Compact Photoelectric Sensor with Built-in Amplifier

E3Z-T81 2M

Image

Through-beam type, Sensing distance 15 m, Light-ON/Dark-ON selectable, PNP, Pre-wired models (2 m), Infrared LED (870 nm)

Sensing method	Through-beam type
Sensing distance	15 m
Light source	Infrared LED (870 nm)
Connection method	Pre-wired models

Ratings/Performance

As of August 25, 2020

Shape	Square type
Sensing method	Through-beam type
Sensing distance	15 m
Standard sensing object	Opaque: 12 mm dia. min.
Directional angle	Emitter: 3 to 15° Receiver: 3 to 15°
Light source	Infrared LED (870 nm)
Power supply voltage	12 to 24 VDC±10% ripple (p-p) 10% max.
Current consumption	Emitter: 15 mA max. Receiver: 20 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
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 ℃ (with no icing)
Ambient temperature range (Storage)	-40 to 70 ℃ (with no freezing or condensation)

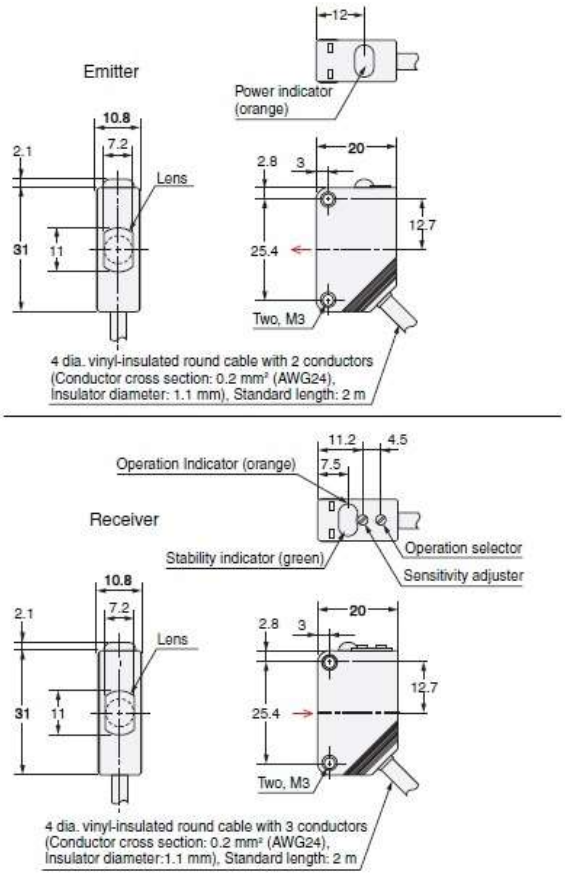
Ambient humidity range (Operating)	35 to 85% (with no condensation)
Ambient humidity range (Strage)	35 to 95% (with no condensation)
Insulation resistance	20 MΩ min. (500 VDC megger)
Dielectric strength	1000 VAC 50/60 Hz 1 min
Vibration resistance	Destruction: 10 to 55 Hz, 1.5 mm double amplitude each 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), Power indicator (orange)
Weight	Package: Approx. 120 g
Accessories	Instruction manual
Material	Case: Polybutylene terephthalate (PBT) Lens: Denatured Polyarylate

As of August 25, 2020

Dimensions

As of August 25, 2020

Through-beam*
Pre-wired Models
E3Z-T61(K)
E3Z-T81(K)
E3Z-T61A
E3Z-T81A
E3Z-T62
E3Z-T82



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Output circuit diagram

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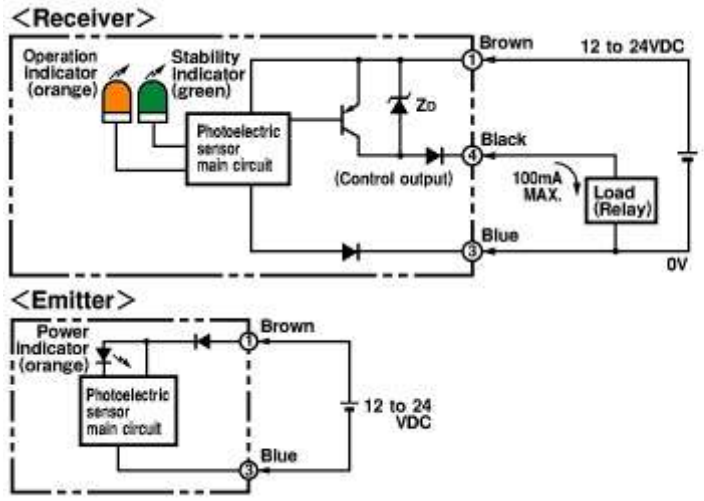

