

New Product Introduction



New Transmissive SMD Photo Micro Sensor EE-SX4330 (3mm slot width, PIC output)



OMRON

New product feature

Transmissive Surface mount PMS with 3.0mm slot width and Phot IC output

1 Surface mount stability

- Optimize your soldering process by Reflow soldering
- Side pad flat terminal design

2 Photo IC Output (Digital output)

- Reduce related components in your circuit design

3 Compact size

- 5 x 6 x 4 mm



New product feature

Omron have wide selection of PMS and focusing on SMD types

Model ¹⁾	EE-SX1320 /4320	EE-SX1321	EE-SX1330	EE-SX1340 /3340,4340	EE-SX1350 /3350,4350	EE-SX3173 /4173-P	EE-SX3162 /4162-P1(-Z), P2	EE-SX3163 /4163-P1,P2	EE-SX3164 /4164-P1,P2	EE-SX460-P1	EE-SX461-P11	EE-SX3000-P1, 4009-P1	For connector models Accessories	EE-SX1018	EE-SX1103	EE-SX1105
Sensing Type (Termination)	Transmissive (SMD)					Transmissive (Connectors)					Transmissive (Connectors)			Transmissive (Terminal)		
																
Mounting Type	Surface Mount	Surface Mount	Surface Mount	Surface Mount	Surface Mount	M3 Screw-mounting	M2 Screw-mounting	M2 Screw-mounting	M2 Screw-mounting	Snap-in	Snap-in	Screw-mounting	Connector with side (Data dependent)	Board Mount	Board Mount	Board Mount
Sensing Distance	2mm	2mm	3mm	4mm	5mm	5mm	5mm	5mm	5mm	5mm	15mm	5mm	EE-1005 Tyco Electronics Length: 1m	2mm	2mm	2mm
Output Configuration ²⁾	PTr/P-IC	PTr	PTr	PTr/P-IC	PTr/P-IC	P-IC	P-IC	P-IC	P-IC	P-IC	P-IC	P-IC	EE-5002 JST Length: 1m	PTr	PTr	PTr
Aperture Size	0.3mm	0.3mm	0.3mm	0.5mm	0.5mm	0.5mm	0.5mm	0.5mm	0.5mm	0.5mm	2mm	0.5mm	EE-5002 JST Length: 1m	0.5mm	0.4mm	0.4mm
Dimensions (LxWxH)	5.1x4x4	5.1x4x4	6x4x5	8x4x5.5	9x4x9	13.6x14.8x14.7	13x16x14	13.6x13.3x14.7	22.6x8.3x14	30x11x23.6	32.5x12x23.6	34x11x21	EE-5002 JST Length: 1m	8x4x6	5x4.2x5.2	4.9x2.6x3.3
Features	Super miniature	Output 2ch Super miniature	Super miniature	Miniature	General purpose	Connector with lock Driving voltage 524V	Connector with lock	Connector with lock	Connector with lock	High resolution Detachable	Wide slot Detachable	High resolution	EE-5002 JST Length: 1m	Miniature	Super miniature	Super miniature
Model ¹⁾	EE-SX493	EE-SX1055	EE-SX1046	EE-SX1106	EE-SX198 /398,498	EE-SX1071 /301,401	EE-SX1081 /3081,4081	EE-SX1041	EE-SX1042	EE-SX1035	EE-SX1070 /3070,4070	EE-SX1140	EE-SX129	EE-SV3	EE-SX1088 /3088,4088	EE-SX1096
Sensing Type (Termination)	Transmissive (Terminal)								Transmissive (Terminal)							
																
