



LONG SENSING RANGE • RETROREFLECTIVE TYPE COMPACT PHOTOELECTRIC SENSOR **Amplifier Built-in**

New

CX-493



Long sensing range 5 m 16.404 ft



Strongest sensing range in its class

A long 5 m 16.404 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.
※Retroreflective type with polarizing filters (CX-491, 3 m 9.843 ft sensing range) is also available.

Strong against noise

The sensors are fully protected against electrical noise and extraneous light such as high frequency fluorescent light.

Less space

A compact size (W11.2 × H31 × D20 mm W0.441 × H1.220 × D0.787 in) that is 80 % that of the previous models contributing to tremendous space savings.

Less energy used • Less resources used

These sensors consume only 60 % of the power of previous models. 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. Reduces waste and contributes to environmental conservation.

Less processing

M8 plug-in connector type and M12 pigtailed type are available. This contributes to less time spent in setting up and maintenance.

ORDER GUIDE

Package with reflector

Type	Model No.	Standard (Cable length: 2 m 6.562 ft)	0.5 m 1.640 ft cable length type	5 m 16.404 ft cable length type	M8 plug-in connector type (Note)	M12 pigtailed type (Note)
Long sensing range Retroreflective	NPN output	CX-493	CX-493-C05	CX-493-C5	CX-493-Z	CX-493-J
	PNP output	CX-493-P	CX-493-P-C05	CX-493-P-C5	CX-493-P-Z	CX-493-P-J

Note : Please order the suitable mating cable separately for M8 plug-in connector type and M12 pigtailed type.

Package without reflector

Type	Model No.	Standard (Cable length: 2 m 6.562 ft)	0.5 m 1.640 ft cable length type	5 m 16.404 ft cable length type	M8 plug-in connector type (Note)	M12 pigtailed type (Note)
Long sensing range Retroreflective	NPN output	CX-493-Y	CX-493-C05-Y	CX-493-C5-Y	CX-493-Z-Y	CX-493-J-Y
	PNP output	CX-493-P-Y	CX-493-P-C05-Y	CX-493-P-C5-Y	CX-493-P-Z-Y	CX-493-P-J-Y

Note : Please order the suitable mating cable separately for M8 plug-in connector type and M12 pigtailed type.

• Mating cables

For M8 plug-in connector type

Straight type **CN-24A-C2** (2 m 6.562 ft) **CN-24A-C5** (5 m 16.404 ft)
Elbow type **CN-24AL-C2** (2 m 6.562 ft) **CN-24AL-C5** (5 m 16.404 ft)

For M12 pigtailed type

2-core **CN-22-C2** (2 m 6.562 ft) **CN-22-C5** (5 m 16.404 ft)
4-core **CN-24-C2** (2 m 6.562 ft) **CN-24-C5** (5 m 16.404 ft)

SPECIFICATIONS

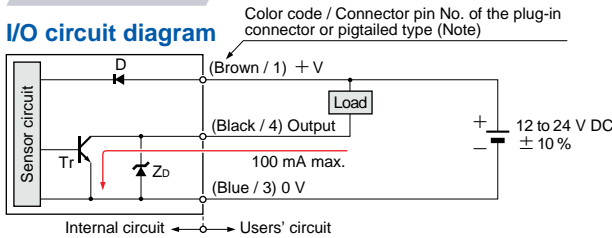
Type	NPN output	PNP output
Item Model No.	CX-493	CX-493-P
Sensing range	5 m 16.404 ft (Note)	
Sensing object	φ50 mm φ1.969 in or more opaque, translucent object (Note)	
Repeatability	0.5 mm 0.020 in or less (Perpendicular to sensing axis)	
Supply voltage	12 to 24 V DC ± 10 % Ripple P-P 10 % or less	
Current consumption	20 mA or less	
Output	<NPN output type> NPN open-collector transistor • Maximum sink current: 100 mA • Applied voltage: 30 V DC or less (between output and 0 V) • Residual voltage: 1 V or less (at 100 mA sink current) 0.4 V or less (at 16 mA sink current)	<PNP output type> PNP open-collector transistor • Maximum source current: 100 mA • Applied voltage: 30 V DC or less (between output and +V) • Residual voltage: 1 V or less (at 100 mA source current) 0.4 V or less (at 16 mA source current)
Output operation	Switchable either Light-ON or Dark-ON	
Short-circuit protection	Incorporated	
Response time	1 ms or less	
Operation indicator	Orange LED (lights up when the output is ON)	
Stability indicator	Green LED (lights up under stable light received condition or stable dark condition)	
Sensitivity adjuster	Continuously variable adjuster	
Automatic interference prevention function	Incorporated (Two units of sensors can be mounted close together.)	
Protection	IP67 (IEC)	
Ambient temperature	-25 to +55 °C -13 to +131 °F (No dew condensation or icing allowed). Storage: -30 to +70 °C -22 to +158 °F	
Ambient humidity	35 to 85 % RH, Storage: 35 to 85 % RH	
Emitting element	Red LED (Peak emission wavelength: 650 nm 0.026 mil, modulated)	
Material	Enclosure: PBT (polybutylene terephthalate), Lens: acrylic, Front cover: acrylic	
Cable	0.2 mm ² 3-core cabtyre cable, 2 m 6.562 ft long	
Weight	50 g approx.	
Accessories	RF-230 (Reflector): 1 pc.	

