FIBER SENSORS LASER 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

FNFRGY MANAGEMENT SOLUTIONS

FA COMPONENTS

MACHINE VISION SYSTEMS

UV CURING SYSTEMS

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

EX-Z CX-400 CY-100 EX-10 EX-20

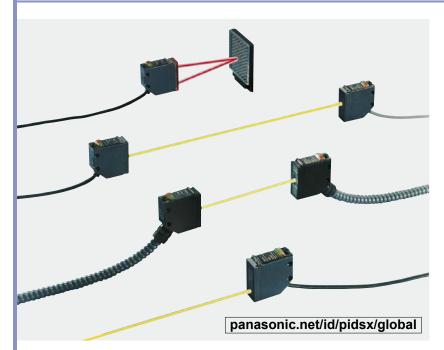
EX-30 EX-40 CX-440 **EQ-30** EQ-500

MQ-W **RX-LS200**

RT-610

Robust Photoelectric Sensor Amplifier Built-in

■ General terms and conditions...... F-3 Related Information ■ Glossary of terms......P.1549~ ■ Selection guideP.231~ ■ General precautions......P.1552~











Sturdy photoelectric sensor made of die-cast zinc alloy

Robust

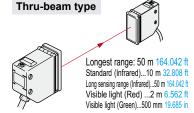
The enclosure is robust as it is made of die-cast zinc alloy.

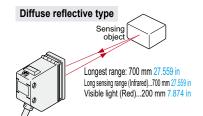
VARIETIES

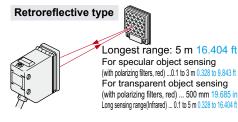
Standard type



Wide variety







DC 2-wire type

Heavy duty type

Wiring reduced by 1/3

Wiring can be completed by using only two, instead of three wires.

Power supply cost: reduced to 1/30 or less

Current consumption: 1 mA or less

An additional power supply for the sensors is not required.

MAINTENANCE

Test input (emission halt input)

Convenient for operation check before start-up. (Excluding RX2 types)

Durable against oil

This sensor can be used in a harsh environment.

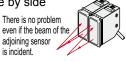


FUNCTIONS

Automatic interference prevention function Retroreflective / diffuse reflective types

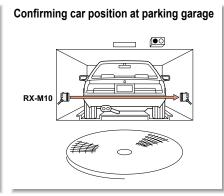
function. (Excluding RX2 types)

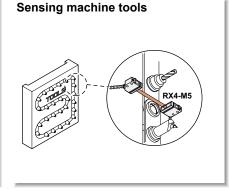
Two sensors can be mounted side by side because of the automatic interference prevention



APPLICATIONS

Detecting passage of engines RX-PRVM3

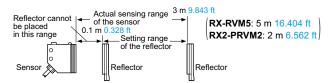




ORDER GUIDE

		Туре	Appearance	Sensing range	Model No. (Note 2)	Output	
		Infrared		10 m 32.808 ft	RX-M10		
	Thru-beam	Long sensing range		50 m 164.042 ft	RX-M50		
type)		Red Red		2 m 6.562 ft	RX-M2R	NPN open-collector transistor	
		Red Green		500 mm 19.685 in	RX-500G		
RX (Standard type)	Retroreflective	Red (with polarizing filters)		0.1 to 3 m 0.328 to 9.843 ft (Note 1)	RX-PRVM3		
RX (6		Infrared (long sensing range)		0.1 to 5 m 0.328 to 16.404 ft (Note 1)	RX-RVM5		
	Diffuse reflective	Infrared	0	700 mm 27.559 in	RX-D700		
	Diffuse r	Red		200 mm 7.874 in	RX-D200R		
(e	Thru-beam	Infrared		5 m 16.404 ft	RX2-M5		
RX2 (DC 2-wire type)	Retroreflective	Red (with polarizing filters)		0.1 to 2 m 0.328 to 6.562 ft (Note 1)	RX2-PRVM2	Non contact DC 2-wire type	
RX	Diffuse reflective		©	300 mm 11.811 in	RX2-D300		
v type)		2 m 6.562 ft cable length			RX4-M5	NPN	
RX4 (Heavy duty type)		3 m 9.843 ft cable length		5 m 16.404 ft	RX4-M5-C3	open-collector transistor	
(Неал	-	5 m 16.404 ft cable length	5 m 16.404 ft cable length	**		RX4-M5-C5	

Notes: 1) The sensing range of the retroreflective type sensor is specified for the **RF-230** reflector. Further, the sensing range of **RX-PRVM3**, **RX-RVM5** and **RX2-PRVM2** is the possible setting range for the reflector. The sensor can detect an object less than 0.1 m 0.328 ft away.



2) The model No. with "P" shown on the label affixed to the thru-beam type sensor is the emitter, "D" shown on the label is the receiver.

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CX-400 CY-100

EX-10 EX-20 EX-30

EX-40

CX-440 EQ-30

EQ-500

MQ-W RX-LS200

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EX-10

EX-20 EX-30

EX-40

CX-440 EQ-30

EQ-500

MQ-W

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ORDER GUIDE

5 m 16.404 ft cable length type

5m 16.404 ft cable length type (standard: 2m 6.562 ft) is also available for **RX** and **RX2** types. (excluding **RX-500G**) When ordering this type, suffix "-C5" to the model No. (e.g.) 5 m 16.404 ft cable length type of **RX-M10** is "**RX-M10-C5**".

Accessories

- MS-RX-1 (Sensor mounting bracket)
- MS-RX-2 (Sensor mounting bracket)
- PT-RX4-1 (Oil resistant protective tube 1 m 3.281 ft long)
- PT-RX4-2 (Oil resistant protective tube 2 m 6.562 ft long)
- PT-RX4-4 (Oil resistant protective tube 4 m 13.123 ft long)
- RF-230 (Reflector)

