

CX-440 SERIES Ver.2

Related Information

- General terms and conditions..... F-3
- Selection guide P.231~
- **CX-400**..... P.245~
- Glossary of terms P.1549~
- General precautions P.1552~
- Korea's S-mark..... P.1602

Ver.2
panasonic.net/id/pidsx/global

 Certified
(Cable type and NPN output type only)

 Refer to p.245~ of **CX-400 series Ver.2**
for details of **CX-440 series Ver.2**.

OPTIONS	P.254
SPECIFICATIONS	P.256
I/O CIRCUIT AND WIRING DIAGRAMS ...	P.258
SENSING CHARACTERISTICS ...	P.262~
PRECAUTIONS FOR PROPER USE ...	P.264~
DIMENSIONS	P.269~


 PNP output
type available

 Interference
prevention

2% hysteresis - demonstrates power in level difference sensing and heterochromatic object stability sensing

Can sense differences as small as 0.4 mm 0.016 in. with hysteresis of 2 % or less **CX-441/443**

An advanced optical system provides sensing performance that is 2.5 times approx. than conventional models. Even ultra-small differences of 0.4 mm 0.016 in can be detected accurately.

2.5 times the
sensing capability!

Height differences of as little as 0.4 mm 0.016 in can be detected at a setting distance of 20 mm 0.787 in


Hardly affected by colors
CX-441/443

Both black and white objects can be sensed at the same distances. No adjuster control is needed, even when products of different colors are moving along the production line.

30 % higher
sensing capability


[The difference in sensing ranges is 1% or less between non-glossy white paper with a setting distance of 50 mm 1.969 in and non-glossy gray paper with a brightness level of 5.]

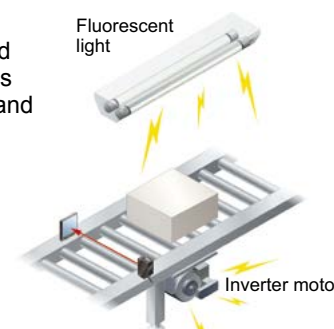
ENVIRONMENTAL RESISTANCE

Strong against ethanol

A strong, ethanol resistant polycarbonate was used for the front and display covers. Safe even for installing near food processing machinery that disperses ethanol based detergents. The protection mechanism also conforms to IP67 (IEC).


Stronger noise resistance

Significantly stronger against inverter light and other extraneous light as well as high frequency and electromagnetic noise.


Strong even in cold environments

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

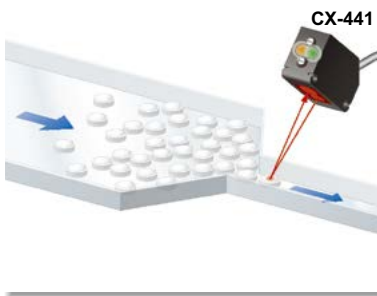
FIBER SENSORS
LASER SENSORS
PHOTOELECTRIC SENSORS
MICRO PHOTOELECTRIC SENSORS
AREA SENSORS
SAFETY LIGHT CURTAINS / SAFETY COMPONENTS
PRESSURE / FLOW SENSORS
INDUCTIVE PROXIMITY SENSORS
PARTICULAR USE SENSORS
SENSOR OPTIONS
SIMPLE WIRE-SAVING UNITS
WIRE-SAVING SYSTEMS
MEASUREMENT SENSORS
STATIC CONTROL DEVICES
LASER MARKERS
PLC
HUMAN MACHINE INTERFACES
ENERGY MANAGEMENT SOLUTIONS
FA COMPONENTS
MACHINE VISION SYSTEMS
UV CURING SYSTEMS

Selection Guide
Amplifier Built-in
Power Supply Built-in
Amplifier-separated

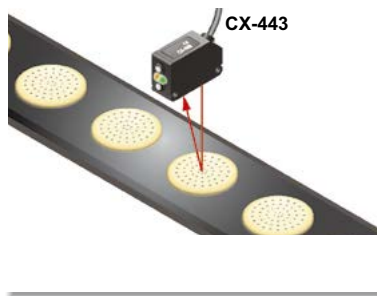
EX-Z
CX-400
CY-100
EX-10
EX-20
EX-30
EX-40
CX-440
EQ-30
EQ-500
MQ-W
RX-LS200
RX
RT-610

