

EE-SX77_/EE-SX87_ Series Photomicrosensors

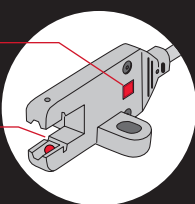
AN EASILY INTEGRATED, MULTI-FACETED
AND POWERFUL SOLUTION

OMRON®

If you have resisted using photomicrosensors (optical switches) for counting, positioning, detection, motion sensing or switching applications, you have not tried one of our photomicrosensors. Only Omron, a recognized world leader in optical switch technology, can give you superior support (short lead times, extensive technical expertise, etc.) and access to the industry's broadest line of photomicrosensors. Our latest addition, the new EE-SX77_/EE-SX87_ series photomicrosensors, are a cost-effective, easily integrated solution for various applications.

Quick and Easy Installation

- One of the industry's smallest designs, making them ideal for space-constrained applications
- Red LED indicator window that is visible from either side
- Notched optical axis indicator
- 2 meter attached cable
- Standard, 'L', and 'T' shapes for multiple mounting options
- Direct connection to Omron's suite of industrial automation products (PLCs, digital panel meters, etc.)



Durability and Performance

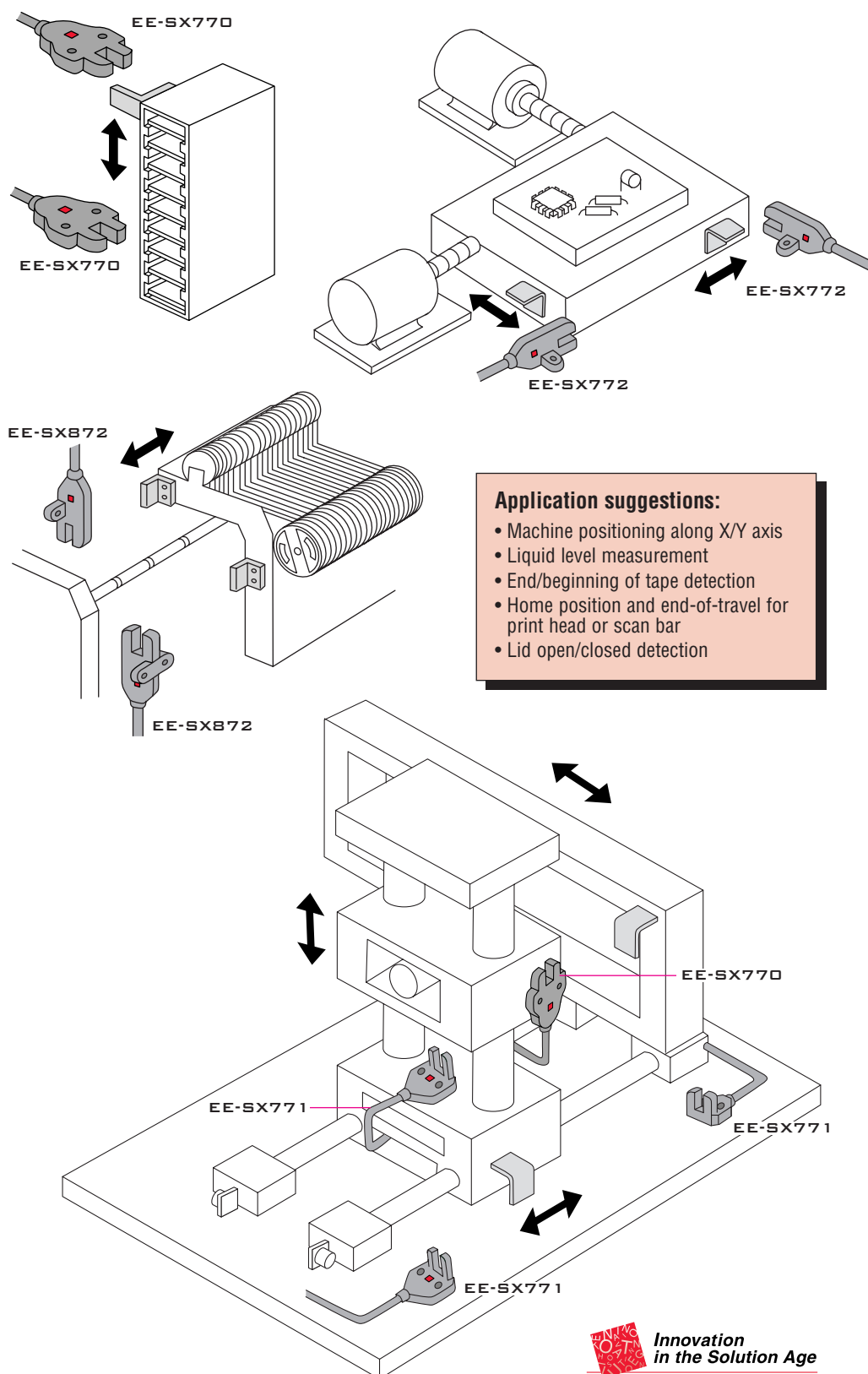
- Choice of NPN or PNP outputs
- Amplified output that can drive relays or PLCs
- 5 mm slot width
- High reliability and long life
- IP60 rating