Mounting Type	Board Mount	Board Mount	Board Mount	Board Mount	Board Mount	Board Mount	Board Mount	Board Mount	Board Mount	Board Mount	Board Mount	Board Mount	Screw-mounting	Screw-mounting	Screw-mounting	Screw-mounting
Sensing distance	2mm	2.8mm	3mm	3mm	3mm	3.4mm	5mm	5mm	5mm	5.2mm	8mm	14mm	3mm	3.4mm	3.4mm	3.4mm
Output Configuration ²⁾	P-IC	PTr	PTr	PTr	PTr/P-IC	PTr/P-IC	PTr/P-IC	PTr	PTr	PTr	PTr/P-IC	PTr	PTr	PTr	PTr/P-IC	PTr
Aperture Size	0.2mm	0.5mm	0.5mm	0.4mm	0.5mm	0.5mm	0.5mm	0.5mm	0.5mm	1mm	0.5mm	1.5mm	0.2mm	0.2/0.5/1mm	0.5mm	0.5mm
Dimensions (LxWxH)	11x8x9.7	8.9x4x5.4	10x6.5x5	6.4x4.2x5.4	12.2x5x10	13.6x6.2x10.4 /15.4x6.2x10.4	13.7x5x10	14x6x10	14x5x14.5	12.6x6.3x6.9	17.7x6x10	23x5x16.3	13x11x8	15.1x19x10.4	25x6x10	25x6x10
Features	High resolution	Miniature	Horizontal aperture	Miniature	General purpose Without a positioning boss ³⁾	General purpose	General purpose	With a positioning boss	High profile Without a positioning boss ⁴⁾	Small with wide slot	Wide slot With a positioning boss	Wide slot	High resolution	High resolution	General purpose	Horizontal aperture
Model ¹⁾	EE-SG3	EE-SX1161-WH /3161-WH,4161-WH	EE-SX1088-WH /3088-WH,4088-WH	EE-SX1096-WH /3096-WH,4096-WH	EE-SX1160-WH /3160-WH,4160-WH	EE-SY1200	EE-SY1201	EE-SY171	EE-SY169, 169A, 169B	EE-SY110 /310,410	EE-SF5, SF5-B	EE-SB5				
Sensing Type (Termination)	Transmissive (Terminal)	Transmissive (Pre-wired)			*Detachable connector	Reflective		Reflective								
																
Mounting Type	Screw-mounting	Screw-mounting	Screw-mounting	Screw-mounting	Screw-mounting	Surface Mount	Surface Mount	Board Mount	Board Mount	Board Mount	Board Mount	Screw-mounting				
Sensing distance	3.6mm	3.2mm	3.4mm	3.4mm	3.4mm	1mm	3.0mm	3.5mm	4mm	5mm	5mm	5mm				
Output Configuration ²⁾	PTr	PTr/P-IC	PTr/P-IC	PTr/P-IC	PTr/P-IC	PTr	PTr	PTr	PTr	PTr/P-IC	PTr	PTr				
Aperture Size	2mm	0.5mm	0.5mm	0.5mm	0.5mm	-	-	-	-	-	-	-				
Dimensions (LxWxH)	25.4x6.35x11.7	12.95x23.7x12.7	25x6x10	25x6x10	31.75x6x15.5	3.2x1.9x1.1	4.0x3.0x2.0	14x4.2x3	12.5x6x8	12x4.6x4.8	13x5.7x8	25.4x6.35x11.5				
Features	Dust-proof	Dust-proof	General purpose	Horizontal aperture	Wide slot	Super miniature	Super miniature	Thin	Reg. LED, A: General purpose, B: Red LED, high output	General purpose	Dust-proof	Dust-proof				

SMD Type portfolio

New product introduction EE-SX4330 to enhance Photo IC SMD portfolio

Photo micro sensor SMD type line up

					
		2mm	3mm	4mm	5mm
Photo IC	L-ON	EE-SX4320	NEW EE-SX4330	EE-SX4340	EE-SX4350
	D-ON	---	---	EE-SX3340	EE-SX3350
Phototransistor	1 Ch	EE-SX1320	EE-SX1330	EE-SX1340	EE-SX1350
	2 Ch	EE-SX1321	---	---	---

