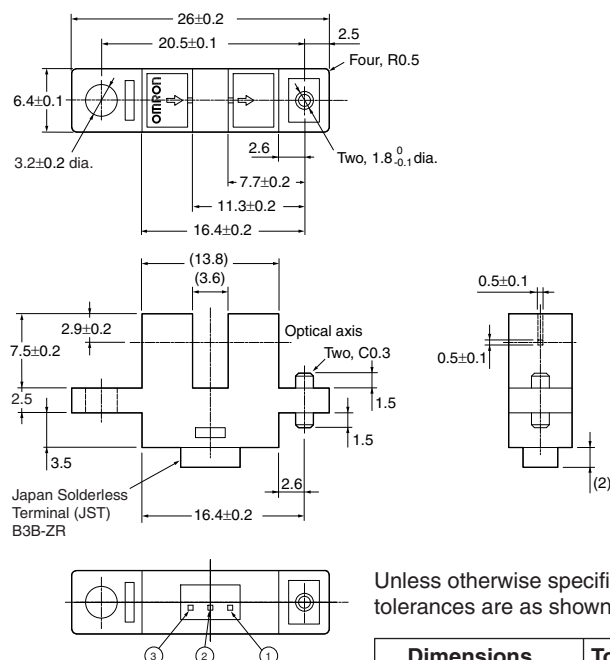


Photo IC Output Photomicrosensor (Transmissive) EE-SX3148-P1

 Be sure to read *Precautions* on page 24.

■ Dimensions

Note: All units are in millimeters unless otherwise indicated.



Unless otherwise specified, the tolerances are as shown below.

Terminal No.	Name
1	Power supply (Vcc)
2	Output (OUT)
3	Ground (GND)

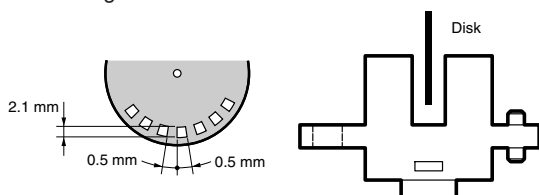
Dimensions	Tolerance
3 mm max.	±0.200
3 < mm ≤ 6	±0.240
6 < mm ≤ 10	±0.290
10 < mm ≤ 18	±0.350
18 < mm ≤ 30	±0.420

Recommended Mating Connectors:
JST (Japan Solderless Terminal) ZHR-3 Series (crimp connector)
03ZR Series (press-fit connector)

■ Electrical and Optical Characteristics (Ta = 25°C, V_{CC} = 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 without incident
High-level output voltage	V_{OH}	$(V_{CC} \times 0.9)$ V min.	$V_{OUT} = V_{CC}$ with 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.



■ Features

- A boss on one side enables securing the Sensor with one M2 or M3 screw.
- Sensor can be installed from either top or bottom of mounting plate.
- High resolution both vertically and horizontally (slot dimensions: 0.5 x 0.5 mm)
- 3.6-mm-wide slot.
- Photo-IC output connects directly to CMOS and TTL devices.
- Applicable to the ZH and ZR Connector Series from JST (Japan Solderless Terminal).

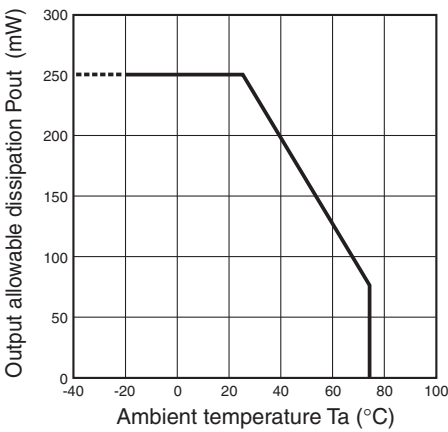
■ Absolute Maximum Ratings (Ta = 25°C)

Item		Symbol	Rated value
Power supply voltage		V_{CC}	6 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}	−20°C to 75°C
	Storage	T_{stg}	−40°C to 85°C
Soldering temperature		T_{sol}	---

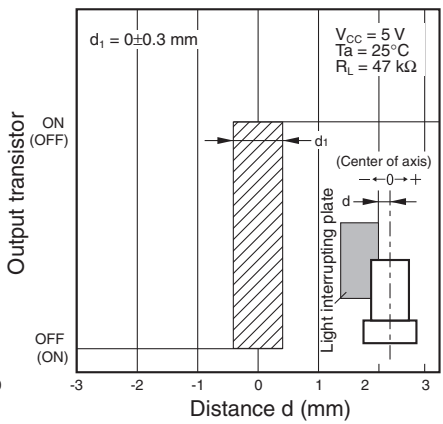
Note: Refer to the temperature rating chart if the ambient temperature exceeds 25°C.

■ Engineering Data

Output Allowable Dissipation vs. Ambient Temperature Characteristics



Sensing Position Characteristics (Typical)



Sensing Position Characteristics (Typical)