• MS-RX-1



Two M4 (length 16 mm 0.630 in) hexagon-socket-head bolts are attached

• MS-RX-2



Two M4 (length 16 mm 0.630 in) hexagon-socket-head bolts are attached

• PT-RX4-□



• RF-230



OPTIONS

Model No.	Description				
OS-RX-05×5 (Slit size 0.5 × 5 mm 0.020 × 0.197 in) OS-RX-5×05 (Slit size 5 × 0.5 mm 0.197 × 0.020 in)	• Sensing range: 2.7 m 8.858 ft [RX-M10] Slit on emitter • Sensing range: 2.7 m 8.858 ft [RX-M10] 1.4 m 4.593 ft [RX2-M5] • Min. sensing object: ø8 mm ø0.315 in				
	• Sensing range: 1.9 m 6.234 ft [RX-M10] Slit on receiver 1 m 3.281 ft [RX2-M5] • Min. sensing object: ø6 mm ø0.236 in				
	• Sensing range: 0.4 m 1.312 ft [RX-M10] 0.2 m 0.656 ft [RX2-M5] • Min. sensing object: 0.5 × 5 mm 0.020 × 0.197 in				
OS-RX-1×5 (Slit size 1 × 5 mm 0.039 × 0.197 in) OS-RX-5×1 (Slit size 5 × 1 mm 0.197 × 0.039 in)	• Sensing range: 3.8 m 12.467 ft [RX-M10] 1.9 m 6.234 ft [RX2-M5] • Min. sensing object: ø8 mm ø0.315 in				
	• Sensing range: 2.8 m 9.186 ft [RX-M10] Slit on receiver 1.4 m 4.593 ft [RX2-M5] • Min. sensing object: ø6 mm ø0.236 in				
	• Sensing range: 0.8 m 2.625 ft [RX-M10] 0.4 m 1.312 ft [RX2-M5] • Min. sensing object: 1 × 5 mm 0.039 × 0.197 in				
OS-RX-3×5 (Slit size 3 × 5 mm (0.118 × 0.197 in) OS-RX-5×3 (Slit size 5 × 3 mm (0.197 × 0.118 in)	• Sensing range: 7 m 22.966 ft [RX-M10] Slit on emitter 3.5 m 11.483 ft [RX2-M5] • Min. sensing object: ø8 mm ø0.315 in				
	• Sensing range: 4.9 m 16.076 ft [RX-M10] Slit on receiver 2.5 m 8.202 ft [RX2-M5] • Min. sensing object: ø6 mm ø0.236 in				
	• Sensing range: 2.6 m 8.530 ft [RX-M10] 1.3 m 4.265 ft [RX2-M5] • Min. sensing object: 3 × 5 mm 0.118 × 0.197 in				
RF-210	Sensing range: 0.2 to 1.5 m 0.656 to 4.921 ft [RX-RVM5] 0.4 to 1 m 1.312 to 3.281 ft [RX-PRVM3] Min. sensing object: ø30 mm ø1.181 in				
RF-220	Sensing range: 0.1 to 3.8 m 0.328 to 12.467 ft [RX-RVM5] 0.1 to 2 m 0.328 to 6.562 ft [RX-PRVM3] 0.1 to 1.3 m 0.328 to 4.265 ft [RX2-PRVM2] Min. sensing object: ø35 mm ø1.378 in				
MS-RF21-1	Protective mounting bracket for RF-210 It protects the reflector from damage and maintains alignment.				
MS-RF22	For RF-220				
MS-RF23	For RF-230				
RF-T110	This tape can be used in place of the reflector by cutting it to a suitable size. • Size: 100 × 100 mm 3.937 × 3.937 in • Sensing range: 3 m 9.843 ft (at 50 × 50 mm 1.969 × 1.969 in) (There may be a slight variation depending on the product.)				
PT-RX500	500 mm 19.685 in Cable is protected from external forces.				
PT-RX1000	500 mm 19.685 in It does not rust as it is made of stainless steel.				
	It is useful for beam alignment of thru-beam type sensors. Th optimum receiver position is given by indicators, as well as an audio signal.				
	OS-RX-05×5 (Sit size 0.5 × 5 mm 0.020 × 0.197 in) OS-RX-5×05 (Slit size 5 × 0.5 mm 0.197 × 0.020 in) OS-RX-1×5 (Sit size 1 × 5 mm 0.039 × 0.197 in) OS-RX-5×1 (Sit size 5 × 1 mm 0.197 × 0.039 in) OS-RX-3×5 (Sit size 3 × 5 mm 0.118 × 0.197 in) OS-RX-5×3 (Slit size 5 × 3 mm 0.118 × 0.197 in) RF-210 RF-210 RF-220 MS-RF21-1 MS-RF22 MS-RF23 RF-T110				

Notes: 1) Refer to **CX-400** series pages (p.269 and p.272) for dimensions of the reflector or the reflector mounting bracket.

2) Refer to p.959~ for the sensor checker.

Slit mask

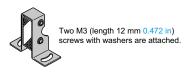
• OS-RX-□
Fitted on the front face of the sensor with one-touch.
*Slit size
OS-RX-1×5
a b Slit mask

Reflector



Reflector mounting bracket

• MS-RF21-1



• MS-RF22



Two M3 (length 8 mm 0.315 in) screws with washers are attached.

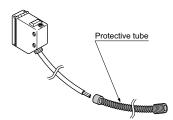


• MS-RF23

Two M4 (length 10 mm 0.394 in) screws with washers are attached.

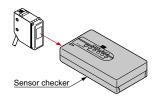
Protective tube

• PT-RX500 • PT-RX1000



Sensor checker

• CHX-SC2



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EX-10 EX-20

EX-30 EX-40

CX-440 EQ-30

EQ-500 MQ-W

RX-LS200 RX

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EX-Z CX-400 CY-100 EX-10 EX-20 EX-30 EX-40 CX-440

