

Contact-Type Displacement Sensor GFJ series Controller User Manual



↑ WARN

- The light source of this product is a visible semiconductor laser. It is forbidden to reflect the laser beam directly or indirectly from a reflective object into the eyes. If the laser beam enters the eyes, it may cause blindness.
- This product does not have an explosion-proof structure. It is forbidden to use it in an environment with flammable, explosive gas or explosive liquid.
- Do not disassemble or modify this product, because it is not designed to automatically shut down the laser emission when the body is opened. If the client disassembles or modifies this product without permission, it may cause personal injury, fire or electric shock.
- Using controls, adjustments or operating procedures other than those specified here may result in dangerous radiation leakage.

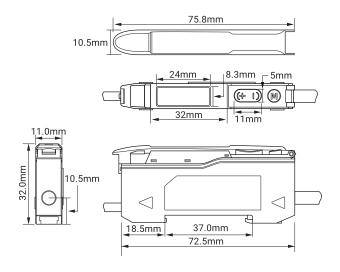
⚠ NOTICE

- It is very dangerous to perform wiring and connect/disconnect interfaces when the power is on. Be sure to turn off the power before operation.
- Installation in the following locations may cause malfunctions.
 - 1. Dust or steam-filled areas
 - 2. Corrosive gases are generated
 - 3. Directly receive splashed water or oil
 - 4. Severe vibration or shock
- This product is not suitable for outdoor use.
- Do not use this sensor in an unstable state shortly after the power is turned on (about 15 minutes warm-up time)
- If you must use a switching power regulator, ground the ground terminal.
 Do not connect to high-voltage cables or power lines. Failure to operate will result in induction or damage failures Because each product is different, there may be slight differences in the detection characteristics of the workpiece.
- Do not use this product in water.
- Do not disassemble, repair or modify this product without authorization, otherwise it may cause electric shock, fire or injury to the human body.
 Wipe off dust on the transmitting or receiving element to maintain correct detection. Avoid direct impact of foreign objects on this product.
- Operate within the rated range.

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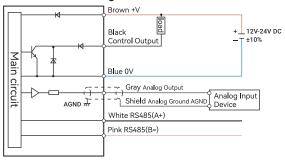
This product cannot be used as a safety device to protect the human body.

Dimensions

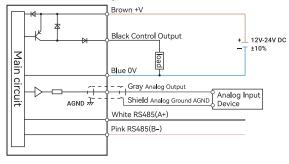


Circuit Diagram

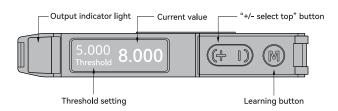
NPN+RS485+analog



PNP+RS485+analog



Panel Description



Menu Settings

In the distance display interface, press and hold the "M" key for 3 seconds to enter the menu setting mode.

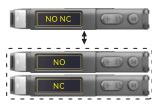
In the menu setting mode, press and hold the "M" key for 3 seconds to exit the menu setting mode.

In the menu setting mode, stop pressing any key for 20 seconds to automatically exit the menu setting mode.

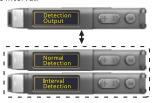
After entering the menu setting mode, press the "+" key or "-" key to switch the menu up and down.

Short press the "M" key to enter the corresponding menu item.

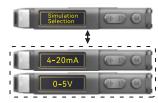
(1) Normally open and normally closed: press the "M" key to enter, NO, NC.



(2) Detection output: Interval detection is the conventional upper and lower limits. You can set an upper limit or a lower limit, and the output can be based on this interval.



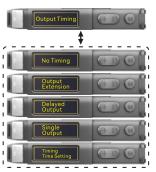
(3) Analog selection: 0-5V, 4-20mA.



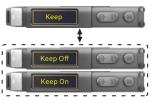
(4) Hysteresis: It is only valid for switch output and can adjust the distance at which the switch is disconnected.



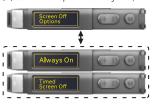
(5) Output timing: There are three types of output delay functions. The delay mode setting time can be within 10 seconds; the timing time setting setting time can be adjusted within 10 seconds.



