

## Amplifier Built-in Small Photoelectric Sensor

**CX-41□, CX-42□, CX-46□, CX-48□, CX-49□**

MJECK-CX400 No.0054-53V

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.

- Please refer "our web site (<http://panasonic.net/id/pidsx/global>)".
- Access method is "Download" → "Manual" → "Model No.".
- If you could not visit our web site, contact our sales office near your sight.

### ⚠ WARNING

- Never use this product as a sensing device for personnel protection.
- In case of using sensing devices for personnel protection, use products which meet laws and standards, such as OSHA, ANSI or IEC etc., for personnel protection applicable in each region or country.

## 1 INTENDED PRODUCTS FOR CE MARKING

- Refer "our web site (<http://panasonic.net/id/pidsx/global>)" for the intended products. The models listed under "SPECIFICATIONS" come with CE Marking. As for all other models, please contact our office.
- Contact for CE  
Panasonic Marketing Europe GmbH Panasonic Testing Center  
Winsbergring 15, 22525 Hamburg, Germany



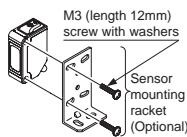
## 2 PART DESCRIPTION

|   |  |  |
|---|--|--|
| Stability indicator (Green) (Note 1)<br>Lights up under the stable light condition or the stable dark condition |  | Operation indicator (Orange) (Note 2)<br>Lights up when the sensing output is ON |
| Sensitivity adjuster (Note 1, 3)<br>Sensing range be-comes longer when turned clockwise                         |  | Operation mode switch (Note 1, 3)<br>L: Light-ON<br>D: Dark-ON                   |

- Notes: 1) Not incorporated on the thru-beam type sensor emitter.  
2) It is the power indicator (green: lights up when the power is ON) for the thru-beam type sensor emitter.  
3) Not incorporated on the basic type sensor.

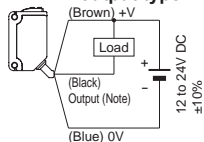
## 3 MOUNTING

- The tightening torque should be 0.5N·m or less.
  - Optimum sensing is possible when the position of the transparent sensing object is set at the center of the sensor and the reflector.
- If the sensing position is set near the **CX-48□** or the reflector, the sensing may be unstable.

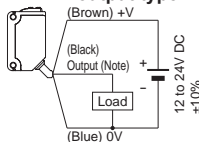


## 4 WIRING DIAGRAMS

### • NPN output type



### • PNP output type



Note: The thru-beam type sensor emitter does not incorporate the output.

## 5 SENSITIVITY ADJUSTMENT

### Step

1. Turn the sensitivity adjuster fully counterclockwise to the minimum sensitivity position, MIN.
2. In the light received condition, turn the sensitivity adjuster slowly clockwise and confirm the point **A** where the sensor enters the "Light" state operation.
3. In the dark condition, turn the sensitivity adjuster further clockwise until the sensor enters the "Light" state operation and then bring it back to confirm point **B** where the sensor just returns to the "Dark" state operation.  
(If the sensor does not enter the "Light" state operation even when the sensitivity adjuster is turned fully clockwise, the position is point **B**.)
4. The position at the middle of points **A** and **B** is the optimum sensing position.



## 6 CAUTIONS

- This product has been developed / produced for industrial use only.
- 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.
- Extension up to total 100m (each emitter and receiver of thru-beam type), or less, is possible with 0.3mm<sup>2</sup>, 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 that stress by forcible bend or pulling is not applied directly to the sensor cable joint.
- 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.
- Do not use during the initial transient time (50ms) after the power supply is switched ON.
- 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.
- 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.

## 7 RoHS DIRECTIVE

- This equipment complies with RoHS (EC and Chinese directive).
- Chinese RoHS indicates inclusion despite regulation value. (Refer Chinese part.)

Panasonic Industrial Devices SUNX Co., Ltd.

<http://panasonic.net/id/pidsx/global>

Overseas Sales Division (Head Office)

2431-1 Ushiyama-cho, Kasugai-shi, Aichi, 486-0901, Japan

Phone: +81-568-33-7861 FAX: +81-568-33-8591

For sales network, please visit our website.

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