

Slim, Compact Photomicrosensor that is still easy to use.

- Compact, thin profile enables dense mounting.
- Indicator is visible from both sides.
- Wide operating voltage range: 5 to 24 VDC



For the most recent information on models that have been certified for safety standards, refer to your OMRON website.



Be sure to read *Safety Precautions* on page 4.

Ordering Information

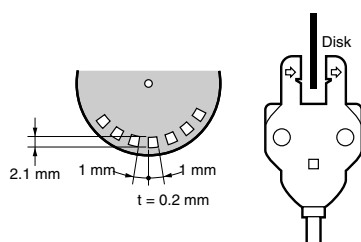
Pre-wired Models Infrared light

Appearance	Sensing method	Cable length	Sensing distance		Output configuration	Indicator mode	Model		
							NPN output	PNP output	
Standard 	Through-beam type (with slot)	2 m		5 mm (slot width)	Dark-ON	Incident light	EE-SX770 2M	EE-SX770P 2M	
						No incident light	EE-SX770A 2M	EE-SX770R 2M	
					Light-ON	Incident light	EE-SX870 2M	EE-SX870P 2M	
No incident light						EE-SX870A 2M	EE-SX870R 2M		
L-shaped 					Dark-ON	Incident light	EE-SX771 2M	EE-SX771P 2M	
						No incident light	EE-SX771A 2M	EE-SX771R 2M	
						Light-ON	Incident light	EE-SX871 2M	EE-SX871P 2M
							No incident light	EE-SX871A 2M	EE-SX871R 2M
					T-shaped 	Dark-ON	Incident light	EE-SX772 2M	EE-SX772P 2M
					No incident light		EE-SX772A 2M	EE-SX772R 2M	
					Light-ON		Incident light	EE-SX872 2M	EE-SX872P 2M
							No incident light	EE-SX872A 2M	EE-SX872R 2M

Ratings and Specifications

Item	Type	Standard	L-shaped	T-shaped
	NPN models	EE-SX770/EE-SX870 EE-SX770A/EE-SX870A	EE-SX771/EE-SX871 EE-SX771A/EE-SX871A	EE-SX772/EE-SX872 EE-SX772A/EE-SX872A
Item	PNP models	EE-SX770P/EE-SX870P EE-SX770R/EE-SX870R	EE-SX771P/EE-SX871P EE-SX771R/EE-SX871R	EE-SX772P/EE-SX872P EE-SX772R/EE-SX872R
Sensing distance		5 mm (slot width)		
Sensing object		Opaque: 2 × 0.8 mm min.		
Differential distance		0.025 mm		
Light source		GaAs infrared LED with a peak wavelength of 940 nm		
Indicator		Light indicator (red) (turns ON when light is interrupted for models with A or R suffix)		
Supply voltage		5 to 24 VDC ±10%, ripple (p-p): 10% max.		
Current consumption		12 mA max.		
Control output		NPN open collector: 5 to 24 VDC, 100 mA max. 100 mA load current with a residual voltage of 0.8 V max. 40 mA load current with a residual voltage of 0.4 V max. OFF current (leakage current): 0.5 mA max. PNP open collector: 5 to 24 VDC, 50 mA max. 50 mA load current with a residual voltage of 1.3 V max. OFF current (leakage current): 0.5 mA max.		
Protection circuits		Load short-circuit protection		
Response time		Light-ON: 20 µs max, Dark-ON: 100 µs max.		
Maximum response frequency *1		3 kHz max.		
Ambient illumination		1,000 lx max. with fluorescent light on the surface of the receiver		
Ambient temperature range		Operating: -25 to +55°C Storage: -30 to +80°C (with no icing)		
Ambient humidity range		Operating: 5% to 85% Storage: 5% to 95% (with no condensation)		
Vibration resistance		Destruction: 10 to 2,000 Hz (peak acceleration: 100 m/s ²) 1.5-mm double amplitude for 2 h (4-min periods) each in X, Y, and Z directions		
Shock resistance		Destruction: 500 m/s ² for 3 times each in X, Y, and Z directions		
Degree of protection *2		IEC60529 IP64		
Connecting method		Pre-wired (standard cable length: 2 m)		
Weight (packaged)		Approx. 20 g		
Material		Case: Polybutylene phthalate (PBT)		
Conformity standards		UL Certification, CE Marking, ISO13849-1 (PLc, cat1) *2		
MTTFd (Year)		NPN models: 837 PNP models: 832		

*1. The response frequency was measured by detecting the following rotating disk.



*2. Degree of protection IP64 when conforming to ISO13849-1 (PLc, cat1). Conforms to September 2023.

Refer to the Instruction Sheet and Information for ISO13849-1 Compliance on our website (www.fa.omron.co.jp/products/family/435/download/manual.html) for conformance to ISO 13849-1.