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Built-in Power Supply Photoelectric Sensor

E3JK-DP13 2M

Image

Photoelectric Sensor, DC power type, Diffuse-reflective, Infrared light, Sensing distance: 2.5 m, PNP output, Pre-wired, 2 m

Sensing method	Diffuse-reflective
Sensing distance	White paper 300 x 300 mm: 2.5 m
Light source	Infrared LED (850 nm)
Connection method	Pre-wired models

Ratings/Performance

As of July 25, 2024

Shape	Square type
Sensing method	Diffuse-reflective
Sensing distance	White paper 300 x 300 mm: 2.5 m
Differential distance	20% max. of sensing distance
Light source	Infrared LED (850 nm)
Power supply voltage	10 to 30 VDC ripple (p-p) 10% included
Current consumption	30 mA max.
Control output	PNP open collector 30 VDC max. 100 mA max. Residual voltage: 3 V max.
Operation mode	Light-ON/Dark-ON selectable
Protective circuit	Output short-circuit protection, Output reverse polarity protection, Power supply reverse polarity protection
Response time	1 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 ℃ (with no freezing or condensation)
Ambient temperature range (Storage)	-40 to 70 ℃ (with no freezing or condensation)

Ambient humidity range (Operating)	35 to 85 % (with no condensation)
Ambient humidity range (Strage)	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: 500 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. 160 g
Accessories	Instruction manual
Material	Case: ABS Lens: Methacrylate resin Display: Methacrylate resin Adjustment: POM Cable: Polyvinyl chloride (PVC)

As of July 25, 2024

Dimensions

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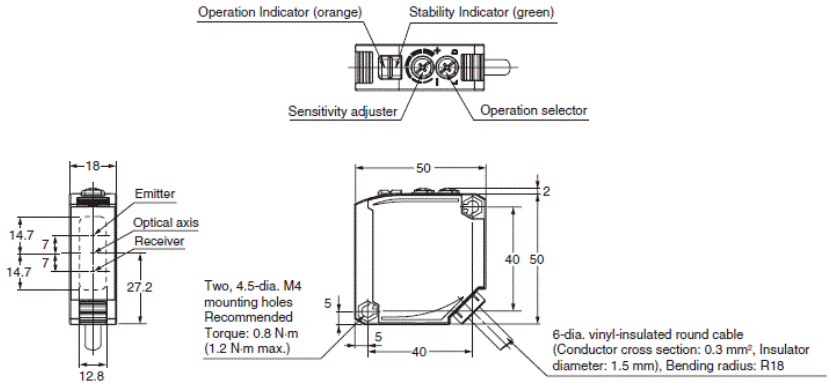

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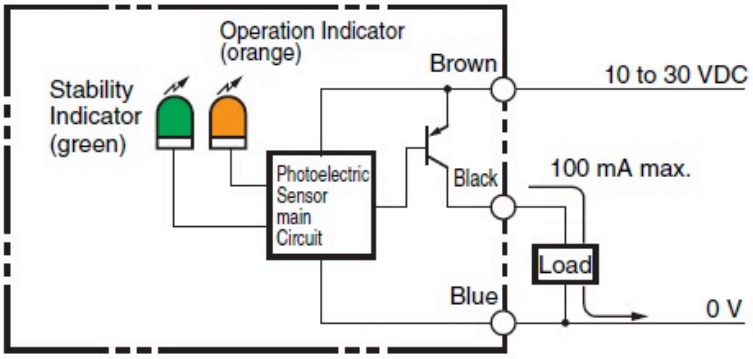
Output circuit diagram

