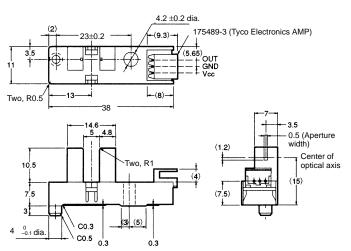
# EE-SX4019-P2

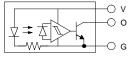
## **Photomicrosensor** (Transmissive)

#### ■ Dimensions

Note: All units are in millimeters unless otherwise indicated.



#### **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 ≤ 6	±0.375
6 < mm ≤ 10	±0.45
10 < mm ≤ 18	±0.55
18 < mm ≤ 30	±0.65

## ■ 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
- Connects to Tyco Electronics AMP's CT-series connectors.

#### ■ Absolute Maximum Ratings $(Ta = 25^{\circ}C)$

lto	em	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	−20°C to 75°C
	Storage	Tstg	–40°C to 85°C
Soldering temperature		Tsol	

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

Recommended Mating Connectors:

Tyco Electronics AMP

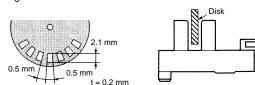
179228-3 (crimp-type connector) 175778-3 (crimp-type connector)

173977-3 (press-fit connector)

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

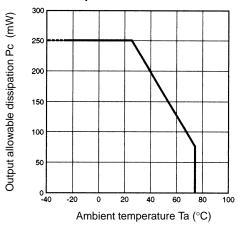
Item	Symbol	Value	Condition	
Current consumption	Icc	20 mA max.	With and without incident	
Low-level output voltage	V <sub>OL</sub>	0.3 V max.	I <sub>OUT</sub> = 16 mA with incident	
High-level output voltage	V <sub>OH</sub>	(V <sub>CC</sub> x 0.9) V min.	$V_{OUT} = V_{CC}$ without incident, $R_L = 47 \text{ k}\Omega$	
Response frequency	f	3 kHz min.	$V_{OUT} = V_{CC}$ , $R_1 = 47 \text{ k}\Omega$ (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)

EE-SX4019-P2

