

Square Laser Sensor Instructions

GPS-□□□□□□□

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

- ① Garantta brand(G)
- ② Product: Photoelectric sensor(PS)
- ③ Light source: Red light(none), Laser(L)
- ④ Detection method: Through-beam(T), Diffuse reflection(D), Retro-reflection(R), Background suppression(S), Background removal(QS)
- ⑤ Shell shape: Square short-distance NPN(61), Square long-distance NPN(62), Square short-distance PNP(81), Square long-distance PNP(82), Cylindrical type(18)
- ⑥ Output state: NPN(N), PNP(P)
- ⑦ Shell material: Metal(Z), Plastic(none)
- ⑧ Wire method: Wiring(2m)

Thank you for choosing Garantta products. Please keep the instructions and follow the following instructions when using.

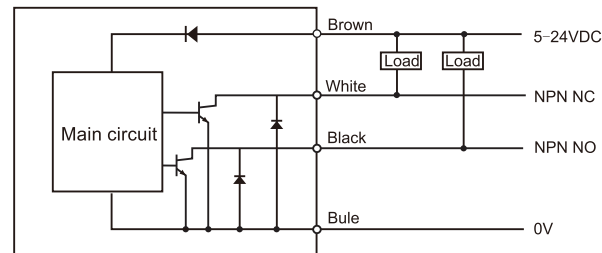
Specifications

Model	GPS-LT61	GPS-LT81	GPS-LD61	GPS-LD81	GPS-LD62	GPS-LD82	GPS-LR61	GPS-LR81	GPS-LS61	GPS-LS81
NPN/PNP	NPN	PNP	NPN	PNP	NPN	PNP	NPN	PNP	NPN	PNP
Detection method	Through-beam type		Diffuse reflection type				Retro-reflective type		Back ground-suppression retroreflective type	
Detection distance	50-30000mm		20-400mm		20-800mm		30-8000mm		20mm-700mm (With background suppression within 300mm)	
Type	1 output port, wire lead-out									
Control output	1 output port, equipped with short circuit protection and automatic anti-interference function									
Light source	Laser 650NM									
Reaction time	Within 1MS									
Output Selection	LIGHT-ON/DARK-ON is controlled by white wire, white wire connected to GND is DARK ON, connected to brown wire or left floating is LON									
Display indicator	Operation indicator: Green LED indicates power indicator, red LED indicates output									
Control output	NPN/PNP open collector 24V, maximum 100mA (only for main components) Residual voltage:1V									
Power supply	Between 12 and 24VDC ±10%, floating ratio (P-P): maximum 10% level 2									
Working environment brightness	Incandescent lamp: Maximum: 20,000 lux, Daylight:Maximum: 30,000 lux									
Power supply	Standard mode: Maximum 300mW Maximum voltage: 24V									
Vibration resistance	10 to 55Hz, double amplitude: 1.5mm, 2 hours for X, Y, Z axis respectively									
Ambient temperature	-10 to +55°C, no freezing									

Output circuit diagram and wiring

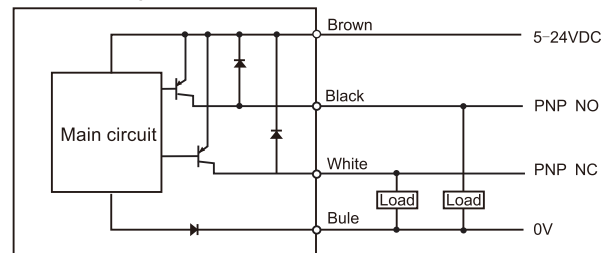
Output circuit and wiring (NPN)

White NC (floating) White—0V NO & NC can be switched



Output circuit and wiring (PNP)

White NC (floating) White—0V NO & NC can be switched



Note:

To ensure your safety, please be sure to comply with the following regulations when using:

1. This product is for target detection only. Do not use this product for the purpose of protecting the human body or human body parts.
2. This product must not be used as an explosion-proof product. Do not use this product in hazardous locations and or potentially explosive gas environments.
3. This product is a DC power supply type sensor. Do not use AC power. Otherwise, it will cause the product to explode or catch fire.
4. Do not wire the amplifier along the power line or high-voltage line, otherwise the sensor will malfunction or be damaged due to noise.
5. When using a commercial switching regulator, make sure to ground the frame ground terminal and the ground terminal.
6. Do not use outdoors or in a location where external light can directly enter the light receiving surface.

Set sensitivity

By rotating the adjustment screw 270°, adjust the distance clockwise to a longer distance and counterclockwise to a closer distance.

Product Warranty

When ordering our products by referring to product catalogs, unless otherwise specified in the quotation sheet, contract, specifications, etc., the following warranties, disclaimers, suitability conditions, etc. shall apply.

Please make sure to place an order after confirming the following contents.

1. Warranty period

The warranty period is two years, 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 responsibility 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 within the scope of the warranty:

- 1) Failure caused by use under conditions, environments, and usage methods other than those described in the company's product manual
- 2) Failure caused by reasons other than the company
- 3) Failure caused by modifications and repairs not performed by the company
- 4) Use other than the usage methods described by the company
- 5) After the goods are shipped, problems may arise due to unforeseen scientific levels
- 6) Failure caused by other factors such as natural disasters and disasters that are not the responsibility of the company

At the same time, the above warranty only refers to the company's products themselves, and damage caused by failure of the 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.
- 2) When using programmable equipment, the company does not assume any responsibility for programming performed by non-company personnel or the consequences thereof.

4. Suitable applications and conditions

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

a. Facilities that have a serious impact on life and property, such as nuclear energy 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.

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

c. Systems, equipment, and devices that may endanger life and property.

d. Outdoor use under similar or similar conditions.

2) When users use our products in situations that are closely related to personal and property safety, they should clearly understand the dangers of the entire system, adopt special redundant designs to ensure safety, and make matching power distribution and settings according to the applicable purpose of our products in the system.

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 company's products does not include the dispatch fee of technicians and other service fees. If you have any needs in this regard, please contact us for negotiation.

■ Technical consultation

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