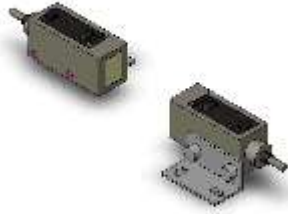


Oil-resistive, Long-range Photoelectric Sensor with Metal Housing

E3S-CT11 2M

Through-beam, Sensing distance: 30 m, Light-ON/Dark-ON selectable, NPN/PNP output, Pre-wired models (2 m)



Image

Sensing method	Through-beam
Sensing distance	30 m
Light source	Infrared LED (Emission wave length: 880 nm)
Connection method	Pre-wired models (Cable length: 2 m)

Ratings/Performance

As of March 3, 2017

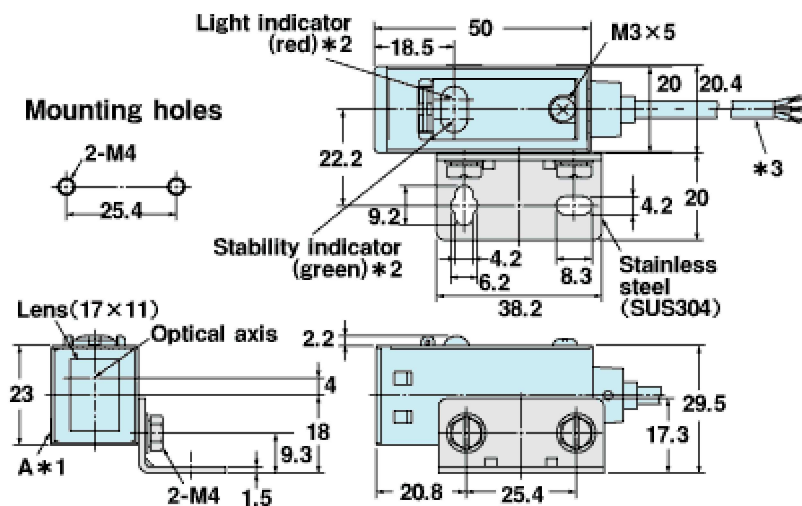
Shape	Square type
Sensing method	Through-beam
Sensing distance	30 m
Standard sensing object	Opaque 15 mm dia. min.
Directional angle	Emitter: 3 to 15 DEG Receiver: 3 to 15 DEG
Light source	Infrared LED (Emission wave length: 880 nm)
Power supply voltage	10 to 30 VDC (ripple (p-p) 10% included)
Current consumption	Emitter: 25 mA max. Receiver: 25 mA max.
Control output	NPN/PNP open collector output 30 VDC max. Load current: 100 mA max. Residual voltage: 1.2 V max. (NPN output)/Residual voltage: 2 V max. (PNP output)
Operation mode	Light-ON/Dark-ON selectable
Protective circuit	Output short-circuit protection Power supply reverse polarity protection
Response time	1 ms max. (Operate or reset)
Sensitivity setting	Single-turn adjustment
Ambient illuminance	Incandescent lamp: 5000 lux max., Sunlight: 10000 lux max.
Ambient temperature (Operating)	-25 to 55 °C (with no icing or condensation)
Ambient temperature (Storage)	-40 to 70 °C (with no icing or condensation)
Ambient humidity	Operating: 35 to 85% Storage: 35 to 95% (with no icing or condensation)
Insulation resistance	20 MΩ min. at 500 VDC
Dielectric strength	1000 VAC at 50/60 Hz for 1 min

Vibration resistance	10 to 2000 Hz, 1.5-mm or 300 m/s**2 double amplitude for 0.5 hours each in X, Y, and Z directions
Shock resistance	1000 m/s**2 for 3 times each in X, Y, and Z directions
Degree of protection	IEC: IP67 Company standard: Oil-proof NEMA: 6P (indoors only)
Connection method	Pre-wired models (Cable length: 2 m)
Indicator	Light indicator (red), Stability indicator (green), Power indicator (red)
Weight (packed state)	Approx. 270 g
Material	Case: Zinc diecast Lens: Methacrylate resin Cover: Polyethyl sulfon Mounting Bracket: Stainless steel (SUS304)
Accessories	Instruction manual, Mounting bracket (with screws), Adjustment driver