As of July 25, 2024

E3JK-RP11
E3JK-RP12
E3JK-RP13
E3JK-DP11
E3JK-DP12
E3JK-DP13
E3JK-DP14



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Timing chart

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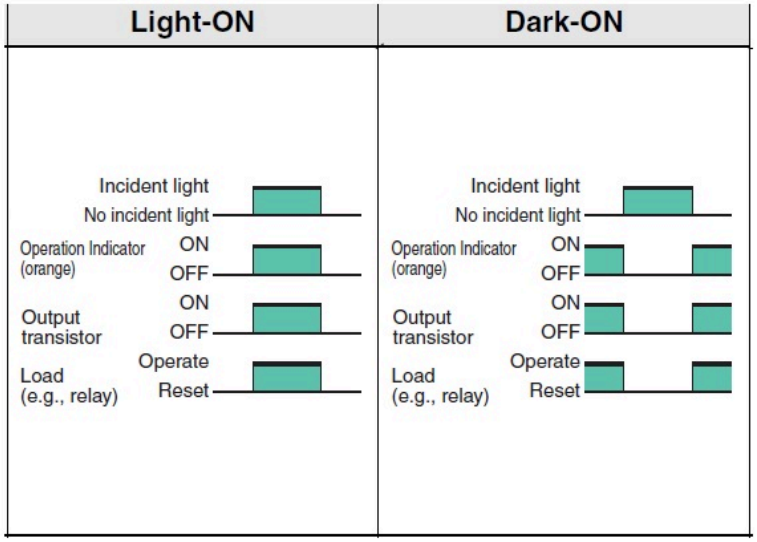

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Operating range

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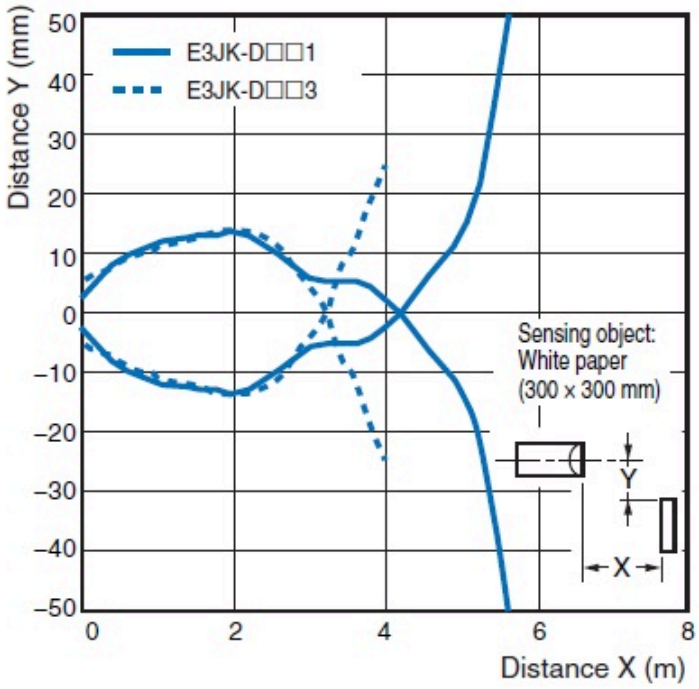
E3JK-D□□1/D□□3



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Setting distance

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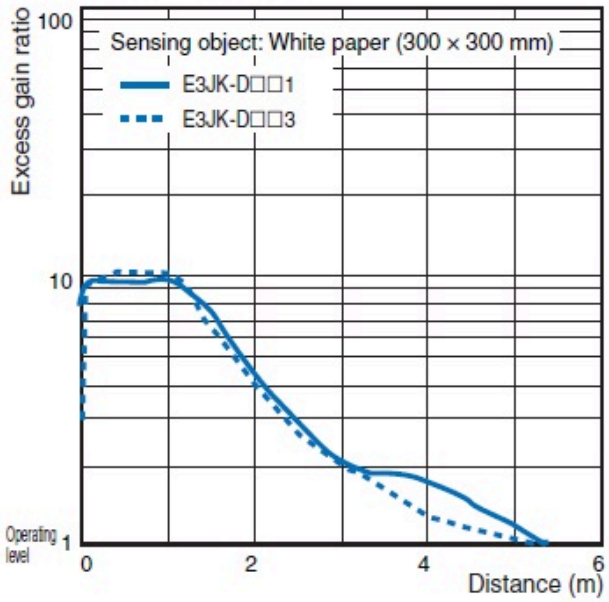
Excess gain ratio vs. setting distance

Excess Gain Ratio vs. Set Distance

E3JK-D□□1/D□□3



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