

EX-20 SERIES Ver.2

Related Information

■ General terms and conditions..... F-7

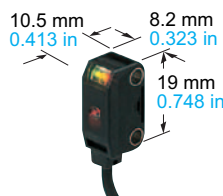
■ Sensor selection guide P.271~

■ Glossary of terms / General precautions .P.1455~ / P.1458~

■ Korea's S-mark..... P.1506


panasonic.net/id/pidsx/global
Conforming to
EMC DirectiveRecognition
(Excluding 5 m cable length type)Certified
(Some models only)PNP
output
type available**Miniature-sized and still mountable with M3 screws****Miniaturization by using single chip optical IC**

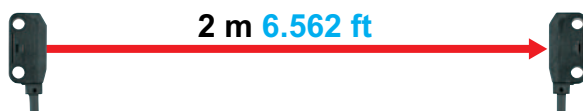
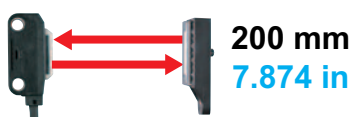
The beam-receiving photodiode and the A/D conversion circuit have been fabricated on a single chip optical IC (full custom). Hence, in spite of its miniature size, it has a performance and reliability which is equal to or better than the conventional product.

**Incorporates a sensitivity adjuster even in this size**

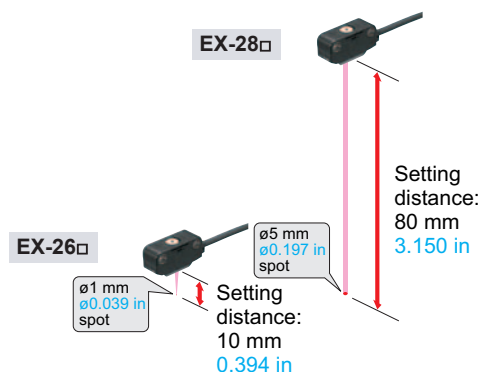
The sensor incorporates a sensitivity adjuster in spite of its miniature size. It is convenient when you need fine adjustment. Further, the receiver of the thru-beam, side sensing type sensor incorporates an operation mode switch which can change the output operation.

**BASIC PERFORMANCE****Long sensing range**

The EX-20 series achieves long distance sensing [thru-beam type: 2 m **6.562 ft**, retroreflective type: 200 mm **7.874 in** (when using the attached reflector), diffuse reflective type: 160 mm **6.299 in**], despite its miniature size. Hence, it is usable even on a wide conveyor.

Thru-beam type**Retroreflective type****Diffuse reflective type****Clear beam spot using red LED dot light source**

The emission area of a dot light source is smaller than that of a conventional LED flat light source, and it is possible to design a high power, narrow beam. Since a red LED dot light source is used, the red beam spot is clear even at a far place, so that alignment and confirmation of sensing position is easy. Further, since the thru-beam type, too, incorporates a visible narrow beam, it can also reliably detect small parts, such as, chip components, lead frames, etc.

Selection
GuideAmplifier
Built-inPower Supply
Built-inAmplifier-
separated

CX-400

CY-100

EX-10

EX-20

EX-30

EX-40

CX-440

EQ-30

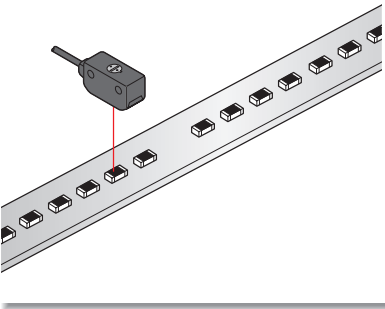
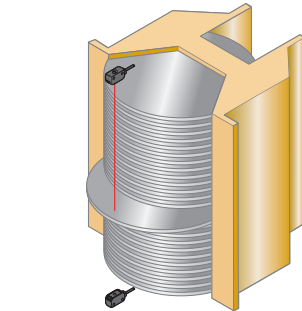
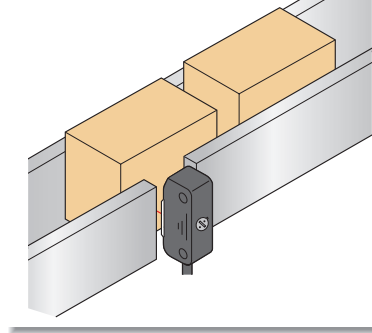
EQ-500