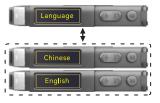
(6) Hold function: hold off, hold on.



(7) Screen off options: always on, timed screen off.



(8) Language: Two language options are available: "Simplified Chinese" and "English".



(9) Address: value range is 1-255.



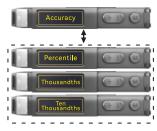
(10) Baud rate: 9600/19200/38400/57600/115200/256000 optional.



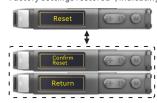
(11) Measuring range: 12.7, 25.4 optional.



(12) Working mode: Accuracy



(13) Reset: After selecting and confirming the reset, press the M key to display "Factory settings restored", indicating that the reset is successful.



Threshold Fine Tuning Function

Normal Detection Mode:

Press the "+" key or "-" key to change the threshold directly.

Window Comparison Mode:

Press the "+" key and "-" key at the same time to switch between threshold 1 and threshold 2.

Zeroing Function

Note: Zero adjustment can only be performed when the display mode is set to reverse or offset mode.

Zero adjustment function is the function of forcing the measured value to "zero". When setting zero adjustment, there is a vertical line on the screen, as shown in the right figure:

Press the "M" key and the "+" key at the same time to set zero adjustment

Press the "M" key and the "+" key at the same time to cancel zero adjustment



Key Locking Function

Press the "M" key and the "-" key at the same time to lock the key

Press the "M" key and the "-" key at the same time to unlock the key

Product Warranty

Normal Detection Mode:

When ordering our products with reference to product catalogs, unless otherwise specified in the quotation sheet, contract, specification, etc., the following warranty, disclaimer, and conditions of suitability for use shall apply. Please make sure to confirm the following before placing an order.

Shelf life

The shelf life is one year, starting from the date the product is sent to the place designated by the purchaser.

2. Warranty scope

If the purchased product fails due to the company's fault within the above warranty period, the company will be responsible for repairing the product free of charge.

However, if the failure is caused by the following reasons, it is not covered by the warranty:

- 1) Failure caused by use outside the conditions, environment, and usage methods described in our product manual;
- 2) Failure caused by reasons other than our company;
- 3) Failure caused by modifications and repairs not performed by our company;
- 4) Use outside the usage methods described by our company;
- 5) After the product is shipped, problems may arise due to unforeseen scientific levels;
- scientific levels;
 6) Other failures caused by natural disasters, fires, and other factors other than our company.

At the same time, the above warranty only refers to our company's products themselves, and damage caused by failure of our company's products is excluded from the warranty.

- 3. Limitation of liability
- 1) The company does not assume any responsibility for special losses, indirect losses, and other related losses (equipment damage, loss of opportunity, loss of profit) caused by the company's products.
- When using programmable devices, the company does not assume any responsibility for programming performed by non-company personnel or the consequences caused by it.

4. Suitable use and conditions

1) Our products are designed and produced for general products in general industries. Therefore, our products must not be used for the following applications and are not suitable for their use. If you need to use it in the following occasions, please consult with our sales staff, confirm the product specifications, and choose a product with a certain margin for rated performance. At the same time, you should consider various safety countermeasures, and even if a failure occurs, you can reduce the risk to the minimum safety circuit.

Facilities that have a serious impact on life and property, such as nuclear power control equipment, incineration equipment, railway, aviation, and vehicle equipment, medical equipment, entertainment equipment, safety devices, and equipment that must comply with special regulations of administrative agencies and individual industries.

Public utilities such as gas, water, and electricity supply systems, 24-hour continuous operation systems, and other equipment that requires high reliability.

Systems, equipment, and devices that may endanger personal and property. Outdoor use under similar or similar conditions.

- 2) When users use our products in situations closely related to personal and property safety, they should clearly understand the danger of the entire system, adopt special redundant designs to ensure safety, and at the same time, according to the applicable purpose of our products in the system, make matching power distribution and settings, etc.
- 3) Please be sure to comply with all precautions and prohibitions on use to avoid improper use and damage caused by third parties.

5. Service scope

The price of our products does not include service fees such as the dispatch fee of technicians. If you have any needs in this regard, please contact us for negotiation.

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