

Built-in Power Supply Photoelectric Sensor

E3JK-DR12-C 2M



Image

Photoelectric Sensor, AC/DC power-free type, Diffuse-reflective, Red light, Sensing distance: 300 mm, Relay output, Pre-wired, 2 m, with Mounting Bracket

Sensing method	Diffuse-reflective
Sensing distance	White paper 100 x 100 mm: 300 mm
Light source	Red LED (624 nm)
Connection method	Pre-wired models

Ratings/Performance

As of July 25, 2024

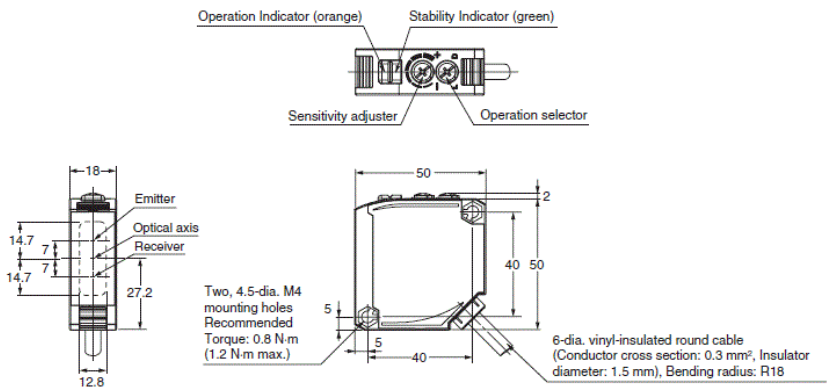
Shape	Square type
Sensing method	Diffuse-reflective
Sensing distance	White paper 100 x 100 mm: 300 mm
Differential distance	20% max. of sensing distance
Light source	Red LED (624 nm)
Power supply voltage	24 to 240 VAC±10% 50/60 Hz 24 to 240 VDC±10% ripple (p-p) 10% max.
Power consumption	2 W max.
Control output	Relay output (SPDT) 250 VAC 3 A (cosφ= 1) max. 5 VDC 10 mA min.
Life expectancy (relay output)	Electrical: 100 thousand times or more (switching frequency 1800 times/hour) Mechanical: 50 million times or more (switching frequency 18000 times/hour)
Operation mode	Light-ON/Dark-ON selectable
Response time	20 ms max.
Sensitivity setting	Single-turn adjustment
Ambient illuminance	Incandescent lamp: 3,000 lx Sunlight: 11,000 lx
Ambient temperature range (Operating)	-25 to 55 °C (with no freezing or condensation)
Ambient temperature range (Storage)	-40 to 70 °C (with no freezing or condensation)
Ambient humidity range (Operating)	35 to 85 % (with no condensation)
Ambient humidity range (Storage)	35 to 95 % (with no condensation)
Insulation resistance	20 MΩ min. (500 VDC megger)
Dielectric strength	1500 VAC 50/60 Hz 1 min

Vibration resistance	Destruction: 10 to 55 Hz, 1.5 mm double amplitude each in X, Y, and Z directions for 2 h Malfunction: 10 to 55 Hz, 1.5 mm double amplitude each in X, Y, and Z directions for 2 h
Shock resistance	Destruction: 500 m/s ² 3 times each in X, Y and Z directions Malfunction: 100 m/s ² 3 times each in X, Y and Z directions
Degree of protection	IEC: IP64
Connection method	Pre-wired models (Cable length 2 m)
Indicator	Operation indicator (orange), Stability indicator (green)
Weight	Package: Approx. 180 g
Accessories	Instruction manual, Mounting bracket
Material	Case: ABS Lens: Methacrylate resin Display: Methacrylate resin Adjustment: POM Cable: Polyvinyl chloride (PVC)

