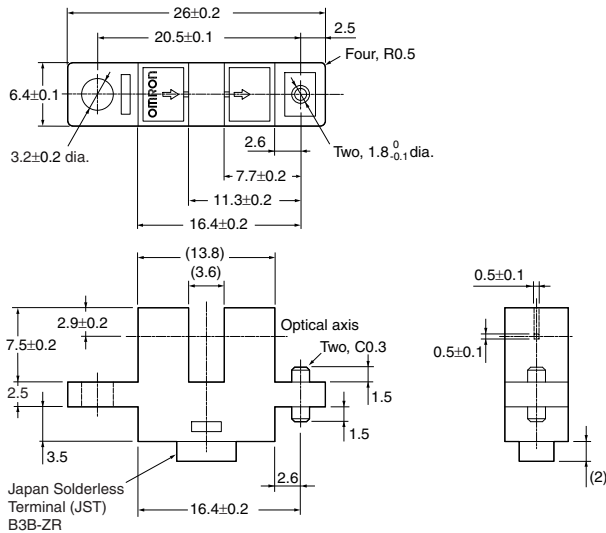


Photo IC Output Photomicrosensor (Transmissive) EE-SX3148-P1

⚠ 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.

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

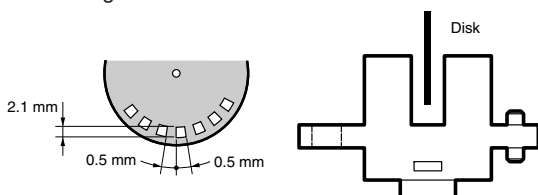
Terminal No.	Name
1	Power supply (V _{CC})
2	Output (OUT)
3	Ground (GND)

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} × 0.9) V min.	V _{OUT} = V _{CC} with incident R _L = 47 kΩ
Response frequency	f	3 kHz min.	V _{OUT} = V _{CC} , R _L = 47 kΩ (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 of 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).

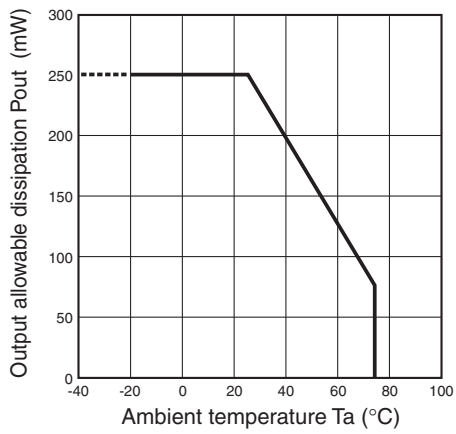
■ Absolute Maximum Ratings (Ta = 25°C)

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}	---

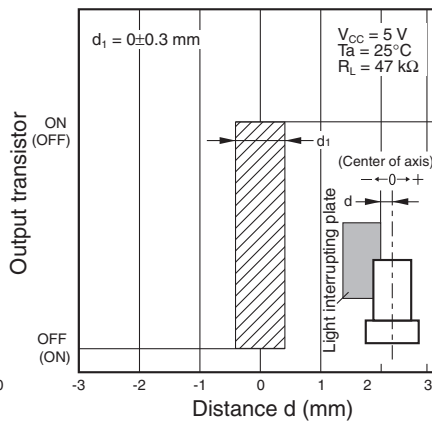
Note: Refer to the temperature rating chart if the ambient temperature exceeds 25°C.

■ Engineering Data

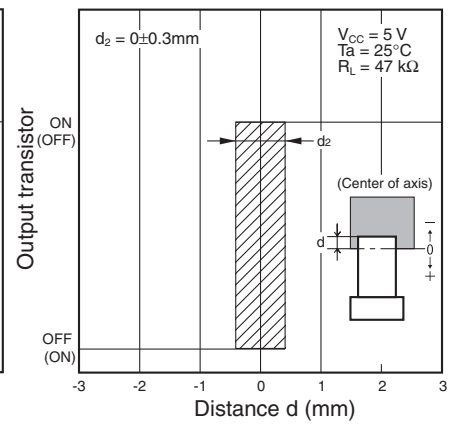
Output Allowable Dissipation vs. Ambient Temperature Characteristics



Sensing Position Characteristics (Typical)



Sensing Position Characteristics (Typical)



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