

Compact Photoelectric Sensor with Built-in Amplifier

E3Z-D82 2M

Diffuse-reflective, Sensing distance White paper 300 x 300 mm: 1 m, Light-ON/Dark-ON selectable, PNP, Pre-wired models (2 m), Infrared LED (860 nm)



Image

Sensing method	Diffuse-reflective
Sensing distance	White paper 300 x 300 mm: 1 m
Light source	Infrared LED (860 nm)
Connection method	Pre-wired models

Ratings/Performance

As of August 25, 2020

Shape	Square type
Sensing method	Diffuse-reflective
Sensing distance	White paper 300 x 300 mm: 1 m
Differential distance	20% max. of sensing distance
Light source	Infrared LED (860 nm)
Power supply voltage	12 to 24 VDC±10% ripple (p-p) 10% max.
Current consumption	30 mA max.
Control output	PNP open collector 26.4 VDC max. 100 mA max. Residual voltage: 1 V max. (Load current Less than 10 mA) Residual voltage: 2 V max. (Load current 10 to 100 mA)
Operation mode	Light-ON/Dark-ON selectable
Protective circuit	Output short-circuit protection, Output reverse polarity protection, Power supply reverse polarity protection, Mutual interference prevention
Response time	Operate or reset: 1 ms max.
Sensitivity setting	Single-turn adjustment
Ambient illuminance	Incandescent lamp: 3,000 lx max. Sunlight: 10,000 lx max.
Ambient temperature range (Operating)	-25 to 55 °C (with no icing)
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	35 to 95% (with no condensation)

(Strage)	
Insulation resistance	20 MΩ min. (500 VDC megger)
Dielectric strength	1000 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
Shock resistance	Destruction: 500 m/s**2 3 times each in X, Y and Z directions
Degree of protection	IEC: IP67
Connection method	Pre-wired models (Cable length 2 m)
Indicator	Operation indicator (orange), Stability indicator (green)
Weight	Package: Approx. 65 g
Accessories	Instruction manual
Material	Case: Polybutylene terephthalate (PBT) Lens: Denatured Polyarylate

As of August 25, 2020

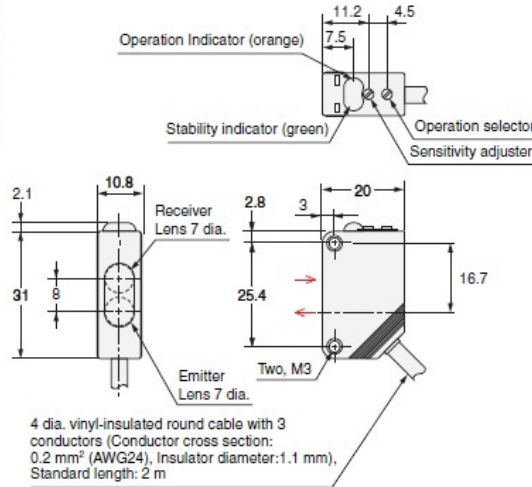
Dimensions

As of August 25, 2020

Retro-reflective Models

Pre-wired Models

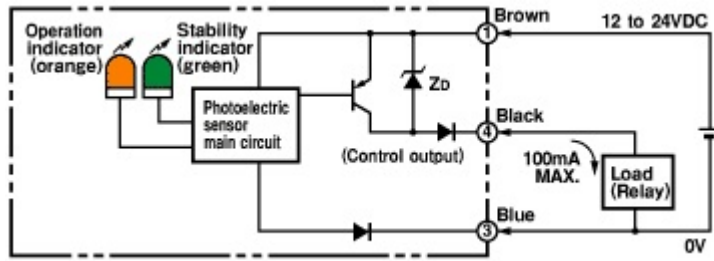
- E3Z-R61(K) E3Z-B61
- E3Z-R81(K) E3Z-B81
- E3Z-D61(K) E3Z-B62
- E3Z-D81(K) E3Z-B82
- E3Z-D62(K) E3Z-L63
- E3Z-D82(K) E3Z-L83
- E3Z-L61
- E3Z-L81



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Output circuit diagram

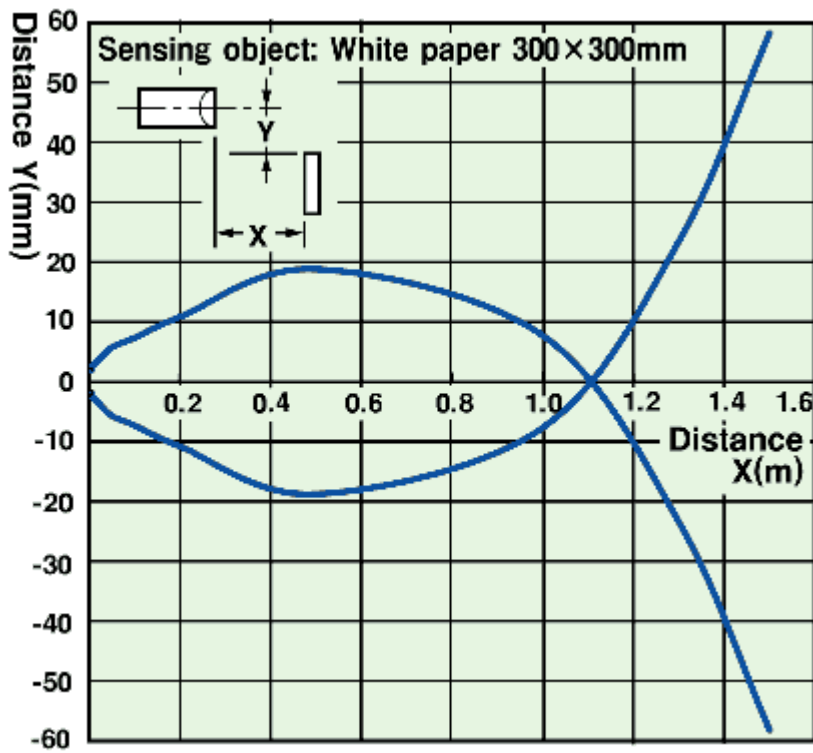
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Operating range