As of July 25, 2024

Dimensions

As of July 25, 2024

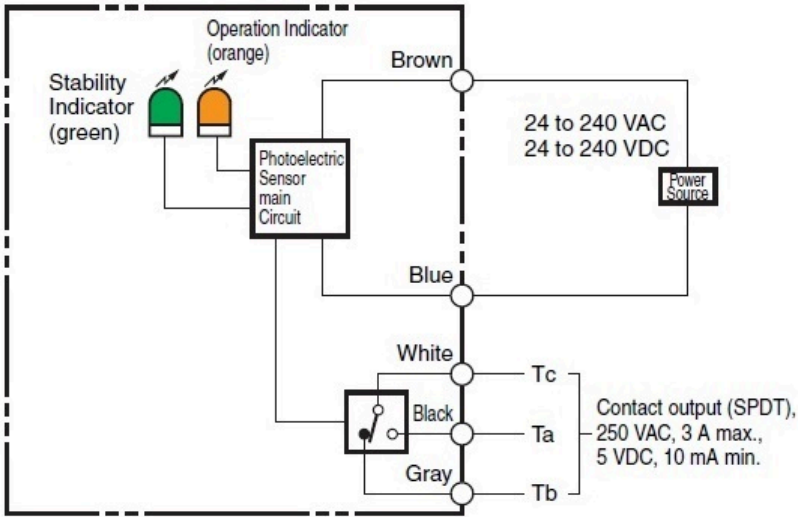


As of July 25, 2024

Output circuit diagram

As of July 25, 2024

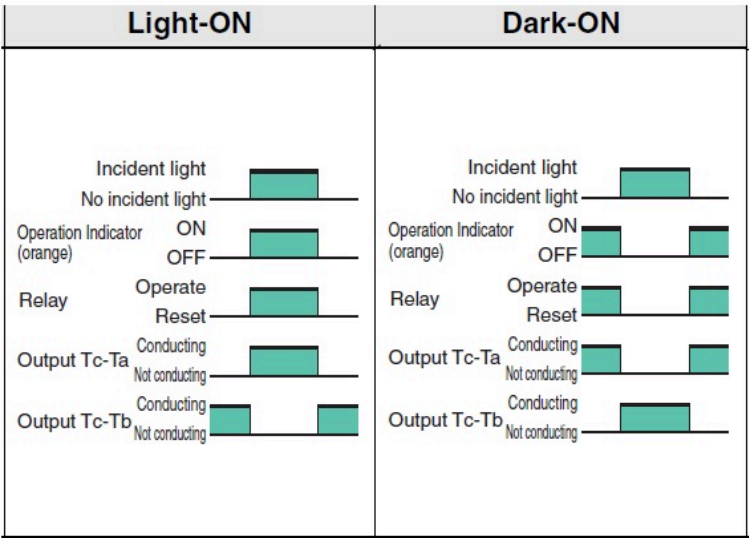
E3JK-RR11
E3JK-RR12
E3JK-RR13
E3JK-DR11
E3JK-DR12
E3JK-DR13
E3JK-DR14



As of July 25, 2024

Timing chart

As of July 25, 2024

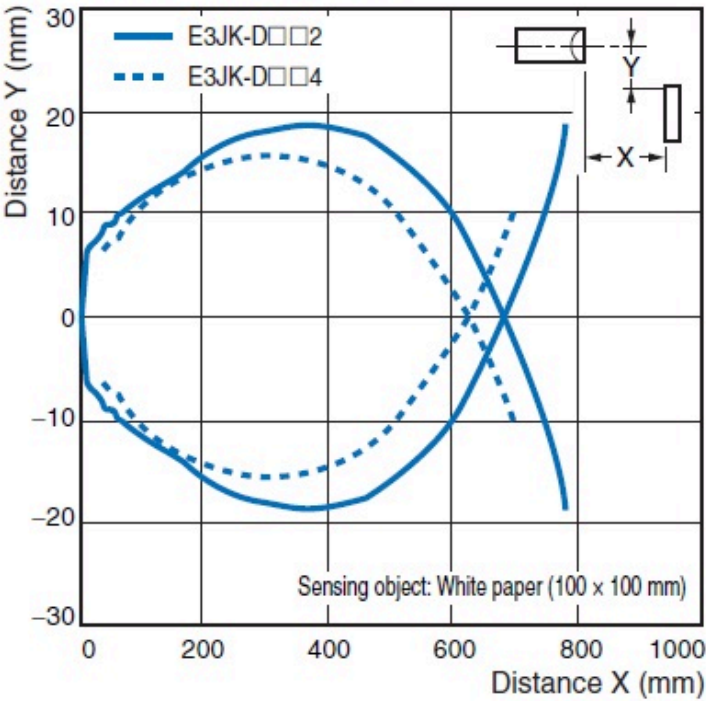


As of July 25, 2024

Operating range

As of July 25, 2024

E3JK-D□□2/D□□4



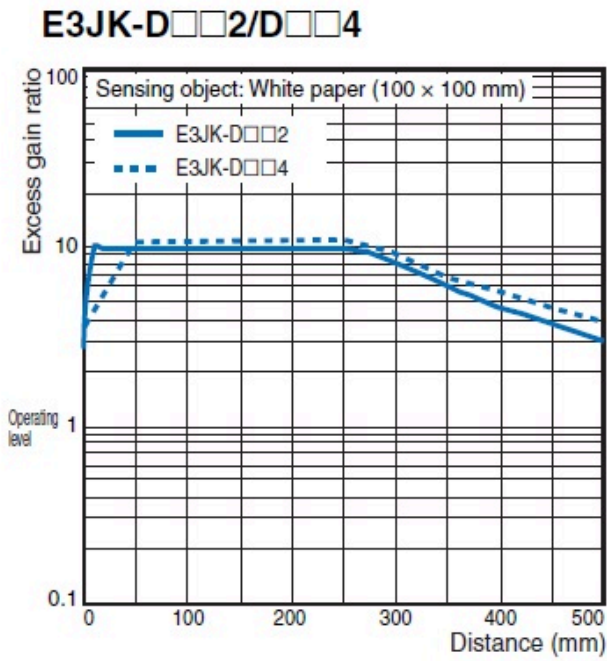
As of July 25, 2024

Setting distance

As of July 25, 2024

Excess gain ratio vs. setting distance

Excess Gain Ratio vs. Set Distance



As of July 25, 2024