

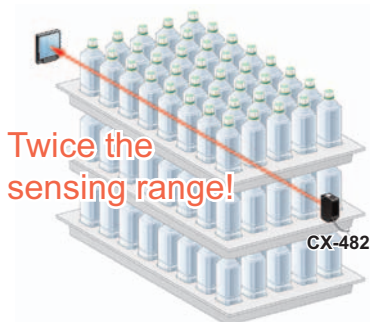
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- PHOTOELECTRIC SENSORS
- MICRO PHOTOELECTRIC SENSORS
- AREA SENSORS
- LIGHT CURTAINS / SAFETY COMPONENTS
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BASIC PERFORMANCE

Introducing the transparent object sensing type sensor

CX-48□

Our unique optical system and transparent object sensing circuitry provide stable sensing of even thinner transparent objects than the conventional models.



Transparent objects detectable with **CX-48□** (Typical examples)

Sensing object	Sensing object size (mm in)
Glass sheet	50 × 50 1.969 × 1.969 t = 0.7 0.028
Cylindrical glass	ø50 ø1.969 ℓ = 50 1.969 t = 1.3 0.051
Acrylic board	50 × 50 1.969 × 1.969 t = 1.0 0.039
Styrol (Floppy case)	50 × 50 1.969 × 1.969 t = 0.9 0.035
Food wrapping film	50 × 50 1.969 × 1.969 t = 10 μm 0.394 mil
Cigarette case film	50 × 50 1.969 × 1.969 t = 20 μm 0.787 mil
Vinyl sack	50 × 50 1.969 × 1.969 t = 30 μm 1.181 mil
PET bottle (500mℓ)	ø66 ø2.598

Reflector setting range **CX-481**: 300 to 500 mm 11.811 to 19.685 in, **CX-482**: 1 to 2 m 3.281 to 6.562 ft

[with the **RF-230** reflector at the optimum condition (Note)]

Each object should pass across the beam at the center between the sensor and the reflector.

ℓ: Length of cylindrical glasses
t: Thickness of sensing object

Note: The optimum condition is defined as the condition in which the sensitivity level is set such that the stability indicator just lights up when the object is absent.

Long sensing range of 5 m 16.4 ft **CX-493**

A long 5 m 16.4 ft sensing range is possible with the red LED type that is easy to align with the beam axis. Can be used for wide automatic door shutters.



Ultra-long sensing range of 30 m 98.4 ft **CX-413**

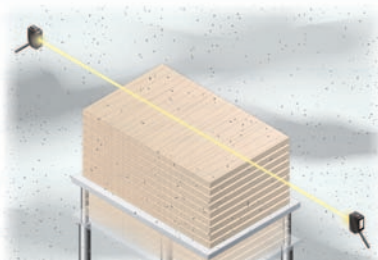
The **CX-413** achieves the ultra-long sensing range of 30 m 98.4 ft. It can be used for a stacker crane or a multilevel parking structure.



ENVIRONMENTAL RESISTANCE

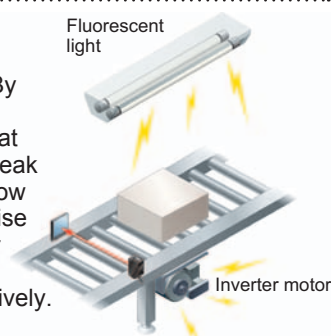
Strong on dust and dirt **CX-412/413**

Because the light source is an infrared light, it is strong on dust and dirt compared to the red beam type.



Stronger noise resistance

The **CX-400** series has a higher noise resistance than its previous model. By incorporating an inverter countermeasure circuit that appropriately shifts with peak wavelength, the sensor now resists high-frequency noise from high-voltage inverter motors and inverter lights more effectively.



Strong even in cold environments

Stable performance can be maintained even in environments of -25 °C -13 °F.

ECO

Thoroughly eliminating unnecessary waste, Reducing many environmental burdens



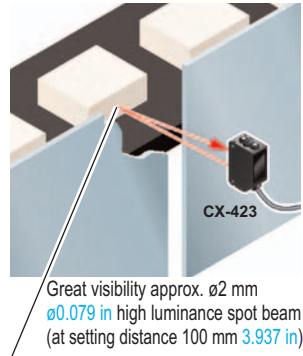
The **CX-400** series has three different cable length types and uses very simple packaging to reduce waste. The bag is made of polyethylene and does not emit toxic gasses.



