

# EQ-30 SERIES

## Adjustable Long Range & Fixed-focus Reflective Photoelectric Sensor

**Amplifier Built-in**



**Unaffected by color or material, 2 m (6.562 ft) distance adjustable fixed-focus sensing**

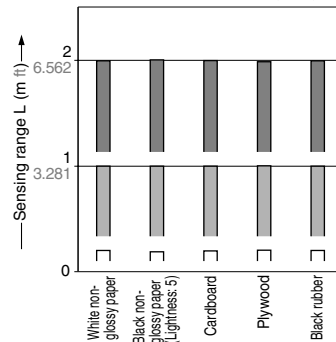


### Not affected by object color or background

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.)

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

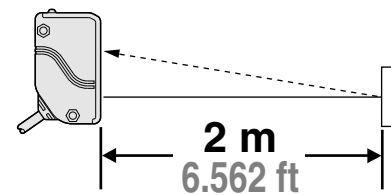


These bars indicate the sensing range with the respective objects when the distance adjuster is set at the sensing range of 2 m 6.562 ft, 1 m 3.281 ft and 0.2 m 0.656 ft long, each, with white non-glossy paper.

### Long sensing range 2 m 6.562 ft

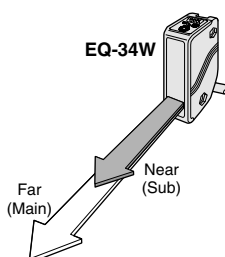
The **EQ-30** series can detect an object 2 m 6.562 ft away.

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



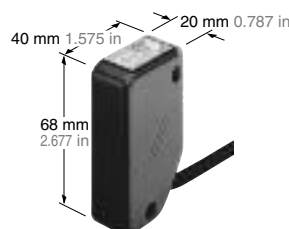
### Two distances (far and near) can be set EQ-34W

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



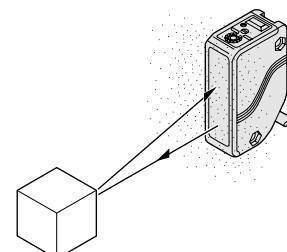
### Compact

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



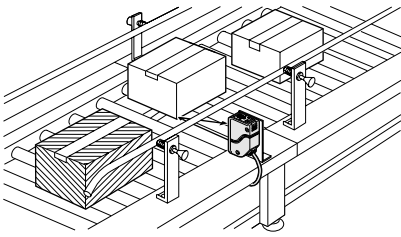
### Insusceptible to contamination on lens

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.

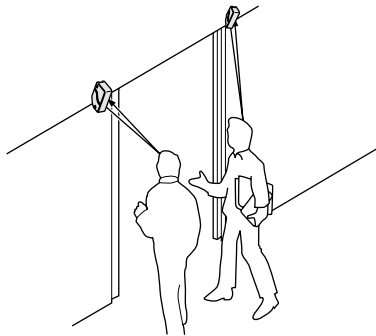


## APPLICATIONS

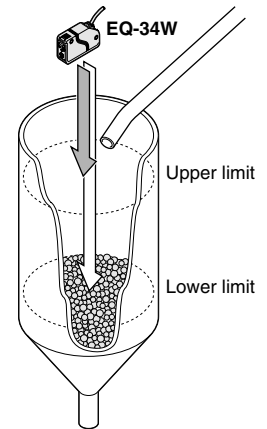
### Detecting traveling cardboard boxes



### Detecting people in front of automatic door

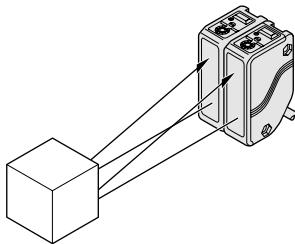


### Detecting level in hopper



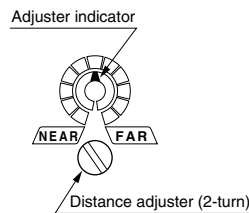
### Automatic interference prevention

The **EQ-30** series is the first fixed-focus sensing reflective type sensor to incorporate an automatic interference prevention function so that two sets of sensors can be installed close together or facing each other.



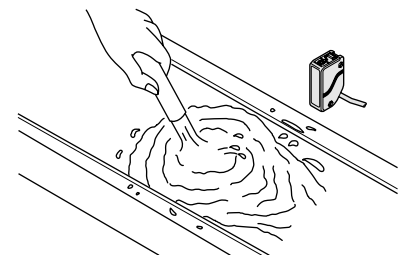
### Mechanical 2-turn adjuster with indicator

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



### Waterproof

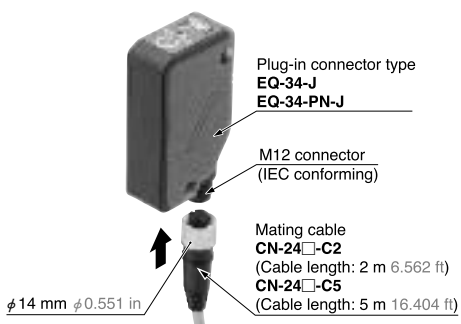
It has IP67 protection. It can be used in places splashed with water.



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

### Plug-in connector type is available

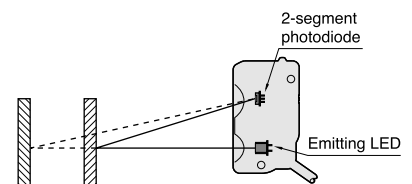
Plug-in connector type, which can be easily disconnected for replacement is available. In case a problem occurs, anyone can replace the sensor in a minute. (Excluding **EQ-34W**)



### Principle of fixed-focus sensing with 2-segment photodiode

Normal reflective type sensors operate by sensing the variation in the amount of incident beam. However, the fixed-focus 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.