



Basic Features	Working Principle	Optical detection principle							
	Sensing method	Diffuse(BGS)							
	Type	Rectangular							
	Sensing distance	5~100mm	5~150mm		5~300mm				
	Setting distance	25~100mm	25~150mm		25~300mm				
	Spot size	65x6/100mm	∅3mm/150mm	∅3mm/150mm	∅16mm/300mm	∅8mm/300mm	-	∅16mm/300mm	
	Minimum sensing object diameter	∅5mm							
	Light source	Red LED(660nm)		Red LED(623nm)	Red LED(660nm)	Infrared LED (940nm)	Blue LED(465nm)		
	Indicator	Running: green; Output: red							
	Sensitivity adjustment	6-turn potentiometer							
Electrical Data	Operation model	Light.on/Dark.on switching							
	Output model	NPN/PNP available by model							
	Response time	≤1ms							
	Response frequency	≤500Hz							
	Repeatability	≤5%							
	Hysteresis	≤5%							
	Operating Voltage	10~30V ±10%							
	No load current	≤25mA							
	Voltage drop	< 1.5V							
	Load current	≤100mA							
	Insulation resistance	≥20MΩ/500V DC							
	Dielectric strength	1000V AC at 50/60Hz for 1 min							
	Protection Circuit	Reverse Polarity Protection/Short-circuit Protection/Surge protection							
Environmental Conditions	Operating Temperature	-25°C~+55°C (No Freezing)							
	Storage Temperature	-30°C~+70°C (No Freezing)							
	Operating Humidity	35%~85% RH (No Condensation)							
	Storage Humidity	35%~95% RH (No Condensation)							
	Ambient illumination	Incandescent lamps≤3,000lux; Sunlight≤10,000lux							
	Vibration resistance	10~55Hz, 1.5mm double amplitude for 2hours each in X/Y/Z directions							
	Enclosure rating	IP67							
Mechanical Data	Tightening torque, max.	0.5N.m							
	Connection	2m/4-wire Cable	2m/3-wire Cable	2m/4-wire Cable	2m/3-wire Cable	2m/4-wire Cable			
	Dimensions (WxHxD)	31.0x20.0x11.0mm							
	Material	Housing: PC+ABS, Lens: PMMA							
	Weight	45g							
Accessories	Nuts, Bracket, Screwdriver								
Model	NPN	ESB-BL10N	ESB-BS15N	ESB-BS15AN	ESB-B30N	ESB-BS30N	ESB-BS30AN	ESB-BV30N	ESB-BY30N
	PNP	ESB-BL10P	ESB-BS15P	ESB-BS15AP	ESB-B30P	ESB-BS30P	ESB-BS30AP	ESB-BV30P	ESB-BY30P

Fiber Optic

Fork

Photoelectric

Inductive

Capacitive

Magnetic

Contact

Ultrasonic

Curtains

Selection Guide

Cylindrical

Rectangular

Ultra-slim

BGS

Time-of-Flight

IP69K

Reflector

# BGS Photoelectric Sensor

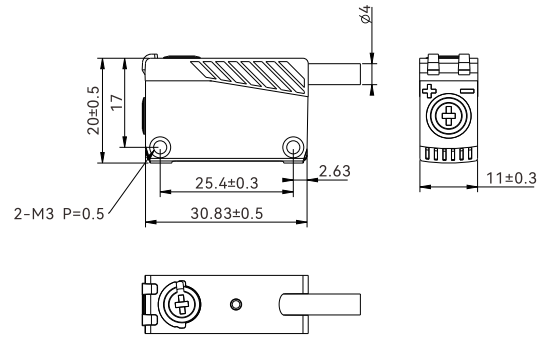
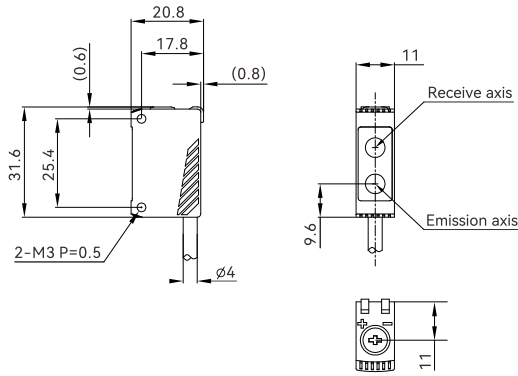
## Dimensions

Unit: mm

ESB-B30/BL10/BS15/BS30/BV30/BY30N(P)