MQ-W RX-LS200

RT-610

EQ-30

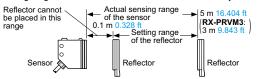
EQ-500

SPECIFICATIONS

/		Thru-beam				Retroreflective		Diffuse	Diffuse reflective	
Туре		Infrared		Red	Croon	Red (with polar)	Infrared	Infrarod	Pod	
			Long sensing range	Reu	Green	with polar- izing filters	(Long sensing range)	Infrared	Red	
Iten	m Model No.	RX-M10	RX-M50	RX-M2R	RX-500G	RX-PRVM3	RX-RVM5	RX-D700	RX-D200R	
CE marking directive compliance					EMC Directive,	RoHS Directive				
Sensing range		10 m 32.808 ft	50 m 164.042 ft	2 m 6.562 ft	500 mm 19.685 in	0.1 to 3 m 0.328 to 9.843 ft (Note 2)	0.1 to 5 m 0.328 to 16.404 ft (Note 2)	700 mm 27.559 in (Note 3)	200 mm 7.874 in (Note 3	
Sensing object		ø10 mm 0.394 in or more opaque object (Note 4)			ø50 mm ø1.969 in or more opaque, translucent or specular object (Note 2, 5)	ø50 mm ø1.969 in or more opaque, or translucent object (Note 2, 5)	Opaque, tran transparent o	slucent or object (Note 5)		
Hys	teresis					15 % or less of operation distance (Note 3)				
	peatability pendicular to sensing axis)		0.5 mm 0.0	20 in or less		1 mm 0.039 in or less 0.5 mm 0.020 in or less				
Sup	ply voltage			12 to 2	4 V DC ±10 %	Ripple P-P 10 % or less				
Curi	rent consumption	Emitter: 20 mA or	less (RX-M50 : 25	mA or less), Rece	iver: 25 mA or less		40 mA	or less		
Sen	sing output	NPN open-collector transistor • Maximum sink current: 100 mA • Applied voltage: 30 V DC or less (between sensing output and 0 V) • Residual voltage: 2 V or less (at 100 mA sink current) 1 V or less (at 16 mA sink current)								
	Utilization category	DC-12 or DC-13								
	Output operation			Sv	vitchable either L	ight-ON or Dark-	-ON			
	Short-circuit protection				Incorp	orated				
Self	-diagnosis output	NPN open-collector transistor								
	Output operation	ON under unstable sensing condition								
	Short-circuit protection									
		1 ms or less								
	ponse time					or less	OII			
Test	input (emission halt) function				Incorp	or less porated				
Test	t input (emission halt) function eration indicator		0		Incorp (lights up when	or less porated the sensing out	out is ON)			
Test Ope Stat	input (emission halt) function eration indicator cility indicator	Pod		ED (lights up un	Incorp Incorp (lights up when der stable light re	or less porated the sensing out	out is ON)	condition)		
Test Ope Stat Emi	input (emission halt) function eration indicator bility indicator tting indicator	Red	Green LI LED (lights up d	ED (lights up un	Incorp (lights up when der stable light ression)	or less porated the sensing out	out is ON)	condition)		
Ope Stat Emi	input (emission halt) function eration indicator bility indicator tting indicator sitivity adjuster	Red		ED (lights up un	Incorp (lights up when der stable light ression)	or less porated the sensing out eceived condition ariable adjuster	out is ON) n or stable dark		I close together	
Ope Stat Emi	tinput (emission halt) function eration indicator bility indicator titing indicator sitivity adjuster matic interference prevention function	Red		ED (lights up un	Incorp O (lights up when der stable light re ssion) Continuously v	or less porated the sensing out eceived condition ariable adjuster Incorporated (Ti	out is ON) n or stable dark	condition) rs can be mounted	I close together.	
Ope State Emi Sen Autor	input (emission halt) function eration indicator bility indicator titing indicator sitivity adjuster matic interference prevention function Pollution degree	Red		ED (lights up un	Incorp O (lights up when der stable light re ssion) Continuously v 3 (Industrial	or less porated the sensing out eceived condition ariable adjuster	out is ON) n or stable dark		I close together.	
Ope Stat Emi	tinput (emission halt) function eration indicator bility indicator titing indicator sitivity adjuster matic interference prevention function		LED (lights up d	ED (lights up un uring beam emi	Incorp O (lights up when der stable light re ssion) Continuously v 3 (Industrial	or less porated the sensing out, eccived condition ariable adjuster Incorporated (Trenvironment) (IEC)	out is ON) n or stable dark wo units of sensor	rs can be mounted		
Test Ope Stat Emi Sen Autor	input (emission halt) function eration indicator bility indicator titing indicator sitivity adjuster matic interference prevention function Pollution degree Protection		LED (lights up d	ED (lights up un uring beam emi	Incorp O (lights up when der stable light re ssion) Continuously v 3 (Industrial	or less porated the sensing outly eccived condition ariable adjuster Incorporated (Trenvironment) (IEC) r icing allowed),	out is ON) n or stable dark wo units of sensor Storage: -30 to	rs can be mounted		
Test Ope Stat Emi Sen Autor	tinput (emission halt) function eration indicator bility indicator titing indicator sitivity adjuster matic interference prevention function Pollution degree Protection Ambient temperature		LED (lights up d	ED (lights up un uring beam emi 	Incorp O (lights up when der stable light re ssion) Continuously v 3 (Industrial IP67	or less porated the sensing outly eccived condition ariable adjuster Incorporated (Trenvironment) (IEC) rricing allowed), rage: 35 to 85 %	out is ON) n or stable dark wo units of sensor Storage: -30 to	rs can be mounted		
Test Ope Stat Emi Sen Autor	tinput (emission halt) function eration indicator bility indicator sitivity adjuster matic interference prevention function Pollution degree Protection Ambient temperature Ambient humidity		LED (lights up d	ED (lights up un uring beam emi	Incorp O (lights up when der stable light re ssion) Continuously v 3 (Industrial IP67 v condensation c to 85 % RH, Sto	or less porated the sensing outly eccived condition ariable adjuster Incorporated (Trenvironment) (IEC) rricing allowed), rage: 35 to 85 % r less at the light	out is ON) n or stable dark wo units of sensor Storage: -30 to RH -receiving face	rs can be mounted +70 °C -22 to +		
Test Ope Stat Emi Sen Autor	tinput (emission halt) function eration indicator bility indicator titing indicator sitivity adjuster matic interference prevention function Pollution degree Protection Ambient temperature Ambient humidity Ambient illuminance	–25 to	1,000 V AC	ED (lights up un uring beam emi +140 °F (No dev 35 Incandescent	Incorp O (lights up when der stable light re ssion) Continuously v 3 (Industrial IP67 v condensation c to 85 % RH, Sto	or less porated the sensing out eccived condition ariable adjuster Incorporated (Trenvironment) (IEC) r icing allowed), rage: 35 to 85 % r less at the light terminals conne	out is ON) n or stable dark wo units of sensor Storage: -30 to RH -receiving face cted together ar	+70 °C -22 to +	158 °F	
Ope State Emir Sen Autor	tinput (emission halt) function eration indicator oility indicator titing indicator sitivity adjuster matic interference prevention function Pollution degree Protection Ambient temperature Ambient humidity Ambient illuminance Voltage withstandability	-25 to	LED (lights up d +60 °C -13 to 4 1,000 V AC ΜΩ, or more, wi	ED (lights up un uring beam emi +140 °F (No dev 35 Incandescent of or one min. be th 250 V DC me	Incorp O (lights up when der stable light re ssion) Continuously v 3 (Industrial IP67 v condensation c to 85 % RH, Sto light: 3,500 & o tween all supply	or less porated the sensing outle eceived condition ariable adjuster Incorporated (Trenvironment) (IEC) r icing allowed), rage: 35 to 85 % r less at the light terminals conne	out is ON) n or stable dark wo units of sensor Storage: -30 to RH -receiving face cted together ar s connected tog	+70 °C -22 to +	158 °F	
Ope State Emironmental resistance Autor	input (emission halt) function eration indicator oility indicator titing indicator sitivity adjuster matic interference prevention function Pollution degree Protection Ambient temperature Ambient humidity Ambient illuminance Voltage withstandability Insulation resistance Shock resistance	-25 to 20 10 to 500	LED (lights up d +60 °C -13 to 4 1,000 V AC MΩ, or more, wi D Hz frequency, 500 m.	th 140 °F (No dev 35 Incandescent for one min. be th 250 V DC me 1.5 mm 0.059 ir /s² acceleration	Incorp O (lights up when der stable light re ssion) Continuously v 3 (Industrial IP67 v condensation of to 85 % RH, Sto light: 3,500 & or etween all supply egger between all o double amplitue (50 G approx.) ir	or less porated the sensing out eccived condition ariable adjuster Incorporated (Tenvironment) (IEC) r icing allowed), rage: 35 to 85 % r less at the light terminals conne supply terminal de (10 G max.) in X, Y and Z dire	out is ON) n or stable dark wo units of sensor Storage: -30 to RH -receiving face cted together ar s connected tog n X, Y and Z dire ctions three time	+70 °C -22 to + and enclosure either and enclosections for two hoses each	158 °F	
