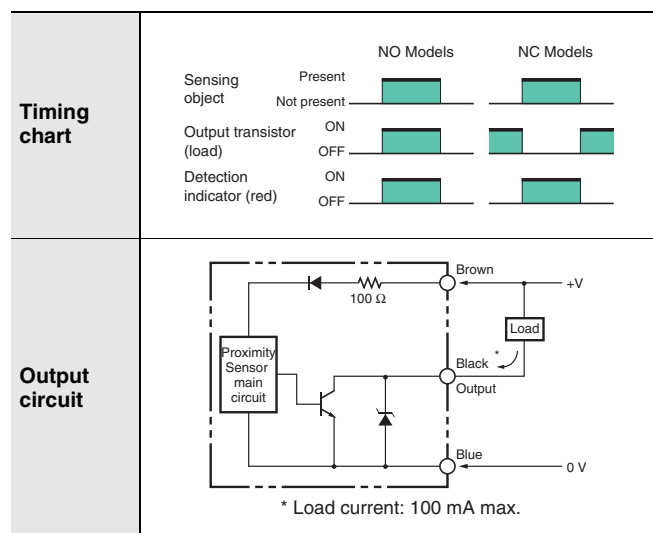


## I/O Circuit Diagrams



## Safety Precautions

Refer to *Warranty and Limitations of Liability*.

### ⚠ WARNING

This product is not designed or rated for ensuring safety of persons either directly or indirectly. Do not use it for such purposes.



### Precautions for Correct Use

Do not use this product under ambient conditions that exceed the ratings.

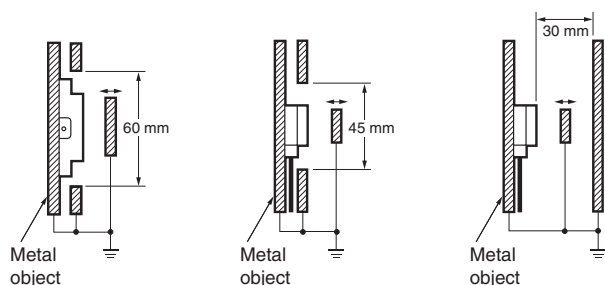
#### ● Design

##### Sensing Object Material

The E2K-F can detect almost any type of object. The sensing distance of the E2K-F, however, will vary with the electrical characteristics of the object, such as the conductance and inductance of the object, and the water content and capacity of the object. The maximum sensing distance of the E2K-F will be obtained if the object is made of grounded metal. There are objects that cannot be detected indirectly. Therefore, be sure to test the E2K-F in a trial operation with the objects before using the E2K-F in actual applications.

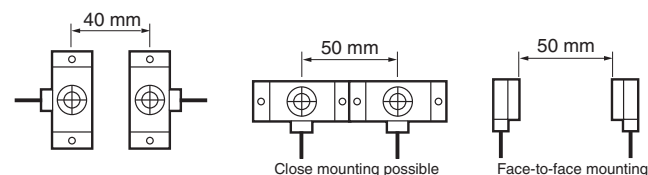
##### Influence of Surrounding Metal

Separate the E2K-F from surrounding metal as shown below.



##### Mutual Interference

When mounting more than one E2K-F face-to-face or side-by-side, separate them as shown below.



##### Effects of a High-frequency Electromagnetic Field

The E2K-F may malfunction if there is an ultrasonic washer, high-frequency generator, transceiver, portable telephone, or inverter nearby.

For major measures, refer to *Noise of Warranty and Limitations of Liability* for Photoelectric Sensors.

#### ● Wiring

The characteristics of the E2K-F will not change if the cable is extended. Extending the cable, however, will result in a voltage drop, so do not extend the length past 200 m.

#### ● Mounting

##### Sensitivity Adjustment

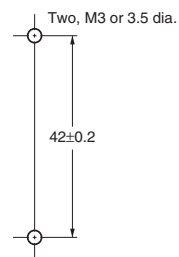
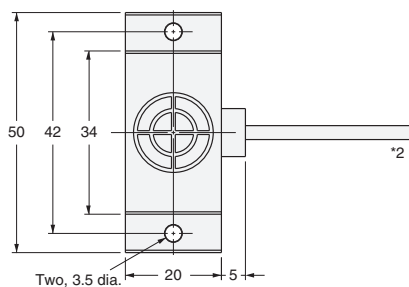
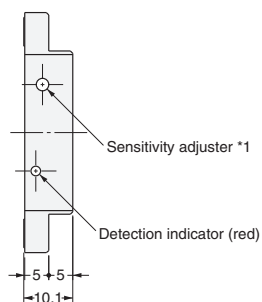
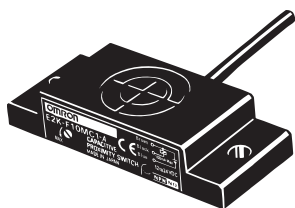
For information on the sensitivity adjustment, refer to *Technical Guide for Operation* for information for Proximity Sensor.

Dimensions

Tolerance class IT16 applies to dimensions in this data sheet unless otherwise specified.

E2K-F

Mounting Hole Dimensions



- \*1. Only the E2K-F10MC□-A has a sensitivity adjuster.
- \*2. 2.9-dia. vinyl-insulated round cable  
(Conductor cross section: 0.14 mm<sup>2</sup>,  
Insulator diameter: 0.9 mm), Standard length: 2 m.