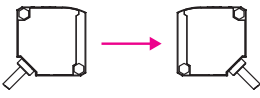


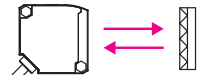


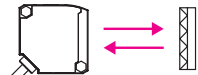

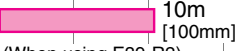
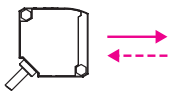




 Red light

Sensors

Sensors with Brackets and Reflectors (The model numbers contain (“-C.”))

| Power supply voltage | Sensing method | Appearance | Sensing distance | Output configuration | Model |
|-------------------------------|---------------------------------------|---|---|----------------------|----------------|
| AC/DC power supply selectable | Through-beam *1 (Emitter + Receiver) |  |  40m | Relay | E3JK-TR11-C 2M |
| | | |  5m | | E3JK-TR12-C 2M |
| | Retro-reflective without MSR function |  |  7m *2 [100mm] (When using E39-R1) | | E3JK-RR11-C 2M |
| | | |  11m [100mm] (When using E39-R2) | | |
| | Retro-reflective with MSR function |  |  6m *2 [100mm] (When using E39-R1) | | E3JK-RR12-C 2M |
| | | |  10m [100mm] (When using E39-R2) | | |
| | Diffuse-reflective |  |  2.5m | | E3JK-DR11-C 2M |
| | | |  300mm | | E3JK-DR12-C 2M |

*1. Through-beam Sensors are sold in sets that include both the Emitter and Receiver.
 *2. Values in parentheses indicate the minimum required distances between the Sensors and Reflectors.

Accessories (Order Separately)


Reflectors (A Reflector is required for Retro-reflective Sensors.) [Refer to Dimensions on page 14.]
 The E39-R1 is enclosed with Sensors with model numbers that contain “-C.”

| Name | Sensing distance (rated value) | | Model | Quantity |
|------------|--------------------------------|-----------------|---------|----------|
| Reflectors | E3JK-R□11 | 7 m [100 mm] * | E39-R1 | 1 |
| | E3JK-R□12 | 6 m [100 mm] * | | |
| | E3JK-R□11 | 9 m [100 mm] * | E39-R1S | 1 |
| | E3JK-R□12 | 7 m [100 mm] * | | |
| | E3JK-R□11 | 11 m [100 mm] * | E39-R2 | 1 |
| | E3JK-R□12 | 10 m [100 mm] * | | |

Note: Refer to Engineering Data on page 9 for details.
 *Values in parentheses indicate the minimum required distances between the Sensors and Reflectors.

Mounting Bracket [Refer to Dimensions on page 14.]

A Mounting Bracket is enclosed with Sensors with model numbers that contain “-C.”

| Appearance | Model | Quantity |
|---|---------|----------|
|  | E39-L40 | 1 |

Note: 1. When using a Through-beam Sensor, order one Mounting Bracket for the Receiver and one for the Emitter.
 2. For details, refer to Mounting Brackets on E39-L/E39-S/E39-R which can be accessed from your OMRON website.

E3JK

Ratings and Specifications

| Sensing method Item | | Model | Through-beam | | |
|--------------------------------------|---------------------|---|---|-----------|-----------|
| | | | E3JK-TR11-□ | E3JK-TN11 | E3JK-TP11 |
| Sensing distance | | 40 m | | | |
| Standard sensing object | | Opaque: 17-mm dia. min. | | | |
| Differential travel | | - | | | |
| Directional angle | | Both Emitter and Receiver 3° min. | | | |
| Light source (wavelength) | | Red LED (624 nm) | | | |
| Power supply voltage | | 24 to 240 VDC ±10%, ripple (p-p): 10% max. 24 to 240 VAC ±10%, 50/60 Hz | 10 to 30 VDC, including ripple (p-p): 10% | | |
| Power consumption | DC | 3 W max. (Emitter 1.5 W max. Receiver 1.5 W max.) | 40 mA max. (Emitter 25 mA max. Receiver 15 mA max.) | | |
| | AC | 3 W max. (Emitter 1.5 W max. Receiver 1.5 W max.) | - | | |
| Control output | | Relay output SPDT, 250 VAC, 3 A max. (cosφ= 1), 5 VDC, 10 mA min., Light-ON/Dark-ON selectable | Load power supply voltage: 30 V max., Load current: 100 mA max., Residual voltage: 3 V max., open-collector output (NPN/PNP output depending on model), Light-ON/Dark-ON selectable | | |
| Life expectancy (relay output) | Mechanical | 50,000,000 times min. (switching frequency: 18,000 times/h) | | | |
| | Electrical | 100,000 times min. (switching frequency: 1,800 times/h) | | | |
| Response time | | 20 ms max. | 1 ms max. | | |
| Sensitivity adjustment | | One-turn adjuster Receiver (E3JK-T□□□-D) only | | | |
| Ambient illumination (Receiver side) | | Incandescent lamp: 3,000 lx max., Sunlight: 11,000 lx max. | | | |
| Ambient temperature range | | Operating: -25°C to 55°C, Storage: -40°C to 70°C (with no icing or condensation) | | | |
| Ambient humidity range | | Operating: 35% to 85%, Storage: 35% to 95% (with no condensation) | | | |
| Insulation resistance | | 20 MΩ min. at 500 VDC | | | |
| Dielectric strength | | 1,500 VAC, 50/60 Hz for 1 min | | | |
| Vibration resistance | Destruction | 10 to 55 Hz with a 1.5 mm double amplitude for 2 hours each in X, Y, and Z directions | | | |
| | Malfunction | 10 to 55 Hz with a 1.5 mm double amplitude for 2 hours each in X, Y, and Z directions | | | |
| Shock resistance | Destruction | 500 m/s ² for 3 times each in X, Y, and Z directions | | | |
| | Malfunction | 100 m/s ² for 3 times each in X, Y, and Z directions | 500 m/s ² for 3 times each in X, Y, and Z directions | | |
| Degree of protection | | IEC 60529 IP64 | | | |
| Connection method | | Pre-wired (standard length: 2 m) | | | |
| Weight (packed state) | | Approx. 350 g | Approx. 300 g | | |
| Material | Case | ABS (Acrylonitril Butadiene Styrene) | | | |
| | Lens/Display window | Methacrylic resin | | | |
| | Adjuster | POM | | | |
| | Cable | PVC | | | |
| Bending radius of cable | | R18 | | | |
| Accessories | | Instruction manual and Mounting Bracket (E3JK-TR11-C only) | | | |