MOUNTING

Beam axis alignment made easy with a high luminance spot beam **CX-423**

These sensors have a high luminance red LED spot beam which provides bright visibility enabling the sensing position to be checked at a glance. Because it achieved small beam spot approx. $\varnothing 2$ mm $\varnothing 0.079$ in at setting distance 100 mm 3.937 in, approx. $\varnothing 5$ mm $\varnothing 0.197$ in at setting distance 200 mm 7.874 in, even the minutest object can be accurately detected.



The bright spot makes beam axis alignment easy **CX-441**

These sensors have a high luminance red spot that provides bright visibility. The sensing position can be checked at a glance. Because the **CX-441** sensor has the smallest spot in its class $\varnothing 2$ mm $\varnothing 0.079$ in approx., even the minutest object can be accurately detected.



OPERABILITY

Reduction of volume adjustment labor **CX-423**

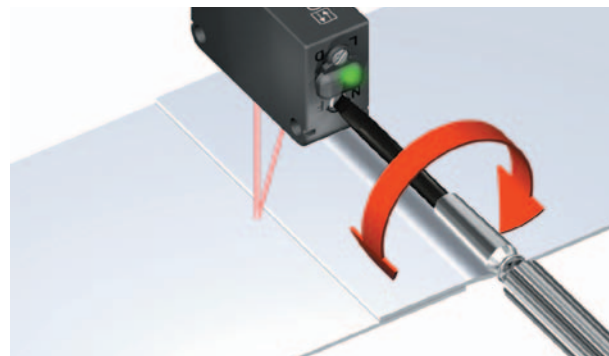
Because these sensors possess many variations depending on the sensing range, enables you to make optimal volume adjustment easily.

CX-422: 800 mm 31.496 in
CX-421: 300 mm 11.811 in
CX-424: 100 mm 3.937 in



Can be used for sensing minute differences **CX-441**

Equipped with a 5-turn adjuster so that even challenging range settings can be handled with ease.



VARIETIES

Basic type available

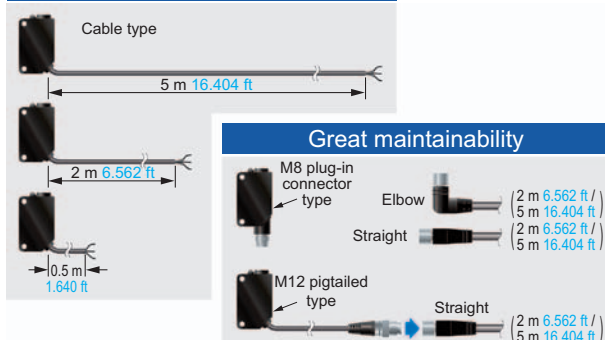
Omit the sensitivity adjuster and operation mode switch and release a basic type cable 0.5 m 1.641 ft in length. If the usage is clear, quick construction can be performed onsite without detailed adjustments and the cost can be controlled.

Less processing time



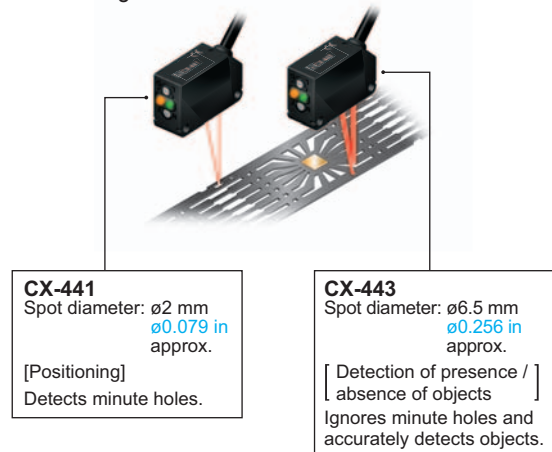
M8 plug-in connector type and M12 pigtailed type are available. This contributes to less time spent in setting up. In addition, cable types are available with cable lengths of 0.5 m 1.640 ft, 2 m 6.562 ft and 5 m 16.404 ft. This results in less wastage.

No unnecessary cables or terminal blocks



Select from 2 spot diameters as per the application **CX-441/443**

Within the choice of 50 mm 1.969 in sensing range sensors, we offer small spot approx. $\varnothing 2$ mm $\varnothing 0.079$ in type optimal for detecting minute object and large approx. $\varnothing 6.5$ mm $\varnothing 0.256$ in spot type capable of sensing object covered with holes and grooves.



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