

EX-L200 SERIES

Related Information

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

■ Sensor selection guide P.211~

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

■ About laser beam..... P.1499~


panasonic.net/id/pidsx/global

Conforming to
EMC Directive

Conforming to
FDA regulations


This product is classified as a Class 1 Laser Product in IEC / JIS standards and in FDA* regulations. Do not look at the laser beam through optical system such as a lens.

*This product complies with 21 CFR 1040.10 and 1040.11 Laser Notice No. 50, dated June 24, 2007, issued by CDRH (Center for Devices and Radiological Health) under the FDA (Food and Drug Administration).

PNP output
type available

Interference
prevention

Introducing ultra-compact amplifier built-in laser sensor

Ultra-compact

Due to the customized IC and optical design, high precision detection is fulfilled with directivity and visibility achievable only by laser. The laser adopted is Class 1 (IEC / JIS / FDA) laser that is safe to use, so that there is no need to separate the areas of sensor usage.

THRU-BEAM TYPE

Minute object detection type **EX-L211**

Spread the beam and lower its density, thus even a minute object can be detected with a small change in the light received intensity. Spot size: $6 \times 4 \text{ mm}$ $0.236 \times 0.157 \text{ in}$ approx. (Visual reference value at a sensing distance of 1 m 3.281 ft)

Long sensing range type **EX-L212**

A long range detection of 3 m 9.843 ft is achieved. High precision detection with minimum beam spread is possible even in a long range. Spot size: $8 \times 5.5 \text{ mm}$ $0.315 \times 0.217 \text{ in}$ approx. (Visual reference value at a sensing distance of 1 m 3.281 ft)

REFLECTIVE TYPE

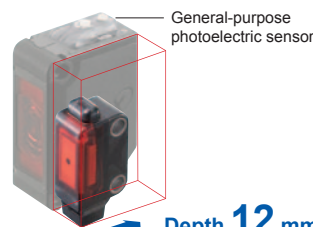
Long sensing range type **EX-L291**

Achieving ease of installation and 4 m 13.123 ft long sensing range. Spot size: $6 \times 4 \text{ mm}$ $0.236 \times 0.157 \text{ in}$ approx. (Visual reference value at a sensing distance of 1 m 3.281 ft)

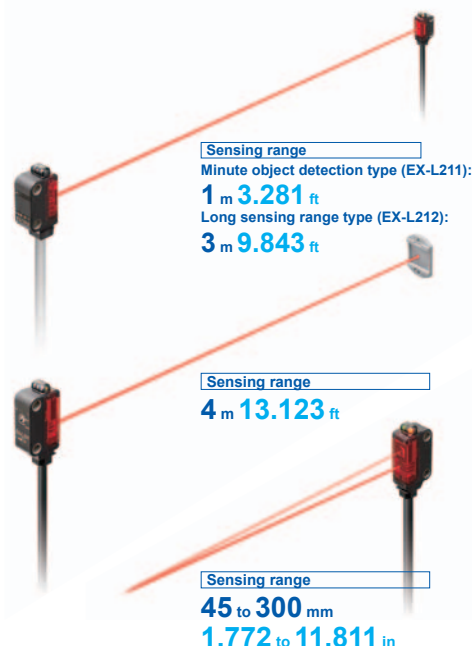
SPOT REFLECTIVE TYPE

Minute object detection type **EX-L221**

Highly precise sensing with minimum 0.01 mm 0.0004 in diameter. Many applications are possible due to the 300 mm 11.811 in long sensing range. Spot size: $\varnothing 1 \text{ mm}$ $\varnothing 0.039 \text{ in}$ (Visual reference value at a sensing distance of 300 mm 11.811 in)



Depth **12 mm 0.472 in**
W8.2 × H23.4 × D12 mm
W0.323 × H0.921 × D0.472 in
(Thru-beam type)