ESB-BS15AN/AP

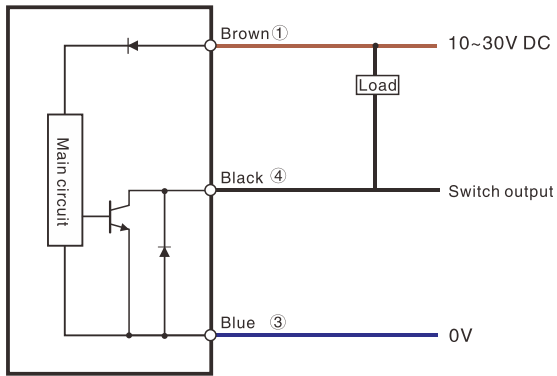
ESB-BS30AN/AP



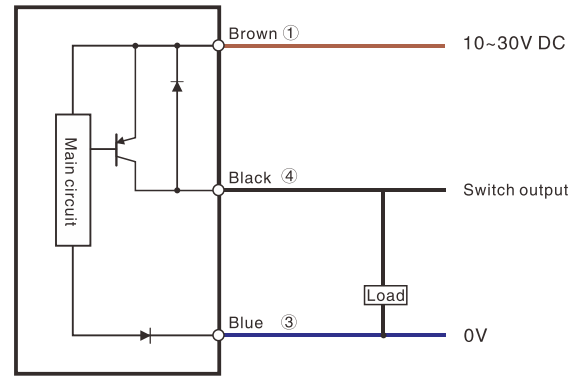
## Circuit diagram

ESB-BS15AN/AP ESB-BS30AN/AP

NPN Output

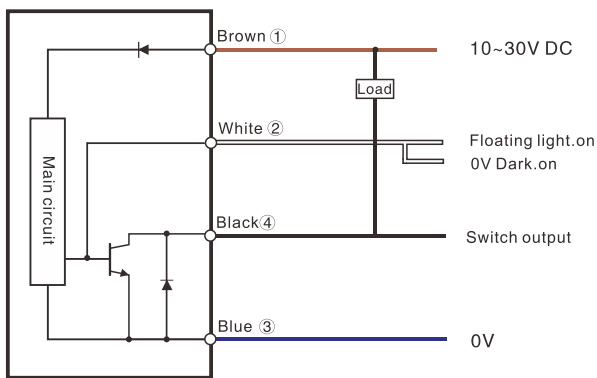


PNP Output

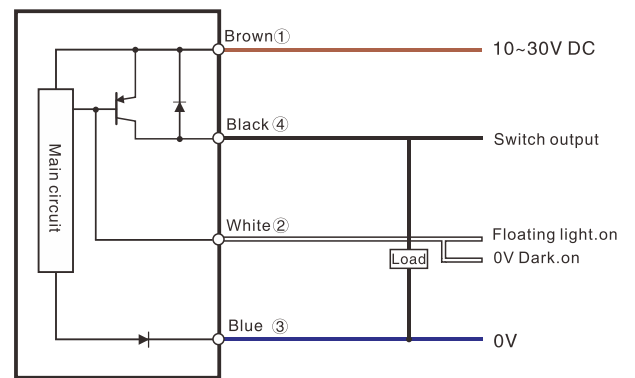


ESB-B30/BL10/BS15/BS30/BV30/BY30N(P)

NPN Output



PNP Output



- Fiber Optic
- Fork
- Photoelectric
- Inductive
- Capacitive
- Magnetic
- Contact
- Ultrasonic
- Curtains

Selection Guide

- Cylindrical
- Rectangular
- Ultra-slim
- BGS
- Time-of-Flight
- IP69K
- Reflector

NEW!



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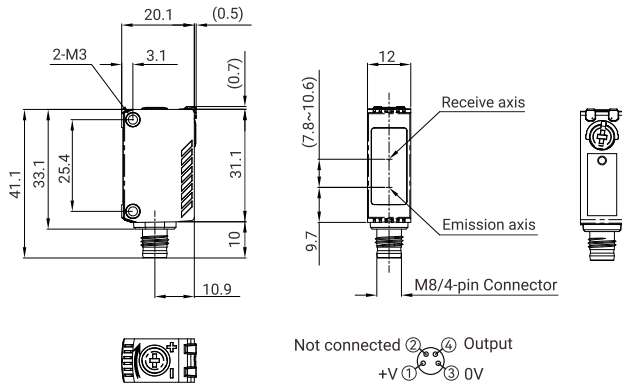
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	Vibration resistance	10~55Hz, 1.5mm double amplitude for 2hours each in X/Y/Z directions					
	Enclosure rating	IP67					
Mechanical Data	Tightening torque, max.	0.5N.m					
	Connection	M8/4-pin connector					
	Dimensions (WxHxD)	31.0x20.0x11.0mm					
	Material	Housing: PC+ABS, Lens: PMMA					
	Weight	10g					
	Accessories	Nuts, Bracket, Screwdriver					
Model	NPN	ESB-BL10ANE	ESB-BS15ANE	ESB-BS30ANE	ESB-BE30ANE	ESB-BV30ANE	ESB-BY30ANE
	PNP	ESB-BL10APE	ESB-BS15APE	ESB-BS30APE	ESB-BE30APE	ESB-BV30APE	ESB-BY30APE

# BGS Photoelectric Sensor

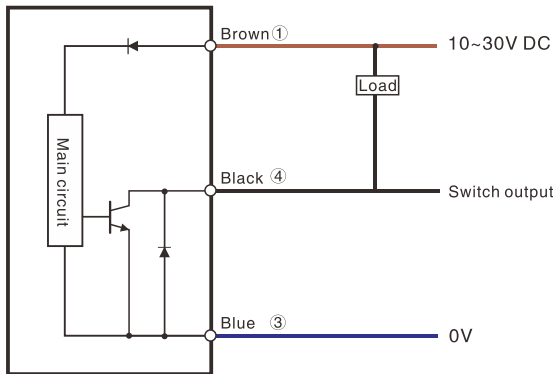
## Dimensions

Unit: mm

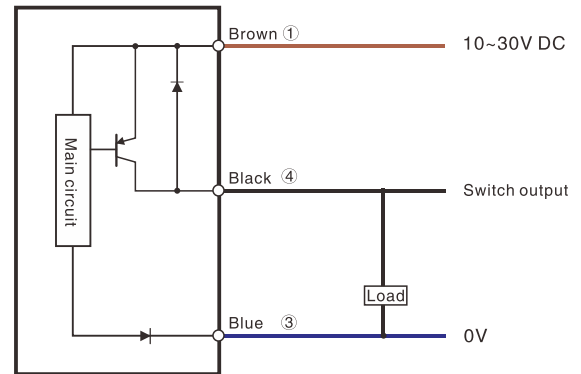


## Circuit diagram

### NPN Output



### PNP Output



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