

## GF20-500N-ZBA,GF20-500P-ZBA

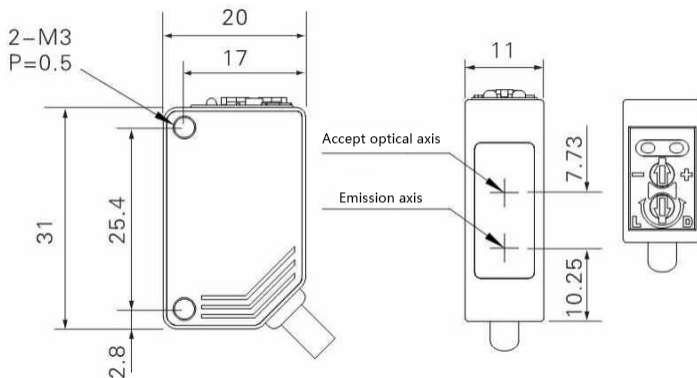
### instructions

#### Precautions:

To ensure your safety, please follow the following regulations when using:

1. This product is only used for detecting the target substance. Do not use this product for purposes such as protecting the human body or body parts.
2. This product cannot be used as an explosion-proof product. Do not use this product in hazardous areas and/or environments with potentially explosive gases.
3. This product is a DC powered sensor. Do not use AC power. Otherwise, it may cause the product to explode or catch fire.
4. Do not connect the sensor along the power or high-voltage lines, as the sensor may malfunction or be damaged due to noise.
5. When using commercial switch type Pressure regulator, ensure that the chassis grounding terminal and grounding terminal are grounded.
6. Do not use outdoors or in areas where external light can directly enter the light receiving surface.

#### GF20 series exterior dimensions



#### Technical specifications:

Model	GF20-500N-ZBA	GF20-500P-ZBA
	NPN output	PNP output
Type	1 output port, lead out type	
Control output	NPN or PNP collector open circuit	
Light source	Red light 623NM,	
Reaction time	1MS within	
Display indicator	Operation indicator light: Green LED indicates power indicator light, and red LED indicates output	
Detection distance	500CM	
control output	NPN/PNP Open collector 24V, maximum 100mA (only for main components) residual voltage: 1V	
Power supply	Between 12 and 24VDC $\pm$ 10%, floating ratio (P-P): maximum 10% level 2	
Working environment brightness	Incandescent lamp: maximum: 20000lux, daylight: maximum: 30000lux	
Power Consumption	Standard mode: maximum 300mW Maximum voltage: 24V	Standard mode: maximum 300mW Maximum voltage: 24V
Vibration resistance	10 to 55Hz, dual amplitude: 1.5mm, X, Y, and Z axes for 2 hours respectively	
Ambient temperature	-10 to+55 °C, no freezing	

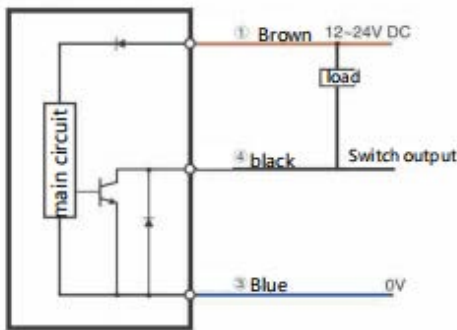
In the event that the purchased product malfunctions due to our company's responsibility during the aforementioned warranty period, our company is responsible for repairing the product for free.

However, if the fault is caused by the following reasons, it does not fall within the scope of the guarantee object:

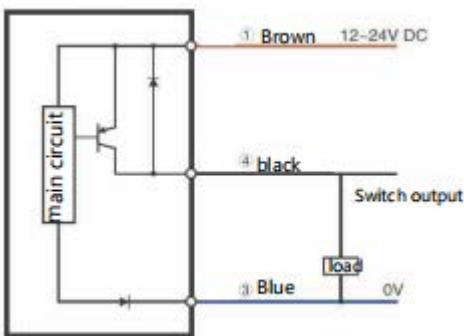
- 1) Faults caused by use outside of the conditions, environment, and usage methods stated in our company's product manual
- 2) Faults not caused by our company
- 3) Faults caused by modifications and repairs not carried out by our company
- 4) Other than the usage methods described by our company
- 5) After the goods are shipped, unforeseeable scientific level may cause problems
- 6) Other malfunctions caused by factors beyond our company's

## Output circuit:

NPN Type



PNP Type



## Set sensitivity

Adjust the distance clockwise and counterclockwise by rotating the 270 degree adjustment screw

## important clause

1. Shelf life

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

2. Guarantee scope

responsibility such as natural disasters and disasters

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

## 3. Limitation of Liability

- 1) Our company shall not be liable for special losses, indirect losses, and other related losses (equipment damage, loss of opportunities, loss of profits) caused by our products.
- 2) When using programmable devices, our company does not assume any responsibility for programming performed by personnel other than our own, or for any consequences arising therefrom.

## 4. Suitable for use and conditions

1) Our company's products are designed and produced for general products in the general industry. Therefore, our products are not allowed to be used for the following applications and are not suitable for their use. If it is necessary to use it in the following situations, please discuss with our company's sales personnel to confirm the product specifications, and choose products with a certain margin of rated and performance. At the same time, various safety measures should be considered, such as safety circuits that can minimize the danger even if a malfunction occurs.

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

b. High reliability equipment is required for public utilities such as gas, tap water, power supply systems, and 24-hour continuous operation systems.

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

d. Outdoor use under similar or similar conditions.

2) When users use our company's products in situations closely related to personal and property safety, they should clarify the overall danger of the system. To ensure safety, special redundant designs should be adopted, and matching power distribution and settings should be implemented according to the applicable purpose of our company's products in the system.

3) Please be sure to comply with all usage precautions and prohibitions to avoid incorrect use and damage caused by third parties.