Note: The sensing range and the sensing object are specified for the RF-230 reflector.
In addition, set the distance between the sensor and the reflector to 0.1 m 0.328 ft or more.

I/O CIRCUIT AND WIRING DIAGRAMS

NPN output type

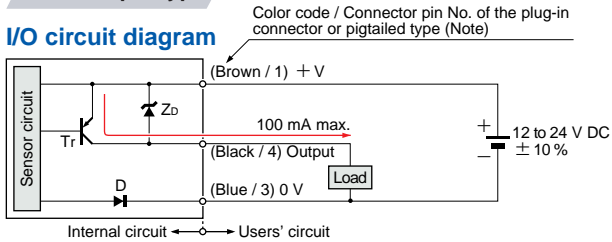
I/O circuit diagram



Note: Refer to the 'CX-400 series catalog' for connector pin position of the plug-in connector type.

PNP output type

I/O circuit diagram

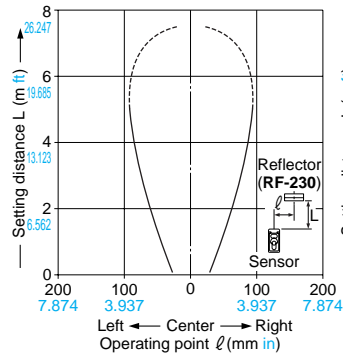


Note: Refer to the 'CX-400 series catalog' for connector pin position of the plug-in connector type.

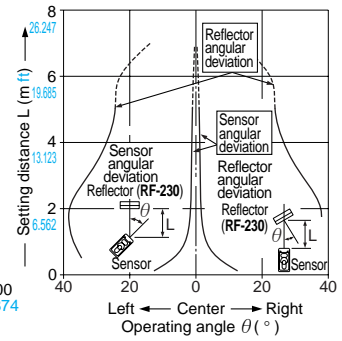
All information is subject to change without prior notice.

SENSING CHARACTERISTICS (TYPICAL)

Parallel deviation

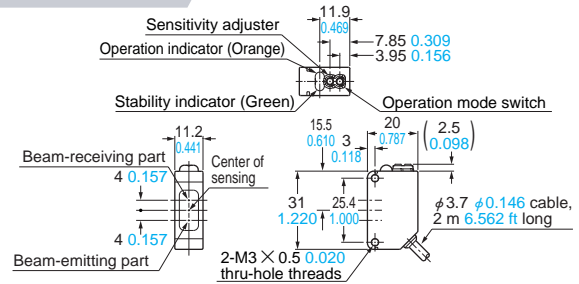


Angular deviation

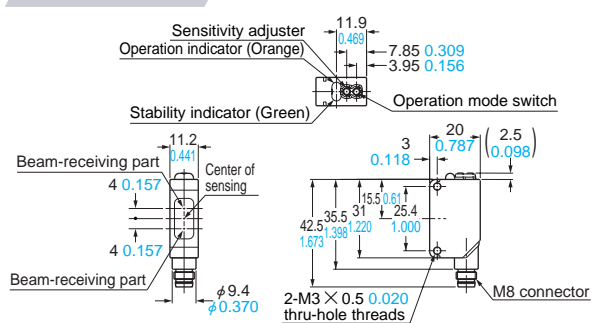


DIMENSIONS (Unit: mm in)

CX-493 Sensor



CX-493-Z



CX-493-J

