

FEATURES

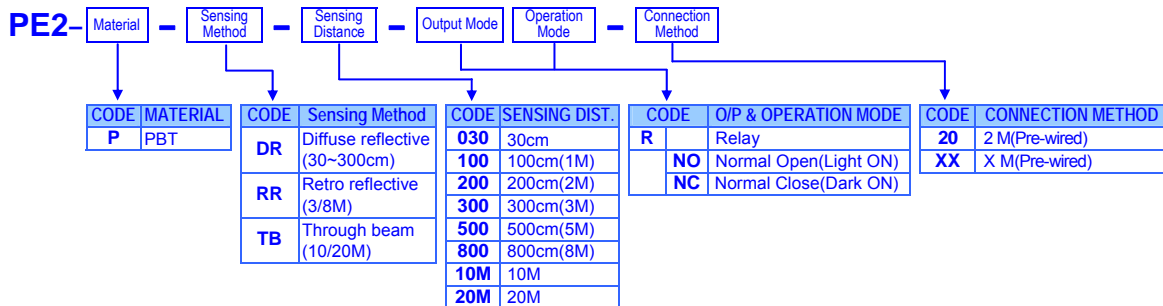
- Wide range power supply for AC24~260V and DC12~260V
- A wealth of models ideal for limit control, counting control, and other applications.
- Sensing distance of 30~300cm for Diffuse reflective models, 3M~8M for Retro reflective models and 10M~20M for Through beam models.
- Housing by PBT with strong structure and acid resisting.



APPLICATIONS

Limit Control Safety Control

ORDERING INFORMATION



TECHNICAL SPECIFICATION

	Diffuse reflective	Retro reflective	Through beam
Light source	Infrared LED		
Sensing distance	30cm~300cm	3~5M/3~8M	10M/20M
Differential travel	10% max. of setting distance		
Standard sensing object	Non-glossy white paper: 10*10cm	Opaque: 56mm diameter min.	
Sensitivity adjust.	One-turn potentiometer(VR)		
Directional angle	--	10 ~ 20°	10 ~ 20°
Connection	5 wire(power source 2 wire, Relay contact 3 wire)		
Indication	Operation indicator: red LED		
Control output	Light ON or Dark ON		
Operation mode	Relay*1 Form C; Contact 30V,3A/250V,3A		
Power supply	AC24~260V/DC12~260V		
Current consumption	<30mA		
Load current	DC 30V, 100mA max.		
Protection circuits	Reverse polarity, short-circuit & Surge suppressor protection		
Response time	Operating or reset: 1ms max.		
Ambient temp.	Operating: -25°C~70°C; Storage: -30°C~80°C(Non-condensing)		
Ambient humidity	Operating: 35 to 95 % RH; Storage: 35 to 95 % RH		
Temp. influence	10% max. of sensing distance at 23C in the temp. range of 25 to 70C		
Ambient illumination	Incandescent lamp: 5,000 lx max. Sunlight: 10,000 lx max.		
Voltage influence	1% max. of sensing distance at rated voltage in rated voltage 15% range		
Insulation resistance	20 MΩ min. (at 500 VDC) between current-carrying parts and case		
Dielectric strength	1,000 VAC for 1 min between current-carrying parts and case		
Vibration	10 to 55 Hz, 1.5-mm double amplitude for 2 hours each in X, Y, and Z		
Shock resistance	500 m/s2(about 50g) 3 times each in X, Y, and Z directions		
Protection	IEC 60529 IP67 [JEM IP67g (water-resistant, oil-resistant)]		
Connection method	Pre-wired 5C / 6.0Ø * 2M PVC oil-resistant;		
Materials	Case	PBT; yellow color,	
	Sensing surface	Acrylic resin	
	Screw	ABS	
	Bracket	Iron with Nickel-plating(sold separately)	
Weight	210g	215g	405g

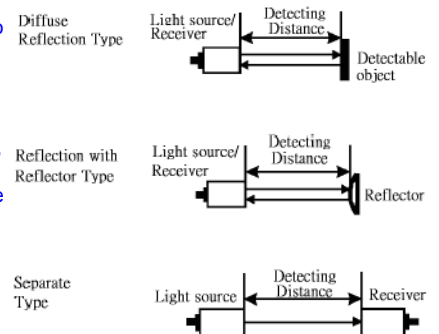
DESCRIPTION OF TECHNICAL

Sensing distance

The term of sensing distance generally refers to the distance range within which the photoelectric sensor can detect the detectable objects.