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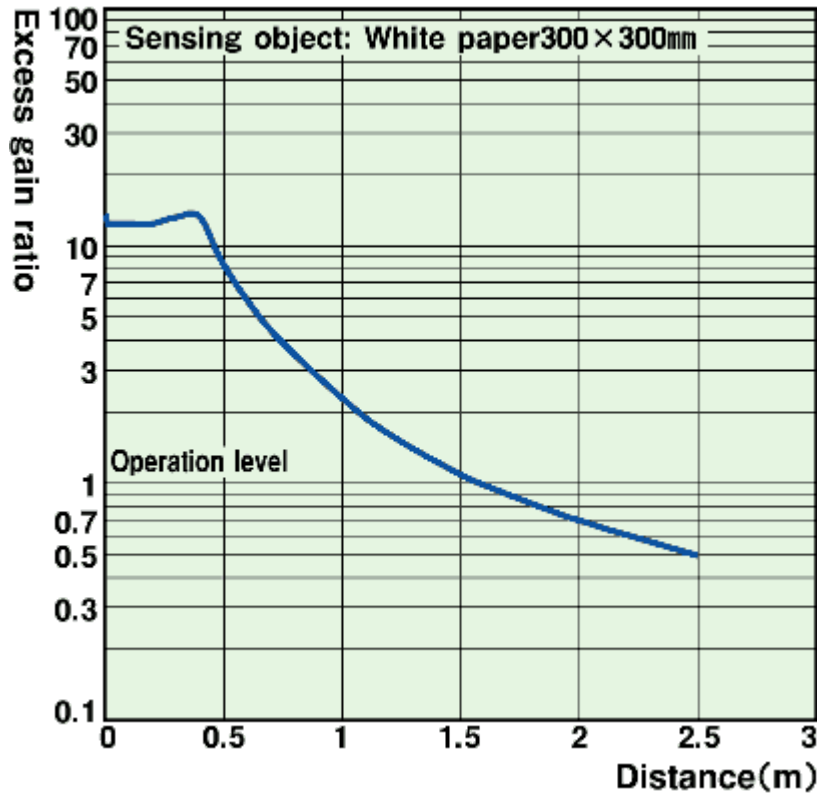


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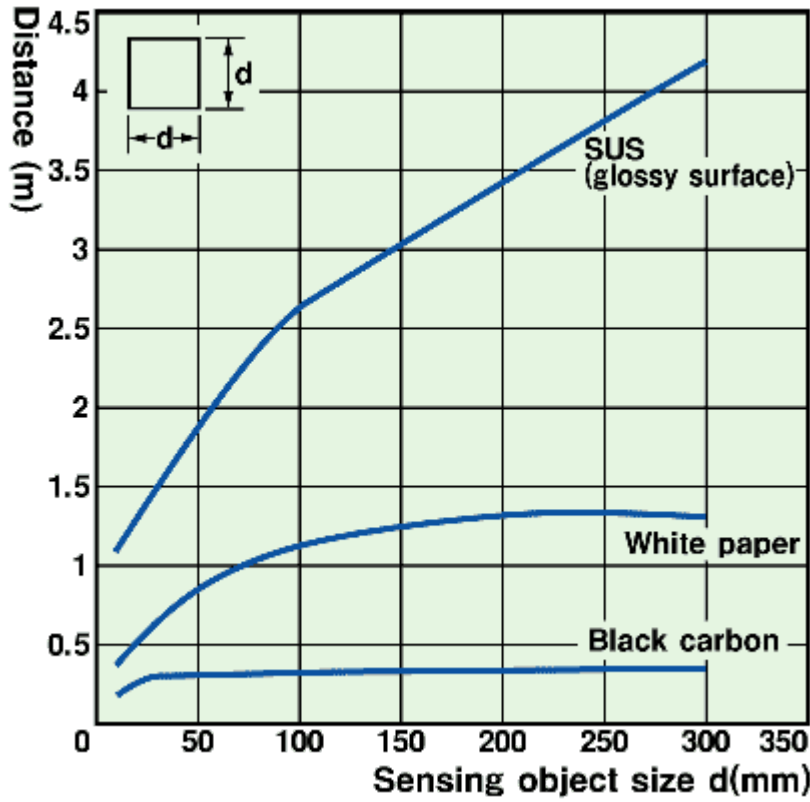
Setting distance

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Excess gain ratio vs. setting distance



Sensing object size vs. setting distance



As of August 25, 2020