Sensing range
Minute object detection type (EX-L211):
1 m 3.281 ft
Long sensing range type (EX-L212):
3 m 9.843 ft

Sensing range
4 m 13.123 ft

Sensing range
45 to 300 mm
1.772 to 11.811 in

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

PLC

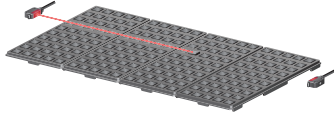
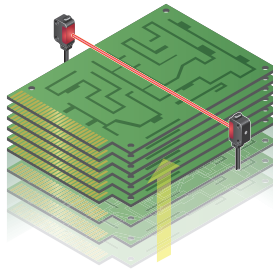
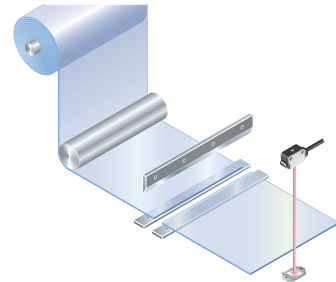
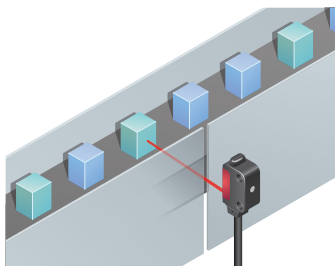
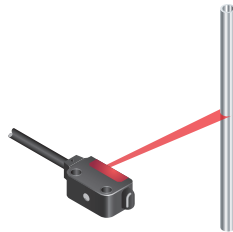
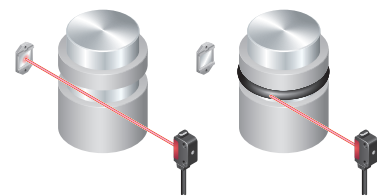
HUMAN MACHINE
INTERFACESENERGY CONSUMPTION
VISUALIZATION
COMPONENTS

FA COMPONENTS

MACHINE VISION
SYSTEMSUV CURING
SYSTEMSSelection
GuideAmplifier
Built-inAmplifier-
separated

HG-C

EX-L200

APPLICATIONS**Detecting ICs that are out of position in multiple palettes****Confirming arrival of substrate****Determining cutting position of sheet****Sensing unevenly-colored workpieces****Sensing glossy or curved-surface workpiece, such as metallic pipes****Detecting O-ring**FIBER
SENSORSLASER
SENSORSPHOTOELECTRIC
SENSORSMICRO
PHOTOELECTRIC
SENSORSAREA
SENSORSLIGHT CURTAINS /
SAFETY
COMPONENTSPRESSURE /
FLOW
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FA COMPONENTS

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SYSTEMSSelection
Guide
Amplifier
Built-in
Amplifier-
separated**HG-C****EX-L200****CONVERGENT REFLECTIVE TYPE****Spot type****EX-L261**

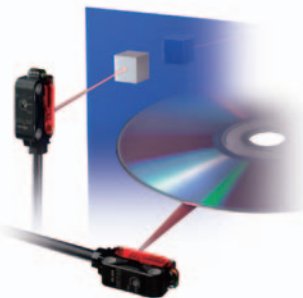
Highly precise sensing with minimum 0.01 mm **0.0004 in** diameter. Not affected by the background, and able to reliably sense unevenly-colored workpieces.

Spot size: $\varnothing 1$ mm **$\varnothing 0.039$ in** (Visual reference value at a sensing distance of 50 mm **1.969 in**)

Line spot type**EX-L262**

Able to sense thin, glossy or curved-surface workpieces due to line beam.

Spot size: 5×1 mm **0.197×0.039 in** approx. (Visual reference value at a sensing distance of 50 mm **1.969 in**)

**Sensing range****Spot type (EX-L261):****20 mm to 50 mm****0.787 in to 1.969 in****Sensing range****Line spot type (EX-L262):****20 mm to 70 mm****0.787 in to 2.756 in**