 1 = VCC, logic 0 = GND
- Power supply voltage: 5V~24V DC
- Type RS 485
- Range: 0-32.4 m / s
- Power supply voltage: 7V~24V DC Communication protocol: Modbus-RTU
- Equipment power consumption: <15 mA Protection level: IP66
- Power-on response time: 2s

Dimensions and Weight

- Appearance size: as shown below



- Overall weight: 98g

Installation Method

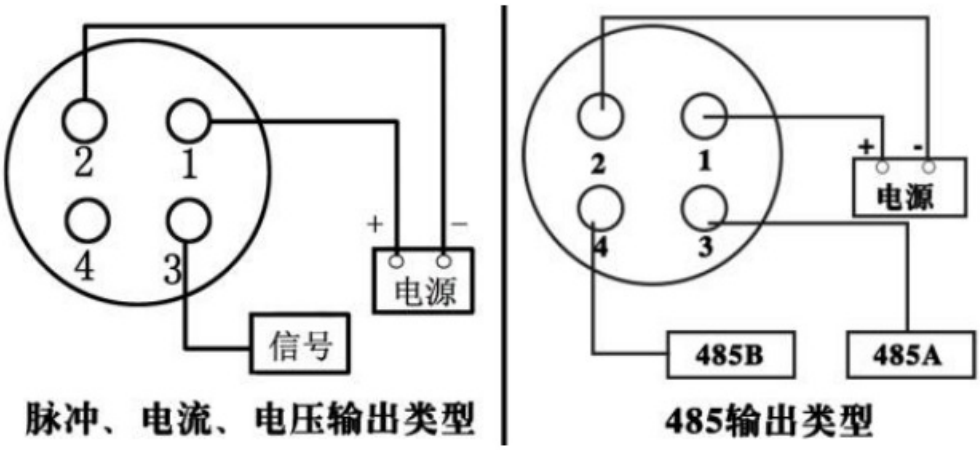
Using the flange installation method, the flange connection holds the lower pipe of the wind speed sensor on the flange plate, the chassis Φ 65mm, opens four mounting holes Φ 6mm on Φ 50mm circumference, and uses the

bolts to keep the whole set of instrument at the level, ensure the accuracy of the wind speed data, the flange connection is easy to use and can withstand high pressure.

Dine wiring definition

Line color	Brown	Black	Blue	Gray
analog signa l	Power Positive	Power negative	signal	
RS485	Power Positive	Power negative	485A	485B

Output map of uterine cord signal



MODBUS Agreement (customizable)

- Communication mode: 485 communication, and the transmission distance is <1,000 meters
- Communication rate: 9,600, n, 8,1
- Communication protocol: MODBUS-RTU protocol, the factory station number is Station 2, which can be modified as required.

ModBus The protocol commands include:

Read out the sensor value (factory station 2)
Example of the read numerical command format: 02 03 00 00 00 01 84 39
Note: the first byte 02 is the station number. If you have changed the station number setting, change 02 to the station number you set. At the last two digits, 84 39 is the 16-bit CRC check value.

Example of the returned command format:
02 03 02 00 1F BD 8C

Note: Position 4 and 5 of 00 1F is the value of wind speed, and BD 8C is the CRC check code.

Data resolution method:
Wind speed (m/s) =0X001F/10=31/10=3.1

Modify your station number
Method 1: know the current station number, send the following instructions 02 10 10 00 00 01 02 00 03 E3 60 Its function is to change the station number from 2 to 3.

Note: The italic characters are replaced by the original station number, and the main characters are replaced with the target station number value desired to be modified, and the value of CRC calculated by the customer should be sent.

Method two: know the current station number, send the following instructions 02 06 10 00 00 03 CD 38 Its function is to change the station number from 2 to 3.

Note: The italic characters are replaced by the original station number, and the main characters are replaced with the target station number value desired to be modified, and the value of CRC calculated by the customer should be sent.

Method three: forget the original station number, you need to connect the product to the computer alone, pay attention to it There can be no other 485 products on the bus. Use station 0 to operate them. The instructions are as follows: 00 10 10 00 00 01 02 00 03 FA 00

Note: The big character is the target station number value intended to be modified, and the customer calculates the CRC check value by himself.

Preparation and examination before use

pay attention to

- Please read this manual completely before use
- Connect the equipment line correctly

earlier true recognize
Check that the device is the same as the equipment you

purchased

- Check the appearance of the equipment for damage
- Check whether the equipment accessories are complete

warn
Failure to wire sequence may cause damage to the equipment and the instruments connected to the equipment When the input power exceeds the upper limit of access power, damage to the device

Failure analysis and troubleshooting

• 1. The sensor output signal is abnormal	• 2, the sensor has no signal output
• Check whether the power supply voltage is stab le • Check whether the power supply range is norm al • Check whether the line is falsely connected	• Check whether the positive and negative power supply and the ground wire are connected correctly • Check whether the power supply voltage meets the req uirements

Vacation and maintenance

- This instrument is a technology product with excellent design and functional principle, and should pay attention to maintenance and maintenance. The following recommendations will help you use the maintenance service.
- Avoid the scraping of the instrument, maintain the external integrity, and increase the service life of the instrument
- When using the instrument, please fix the connection parts firmly to avoid damage to the instrument
- Treating instruments roughly can destroy the internal circuit boards and sophisticated structures
- Do not apply the instrument with paint, which will block the debris in the removable parts and affect the normal operation
- Clean the outside of the instrument by using a clean, dry soft cloth
- Check the power supply of other configured equipment regularly to ensure the normal operation of the instrument

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- Customer service number: 0310-8179266
- Website:www.qy-dz.com
- Email: 2990169255@qq.com

Frequently Asked Questions

- **Q: What is the recommended operating temperature for the wind speed sensor?**
  A: The recommended operating temperature is between X to Y degrees Celsius to ensure accurate readings.
- **Q: Can the wind speed sensor be used in extreme weather conditions?**
  A: The wind speed sensor is designed to withstand a certain level of harsh weather conditions, but it is recommended to take necessary precautions in extreme situations.

Documents / Resources

	LaskaKit CG-FS Wind Speed Sensor [pdf] Instruction Manual CG-FS Wind Speed Sensor, CG-FS, Wind Speed Sensor, Speed Sensor

References

- _____
- User Manual