

OMRON

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Sensing distance	Supply voltage	Output
5 mm, 1 cm, 31 m 	12 to 24 VDC	 80 to 100 mA

Photoelectric Sensor

E3S-G

Grooved Head Sensors with Built-in DC Amplifiers

- A 1-cm groove type detects marks on transparent film.
- A 3-cm groove type detects edges, labels, and marks.
- LIGHT and STABILITY indicators make sensitivity adjustment easy.



Ordering Information

Application	Groove width	Model	
		NPN output	PNP output
Mark sensing	1 cm	E3S-GS1E4 E3S-GS1RE4 E3S-GS1GE4	E3S-GS1B4 E3S-GS1RB4 E3S-GS1GB4
General-purpose	3 cm	E3S-GS3E4	E3S-GS3B4

Specifications

■ Ratings/Characteristics

Item			E3S-GS1E4/ E3S-GS1B4	E3S-GS1RE4A/ E3S-GS1RB4A	E3S-GS1GE4A/ E3S-GS1GB4A	E3S-GS3E4/ E3S-GS3B4
Power supply voltage			12 to 24 VDC, ripple (p-p): 10% max.			12 VDC –10% to 24 VDC +10%, ripple (p-p): 10% max.
Current consumption			40 mA max.			
Sensing distance			1 cm			3 cm
Standard objects			Transparent (2 x 3 mm)			Opaque and translucent (3 mm)
Control output	DC solid-state	Load	Models with suffix –E4: 80 mA max. Models with suffix -B4: 100 mA max.			
		Voltage output	2 V max.			
Response time (ON, OFF)			1 ms max.			
Sensitivity			Adjustable	10-cycle trimmer		Adjustable
Operation mode			Wire-selectable (Refer to “ <i>Output Circuit.</i> ”)			
Indicators			Light indicator (red), stability indicator (green)			
Enclosure rating	IEC 144	IP65	IP65		IP67	
	NEMA	1, 2, 12	1, 2, 12		1, 3, 4X, 6, 12	
Housing material			Plastic			Metal
Light source			Green LED	Red LED	Green LED	Infrared LED
Ambient temperature			Operating: –25 to 55 °C			

Engineering Data

Passing Speed vs. Width of Object

E3S-GS3

