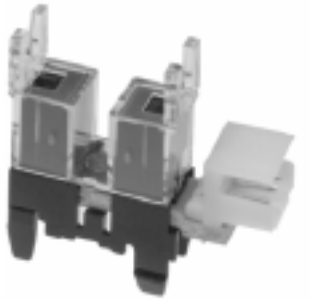
OMRON

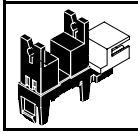
EE-SA407-P2

Sensor with Photo IC Output and Snap-in Mounting Tabs

- Actuator adaptable, non-contact sensing
- Easy snap-in mounting; no mounting hardware required
- Easy wiring with commercially available connector
- Includes Schmitt trigger circuit



Ordering Information

Appearance	Sensing method	Output configuration	Slot depth (from pivot point)	Weight	Applicable mating connector	**Part number**
	Transmissive, actuator*	Light-ON	10 mm	Approx. 3.3 g	AMP 175778-3 AMP 173977-3	**EE-SA407-P2**

*Attach the appropriate actuator according to the application.

Specifications

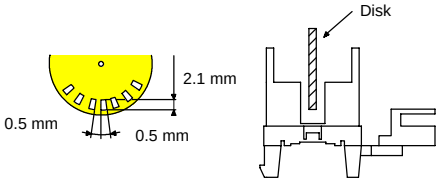
■ ABSOLUTE MAXIMUM RATINGS (T_A = 25°C (77°F))

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

■ ELECTRICAL CHARACTERISTICS (T_A = 25°C (77°F))

Item	Symbol	Value	Condition
Low level output voltage	V_{OL}	0.35 V max.	I_{OUT} = 16 mA without object
High level output voltage	V_{OH}	(V_{CC} x 0.9) V min.	$V_{OUT} = V_{CC}$ R_L = 47 kΩ with object
Current consumption	I_{CC}	30 mA max.	With or without object
Response frequency*	f	3000 pps min.	$V_{OUT} = V_{CC}$ R_L = 47 kΩ

*The value indicated is that measured by rotating the disk shown below (pps = pulse/second):

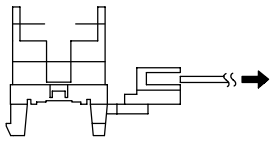


■ MECHANICAL CHARACTERISTICS

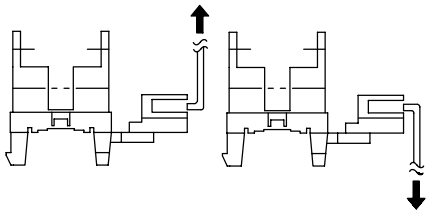
Item	Limits	Test conditions
Shock	30 G, min.	With packed
Vibration	Mechanical durability: 5 to 50, and then 5 Hz (peak acceleration 1 G) 1 cycle time: 60 s Operation time: 30 minutes No remark appears in X, Y, or Z directions	With packed
Terminal strength*	Tensile strength: 2 kg, 5 s, 1 time Flexure strength: 1 kg, 5 s, 1 time each	No disorder appeared in electrical characteristics

* Terminal strength is measured with a mating connector, as shown below:

Tensile strength



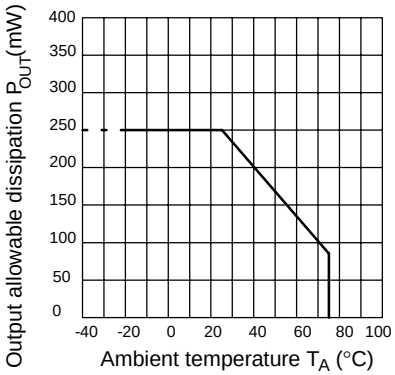
Flexure strength



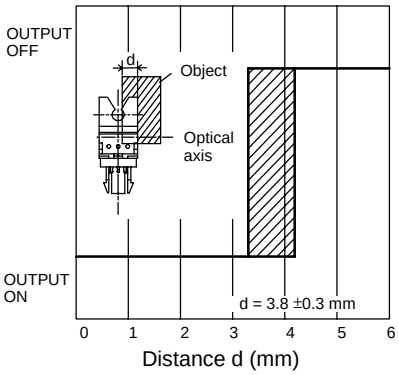
Engineering Data

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

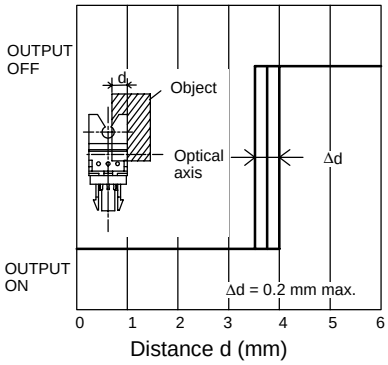
■ TEMPERATURE CHARACTERISTICS



■ SENSING POSITION CHARACTERISTICS

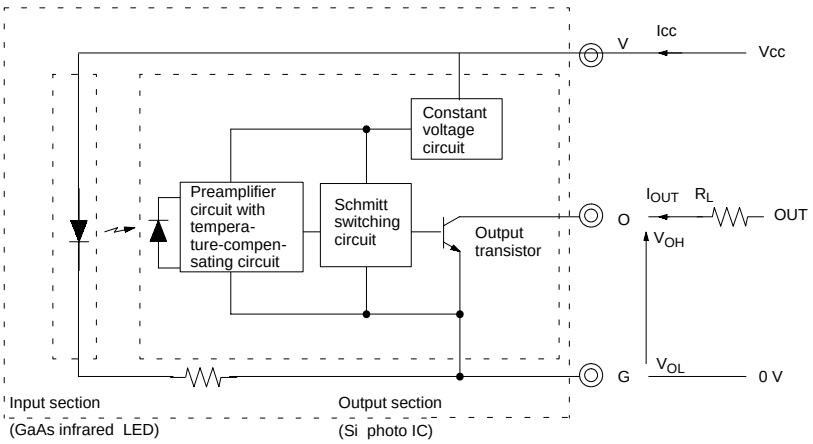


■ REPEATED SENSING POSITION CHARACTERISTICS

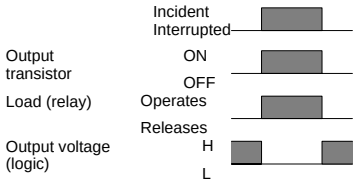


Operation

■ INTERNAL/EXTERNAL CIRCUIT DIAGRAM



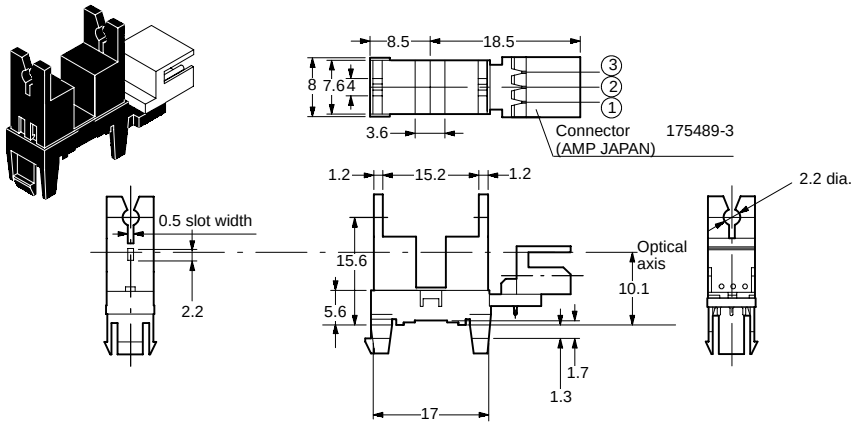
■ TIMING CHART

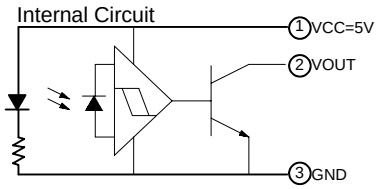


Dimensions

Unit: mm (inch)

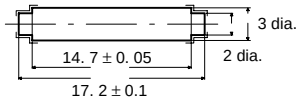
■ EE-SA407-P2





Terminal No.	Name
V	Supply voltage (Vcc)
O	Output (OUT)
G	Ground (GND)

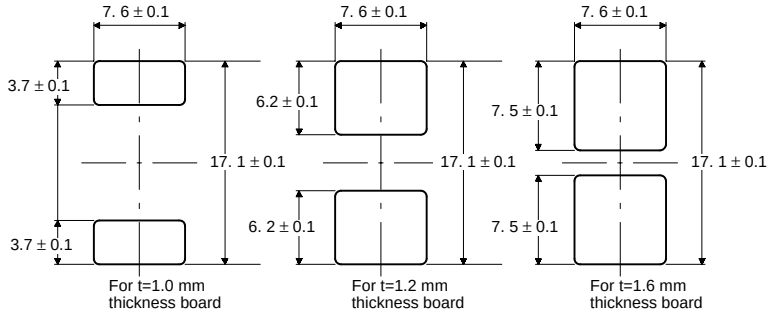
Recommended Actuator Design



Note: 1. No flash is located at the sections indicated by dotted lines.
2. Material must be opaque in infrared light range (900 to 950 nm).

Recommended Mounting Holes

Note: Refer to the Technical Information section for snap-in mounting procedure.



*Each corner must be R0.5 max.

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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