

EQ-30 SERIES

Related Information

■ General terms and conditions..... F-7
 ■ Glossary of terms..... P.1455~

■ Sensor selection guide..... P.271~
 ■ General precautions P.1458~



Unaffected by color or material, 2 m (6.562 ft) distance adjustable range reflective sensing

Hardly affected by object color or background

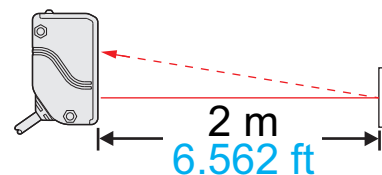
As the **EQ-30** series is incorporated with a 2-segment photodiode as the receiving element with a unique circuitry, it detects an object at the same distance regardless of its color or the background beyond the adjusted sensing range.

(However, when the background is specular, it may be necessary to change the angle of the sensor.)

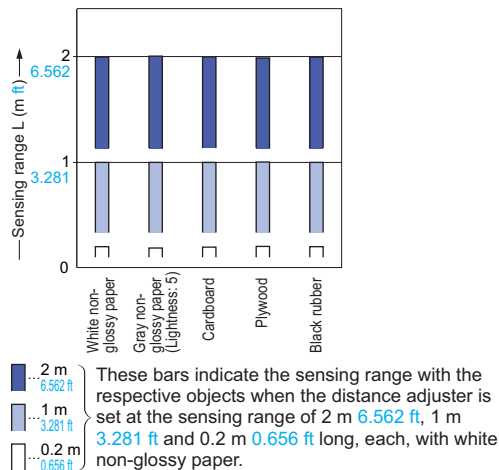
Long sensing range 2 m 6.562 ft

The **EQ-30** series can detect an object 2 m 6.562 ft away.

It is suitable for various applications, such as, sensing objects or positioning objects traveling on a wide assembly line, etc.

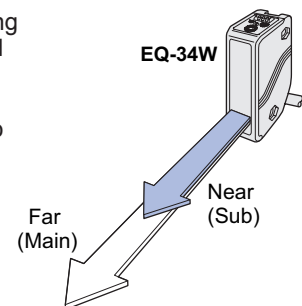


EQ-34: Correlation between material (200 × 200 mm 7.874 × 7.874 in) and sensing range (typical)

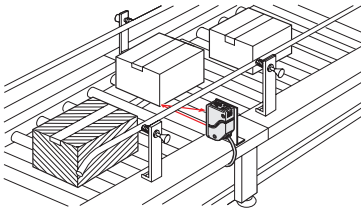
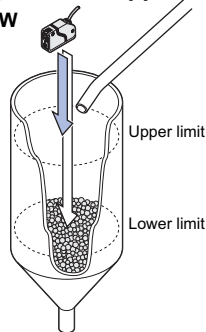


Two distances (far and near) can be set **EQ-34W**

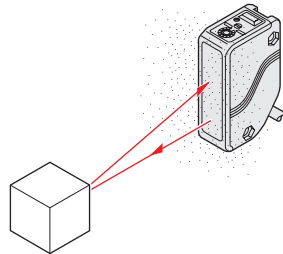
With **EQ-34W**, two sensing distances, Far (Main) and Near (Sub), can be set. Hence, one sensor can suffice where, earlier, two were required.



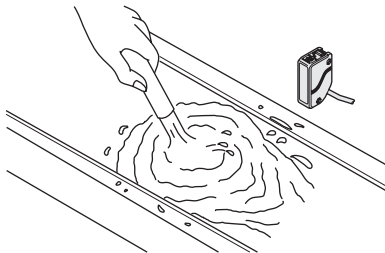
Selection Guide
Amplifier Built-in
Power Supply Built-in
Amplifier-separated
CX-400
CY-100
EX-10
EX-20
EX-30
EX-40
CX-440
EQ-30
EQ-500
MQ-W
RX-LS200
RX
RT-610

APPLICATIONS**Detecting a passage of cardboard box****Detecting level in hopper****EQ-34W****ENVIRONMENTAL RESISTANCE****Insusceptible to contamination on lens**

The fixed-focus sensing keeps the detectability better than diffuse reflective type sensors even if the lens is contaminated by dirt, dust, mist, or smoke under an unclean environment.

**Waterproof**

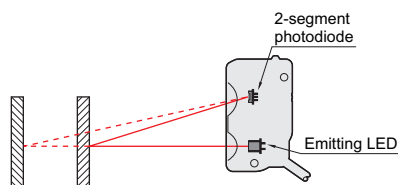
It has IP67 protection. It can be used in places splashed with water.



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

Principle of adjustable range reflective sensing with 2-segment photodiode

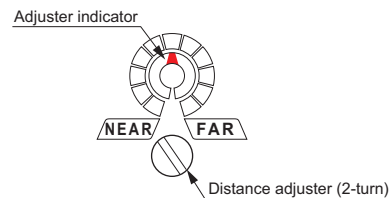
Normal reflective type sensors operate by sensing the variation in the amount of incident beam. However, the adjustable range reflective sensing type sensor incorporating the 2-segment photodiode operates by sensing the variation in the incident beam angle. Thus, the output is activated according to the distance of the object from the sensor. This system helps the **EQ-30** series in being unaffected by object color or a background, enabling stable sensing.



Sensing is based on the difference in the incident beam angle of the dotted line and the solid line in the above figure.

OPERABILITY**Mechanical 2-turn adjuster with indicator**

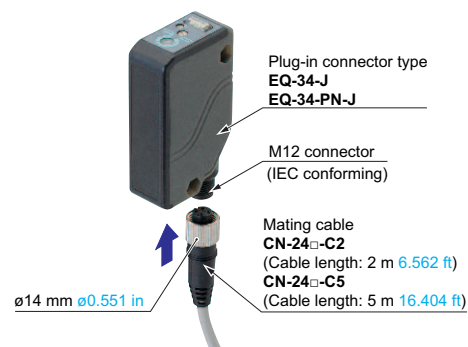
It features a mechanical 2-turn distance adjuster with an indicator that shows the set distance at a glance.

**MOUNTING / SIZE****Compact**

It saves space, since a miniaturized housing of W20 × H68 × D40 mm **W0.787 × H2.677 × D1.575 in** has been designed for the adjustable range reflective sensing sensor even though the adjustable sensing range is 2 m **6.562 ft** long.

**VARIETIES****Plug-in connector type is available**

Plug-in connector type, which can be easily disconnected for replacement is available. In case a problem occurs, anyone can replace the sensor in a minute. (Excluding **EQ-34W**)

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-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**