Ope State Emironmental resistance Autor	tinput (emission halt) function eration indicator oility indicator titing indicator sitivity adjuster matic interference prevention function Pollution degree Protection Ambient temperature Ambient humidity Ambient illuminance Voltage withstandability Insulation resistance Vibration resistance Shock resistance ttting element (modulated)	-25 to 20 10 to 500	LED (lights up d +60 °C -13 to - 1,000 V AC MΩ, or more, wi D Hz frequency, 500 m d LED	et 140 °F (No dev 35 Incandescent for one min. be th 250 V DC me 1.5 mm 0.059 ir /s² acceleration	Incorp O (lights up when der stable light re ssion) Continuously v 3 (Industrial IP67 v condensation of to 85 % RH, Sto light: 3,500 & or etween all supply gger between all n double amplitud (50 G approx.) ir	or less porated the sensing out eceived condition ariable adjuster Incorporated (Tenvironment) (IEC) r icing allowed), rage: 35 to 85 % r less at the light terminals conne supply terminal de (10 G max.) in X, Y and Z dire Red LED	out is ON) n or stable dark wo units of sensor Storage: -30 to RH -receiving face cted together ar s connected tog n X, Y and Z dire ctions three time	+70 °C -22 to + and enclosure either and enclosections for two holes each end LED	158 °F sure burs each Red LED	
Test Ope State Emir Sen Autor	input (emission halt) function eration indicator oility indicator titing indicator sitivity adjuster matic interference prevention function Pollution degree Protection Ambient temperature Ambient humidity Ambient illuminance Voltage withstandability Insulation resistance Vibration resistance Shock resistance tting element (modulated) Peak emission wavelength	-25 to 20 10 to 500 Infrare 880 nm	LED (lights up d +60 °C -13 to - 1,000 V AC MΩ, or more, wi D Hz frequency, 500 m. d LED 0.035 mil	eD (lights up un uring beam emi et 140 °F (No dev 35 Incandescent for one min. be th 250 V DC me 1.5 mm 0.059 ir /s² acceleration Red LED 660 nm 0.026 mil	Incorp O (lights up when der stable light re ssion) Continuously v 3 (Industrial IP67 v condensation of to 85 % RH, Sto light: 3,500 & or etween all supply gger between all n double amplitud (50 G approx.) ir Green LED 570 nm 0.022 mil	or less porated the sensing out eceived condition ariable adjuster Incorporated (Tenvironment) (IEC) r icing allowed), rage: 35 to 85 % r less at the light terminals conne supply terminal de (10 G max.) in X, Y and Z dire Red LED 680 nm 0.027 mil	out is ON) n or stable dark wo units of sensor Storage: -30 to RH -receiving face cted together ar s connected tog n X, Y and Z dire ctions three time Infrare 880 nm	+70 °C -22 to + and enclosure either and enclos actions for two hose each ed LED 0.035 mil	158 °F sure burs each Red LED 680 nm 0.027 mi	
Ope State Emironmental resistance Autor	tinput (emission halt) function eration indicator bility indicator bility indicator bility indicator sitivity adjuster matic interference prevention function Pollution degree Protection Ambient temperature Ambient humidity Ambient illuminance Voltage withstandability Insulation resistance Vibration resistance Shock resistance tting element (modulated) Peak emission wavelength erial	-25 to 20 10 to 500 Infrare 880 nm (Enclost Emitter: 0.15 mm² 3-4	LED (lights up d +60 °C -13 to -1 1,000 V AC MΩ, or more, wi D Hz frequency, 500 m. d LED 0.035 mil ure: Die-cast zinc core oil, heat and colo	ED (lights up un uring beam emi uring beam emi uring beam emi uring beam emi set 140 °F (No dev 35 Incandescent of for one min. be the 250 V DC me 1.5 mm 0.059 in set 1.5 mm 0.059 in Red LED 660 nm 0.026 mil ealloy, Indicator of tresistant cabtyre cal	Incorp O (lights up when der stable light re ssion) Continuously v 3 (Industrial IP67 v condensation of to 85 % RH, Sto light: 3,500 & or etween all supply egger between all n double amplitud (50 G approx.) in Green LED 570 nm 0.022 mil cover: Polyetherse ole, 2 m 6.562 ft long	or less porated the sensing out eceived condition ariable adjuster Incorporated (Tienvironment) (IEC) r icing allowed), rage: 35 to 85 % r less at the light terminals conne I supply terminal de (10 G max.) in a X, Y and Z dire Red LED 680 nm 0.027 mil ulphone, Lens: Po	out is ON) n or stable dark wo units of sensor Storage: -30 to RH -receiving face cted together ar s connected tog n X, Y and Z dire ctions three time Infrare 880 nm	+70 °C -22 to + and enclosure either and enclos actions for two hose each ed LED 0.035 mil	158 °F sure purs each Red LED 680 nm 0.027 mi Acrylic)	
Test Ope Stath Emir Sen Autor Emir Emir Cab	input (emission halt) function eration indicator oility indicator titing indicator sitivity adjuster matic interference prevention function Pollution degree Protection Ambient temperature Ambient humidity Ambient illuminance Voltage withstandability Insulation resistance Vibration resistance Shock resistance titing element (modulated) Peak emission wavelength erial	-25 to 20 10 to 500 Infrare 880 nm (Enclost Emitter: 0.15 mm² 3-4 Receiver: 0.15 mm² 4-7	LED (lights up d +60 °C -13 to -1 1,000 V AC MΩ, or more, wi D Hz frequency, 500 m ed LED 0.035 mil ure: Die-cast zince core oil, heat and cold -core oil, heat and cold	ED (lights up un uring beam emi urin	Incorp O (lights up when der stable light re ssion) Continuously v 3 (Industrial IP67 v condensation of to 85 % RH, Sto light: 3,500 & or etween all supply gger between all n double amplitud (50 G approx.) ir Green LED 570 nm 0.022 mil cover: Polyethers ble, 2 m 6.562 ft long able, 2 m 6.562 ft long able, 2 m 6.562 ft long	or less porated the sensing out eceived condition ariable adjuster Incorporated (Tenvironment) (IEC) ricing allowed), rage: 35 to 85 % r less at the light terminals conne supply terminal de (10 G max.) in X, Y and Z dire Red LED 680 nm 0.027 mil Julphone, Lens: Po 0.15 mm² 5-c 2 m 6.562 ft	storage: –30 to RH -receiving face cted together ar s connected tog n X, Y and Z dire ctions three time Infrare 880 nm olycarbonate (Re core oil, heat an-	+70 °C –22 to + and enclosure either and enclosections for two ho es each ed LED 0.035 mil troreflective type: d cold resistant of	158 °F sure purs each Red LED 680 nm 0.027 mi Acrylic) cabtyre cable,	
Test Ope Stat Emi Sen Autor acceptation Emi Mate Cab	tinput (emission halt) function eration indicator bility indicator bility indicator bility indicator sitivity adjuster matic interference prevention function Pollution degree Protection Ambient temperature Ambient humidity Ambient illuminance Voltage withstandability Insulation resistance Vibration resistance Shock resistance tting element (modulated) Peak emission wavelength erial	20 10 to 500 Infrare 880 nm (Enclost Emitter: 0.15 mm² 3- Receiver: 0.15 mm² 4 Extension up	LED (lights up d +60 °C -13 to -1 1,000 V AC MΩ, or more, wi D Hz frequency, 500 m ed LED 0.035 mil ure: Die-cast zince core oil, heat and cold -core oil, heat and cold	ED (lights up un uring beam emi urin	Incorp O (lights up when der stable light re ssion) Continuously v 3 (Industrial IP67 v condensation of to 85 % RH, Sto light: 3,500 & or etween all supply egger between all n double amplitud (50 G approx.) in Green LED 570 nm 0.022 mil cover: Polyetherse ole, 2 m 6.562 ft long able, 2 m 6.562 ft long sible with 0.3 mr oprox.)	or less porated the sensing out eceived condition ariable adjuster Incorporated (Tenvironment) (IEC) ricing allowed), rage: 35 to 85 % r less at the light terminals conne supply terminal de (10 G max.) in X, Y and Z dire Red LED 680 nm 0.027 mil Julphone, Lens: Po 0.15 mm² 5-c 2 m 6.562 ft	storage: –30 to RH -receiving face cted together ar s connected tog X, Y and Z directions three time 880 nm olycarbonate (Re core oil, heat an long e (thru-beam ty)	+70 °C –22 to + and enclosure either and enclosections for two ho es each ed LED 0.035 mil troreflective type: d cold resistant of	158 °F sure purs each Red LED 680 nm 0.027 mi Acrylic) cabtyre cable,	

