

EE-SX461-P11

Photo IC Type Photomicrosensor
Offers Sensing Distances Up to
15 mm

- 15-mm wide slot with photo IC output
- Easy mounting with snap-in mechanism
- Built-in resistor to protect the LED
- Simplified wiring using Omron or AMP connectors



Ordering Information

Appearance	Sensing method	Slot width	Slot depth	Output configuration	Weight	Applicable connector	Part number
	Transmissive	15 mm	10 mm	Light-ON	Approx. 3.8g	EE-1005 Connector AMP 171822-3 AMP 171880-3 AMP 172142-3	EE-SX461-P11

Specifications

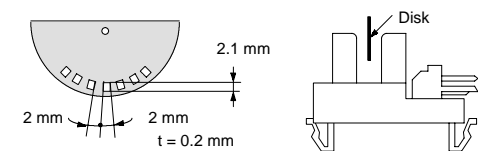
■ ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ (77°F))

Item	Symbol	Rated value
Supply voltage	V_{CC}	7 V
Output voltage	V_{OUT}	28 V
Output current	I_{OUT}	16 mA
Permissible output dissipation	P_{OUT}	250 mW
Ambient temperature	Operating	T_{opr}
	Storage	T_{stg}
		-20°C to 75°C (-4°F to 167°F)
		-40°C to 85°C (-40°F to 185°F)

CHARACTERISTICS (T_A = 25°C, V_{CC} = 5 V±10%)

Item	Symbol	Value	Condition
Low level output voltage	V _{OL}	0.3 V max.	I _{OUT} = 16 mA with incident light
High level output voltage	V _{OH}	(V _{CC} × 0.9) V min.	V _{OUT} = V _{CC} ; R _L = 47 kΩ (without incident light)
Current consumption	I _{CC}	35 mA max.	With or without incident light
Response frequency	f	3 kHz min.	V _{OUT} = V _{CC} ; R _L = 47 kΩ

Note: The value of the response frequency is measured by rotating the disk as shown below.



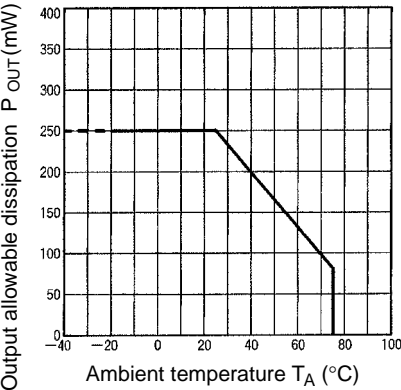
RECOMMENDED OPERATING CONDITION (WITHIN THE RATED TEMPERATURE RANGE)

Item	Symbol	Recommended value	Remarks
Supply voltage	V _{CC}	5 V±10%	Refer to Engineering Data (Temperature Characteristics) and keep the output voltage and current as low as possible in the recommended range.
Output voltage	V _{OUT}	4.5 to 28 V	
Output current	I _{OUT}	16 mA max.	

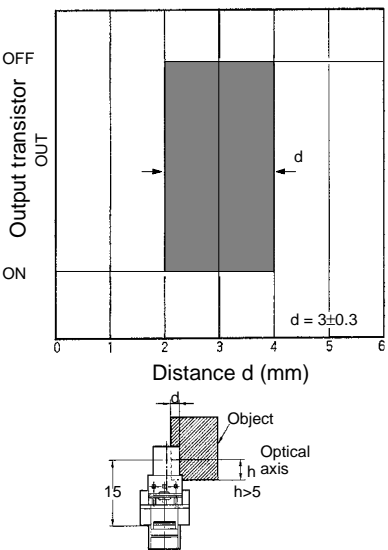
Engineering Data

Note: The operating conditions of the photomicrosensor must be within the absolute maximum rating ranges.

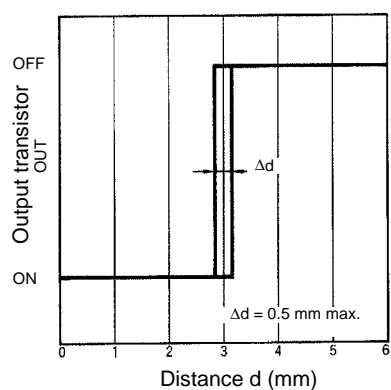
TEMPERATURE CHARACTERISTICS



SENSING POSITION CHARACTERISTICS



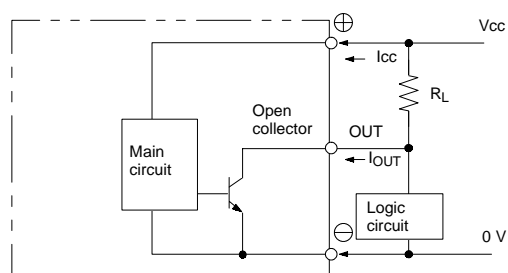
REPEATED SENSING POSITION CHARACTERISTICS



Operation

INTERNAL/EXTERNAL CIRCUIT DIAGRAM

Light-ON



TIMING CHART

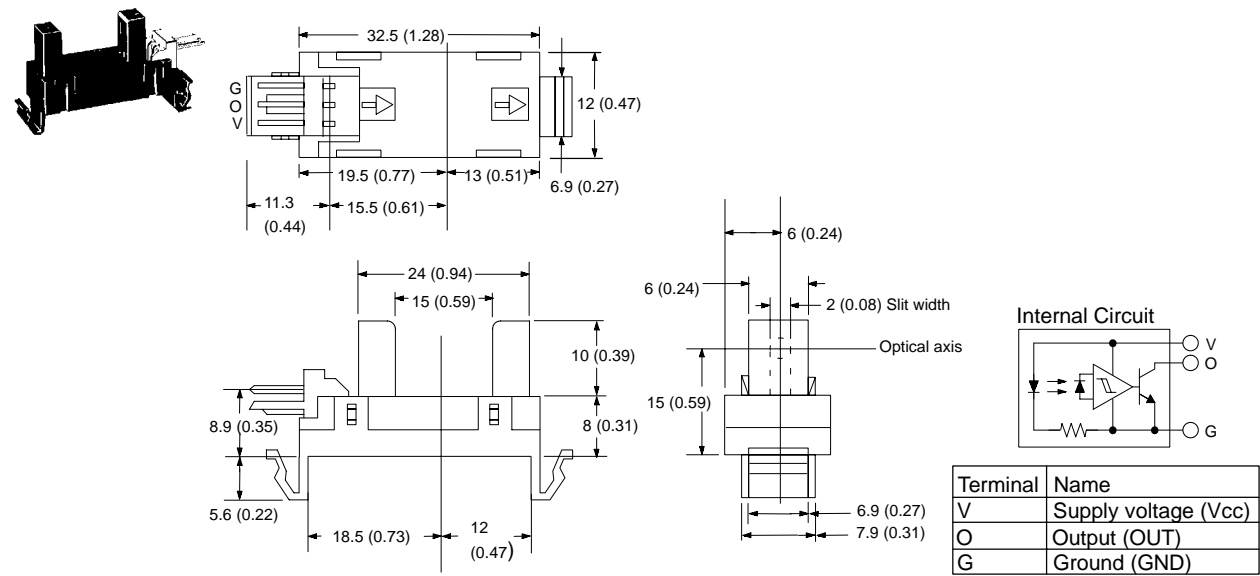
Light-ON



Dimensions

Unit: mm (inch)

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EE-1005 CONNECTOR



Precautions

Refer to the Technical Information Section for general precautions.

NOTE: DIMENSIONS SHOWN ARE IN MILLIMETERS. To convert millimeters to inches divide by 25.4.

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