MQ-W

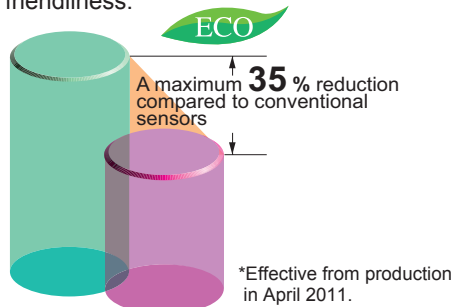
RX-LS200

RX

RT-610

APPLICATIONS**Detecting presence of chip components****Checking protrusion of wafer****Sensing objects from an opening****BASIC PERFORMANCE****Electric power saving***

The **EX-20** series achieves reductions in power consumption of up to 65 %. These sensors contribute to environmental friendliness.

**ENVIRONMENTAL RESISTANCE****Waterproof IP67 (IEC)**

The sensor can be hosed down because of its IP67 construction. Further, the sensor mounting bracket is also made of stainless steel.

Note: However, take care that if it is exposed to water splashes during operation, it may detect a water drop itself.

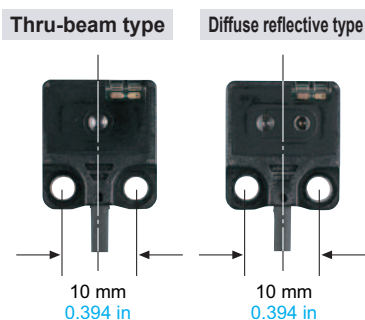
Incorporated an inverter countermeasure circuit*

The **EX-20** series become significantly stronger against inverter light and other extraneous light.

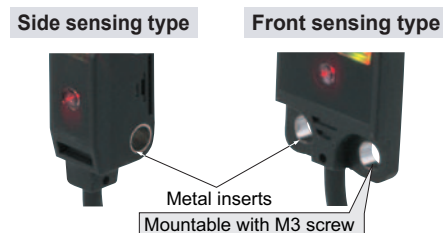
*Effective from production in April 2011.

MOUNTING**Identical size**

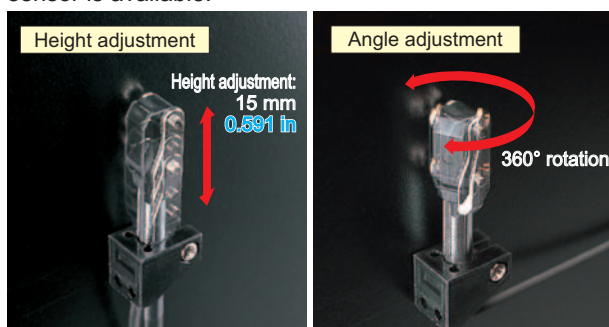
Front sensing type of thru-beam type and diffuse reflective type sensors have identical appearance. Moreover, since the mounting holes are symmetrical with respect to the beam axis center, the design becomes easy.

**Mounting section reinforced**

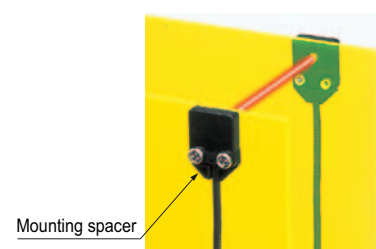
It can be tightened with M3 screws. Moreover, metal inserts have been provided in the mounting holes so that the product is not damaged even in case of excess tightening.

**OPTIONS****Universal sensor mounting bracket is available**

Universal sensor mounting bracket **MS-EXL2-4** (for **EX-22/23/26/28/29**) and **MS-EX20-5** (for **EX-23** only) which can freely adjust the height and the angle of the sensor is available.

**Mounting spacer for front sensing type is available**

Mounting of the front sensing type is possible from the rear side by using the mounting spacer.

**Slit mask is available**

ø0.5 mm ø0.020 in round slit mask and 0.5 × 3 mm 0.020 × 0.118 in rectangular slit mask are available for both side sensing type and front sensing type sensors.

FIBER SENSORS

LASER SENSORS

PHOTOELECTRIC SENSORS

MICRO PHOTOELECTRIC SENSORS

AREA SENSORS

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 ELECTRICITY PREVENTION DEVICES

LASER MARKERS

PLC

HUMAN MACHINE INTERFACES

ENERGY CONSUMPTION VISUALIZATION COMPONENTS

FA COMPONENTS

MACHINE VISION SYSTEMS

UV CURING SYSTEMS

Selection Guide

Amplifier Built-in

Power Supply Built-in

Amplifier-separated

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RX

RT-610