# EE-SX4009-P10

# Slot / Screw mounting / Connector Type (Slot width: 5 mm)

- Screw-mounting
- High resolution with a 0.5-mm-wide aperture
- Directly connectable to C-MOS
- Connects to US Molex connectors



Be sure to read Safety Precautions on page 2.

RoHS Compliant

# **Model Number Structure**

EE-S X 4 009 - P - 10

(4)

(2)

(1)

(2)

(3)

Photomicrosensor

Transmissive

(4)

(1)

Serial number

(4)

PCB mounting

(5)

(6)

(3)

Photo IC output, Light-ON

(6)

Serial number

# **Ordering Information**

#### **Photomicrosensor**

Appearance	Sensing method	Connecting method	Sensing distance	Aperture size (H × W) (mm)	Output type	Model	Minimum packing unit (Unit: pcs)
18 34 11	Transmissive (slot type)	Connector	5 mm (slot width)	Both emitting side and detecting side $2 \times 0.5$	Photo IC	<b>EE-SX4009-P10</b> (Light-ON)	1

Note: Order in multiples of minimum packing unit.

# **Ratings, Characteristics and Exterior Specifications**

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

		•	•
Item	Symbol	Rated value	Unit
Power supply voltage	Vcc	10	V
Output voltage	<b>V</b> out	28	V
Output current	Іоит	16	mA
Permissible output dissipation	Роит	250 *	mW
Operating temperature	Topr	-25 to +75	°C
Storage temperature	T <sub>stg</sub>	-40 to +85	°C
Soldering temperature	T <sub>sol</sub>		°C

<sup>\*</sup> Refer to the temperature rating chart if the ambient temperature exceeds 25°C.

### **Exterior Specifications**

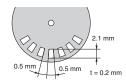
Connecting method	Weight (g)	Material
Connecting method	weight (g)	Case
Connector	3.4	Polycarbonate

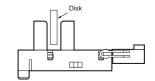
# **Electrical and Optical Characteristics**

 $(Ta = 25^{\circ}C, Vcc = 5 V \pm 10\%)$ 

Item	Symb		Value		Unit	Condition	
iteiii	ol	MIN.	TYP.	MAX.	Oilit		
Current consumption	Icc			30	mA	With and without incident	
Low-level output voltage	Vol			0.3	٧	IOUT = 16 mA, with incident	
High-level output voltage	Vон	(Vcc ×0.9)			٧	$\begin{aligned} &\text{Vout} = \text{Vcc},\\ &\text{without incident},\\ &\text{RL} = 47 \text{ k}\Omega \end{aligned}$	
Response frequency	f	3			kHz	Vout = Vcc *, RL = 47 k $\Omega$	

<sup>\*</sup> The value of the response frequency is measured by rotating the disk as shown below.

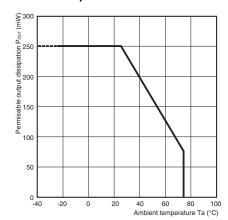


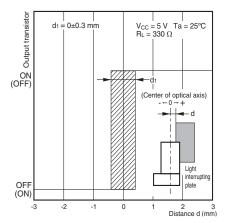


# **Engineering Data (Reference value)**

Fig 1. Output Allowable Dissipation vs. Ambient Temperature Characteristics

Fig 2. Sensing Position Characteristics (Typical)





## **Safety Precautions**

To ensure safe operation, be sure to read and follow the Instruction Manual provided with the Sensor.



This product is not designed or rated for ensuring safety of persons either directly or indirectly. Do not use it for such purposes.



#### **Precautions for Safe Use**

Do not use the product with a voltage or current that exceeds the rated range.

Applying a voltage or current that is higher than the rated range may result in explosion or fire.

Do not miswire such as the polarity of the power supply voltage.

Otherwise the product may be damaged or it may burn.

Do not short-circuit the load.

Otherwise explosion or burning may occur.

This product does not resist water.

#### **Precautions for Correct Use**

Do not use the product in atmospheres or environments that exceed product ratings. Dispose of this product as industrial waste.

(Unit: mm)

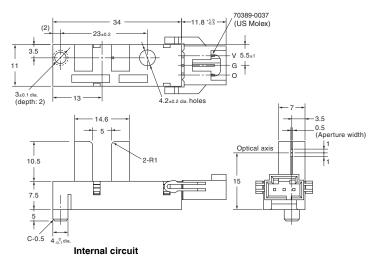
### **Photomicrosensor**

### EE-SX4009-P10



Aperture size  $(H \times W)$  (mm)

Emitter	Detector	
2 × 0.5	2 × 0.5	



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Unless otherwise specified, the tolerances are as shown below.

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

Dimensions	Tolerance
4 mm max.	±0.2
$4 < mm \le 16$	±0.3
16 < mm ≤ 63	±0.5

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