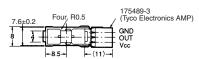
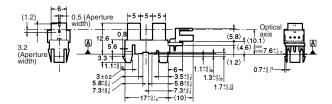
# **Photomicrosensor (Transmissive)**

# ■ Dimensions

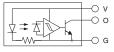
Note: All units are in millimeters unless otherwise indicated.





Note: The dimension is specified by datum A only.

#### **Internal Circuit**



Terminal No.	Name
V	Power supply (Vcc)
0	Output (OUT)
G	Ground (GND)

Unless otherwise specified, the tolerances are as shown below.

Dimensions	Tolerance
3 mm max.	±0.3
$3 < mm \le 6$	±0.375
6 < mm ≤ 10	±0.45
10 < mm ≤ 18	±0.55
18 < mm ≤ 30	±0.65

Recommended Mating Connectors: Tyco Electronics AMP 179228-3 (crimp connector)

175778-3 (crimp connector) 173977-3 (press-fit connector)

## ■ Features

- Snap-in mounting model.
- Mounts to 1.0-, 1.2- and 1.6-mm-thick panels.
- High resolution with a 0.5-mm-wide sensing aperture.
- With a 5-mm-wide slot.
- Photo IC output signals directly connect with C-MOS and TTL.
- Connects to Tyco Electronics AMP's CT-series connectors.
- · RoHS Compliant.

# ■ Absolute Maximum Ratings (Ta = 25°C)

Item		Symbol	Rated value
Power supply voltage		V <sub>cc</sub>	7 V
Output voltage		V <sub>OUT</sub>	28 V
Output current		I <sub>OUT</sub>	16 mA
Permissible output dissipation		P <sub>OUT</sub>	250 mW (see note)
Ambient temperature	Operating	Topr	–25° C to 75° C
	Storage	Tstg	–40° C to 85° C
Soldering temperature		Tsol	

Note: Refer to the temperature rating chart if the ambient temperature exceeds 25° C.

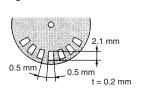
# ■ Ordering Information

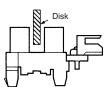
Description	Model
Photomicrosensor (transmissive)	EE-SX4235A-P2

# ■ Electrical and Optical Characteristics (Ta = 25°C, V<sub>cc</sub> = 5 V ±10%)

Item	Symbol	Value	Condition
Current consumption	I <sub>cc</sub>	16.5 mA max.	With and without incident
Low-level output voltage	V <sub>OL</sub>	0.35 V max.	I <sub>OUT</sub> = 16 mA with incident
High-level output voltage	V <sub>OH</sub>	(V <sub>CC</sub> x 0.9) V min.	$V_{OUT} = V_{CC}$ without incident, $R_L = 47 \text{ k}\Omega$
Response frequency	f	3 kHz min.	$V_{OUT} = V_{CC}$ , $R_L = 47 \text{ k}\Omega$ (see note)

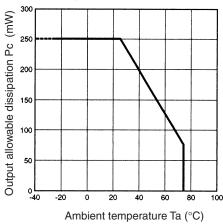
Note: The value of the response frequency is measured by rotating the disk as shown below.



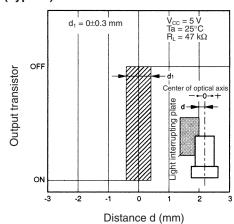


# **■** Engineering Data

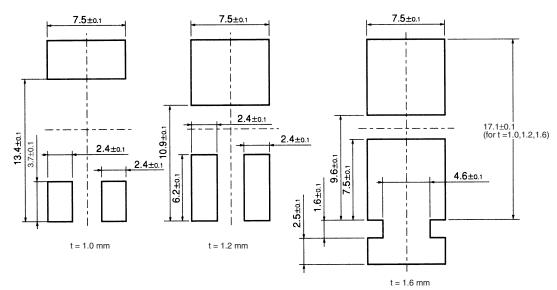
# Output Allowable Dissipation vs. Ambient Temperature Characteristics



# **Sensing Position Characteristics** (Typical)



# **■** Recommended Mounting Holes



- When mounting the Photomicrosensor to a panel with a hole opened by pressing, make sure that the hole has no burrs. The mounting strength of the Photomicrosensor will decrease if the hole has burrs.
- When mounting the Photomicrosensor to a panel with a hole opened by pressing, be sure to mount the Photomicrosensor on the pressing side of the panel.
- The mounting strength of the Photomicrosensor will increase if the Photomicrosensor is mounted to a panel with a hole that is only a little larger than the size of the Photomicrosensor, in which case, however, it will be difficult to mount the Photomicrosensor to the panel. The mounting strength of the Photomicrosensor will decrease if the Photomicrosensor is mounted to a panel with a hole that is comparatively larger than the size of the Photomicrosensor, in which case, however, it will be easy to mount the Photomicrosensor to the panel. When mounting the Photomicrosensor to a panel, open an appropriate hole for the Photomicrosensor according to the application.
- · After mounting the Photomicrosensor to any panel, make sure that the Photomicrosensor does not wobble.
- When mounting the Photomicrosensor to a molding with a hole, make sure that the edges of the hole are sharp enough, otherwise the Photomicrosensor may fall out.

# **Omron Electronic Components, LLC**

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  - Terms: These terms and conditions

Seller: Omron Electronic Components LLC and its subsidiaries

The buyer of Products, including any end user in section III through VI Products and/or services of Seller Buyer:

Products: (d)

Including without limitation Including:

- Offer: Acceptance: These Terms are deemed part of all quotations, acknowledgments, invoices, purchase orders and other documents, whether electronic or in writing, relating to the sale of Products by Seller. Seller hereby objects to any Terms proposed in Buyer's purchase order or other documents which are inconsistent with, or in addition to, these
- Distributor: Any distributor shall inform its customer of the contents after and including

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- legal rate, whichever is less, on any balance not paid within the stated terms.

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- Delivery and shipping dates are estimates only; and
- Seller will package Products as it deems proper for protection against normal
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