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Sensors

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Compact Photoelectric Sensor CX-400 Ver.2 >

CX-411

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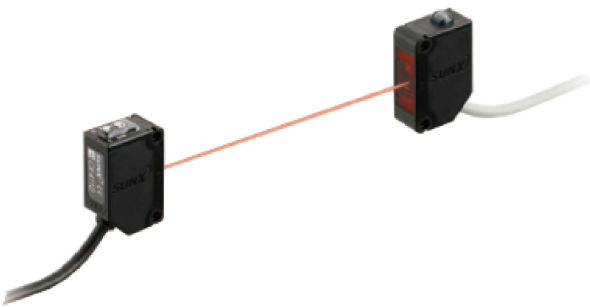
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CX-411 | Compact
Photoelectric Sensor CX-400 Ver.2

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Catalog/
Datasheet CAD Manual



*Photo may vary from actual product.



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Technical Inquiries,
Purchase Support &
Additional Assistance

Technical inquiry

Business inquiry

Other inquiry

| | |
|----------------|---|
| Product Number | CX-411 |
| Part Number | CX-411 |
| Product | Compact Photoelectric Sensor |
| Details | Thru-beam |
| Product Name | Compact Photoelectric Sensor CX-400 Ver.2 |

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Technical inquiry

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Other inquiry

Spec
Detail



Accessories
(Option)



As of April 26, 2025 (JST)
*Specifications and design of the products are subject to change without notice for the product improvement.

Spec Detail

Specifications and design of the products are subject to change without notice for the product improvement.

| Item | Specifications |
|----------------|------------------------------|
| Product Number | CX-411 |
| Part Number | CX-411 |
| Products Name | Compact Photoelectric Sensor |



| Item | Specifications |
|--|--|
| Product details | Thru-beam |
| The price of the product | Please contact our office |
| Applicable regulations and certifications | CE Marking (EMC Directive, RoHS Directive), UKCA Marking (EMC Regulations, RoHS Regulations), UL Recognition Certification |
| Sensing range | 10 m 32.808 ft |
| Sensing object | Ø12 mm Ø0.472 in or more opaque object (Note) If slit masks (optional) are fitted, an object of Ø0.5 mm Ø0.020 in (using round slit mask) can be detected. |
| Hysteresis | - |
| Repeatability(perpendicular to sensing axis) | 0.5 mm 0.020 in or less |
| Supply voltage | 12 to 24 V DC plus or minus 10 % Ripple P-P 10 % or less |
| Current consumption | Emitter: 15 mA or less Receiver: 10 mA or less |
| Output | NPN open-collector transistor - Maximum sink current: 100 mA - Applied voltage: 30 V DC or less (between output and 0 V) - Residual voltage: 2 V |



| Item | Specifications |
|--|--|
| | or less (at 100 mA sink current), 1 V or less (at 16 mA sink current) |
| Output:Output operation | Switchable either Light-ON or Dark-ON |
| Output:Short-circuit protection | Incorporated |
| Response time | 1 ms or less |
| Operation indicator | Orange LED(lights up when the output is ON) (incorporated on the receiver for thru-beam type) |
| Stability indicator | Green LED(lights up under stable light received condition or stable dark condition) (incorporated on the receiver for thru-beam type) |
| Power indicator | Green LED(lights up when the power is ON) (incorporated on the emitter) |
| Sensitivity adjuster | Continuously variable adjuster(incorporated on the receiver for thru-beam type) |
| Automatic interference prevention function | Two units of sensors can be mounted close together with interference prevention filters. (Sensing range: 5 m 16.404 ft) |
| Protection | IP67 (IEC) |

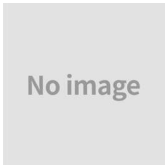
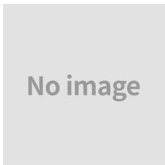
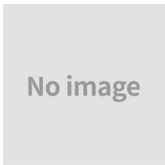


| Item | Specifications |
|---|--|
| Ambient temperature | - 25 to +55°C -13 to +131°C °F (No dew condensation or icing allowed), Storage: -30 to +70°C -22 to +158°C °F |
| Ambient humidity | 35 to 85 % RH, Storage: 35 to 85 % RH |
| Ambient illuminance | Incandescent light: 3,000 lx or less at the light-receiving face |
| Voltage withstandability | 1,000 V AC for one min. between all supply terminals connected together and enclosure |
| Insulation resistance | 20 MOhm , or more, with 250 V DC megger between all supply terminals connected together and enclosure |
| Vibration resistance | 10 to 500 Hz frequency, 1.5 mm 0.059 in amplitude (10 G max.) in X, Y and Z directions for two hours each |
| Shock resistance | 500 m/s ² acceleration (50 G approx.) in X, Y and Z directions three times each |
| Emitting element (modulated) | Red LED |
| Emitting element (modulated):Peak emission wavelength | 680 nm 0.027 mil |
| Material | Enclosure: PBT (polybutylene |



| Item | Specifications |
|-----------------|--|
| | terephthalate) Lens: acrylic Indicator cover: acrylic |
| Cable | 0.2 mm ² 3-core (emitter: 2-core) cabtyre cable, 2 m 6.562 ft long |
| Cable extension | Extension up to total 100 m 328.084 ft is possible with 0.3 mm ² , or more, cable (both emitter and receiver). |
| Weight | Net weight: 95 g approx. Gross weight: 100 g approx. |
| Accessory | - |

Accessories (Option)

| | Product number | Part number | Product | D |
|---|--------------------------|-------------|---------|---|
|  | MS-AJ1 | MS-AJ1 | - | - |
|  | MS-AJ1-A | MS-AJ1-A | - | - |
|  | MS-AJ1-M | MS-AJ1-M | - | - |



| | Product number | Part number | Product | Discontinued |
|---------------------|------------------------|-------------|---------|--------------|
| <div>No image</div> | MS-AJ2 | MS-AJ2 | - | - |

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Guidelines for Ordering and Usage

Requests to customers (FA Sensors & Components [Excluding motors])

Requests to customers (Dedicated to industrial motors)

| Components & Devices | FA Sensors & Components | | | Motors for FA & Industrial Application |
|-----------------------------|---------------------------------------|--|---------------------------------|--|
| Relays / Couplers | Fiber Sensors | Sensor Options | Static Control Devices | AC Servo Motors for HVAC & Automotive |
| Connectors | Photoelectric Sensors / Laser Sensors | Wire-Saving Systems | Laser Markers / 2D Code Readers | |
| Switches | Micro Photoelectric Sensors | Programmable Controllers / Motion Controller | Machine Vision System | |
| Encoders / Potentiometers | Light Curtains / Safety Components | Human Machine Interface | Energy Management Solutions | |
| Transparent Conductive Film | Area Sensors | Pressure Sensors / Flow Sensors | | |
| Cooling Fan | Inductive Proximity Sensors | Measurement Sensors | | |
| | Particular Use Sensors | | | |
| | | | | |