Notes: 1) Where measurement conditions have not been specified precisely, the conditions used were an ambient temperature of +23 °C +73.4 °F.

2) The sensing range and the sensing object for the retroreflective type sensor are specified for the RF-230 reflector. Further, the sensing range of RX-PRVM3 and RX-RVM5 is the possible setting range for the reflector. The sensor can detect an object less than 0.1 m 0.328 ft away.



- 3) The sensing range and the hysteresis of the diffuse reflective type sensor are specified for white non-glossy paper (200 × 200 mm 7.874 × 7.874 in) as the object.
- 4) If slit masks (optional) are fitted on **RX-M10**, an object of 0.5 × 5 mm 0.020 × 0.197 in can be detected.
- 5) Make sure to confirm detection with an actual sensor before use.

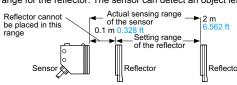
SPECIFICATIONS

DC 2-wire type

		Туре	Thru-beam	Retroreflective (with polarizing filters)	Diffuse reflective			
Iten	1	Model No.	RX2-M5	RX2-PRVM2	RX2-D300			
Sen	sing range		5 m 16.404 ft	0.1 to 2 m 0.328 to 6.562 ft (Note 2)	300 mm 11.811 in (Note 3)			
Sensing object			ø10 mm ø0.394 in or more opaque object (Note 4)	ø50 mm ø1.969 in or more opaque, translucent or specular object (Note 2, 5)	Opaque, translucent or transparent object (Note 5)			
Hysteresis					15 % or less of operation distance (Note 3)			
Repeatability (perpendicular to sensing axis)			0.5 mm 0.020 in or less	1 mm 0.039 in or less 0.5 mm 0.020 in or				
Supply voltage			12 to 24 V DC ±10 % Ripple P-P 10 % or less					
Current consumption			Emitter: 8 mA or less, Receiver: 0.8 mA or less (Note 6)	1 mA or le	ss (Note 6)			
Sen	Sensing output		Non contact DC 2-wire type • Load current: 5 to 100 mA • Residual voltage: 4 V or less (Note 7)					
	Output ope	eration	Switchable either Light-ON or Dark-ON					
	Short-circu	it protection		Incorporated				
Res	ponse time		3 ms or less					
Оре	ration indica	tor	Red LED (lights up when the output is ON)					
Stability indicator		r	Green LED (Light-ON mode: lights up under stable light received condition)					
Emitting indicator		or	Red LED (lights up during beam emission)					
Sen	sitivity adjus	ter	Continuously variable adjuster					
	Protection		IP67 (IEC)					
nce	Ambient te	mperature	-20 to +60 °C -4 to +140 °F (No dew condensation or icing allowed), Storage: -30 to +70 °C -22 to +158 °F					
sista	Ambient hu	umidity	35 to 85 % RH, Storage: 35 to 85 % RH					
Environmental resistance	Ambient illu	uminance	Incandescent light: 3,500 & or less at the light-receiving face					
ment	Voltage wit	thstandability	1,000 V AC for one min. between all supply terminals connected together and enclosure					
/iron	Insulation resistance		$20\ M\Omega,$ or more, with $250\ V$ DC megger between all supply terminals connected together and enclosure					
En	Vibration resistance		10 to 500 Hz frequency, 1.5 mm 0.059 in double amplitude (10 G max.) in X, Y and Z directions for two hours each					
	Shock resis	stance	500 m/s² acceleration (50 G approx.) in X, Y and Z directions three times each					
Emi	tting elemen	t	Infrared LED (modulated)	Red LED (modulated)	Infrared LED (modulated)			
	Peak emiss	sion wavelength	880 nm 0.035 mil	680 nm 0.027 mil	890 nm 0.035 mil			
Material			Enclosure: Die-cast zinc alloy, Indicator cover: Polyethersulphone, Lens: Polycarbonate (RX2-PRVM2: Acrylic)					
Cable			0.15 mm² 2-core oil, heat and cold resistant cabtyre cable, 2 m 6.562 ft long					
Cab	le extension			——— (Note 7)				
Net	weight		Emitter: 70 g approx., Receiver: 70 g approx.	75 g approx.	70 g approx.			
Accessories			MS-RX-1 (Sensor mounting bracket): 1 set for emitter and receiver Adjusting screwdriver: 1 pc.	MS-RX-1 (Sensor mounting bracket): 1 set RF-230 (Reflector): 1 pc. Adjusting screwdriver: 1 pc.	MS-RX-1 (Sensor mounting bracket): 1 set Adjusting screwdriver: 1 pc.			

Notes: 1) Where measurement conditions have not been specified precisely, the conditions used were an ambient temperature of +23 °C +73.4 °F.

2) The sensing range and the sensing object for **RX2-PRVM2** are specified for the **RF-230** reflector. Further, the sensing range is the possible setting range for the reflector. The sensor can detect an object less than 0.1 m 0.328 ft away.



- 3) The sensing range and the hysteresis of RX2-D300 are specified for white non-glossy paper (200 × 200 mm 7.874 × 7.874 in) as the object.
- 4) If slit masks (optional) are fitted, an object of 0.5 × 5 mm 0.020 × 0.197 in can be detected.
- 5) Make sure to confirm detection with an actual sensor before use.
- 6) It is the leakage current when the output is in the OFF state.
- 7) When extending the cable, the residual voltage will be increased depending on the type of cable used. Verify the residual voltage when extending the

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SENSOR OPTIONS

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MEASURE-MENT SENSORS STATIC CONTROL DEVICES

LASER MARKERS

PLC

HUMAN MACHINE INTERFACES

FA COMPONENTS

MACHINE VISION SYSTEMS

EX-Z

CX-400 CY-100 EX-10 EX-20

EX-30 EX-40

CX-440 **EQ-30**

EQ-500

MQ-W RX-LS200

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FA COMPONENTS

MACHINE VISION SYSTEMS

UV CURING SYSTEMS

Power Supply Built-in

EX-Z CX-400 CY-100 EX-10 EX-20 EX-30 EX-40 CX-440

EQ-30 EQ-500 MQ-W RX-LS200

RT-610

SPECIFICATIONS

Heavy duty type

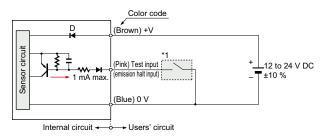
Tuno		Thru-beam					
Туре		Cable length 2 m 6.562 ft Cable length 3 m 9.843 ft Cable length 5 m					
lten	n Model No.	RX4-M5	RX4-M5-C3	RX4-M5-C5			
Sen	sing range		5 m 16.404 ft				
Sen	sing object		ø10 mm ø0.394 in or more opaque object				
Repeatability (perpendicular to sensing axis)		0.5 mm 0.020 in or less					
Supply voltage		12 to 24 V DC ±10 % Ripple P-P 10 % or less					
Curi	rent consumption	Emitter: 20 mA or less, Receiver: 25 mA or less					
Sen	sing output	NPN open-collector transistor					
	Output operation	Switchable either Light-ON or Dark-ON					
	Short-circuit protection	Incorporated					
Self-diagnosis output		NPN open-collector transistor					
	Output operation	ON under unstable sensing condition					
	Short-circuit protection						
Res	ponse time	1 ms or less					
Test	input (emission halt) function	Incorporated					
Эре	eration indicator	Red LED (lights up when the sensing output is ON)					
Stat	pility indicator	Green LED (lights up under stable light received condition or stable dark condition)					
Emi	tting indicator	Red LED (lights up during beam emission)					
Sen	sitivity adjuster	Continuously variable adjuster					
	Protection	IP67 (IEC), IP67G					
nce	Ambient temperature	-25 to +60 °C −13 to +140 °F (No dew condensation or icing allowed), Storage: -30 to +70 °C -22 to +158 °F					
sista	Ambient humidity	35 to 85 % RH, Storage: 35 to 85 % RH					
a e	Ambient illuminance	Incandescent light: 3,500 & or less at the light-receiving face					
nmental resistance	Voltage withstandability	1,000 V AC for one min. between all supply terminals connected together and enclosure					
iron	Insulation resistance	$20\ M\Omega,$ or more, with $250\ V$ DC megger between all supply terminals connected together and enclosure					
Enviro	Vibration resistance	10 to 500 Hz frequency, 1.5 mm 0.059 in double amplitude (10 G max.) in X, Y and Z directions for two hours each					
	Shock resistance	500 m/s² acceleration (50 G approx.) in X, Y and Z directions three times each					
Emi	tting element	Infrared LED (Peak emission wavelength: 880 nm 0.035 mil, modulated)					
Material		Enclosure: Die-cast zinc alloy (Fluorine resin coating), Indicator cover: Polyethersulphone, Lens: Polyalylate, Protective tube sheath: Oil resistant PVC					
Cab	le	0.15 mm² 4-core	e (emitter: 3-core) oil, heat and cold resistar	nt cabtyre cable			
Prot	ective tube length	1 m 3.281 ft	2 m 6.562 ft	4 m 13.123 ft			
Cab	le extension	Extension up to total 100 m 328.	084 ft is possible for both emitter and receive	ver with 0.3 mm², or more, cable.			
Net weight		Emitter: 175 g approx., Receiver: 175 g approx.	Emitter: 265 g approx., Receiver: 265 g approx.	Emitter: 495 g approx., Receiver: 495 g appro			
Accessories		MS-RX-2 (Sensor mountin	ng bracket): 1 set for emitter and receiver, A	djusting screwdriver: 1 pc.			

