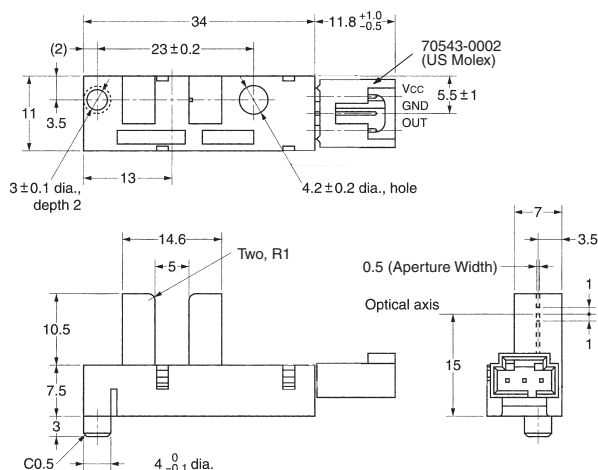


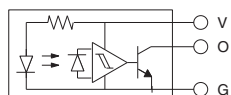
Photomicrosensor (Transmissive) EE-SX4009-P10

■ Dimensions

Note: All units are in millimeters unless otherwise indicated.



Internal Circuit



Unless otherwise specified, the tolerances are as shown below.

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

Dimensions	Tolerance
4 mm max.	±0.2
4 < x ≤ 16 mm	±0.3
16 < x ≤ 63 mm	±0.5

Recommended Mating Connectors:
US Molex 50-57-9403
15-47-4033
14-56-2036 (AWG28)
14-56-2034 (AWG26)
14-56-2032 (AWG24)
14-56-2037 (AWG22)

■ Features

- Screw-mounting model.
- High resolution with a 0.5-mm-wide sensing aperture.
- With a 5-mm-wide groove.
- Photo IC output signals directly connect with C-MOS and TTL.
- Connects to US Molex connectors.
- RoHS Compliant.

■ Absolute Maximum Ratings (Ta = 25°C)

Item		Symbol	Rated value
Power supply voltage		V_{CC}	10 V
Output voltage		V_{OUT}	28 V
Output current		I_{OUT}	16 mA
Permissible output dissipation		P_{OUT}	250 mW (see note)
Ambient temperature	Operating	T_{opr}	-25°C to 75°C
	Storage	T_{stg}	-40°C to 85°C
Soldering temperature		T_{sol}	---

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

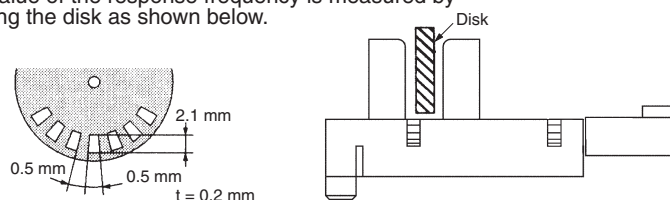
■ Ordering Information

Description	Model
Photomicrosensor (transmissive)	EE-SX4009-P10

■ Electrical and Optical Characteristics (Ta = 25°C, Vcc = 5 V ±10%)

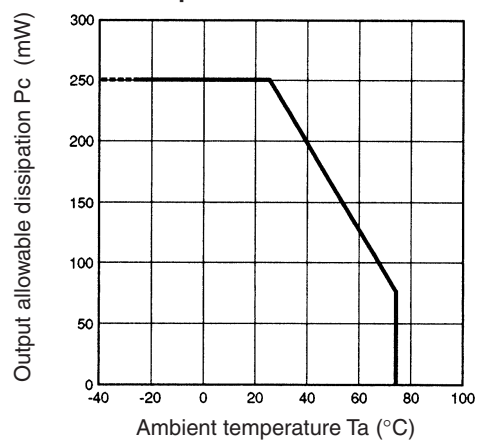
Item	Symbol	Value	Condition
Current consumption	I_{CC}	30 mA max.	With and without incident
Low-level output voltage	V_{OL}	0.3 V max.	$I_{OUT} = 16$ mA with incident
High-level output voltage	V_{OH}	$(V_{CC} \times 0.9)$ V min.	$V_{OUT} = V_{CC}$ without incident, $R_L = 47$ k Ω
Response frequency	f	3 kHz min.	$V_{OUT} = V_{CC}$, $R_L = 47$ k Ω (see note)