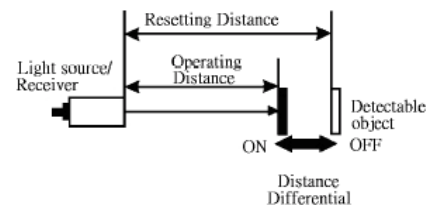
▶ In Diffuse reflective type, it denotes the maximum distance within which the sensor can stable operate with the standard sensing object.

▶ In Retro reflective and Through beam type, it denotes the maximum distance within which the sensor can be set stable.



Differential travel

The term of differential travel refers to the difference between operating and resetting distance.



Response time

Response time refers to the frequency of outputs from the sensor per second in response to the movement of each target when brought closer to the sensor.

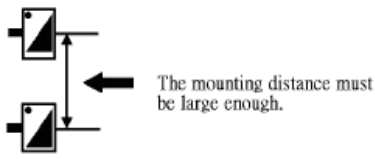
Current consumption

Current consumption refers to the maximum current consumed when the sensor is no output.

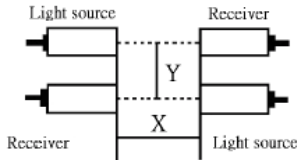
■ INSTALLATION PRECAUTIONS

● Mutual Interference

In the case of mounting two or more Diffuse reflective sensor side by side, incorrect operation may occur due to mutual interference of mounting in close proximity. To move the mounting distance may be reduce the mutual interference.

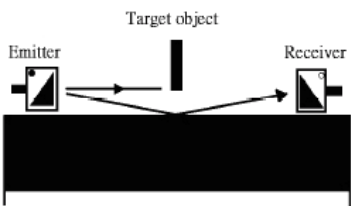
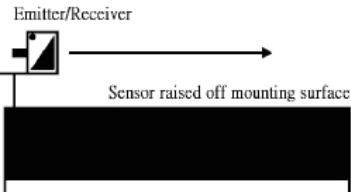
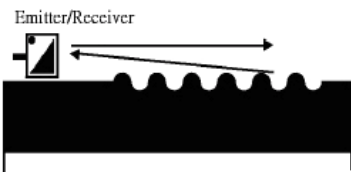


In the case of mounting two or more Through beam sensor side by side, alternate the sender and receive to reduce the mutual interference.



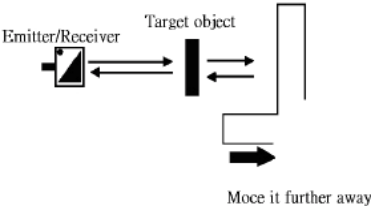
● Influence of the mounting surface

In the case of mounting sensor, it is maybe detecting unstable due to reflection from a rough surface. To raise or lower the sensor or alter the operating angle to ensure stable operation



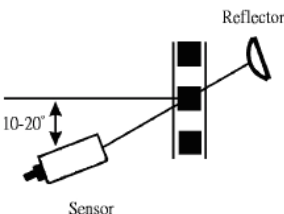
● Influence of the background

The background behind target objects may influence the stability of operation that is depending on its luminance and reflectivity. Generally, a black background is a way to reduce the unstable operation.



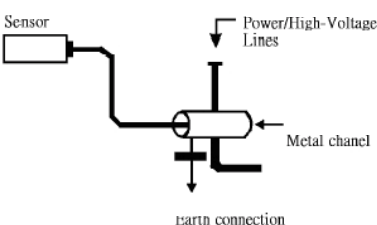
● Sensing object with high reflection

If the target to be detected is glossy and thus the surface reflection is great, install the sensor tilted 10° to 20°, as shown in the figure to avoid false reflections from the target.