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Parallel operating range

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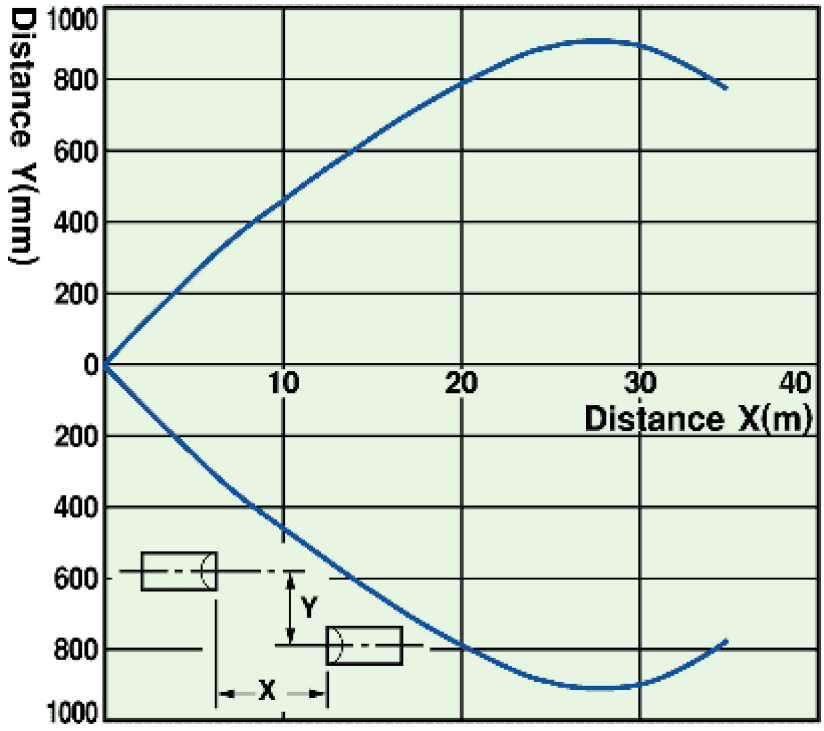

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Setting distance

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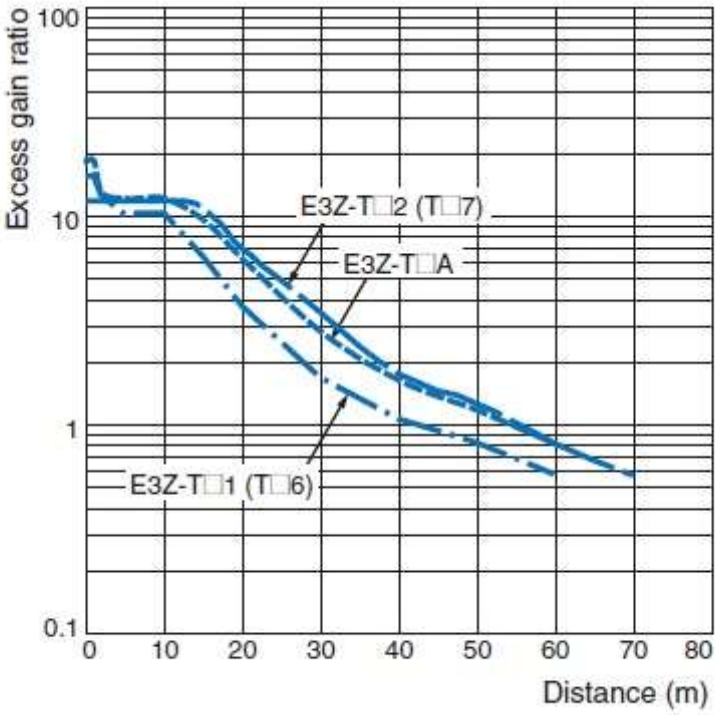
Excess gain ratio vs. setting distance

Excess Gain vs. Set Distance

Through-beam Models

E3Z-T□1(T□6)/-T□A/-T□2(T□7)



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