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

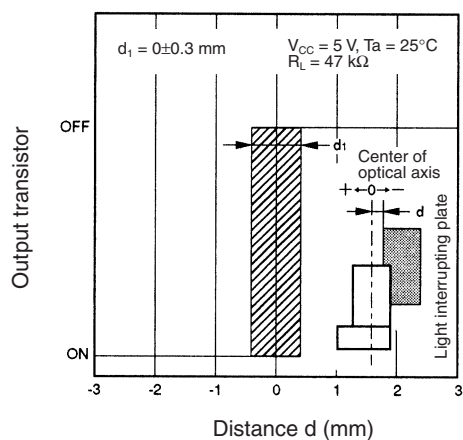


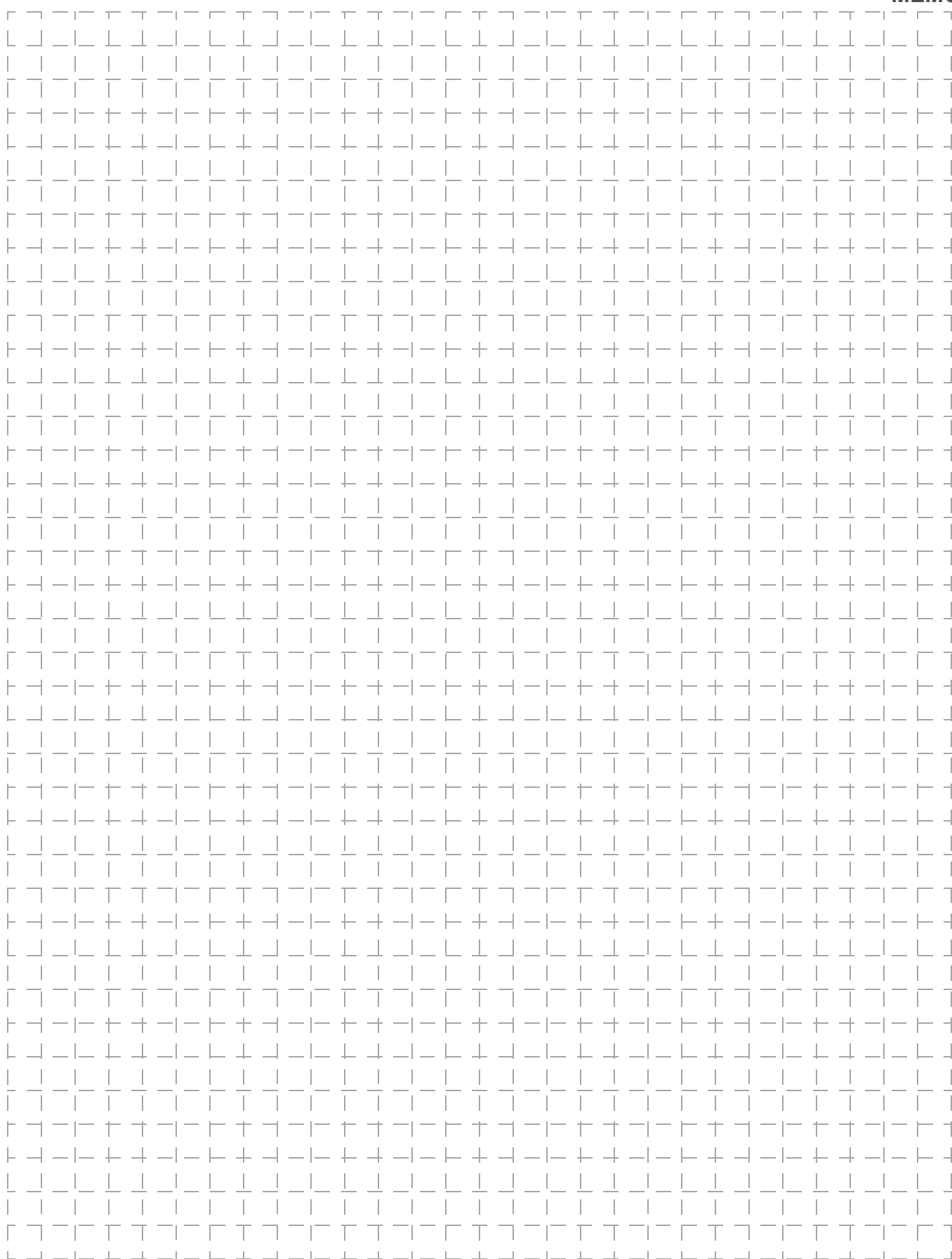
■ Engineering Data

Output Allowable Dissipation vs. Ambient Temperature Characteristics



Sensing Position Characteristics (Typical)





All sales are subject to Omron Electronic Components LLC standard terms and conditions of sale, which can be found at http://www.components.omron.com/components/web/webfiles.nsf/sales_terms.html

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.

To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

OMRON[®]

**OMRON ELECTRONIC
COMPONENTS LLC**

55 E. Commerce Drive, Suite B
Schaumburg, IL 60173

847-882-2288

OMRON ON-LINE

Global - <http://www.omron.com>

USA - <http://www.components.omron.com>

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Omron:

[EE-SX4009-P10](#)