Photomicrosensor (Transmissive)

Dimensions

Note: All units are in millimeters unless otherwise indicated.







Ground (GND)

Unless otherwise specified, the tolerances are as shown below.

	Dimensions	Tolerance
7	3 mm max.	±0.200
	3 < mm ≤ 6	±0.240
	6 < mm ≤ 10	±0.290
	$10 < mm \le 18$	±0.350
	18 < mm ≤ 30	±0.420

Recommended Mating Connectors:

3

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

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. (aperture 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.

■ Absolute Maximum Ratings (Ta = 25°C)

	Item	Symbol	Rated value							
Power supply	voltage	V _{cc}	6 VDC							
Output voltage	e	V _{OUT}	28 V							
Output curren	ıt	I _{OUT}	16 mA							
Permissible o	utput dissipation	P _{OUT}	250 mW (see note)							
Ambient	Operating	T _{opr}	–20°C to 75°C							
temperature	Storage	T _{stg}	–40°C to 85°C							
Soldering tem	iperature	T _{sol}								

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

Ordering Information

Description	Model
Photomicrosensor (transmissive)	EE-SX3148-P1

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} x 0.9) V min.	$V_{OUT} = V_{CC}$ with incident $R_L = 47 \ k\Omega$
Response frequency	f	3 kHz min.	$V_{OUT} = V_{CC}, R_{L} = 47 \text{ k}\Omega \text{ (see note)}$

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



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Engineering Data

Output Allowable Dissipation vs. Ambient Temperature Characteristics Sensing Position Characteristics (Typical)

Sensing Position Characteristics (Typical)



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