Safety Precautions

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

⚠ CAUTION

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 Correct Use

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

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.

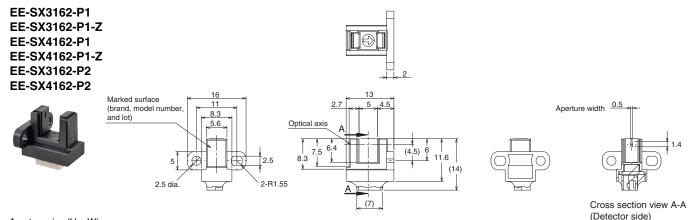
Otherwise explosion or burning may occur.

This product does not resist water. Do not use the product in places where water or oil may be sprayed onto the product.

Dimensions and Internal Circuit

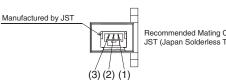
(Unit: mm)

Photomicrosensor



Aperture size (H × W)

Emitter	Detector
1.4 × 1.4	1.4 × 0.5



Terminal No.

(1) (2)

(3)

Recommended Mating Connectors JST (Japan Solderless Terminal) GHR-03

Name

Ground (GND)

Output (OUT)

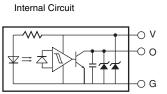
Power supply (Vcc)

Unless otherwise specified, the tolerances are as shown below.

Dimensions	Tolerance
3 mm max.	±0.2
3 < mm ≤ 6	±0.24
6 < mm ≤ 10	±0.29
10 < mm ≤ 18	±0.35
18 < mm ≤ 30	±0.42

Note: Dimensions in parentheses are for reference only.

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Note:	Only	with	models	en	ding	in	-Z.

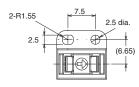
EE-SX3162/3163/3164-P EE-SX4162/4163/4164-P

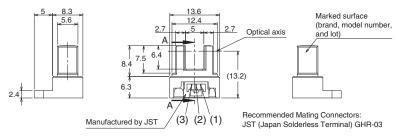
EE-SX3163-P1 EE-SX4163-P1 EE-SX3163-P2 EE-SX4163-P2

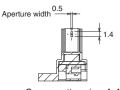


Aperture size (H × W)

Emitter	Detector
1.4 × 1.4	1.4 × 0.5

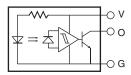






Cross section view A-A (Detector side)

Internal Circuit



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

Unless otherwise specified, the tolerances are as shown below.

Dimensions	Tolerance
3 mm max.	±0.2
$3 < mm \le 6$	±0.24
6 < mm ≤ 10	±0.29
10 < mm ≤ 18	±0.35
18 < mm ≤ 30	±0.42

Note: Dimensions in parentheses are for reference only.

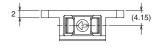
EE-SX3164-P1 EE-SX4164-P1 EE-SX3164-P2 EE-SX4164-P2

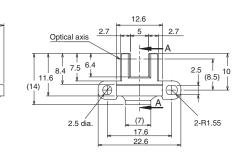


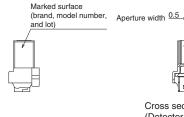
. 5.6

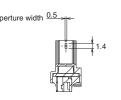
Aperture size $(H \times W)$

Emitter	Detector
1.4 × 1.4	1.4 × 0.5

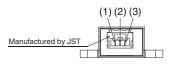






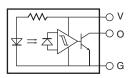


Cross section view A-A (Detector side)



Recommended Mating Connectors: JST (Japan Solderless Terminal) GHR-03

Internal Circuit



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

Unless otherwise specified, the tolerances are as shown below.

Dimensions	Tolerance
3 mm max.	±0.2
$3 < mm \le 6$	±0.24
$6 < mm \le 10$	±0.29
10 < mm ≤ 18	±0.35
18 < mm ≤ 30	±0.42

Note: Dimensions in parentheses are for reference only.