

Amplifier Built-in Ultra-slim Photoelectric Sensor

EX-10 Series

MJECK-EX10 No.0082-14V

Thank you very much for purchasing Panasonic products. Read this Instruction Manual carefully and thoroughly for the correct and optimum use of this product. Kindly keep this manual in a convenient place for quick reference.

- Refer to the "EX-10 Series User's Manual" (our Website: https://www3.panasonic.biz/ac/e/dl_center/index.jsp).
- If you could not visit our web site, contact our sales office near your site.

1 SAFETY PRECAUTIONS

Always observe

WARNING

- Do not use this product for an application where it directly detects the human body. Otherwise, there is a risk of death or serious injury.
- Do not use the EX-15□/EX-17□ for an application either where it directly detects the human body or where it indirectly protects the human body. Otherwise, there is a risk of death or serious injury.
- When the human body needs to be detected for safety application, use products that conform to the laws and standards related to human body detection for safety application in each country, such as OSHA, ANSI, and IEC.

2 CAUTIONS

- This product has been developed / produced for industrial use only.
- For the convergent reflective type EX-14□, if there is a reflective object (e.g., a conveyor, etc.) in the background of the sensing object, since it may affect the sensing, use by keeping enough distance from the reflective object.
- The thin cable 0.1mm² is used for this product. Thus, take care that if the cable is pulled with excessive force, it may cause cable break.
- Extension up to total 50m (each emitter and receiver of thru-beam type), or less, is possible with 0.3mm², or more of conductor area cable. However, the extension of a power supply line and the output line of less than 10m is acceptable in case using this product as conforming to S-mark.
- Make sure to carry out wiring in the power supply OFF condition.
- Take care that wrong wiring will damage the sensor.
- Verify that the supply voltage variation is within the rating.
- If power is supplied from a commercial switching regulator, ensure that the frame ground (F.G.) terminal of the power supply is connected to an actual ground.
- In case noise generating equipment (switching regulator, inverter motor, etc.) is used in the vicinity of this product, connect the frame ground (F.G.) terminal of the equipment to an actual ground.
- Do not run the wires together with high-voltage lines or power lines or put them in the same raceway. This can cause malfunction due to induction.
- Take care that the sensor is not directly exposed to fluorescent lamp from a rapid-starter lamp, a high frequency lighting device or sunlight etc., as it may affect the sensing performance.
- Do not use during the initial transient time (EX-15□, EX-15E□, EX-17□, EX-17E□: 100ms, others: 50ms) after the power supply is switched ON.
- This sensor is suitable for indoor use only.
- Do not use this sensor in places having excessive vapor, dust, etc., or where it may come in contact with corrosive gas, etc.
- Take care that the sensor does not come in contact with oil,

grease, organic solvents such as thinner, etc., strong acid, or alkaline.

- This sensor cannot be used in an environment containing inflammable or explosive gases.
- Never disassemble or modify the sensor.
- Since the cable end is not waterproof, do not use the sensor in the application where water may seep in from the cable end.

3 REGULATIONS AND STANDARDS

- This product conform to the following regulations and standards. (The EX-15□/EX-17□ is excluded from this.)

<Conformity Directives / Conforming Regulations>

EU Law: EMC Directive 2014/30/EU

British Legislation: EMC Regulations 2016/1091

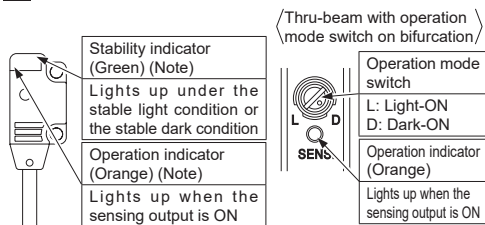
- Applicable Standards

EN IEC 60947-5-2:2020

<International Standards>

ISO 13849-1: 2015 (Category 1, PLc)

4 PART DESCRIPTION

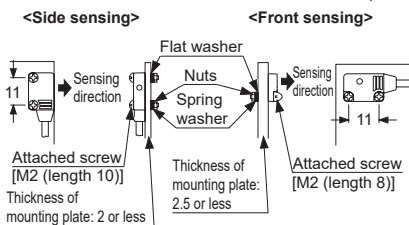


Note: Not incorporated on the thru-beam type sensor emitter.

5 MOUNTING

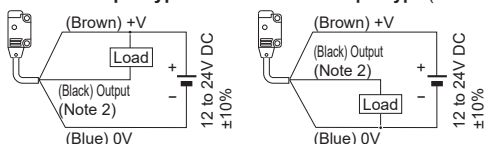
- The tightening torque should be 0.2N·m or less.

(Unit: mm)



6 WIRING DIAGRAMS

- NPN output type
- PNP output type (Note 1)



- Notes: 1) Thru-beam with operation mode switch on bifurcation is not prepared.
2) The thru-beam type sensor emitter does not incorporate the output (black).

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<https://panasonic.net/id/pidx/global>

Please visit our website for inquiries and about our sales network.

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