As of March 3, 2017

Dimensions

As of March 3, 2017

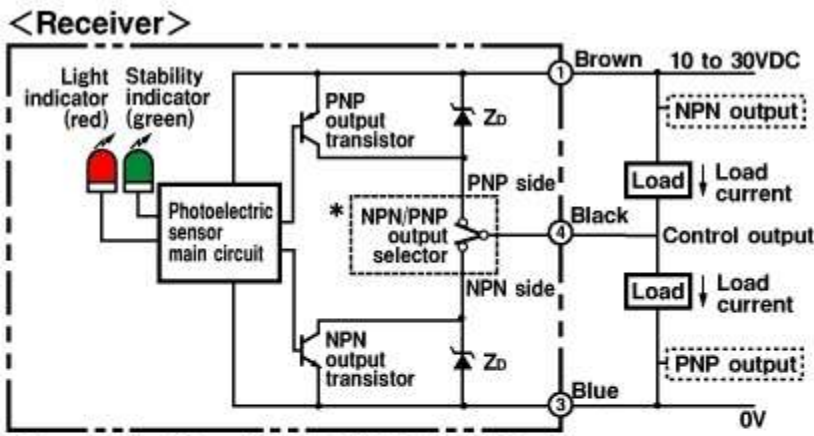


- *1. The mounting bracket can be attached to side A.
- *2. Emitter has only power indicator (red).
- *3. Receiver: 4-dia. Vinyl-insulated round cable with 3 conductors
(conductor cross section: 0.2mm², insulator diameter: 1.2mm)
Standard length: 2m
- Emitter: 4-dia. Vinyl-insulated round cable with 2 conductors
(conductor cross section: 0.3mm², insulator diameter: 1.3mm)
Standard length: 2m

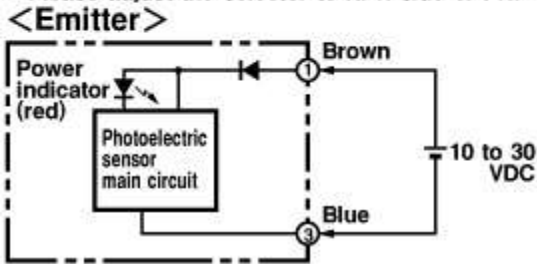
As of March 3, 2017

Output circuit

As of March 3, 2017



*Please adjust the selector to NPN side or PNP side.



NPN/PNP output selector	Operation mode	Timing chart	Mode switch
NPN output	Light ON	Incident light: ON (green bar) No incident light: OFF (grey bar) Light indicator (red): ON (red bar) OFF (grey bar) Output transistor: ON (green bar) OFF (grey bar) Load (Relay): Operate (green bar) Reset (grey bar) {Between brown(1) and black(4)}	L.ON (LIGHT ON)
	Dark ON	Incident light: ON (green bar) No incident light: OFF (grey bar) Light indicator (red): ON (red bar) OFF (grey bar) Output transistor: ON (green bar) OFF (grey bar) Load (Relay): Operate (green bar) Reset (grey bar) {Between brown(1) and black(4)}	D.ON (DARK ON)
PNP output	Light ON	Incident light: ON (green bar) No incident light: OFF (grey bar) Light indicator (red): ON (red bar) OFF (grey bar) Output transistor: ON (green bar) OFF (grey bar) Load (Relay): Operate (green bar) Reset (grey bar) {Between blue(3) and black(4)}	L.ON (LIGHT ON)
	Dark ON	Incident light: ON (green bar) No incident light: OFF (grey bar) Light indicator (red): ON (red bar) OFF (grey bar) Output transistor: ON (green bar) OFF (grey bar) Load (Relay): Operate (green bar) Reset (grey bar) {Between blue(3) and black(4)}	D.ON (DARK ON)

As of March 3, 2017