

Superior Fluororesin Finish Protects Against Oil and Chemicals

- Fluororesin coated cable and case.
- Rounded tip lens resists water drops.
- Small built-in Amplifier Unit.



 Be sure to read *Safety Precautions* on page 3.

Ordering Information

 Infrared light

Sensing method	Appearance	Connection method	Sensing distance			Operation mode	Model
Through-beam (Emitter + Receiver) *		Pre-wired (2 m)		800	mm	Light-ON	E3HQ-CT11 2M
						Dark-ON	E3HQ-CT12 2M

* The model number of the Emitter is E3HQ-CT-L 2M for all models. The model number of the Receiver is E3HQ-CT11-D 2M for Light-ON models and E3HQ-CT12-D 2M for Dark-ON models.
Orders for individual Emitters and Receivers are accepted.

Ratings and Specifications

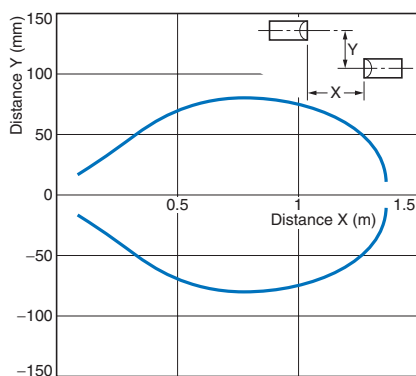
Sensing method		Through-beam
Item	Model	E3HQ-CT1□
Sensing distance		800 mm
Standard sensing object		Opaque: 6.25-mm dia. min.
Directional angle		Both Emitter and Receiver 10° to 25°
Light source (wavelength)		Infrared LED (950 nm)
Power supply voltage		12 to 24 VDC±10% including 10% (p-p) max. ripple
Current consumption		40 mA max. (Emitter: 25 mA max., Receiver: 15 mA max.)
Control output		Load power supply voltage: 24 VDC max., Load current: 80 mA max. (residual voltage: 1 V max.) NPN voltage output configuration Light-ON/Dark-ON (depends on model)
Protection circuits		Power supply reverse polarity protection, Output short-circuit protection
Response time		Operate or reset: 5 ms max.
Ambient illumination (Receiver side)		Incandescent lamp: 3,000 lx max.
Ambient temperature range		Operating: -25 to 55°C, Storage: -30 to 70°C (with no icing or condensation)
Ambient humidity range		Operating: 35% to 85%, Storage: 35% to 95% (with no condensation)
Insulation resistance		20 MΩ min. at 500 VDC
Dielectric strength		500 VAC, 50/60 Hz for 1 min
Vibration resistance		Destruction: 10 to 55 Hz, 1.5-mm double amplitude for 2 hours each in X, Y, and Z directions
Shock resistance		Destruction: 500 m/s ² 3 times each in X, Y, and Z directions
Degree of protection		IP67 (IEC 60529)
Connection method		Pre-wired cable (standard length: 2 m)
Weight (packed state)		Approx. 100 g
Material	Case	Fluororesin
	Cable	Fluororesin
	Mounting Bracket	Stainless steel (SUS304)
Accessories		Mounting Bracket, 10 Phillips and flat-blade M3 screws, Instruction manual

Engineering Data (Typical)

Parallel Operating Range

Through-beam

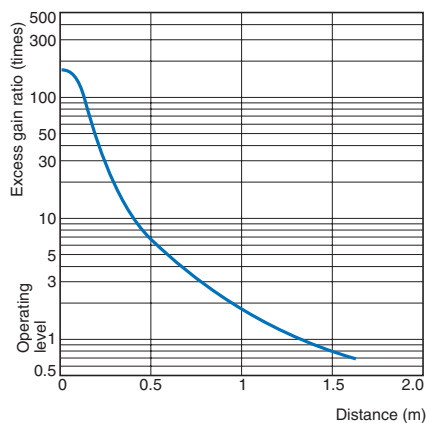
E3HQ-CT1□



Excess Gain vs. Set Distance

Through-beam

E3HQ-CT1□



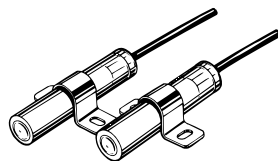
I/O Circuit Diagrams

NPN Output

Model	Operation mode	Timing charts	Output circuits
E3HQ-CT11	Light-ON	Incident light	Through-beam Model Receivers

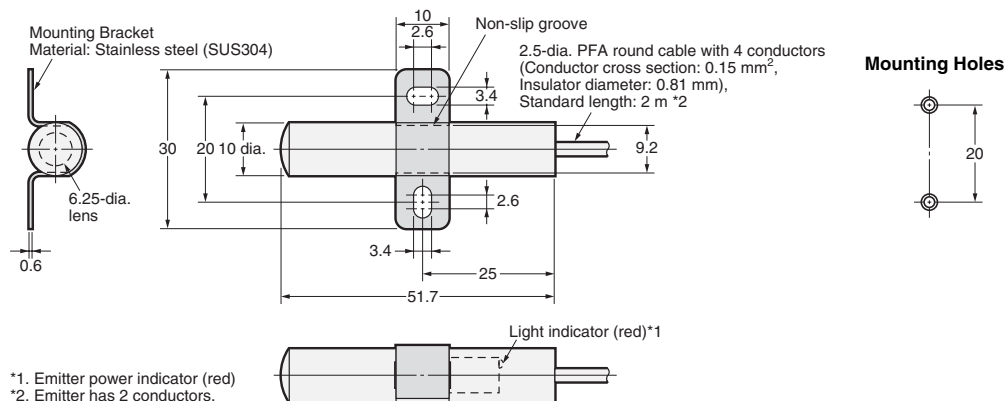
Dimensions

E3HQ-CT1□



Emitter: E3HQ-CT-L
Receiver E3HQ-CT1□-D

With Mounting Bracket Attachment



Read and Understand This Catalog

Please read and understand this catalog before purchasing the products. Please consult your OMRON representative if you have any questions or comments.

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- Systems, machines, and equipment that could present a risk to life or property.

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DIMENSIONS AND WEIGHTS

Dimensions and weights are nominal and are not to be used for manufacturing purposes, even when tolerances are shown.

PERFORMANCE DATA

Performance data given in this catalog is provided as a guide for the user in determining suitability and does not constitute a warranty. It may represent the result of OMRON's test conditions, and the users must correlate it to actual application requirements. Actual performance is subject to the OMRON Warranty and Limitations of Liability.

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