Analog output = Phototransistor output
Digital output = Photo IC output

Technical advantage

Optimized SMD terminal design will contribute stable PCB mounting



Conventional PMS SMD design



Specification

2 types of product available with different package specification

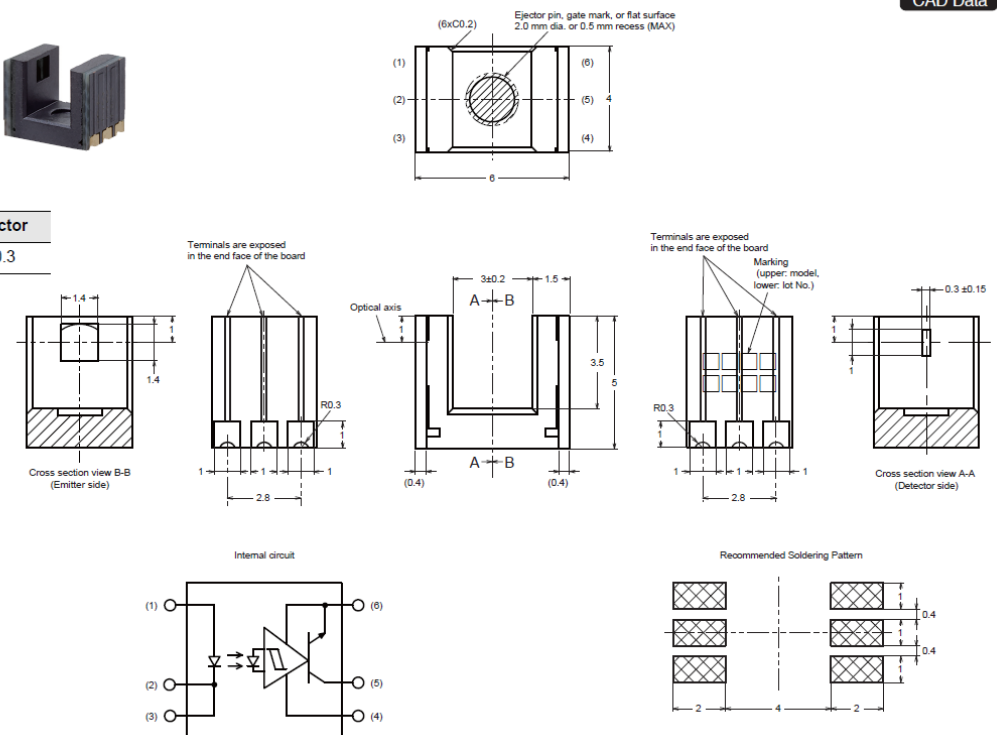
	EE-SX4330	EE-SX4330-1
Package type	Tape reel 1,000 pcs	Tape cut 100 pcs
Sensing type	Transmissive	
Slot width	3mm	
Output	Photo IC (Digital output)	
Terminal design	SMD	
Dimension (L x W x H)	6 x 4 x 5	

EE-SX4330



Aperture size (H x W)

Emitter	Detector
1.4x1.4	1x0.3



CAD Data

Target application

PMS will be use for Position & Rotation detection of following applications

FA Equipment
Chip Mounter, etc



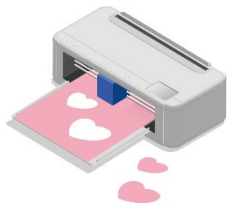
Function : Sprocket rotation detection
Needs : Miniaturize

Analyzer
PCR, etc



Function : Unit detection
Needs : Miniaturize

Automation Equipment
Cutting machine, etc



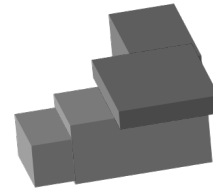
Function : Unit detection
Needs : Miniaturize

Automation Equipment
Plotter, etc



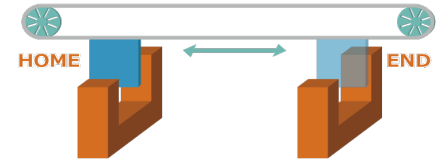
Function : Unit detection
Needs : Miniaturize

Automation Equipment
X-Y Stage, etc

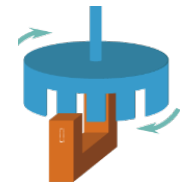


Function : Rotation detection
Needs : Miniaturize

1 Position detection



2 Rotation detection





Thank You