Aggressive competitive pricing

Omron's aggressive pricing program makes high technology affordable. The EE-SX77_/EE-SX87_ series photomicrosensors' per piece pricing is extremely competitive and their value increases with the quantity ordered.

Complete Vendor Support

When you expect the best from your vendor, you get Omron, and that means high quality products and innovative solutions. We have some of the world's broadest lines of control components (photomicrosensors, relays, switches, etc.) and industrial automation products (PLCs, digital panel meters, etc.) giving us the resources to be flexible when solving applications. Depending on your application needs, we can either supply a single critical part or an entire suite of interconnected products.



Application suggestions:

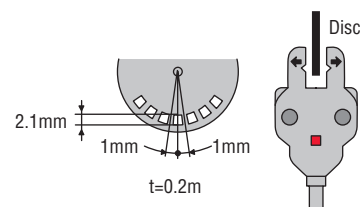
- Machine positioning along X/Y axis
- Liquid level measurement
- End/beginning of tape detection
- Home position and end-of-travel for print head or scan bar
- Lid open/closed detection

**Innovation
in the Solution Age**

Specifications

Item	Transmissive (slotted) models							
Output configuration	Dark-ON				Light-ON			
Output	NPN		PNP		NPN		PNP	
Model	EE-SX770	EE-SX770A	EE-SX770P	EE-SX770R	EE-SX870	EE-SX870A	EE-SX870P	EE-SX870R
	EE-SX771	EE-SX771A	EE-SX771P	EE-SX771R	EE-SX871	EE-SX871A	EE-SX871P	EE-SX871R
	EE-SX772	EE-SX772A	EE-SX772P	EE-SX772R	EE-SX872	EE-SX872A	EE-SX872P	EE-SX872R
Supply voltage	5 to 24 VDC ± 10%, ripple (p-p): 10% max							
Current consumption	NPN models: 35 mA max.							
	PNP models: 30 mA max.							
Slot width	5 mm							
Standard target object	Opaque: 2 x 0.8 mm min.							
Differential travel	0.025 mm							
Control output	NPN models: At 5 to 24 VDC: 100 mA load current (I _C) with a residual voltage of 0.8 V max. When driving TTL: 40 mA load current (I _C) with a residual voltage of 0.4 V max.							
	PNP models: At 5 to 24 VDC: 50 mA load current (I _C) with a residual voltage of 1.3 V max.							
Operation indicator (see note 1)	Red LED is ON when the object to be detected is not present							
Response frequency (see note 2)	1 kHz							
Light source	GaAs infrared LED with a peak light wavelength of 940 nm							
Protective circuit (see note 3)	Overcurrent protection (built-in circuit)							
Ambient illuminance	Sensing surface: 1,000 lx max. with fluorescent light							
Ambient temperature	Operating	-25°C to 55°C (-13°F to 131°F)						
	Storage	-30°C to 80°C (-22°F to 176°F)						
Ambient humidity	Operating	5% to 85%						
	Storage	5% to 95%						
Vibration resistance	Destruction: 20 to 2,000 Hz, 1.5-mm double amplitude for 2 hours each in X, Y, and Z directions							
Shock resistance	Destruction: 500 m/s ² (50G), three times each in X, Y, and Z directions							
Degree of protection	IEC60529 IP60							
Connection method (standard length)	Pre-wired: 2 m							
Casing material	PBT (polybutylene terephthalate)							
Cable material	PVC (polyvinyl chloride resin)							

- Note:
1. The operation indicator of models with suffix code (A) or (R) will turn ON when the light is interrupted.
 2. The response frequency is a value obtained when the EE-SX detects a rotating disc with holes in it, as shown to the right.
 3. Operates when the load current exceeds the rated value of 100 mA to inhibit a current flow exceeding 120 mA.



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