



PNX series Instruction Manual

No. MPR-0100C

Notice for safety

Please be sure handle and operate the product correctly according to the attached instruction manual etc. before making installation wiring, operation and /or maintenance of the product. If necessary, arrange to reach the instruction manual etc. to final responsible person.



WARNING

:Possible to cause medium damage and slight injury, or physical damage when mis used. However it is possible to cause more serious result according to situation.

- This product can't be used as safety device due to protect human body.
- This product should be used under the voltage and current mentioned on the product or the brochure. It is possible to occur short circuit or fire if it is used out of rated value.

- This product isn't explosion-proof structure. Don't use it under flammable and explosive gas or liquid environment.
- Do not disassemble, repair, or convert the product. Failure to do this may cause failure, fire, or electric shock.
- When abandon, please treat it as industrial waste.

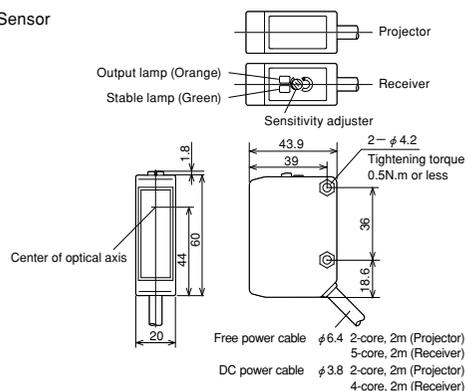
Installation

Caution :Make sure to make a wiring or detached connector after power-off.

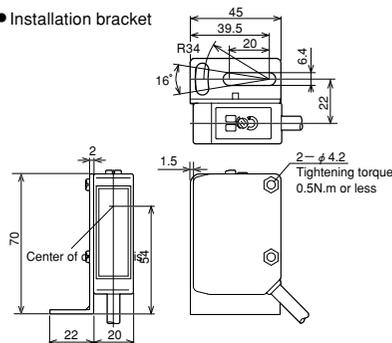
- (1) Please prohibit from using at places:
- Places where water or oil may be spattered and much dust exist.
 - Solvent gas and corrosive gas exist.
 - Direct sunlight put into the lenses.
 - Any places suffered with over-rated temperature, humidity, vibration, shock etc.

External dimensions

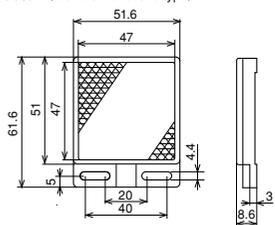
● Sensor



● Installation bracket



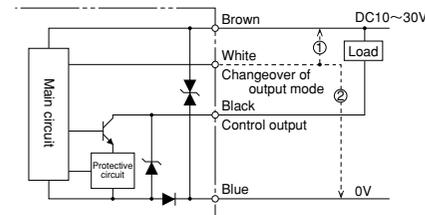
● Reflector (with retroreflective type)



Connection

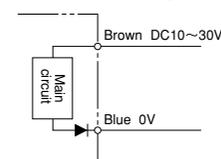
(1) Circuit of input and output.

● DC power type

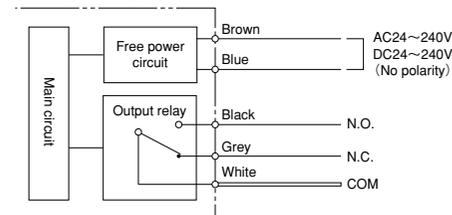


- ① Light-on when white lead wire is connected to +V or free.
 ② Dark-on when white lead wire is connected to 0V.

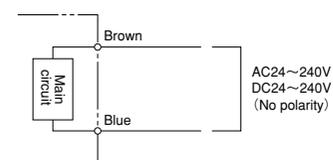
● Projector of through beam type (DC power)



● Free power type



● Projector of through beam (free power type)



- (2) Pay attention not to be a wrong wiring.
 (3) Don't make a parallel wiring or use in same tube with power source/high voltage line. It may cause malfunction by induction.
 (4) When using a commercial switching regulator as per source, ground FG(Frame ground terminal) and G(Ground terminal). If using without ground, the unit may cause malfunction by switching noise of power source.
 (5) Please avoid using the sensor when power is being switched on (approx. 150ms).

Adjusting optical axis

● Through beam type

- (1) Install the projector and receiver opposite to each other so that the optical axis lines up.
- (2) Swing the projector and the receiver vertically and from side to side, and fix each at the mid-point in the range where the indicating lamp at the receiver lights up.

● Retroreflection type

Swing the sensor vertically and from side to side, and fix it at the mid-point in the range where the indicating lamp lights up.

Sensitivity adjustment

- (1) Set the detectable object at the detection position and turn the sensitivity control slowly from MIN toward MAX until the output indicator (orange) lights up. Call it position A.
- (2) Remove detectable object and turn the sensitivity control from MAX to MIN position where the output indicator (orange) is extinguished. Call it position B.
- (3) Point C midway between A and B is the optimum sensitivity position.



Other notice

- Protective structure is IP67 but pay attention not to put water-drop or oil on lens surface because functions are spoiled.
- If lens surface was dirty, clean up with soft cloths. Don't clean up with thinner or alcohol.
- The sensor performance or digital display values may depend on the individual units or the condition of detected product.
- Don't use the sensor under water.