I/O CIRCUIT AND WIRING DIAGRAMS

RX-- RX4--

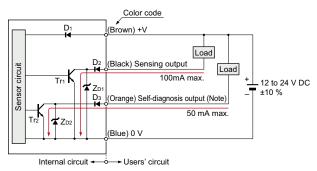
I/O circuit diagrams

Emitter of thru-beam type sensor



Symbol ... D: Reverse supply polarity protection diode

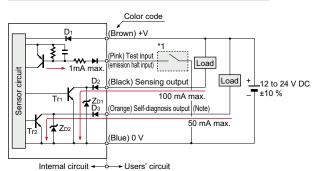
Receiver of thru-beam type sensor



Note: The self-diagnosis output does not incorporate a short-circuit protection circuit. Do not connect it directly to a power supply or a capacitive load.

Symbols ... D1: Reverse supply polarity protection diode D2, D3: Reverse output polarity protection diode ZD1, ZD2: Surge absorption zener diode Tr1, Tr2: NPN output transistor

Retroreflective and diffuse reflective type sensors

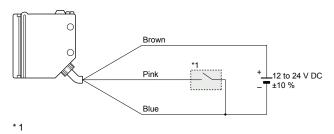


Note: The self-diagnosis output does not incorporate a short-circuit protection circuit. Do not connect it directly to a power supply or a capacitive load.

Symbols ... D1: Reverse supply polarity protection diode D2, D3: Reverse output polarity protection diode ZD1, ZD2: Surge absorption zener diode Tr1, Tr2: NPN output transistor

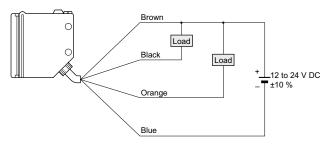
Wiring diagram

Emitter of thru-beam type sensor

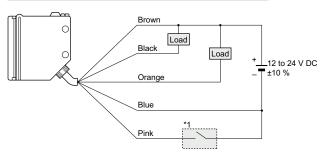


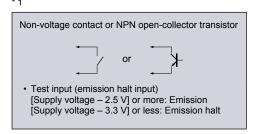
Non-voltage contact or NPN open-collector transistor
 or
 Test input (emission halt input)
[Supply voltage – 2.5 V] or more: Emission
[Supply voltage – 3.3 V] or less: Emission halt

Receiver of thru-beam type sensor



Retroreflective and diffuse reflective type sensors





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> MACHINE VISION SYSTEMS

V URING YSTEMS

Selection Guide Amplifier Built-in

Amplifierseparated

CX-400 CY-100

EX-Z

EX-10 EX-20

> EX-30 EX-40

CX-440

EQ-30 EQ-500

MQ-W RX-LS200

RX

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MEASURE-MENT SENSORS STATIC CONTROL DEVICES

LASER MARKERS PLC

HUMAN MACHINE INTERFACES ENERGY MANAGEMENT SOLUTIONS

MACHINE VISION SYSTEMS

CURING SYSTEMS

010121110

Amplifier Built-in

Power Supply Built-in

EX-Z

CX-400

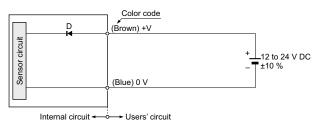
CY-100

EX-10

LAS

RX2-□

I/O circuit diagrams Emitter of thru-beam type sensor

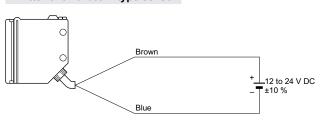


■ I/O CIRCUIT AND WIRING DIAGRAMS

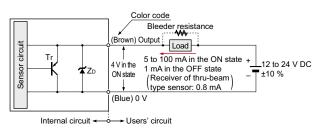
Symbol ... D: Reverse supply polarity protection diode

Wiring diagrams

Emitter of thru-beam type sensor

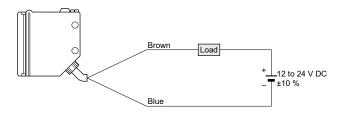


Receiver of thru-beam type sensor, retroreflective and diffuse reflective type sensors



Symbols ... D : Reverse supply polarity protection diode ZD: Surge absorption zener diode Tr : PNP output transistor

Receiver of thru-beam type sensor, retroreflective and diffuse reflective type sensors



Conditions for the load

- 1) The load should not be actuated by the leakage current (1 mA; 0.8 mA for receiver of thru-beam type sensor) in the OFF state.
- 2) The load should be actuated by (supply voltage 4 V) in the ON state.
- 3) The current in the ON state should be between 5 to 100 mA DC.

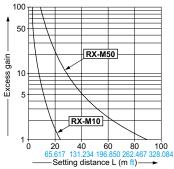
 In case the current is less than 5 mA, connect a bleeder resistance in parallel to the load (shown in dotted line above) so that a current of 5 mA, or more, flows.

