


EE-SPX301/401

Light Modulation Effectively Reduces External Light Interference

- Easy adjustment and optical axis monitoring with a Light-ON indicator
- Wide operating voltage range: 5 to 24 VDC
- Amplifier output can be directly connected to a programmable controller (PLC)
- Easy-to-wire connector type
- Convert to PNP output with EE-2001 conversion connector



Ordering Information

Appearance	Sensing method	Slot width	Slot depth	Output configuration	Weight	Part number
	Slot	3.6 mm	9 mm	Dark-ON	Approx. 2.6 g	EE-SPX301
				Light -ON		EE-SPX401

■ ACCESSORIES

Name	Part number
Solder connector	EE-1002
Connector with 1 m cable	EE-1003
Connector holder for EE-1003	EE-1003A

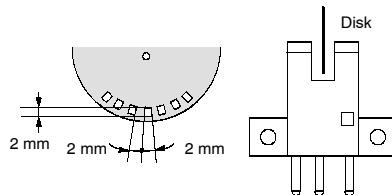
Specifications

■ RATINGS

Model		Transmissive type	
		EE-SPX301	EE-SPX401
Supply voltage		5 to 24 VDC $\pm 10\%$, ripple (p-p): 5% max.	
Current consumption		Average: 15 mA max.; Peak: 50 mA max.	
Standard reference object		Opaque, 0.5 x 1 mm min.	
Differential distance		0.05 mm max.	
Control output		At 5 to 24 VDC: 80 mA load current (I_C) with a residual voltage of 1.0 V max. When driving TTL: 10 mA load current (I_C) with a residual voltage of 0.4 V max.	
Output configuration	Transistor on output stage without detecting object	OFF	ON
	Transistor on output stage with detecting object	ON	OFF
Indicator (See note 1.)	Without detecting object	ON	
	With detecting object	OFF	
Response frequency (See note 2.)		500 Hz	
Light source		GaAs infrared LED (pulse modulated) with a wavelength of 940 nm	
Receiver		Si photo-diode with a sensing wavelength of 850 nm max.	
Connecting method		EE-1002/1003 Connectors; solder terminals/cordset	

Note: 1. The indicator is a GaP red LED (peak emission wavelength: 700 nm).

2. The response frequency was measured by detecting the following disks rotating.



■ CHARACTERISTICS

Ambient illumination		Sensing face: fluorescent light/incandescent light: 3,000 lx max.
Enclosure ratings		IP50
Ambient temperature	Operating	-10°C to 55°C (14°F to 131°F)
	Storage	-25°C to 65°C (-13°F to 149°F)
Ambient humidity	Operating	35% to 85%
	Storage	35% to 95%
Vibration resistance		Destruction: 10 to 55 Hz, 1.5-mm double amplitude for 2 hrs each in X, Y, and Z directions
Shock resistance		Destruction: 500 m/s ² (approx. 50G's) for 3 times each in X, Y, and Z directions
Cable length		2 m max. by AWG22