APPLICATIONS

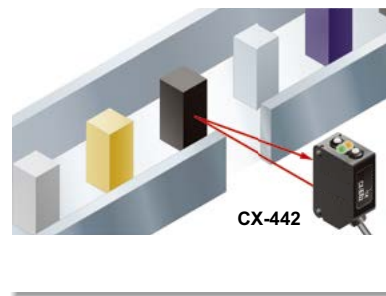
Small tablet detection



Thin biscuit detection



Passage confirmation of a different color object



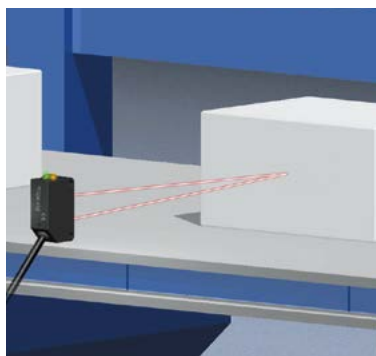
FUNCTIONS

BGS/FGS functions make even the most challenging settings possible!

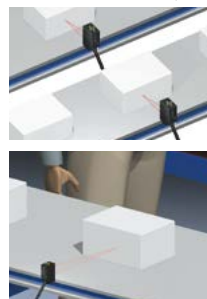
For details on the operation of the BGS/FGS functions, refer to p.267 “**BGS/FGS functions**” of “**PRECAUTIONS FOR PROPER USE**” in CX-400 series Ver.2 pages.

The BGS function is best suited for the following case**Background not present**

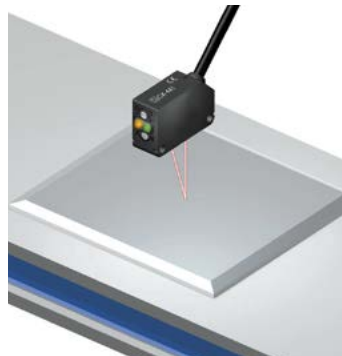
When object and background are separated

BGS

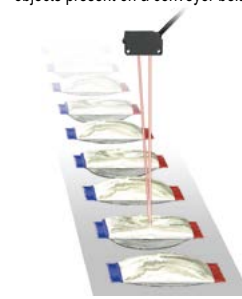
Not affected if the background color changes or someone passes behind the conveyor.

**The FGS function is best suited for the following case****Background present**

When object and background are close together
When the object is glossy or uneven

FGS

Unaffected by gloss, color or uneven surfaces when sensing objects present on a conveyor belt.



Caution : Please use the FGS function together with a conveyor or other background unit.

ORDER GUIDE

Type	Appearance	Sensing range	Model No.		Emitting element
			NPN output	PNP output	
Adjustable range reflective		2 to 50 mm 0.079 to 1.969 in	CX-441	CX-441-P	Red LED
		15 to 100 mm 0.591 to 3.937 in	CX-443	CX-443-P	
		20 to 300 mm 0.787 to 11.811 in	CX-444	CX-444-P	
			CX-442	CX-442-P	

NOTE: Mounting bracket is not supplied with the sensor. Please select from the range of optional sensor mounting brackets.

M8 plug-in connector type

M8 plug-in connector type is also available.

When ordering this type, suffix “-Z” for the M8 connector type to the model No.
(e.g.) M8 connector type of **CX-441-P** is “**CX-441-P-Z**”.

FIBER
SENSORSLASER
SENSORSPHOTOELECTRIC
SENSORSMICRO
PHOTOELECTRIC
SENSORSAREA
SENSORSSAFETY LIGHT
CURTAINS /
SAFETY COMPONENTSPRESSURE /
FLOW
SENSORSINDUCTIVE
PROXIMITY
SENSORSPARTICULAR
USE SENSORSSENSOR
OPTIONSSIMPLE
WIRE-SAVING
UNITSWIRE-SAVING
SYSTEMSMEASUREMENT
SENSORSSTATIC
CONTROL
DEVICESLASER
MARKERS

PLC

HUMAN MACHINE
INTERFACESENERGY
MANAGEMENT
SOLUTIONS

FA COMPONENTS

MACHINE VISION
SYSTEMSUV CURING
SYSTEMSSelection
GuideAmplifier
Built-inPower Supply
Built-inAmplifier-
separated**EX-Z****CX-400****CY-100****EX-10****EX-20****EX-30****EX-40****CX-440****EQ-30****EQ-500****MQ-W****RX-LS200****RX****RT-610**