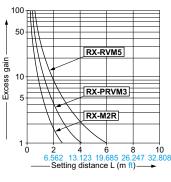
SENSING CHARACTERISTICS (TYPICAL)

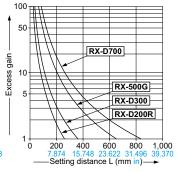
RX-□

All models

Correlation between setting distance and excess gain







EX-20 EX-30 EX-40 CX-440 EQ-30 EQ-500 MQ-W

RX-LS200

SENSING CHARACTERISTICS (TYPICAL)

1.969 → Right

Left ◄

-Center

Operating point & (mm in)

Right

Left ◄

-Center

Operating point & (mm in)

Right

Left ◄

-Center

Operating point (mm in)

Thru-beam type RX-M10 Parallel deviation Parallel deviation with slit masks Parallel deviation with slit masks Parallel deviation with slit masks (1 × 5 mm 0.039 × 0.197 in) $(0.5 \times 5 \text{ mm } 0.020 \times 0.197 \text{ in})$ $(3 \times 5 \text{ mm } 0.118 \times 0.197 \text{ in})$ Slit on emitter Setting distance L (m ft) → Setting distance L (m ft) → Setting distance L (m ft) → Setting distance L (m ft)→ Slit on Slit on receiver Slit on Emitter Emitte emitter Emitte Emitte Slit on both side both sides Slit on receiver Slit on Receiver 0 400 15.74 0+ 400 200 7.87 0 200 7.874 400 15.74 200 100 100 3.937 , ➤ Right 3.937 ➤ Right 7.874 → Right 3.93 Left ◄ 3.937 Left ◄ 7.874 Left ◄ Right Left Center Center Center Center Operating point & (mm in) Operating point ℓ (mm in) Operating point & (mm in) Operating point & (mm in) RX-M50 Thru-beam type RX-M2R Thru-beam type **RX-500G** Thru-beam type RX4-M5_□ Thru-beam type Parallel deviation Parallel deviation Parallel deviation Parallel deviation Setting distance L (m ft) → Setting distance L (m ft)→ Setting distance L (m ft) → 60 (H H) 600 distance L 400 Emitter Emitte Emittei Emitte 20 Receiver Receiver 0 200 0 40 0 1,000 0 400 500 500 1,000 100 Ò 100 200 20 Ó 20 200 200 400 0.787 ➤ Right U./8 Left ◄ 7.074 → Right -Center Left < Left -Center ► Right Left --Center → Right - Center Operating point ℓ (mm in) Operating point ℓ (mm in) Operating point & (mm in) Operating point ℓ (mm in) RX2-M5 Thru-beam type Parallel deviation Parallel deviation with slit masks Parallel deviation with slit masks Parallel deviation with slit masks $(0.5 \times 5 \text{ mm } 0.020 \times 0.197 \text{ in})$ $(1 \times 5 \text{ mm } 0.039 \times 0.197 \text{ in})$ $(3 \times 5 \text{ mm } 0.118 \times 0.197 \text{ in})$ Slit on Slit on emitter Setting distance L (m ft) → Setting distance L (m ft) + 4.92 3.28 1.64 (m ft) - 1.55 (m ft) - 1.64 (Setting distance L (m ft)→ Setting distance L (m ft) 1.5 Slit on receive Slit on Emitte Emitte Emitte Emitte Slit on receive Ď Slit on 0.5 0.5 Slit on |--- l -- i L Slit on Slit on 0 400 74 0+ 100 100 3.937 0 ↓ 200 200 200 400 50 50 100 50 50 100 100 100 Left -Right Center Right ► Right -Center Operating point (mm in) Operating point ℓ (mm in) Operating point ℓ (mm in) **RX-PRVM3** Retroreflective type **RX-RVM5** Retroreflective type **RX2-PRVM2** Retroreflective type Parallel deviation Parallel deviation Parallel deviation Setting distance L (m ft) → Setting distance L (m Setting distance L (m Reflector (**RF-230**) Reflector (RF-230) (RF-230 |-l-i |-- l--| 0 ↓ 100 0 100 50 Ó 50 100 3.937 50 100 50 100 50 50 100

FIBER SENSORS

SAFETY LIGHT CURTAINS / SAFETY COMPONENTS

PRESSURE / FLOW SENSORS

PARTICULAR USE SENSORS

SENSOR OPTIONS

MEASURE-MENT SENSORS

STATIC CONTROL DEVICES

LASER MARKERS

PLC

HUMAN MACHINE INTERFACES

FA COMPONENTS

VISION SYSTEMS

EX-Z CX-400 CY-100

EX-10 **EX-20**

EX-30 EX-40

CX-440 **EQ-30**

EQ-500 MQ-W

RX-LS200

LASER SENSORS

MICRO PHOTO-ELECTRIC SENSORS AREA SENSORS COMPONENTS PRESSURE / FLOW SENSORS INDUCTIVE PROXIMITY SENSORS

SENSOR OPTIONS SIMPLE WIRE-SAVING UNITS

PARTICULAR

SENSORS

MEASURE-MENT SENSORS STATIC CONTROL DEVICES LASER MARKERS

distance I

-Setting

HUMAN SOLUTIONS FA COMPONENTS

PLC

MACHINE VISION SYSTEMS CURING SYSTEMS

Amplifiei Built-ir Power Supply Built-in

> EX-Z CX-400 CY-100 EX-10 **EX-20** EX-30

> > EX-40

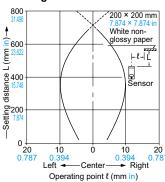
CX-440 EQ-30 EQ-500 MQ-W RX-LS200

RT-610

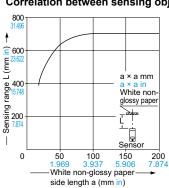
SENSING CHARACTERISTICS (TYPICAL)

RX-D700 Diffuse reflective type

Sensing field



Correlation between sensing object size and sensing range

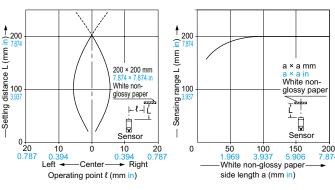


As the sensing object size becomes smaller than the standard size (white non-glossy paper 200 \times 200 mm 7.874 \times 7.874 in), the sensing range shortens, as shown in the left graph.

For plotting the left graph, the sensitivity has been set such that a 200 × 200 mm 7.874 × 7.874 in white non-glossy paper is just detectable at a distance of 700 mm 27.559 in.

RX-D200R Sensing field

Correlation between sensing object size and sensing range



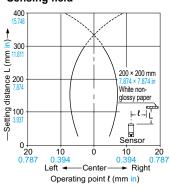
As the sensing object size becomes smaller than the standard size (white non-glossy paper 200 × 200 mm 7.874 × 7.874 in), the sensing range shortens, as shown in the left graph.

Diffuse reflective type

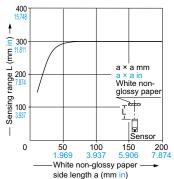
For plotting the left graph, the sensitivity has been set such that a 200 × 200 mm 7.874 × 7.874 in white non-glossy paper is just detectable at a distance of 200 mm 7.874 in.

RX2-D300 Diffuse reflective type

Sensing field



Correlation between sensing object size and sensing range



As the sensing object size becomes smaller than the standard size (white non-glossy paper 200 × 200 mm 7.874 × 7.874 in), the sensing range shortens, as shown in the left graph.

For plotting the left graph, the sensitivity has been set such that a 200 × 200 mm 7.874 × 7.874 in white non-glossy paper is just detectable at a distance of 300 mm 11.811 in.

PRECAUTIONS FOR PROPER USE

Refer to p.1552~ for general precautions.



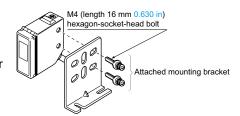
- Never use this product as a sensing device for personnel protection.
- · In case of using sensing devices for personnel protection, use products which meet laws and standards, such as OSHA, ANSI or IEC etc., for personnel protection applicable in each region or country.

Wiring

 The self-diagnosis output does not incorporate a shortcircuit protection circuit. Do not connect it directly to a power supply or a capacitive load.

Mounting

· The tightening torque should be 1.17 N·m or less.



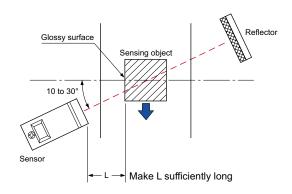
Others

 Do not use during the initial transient time (50 ms) after the power supply is switched on.