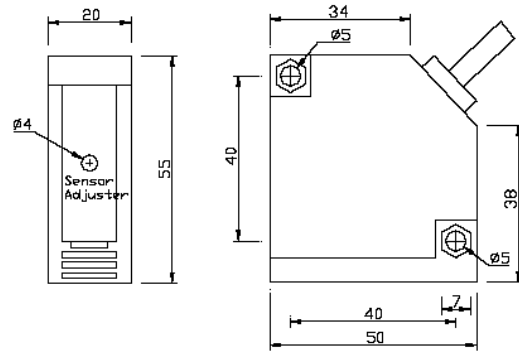


● Electric noise

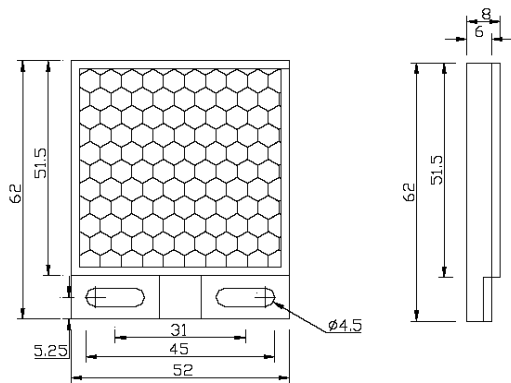
In the case of interference induced by the power lines, separate the wiring of the sensor from the power and high-voltage lines or place the sensor wires in an earth metal pipe. Otherwise the sensor may malfunction due to electric noise.



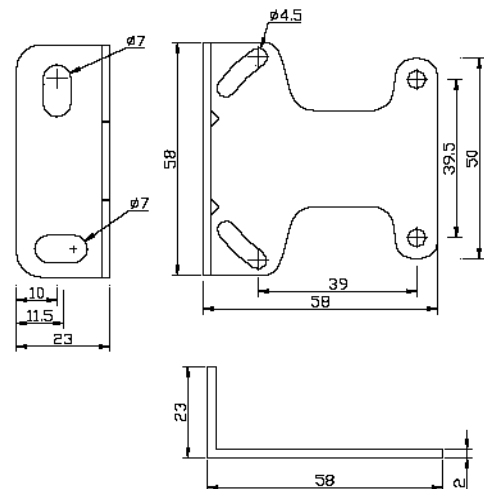
■ DIMENSIONS



Accessories Reflector

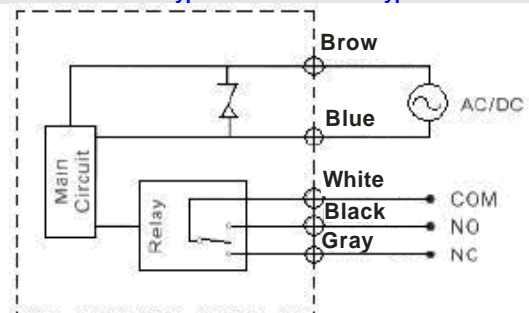


Bracket



■ CONNECTION

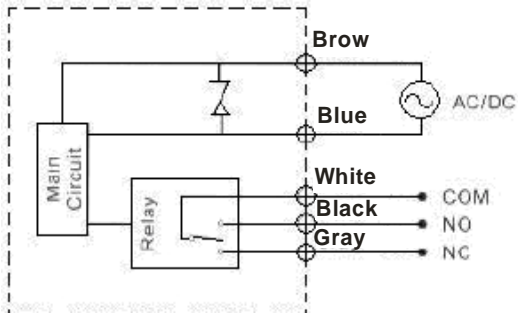
● Diffuse reflective type / Retro reflective type



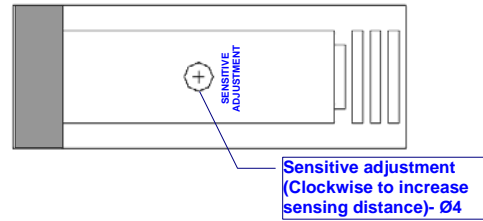
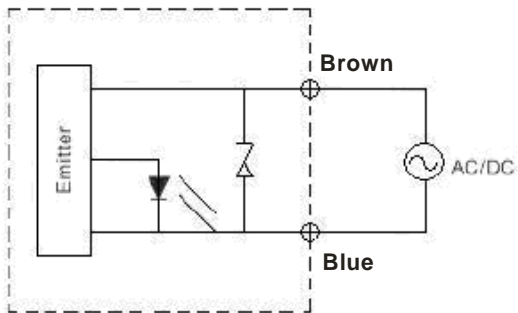
● Through beam type

■ SENSITIVITY ADJUSTMENT

Receiver



Emitter



■ OPERATION MODE

