

30MM-Groove Photoelectric Sensor with Optical Axes Alignment



E3S-GS3□4

Category

Sensing method	Appearance	Sensing distance	Operation mode	Output	Model
Grooved-type		30mm (Groove width)	Light-ON, Dark-ON selectable	NPN	E3S-GS3E4
				PNP	E3S-GS3B4

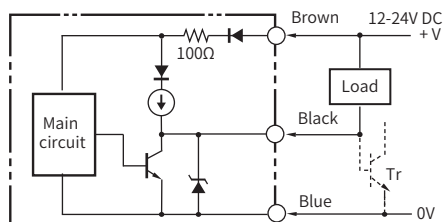
Infrared light

Ratings and Specifications

Model	E3S-GS3E4	E3S-GS3B4
Sensing distance	30mm (slot width)	
Standard sensing object	Opaque, 6-mm dia. min.	
Minimum detectable object	3mm dia. min. (black mark on transparent sheet)	
Light source (wavelength)	Infrared LED (950 nm)	
Power supply voltage	12 to 24 VDC $\pm 10\%$, ripple (p-p): 10% max.	
Current consumption	40 mA max.	
Control output	Load power supply voltage: 24 VDC max., Load current: 80 mA max. (residual voltage: 2 V max.); Light-ON/Dark-ON mode selector	
Protection circuits	Power supply reverse polarity, Output short-circuit protection	
Response time	Operate or reset: 1 ms max.	
Sensitivity adjustment	One-turn adjuster	
Ambient illumination (receiver side)	Incandescent lamp: 3,000 lx max. Sunlight: 10,000 lx max.	
Ambient temperature	Operating: -25 to 55°C (with no icing or condensation) Storage: -40 to 70°C (with no icing or condensation)	
Ambient humidity	Operating: 35% to 85% (with no condensation) Storage: 35% to 95% (with no condensation)	
Insulation resistance	20 M Ω min. (at 500 VDC)	
Dielectric strength	1,000 VAC at 50/60 Hz for 1 minute	
Vibration resistance (destruction)	10 to 55 Hz with a 1.5mm double amplitude for 2 h each in X, Y and Z directions	
Shock resistance (destruction)	500 m/s ² , for 3 times each in X, Y and Z directions	
Degree of protection	IEC IP67	
Connection method	Pre-wired (standard length: 2 m)	
Weight	Approx. 80 g	
Material	Polycarbonate	

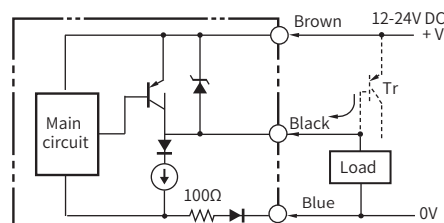
I/O Circuit Diagrams

NPN



* Invert the connection to switch between light-on and dark-on.

PNP



* Invert the connection to switch between light-on and dark-on.

Dimensions

Unit:mm