RX-RVM5

Glossy object sensing

- Please take care of the following points when detecting materials having a gloss.
- ①Make L, shown in the diagram, sufficiently long.
- 2 Install at an angle of 10 to 30 degrees to the sensing object.



RX-PRVM3 RX2-PRVM2

Retroreflective type sensor with polarizing filters

 If a shiny object is covered or wrapped with a transparent film such as those described below, the retroreflective type sensor with polarizing filters may not be able to detect it.

In that case, follow the steps given below.

Example of sensing objects

- · Can wrapped by clear film
- · Aluminum sheet covered by plastic film
- · Gold or silver color (specular) label or wrapping paper

Steps

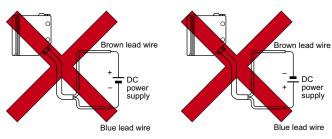
- Tilt the sensor with respect to the sensing object while fitting.
- Reduce the sensitivity.
- Increase the distance between the sensor and the sensing object.

RX2-□

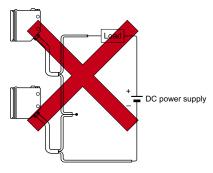
Wiring

 Always connect the sensor to the power supply through a load. If the sensor is connected to the power supply directly, the short-circuit protection makes the sensor inoperable. (The output stays in the OFF state and no indicator lights up.) If this happens, connect the sensor to the power supply through a load.

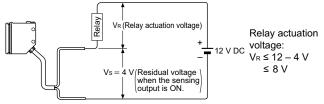
Further, note that the sensor will be damaged if the power supply is connected in reverse without a load.



· Do not connect sensors in series (AND circuit).



 The residual voltage of the sensor is 4 V. Before connecting to a relay, be aware of the actuation voltage of the relay. (Not all 12 V relays may be connected as the load.)

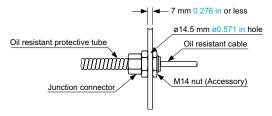


RX4-

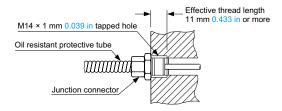
Connection of protective tube connector

Connect the junction connector securely as shown below.
 The tightening torque should be 0.98 N·m or less.

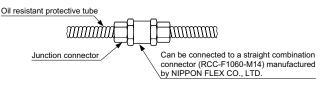
When mounted on a plate



When mounted with a female screw



When connected to another protective tube



FIBER SENSORS

LASER SENSORS

> PHOTO-ELECTRIC SENSORS MICRO PHOTO-ELECTRIC SENSORS

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FA COMPONENTS

> MACHINE VISION SYSTEMS

UV CURING SYSTEMS

Selection Guide Amplifier Built-in

Power Supply Built-in Amplifierseparated

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

LASER

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CURING SYSTEMS

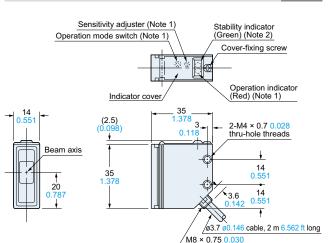
SENSORS

DIMENSIONS (Unit: mm in)

The CAD data can be downloaded from our website.

Refer to CX-400 series pages (p.269 and p.272) for dimensions of the reflector or the reflector mounting bracket.

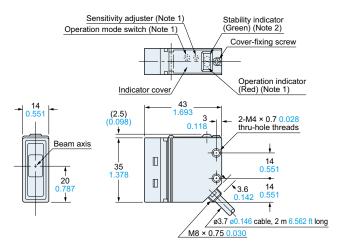
RX-M2R RX-500G RX2-M5 RX-M10



Notes: 1) Not incorporated on the emitter.

2) It is the emitting indicator (red) on the emitter.

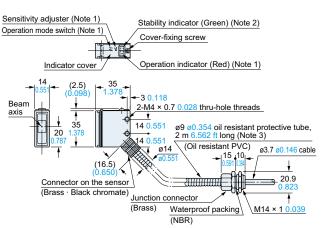
RX-M50



Notes: 1) Not incorporated on the emitter.

2) It is the emitting indicator (red) on the emitter.

RX4-M5□ Sensor



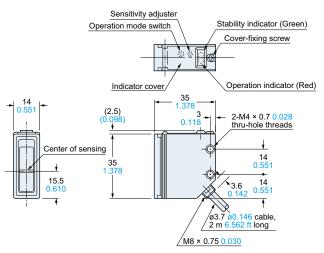
2) It is the emitting indicator (red) on the emitter.

3) The given length of the protective tube is for RX4-M5-C3. (RX4-M5: 1 m 3.281 ft, RX4-M5-C5: 4 m 13.123 ft)

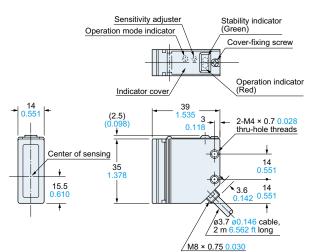
Notes: 1) Not incorporated on the emitter.

RX-D700 RX-D200R RX2-D300

Sensor



RX-PRVM3 RX-RVM5 RX2-PRVM2



Amplifiei Built-ir Power Supply Built-in Amplifier-separated

FX-Z CX-400 CY-100 EX-10 **FX-20**

EX-30 EX-40 CX-440 EQ-30

EQ-500 MQ-W RX-LS200

DIMENSIONS (Unit: mm in)

The CAD data can be downloaded from our website.

Refer to CX-400 series pages (p.269 and p.272) for dimensions of the reflector or the reflector mounting bracket.

FIBER SENSORS

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CX-440 **EQ-30**

EQ-500 MQ-W

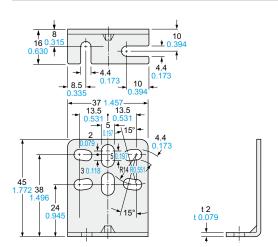
RX-LS200

RT-610

Assembly dimensions Mounting drawing with RX-D700

MS-RX-1

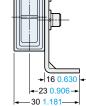
Sensor mounting bracket (Accessory for **RX-**□, **RX2-**□)

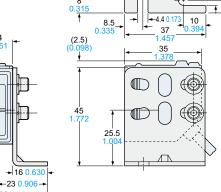


Material: Cold rolled carbon steel (SPCC)

Two M4 (length 16 mm 0.630 in) hexagon-socket-head bolts are attached.

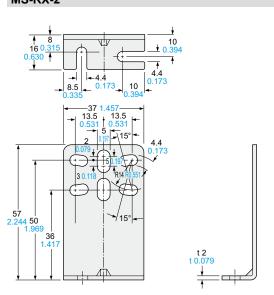
37 (2.5) (0.098 35





MS-RX-2

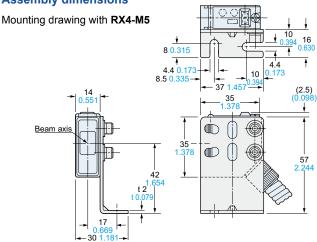
Sensor mounting bracket (Accessory for RX4)



Material: Cold rolled carbon steel (SPCC)

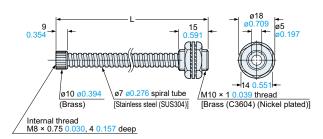
Two M4 (length 16 mm 0.630 in) hexagon-socket-head bolts are attached.

Assembly dimensions



PT-RX500 PT-RX1000

Protective tube (Optional)



• Length L

Model No.	Length L		
PT-RX500	500 ^{+ 10}	19.685 ⁺ 0.394	
PT-RX1000	1,000 + 10	39.370 ^{+ 0.394}	