

Operation manual



Precautions

- The maximum allowable voltage of the sensor is 10% of the rated voltage, Please confirm that the supply voltage is less than the maximum allowable value before powering on
- The time from powering-on to normal detection of the sensor is 100ms, please ensure that the sensor is used after 100ms of powering-on
- When using different power sources for the sensor and load, be sure to turn on the power of the sensor first
- When the sensor is not used, it is recommended to cut off the power of the load first and then turn off the power of the sensor
- When installing the sensor, do not subject the sensor to severe external force (such as hammering, etc.), which may damage the sensor performance
- Avoid using thinner, alcohol or other organic solvents when cleaning

Safety Warning

- Do not use in an environment with flammable, explosive or corrosive gases
- Do not use in oil or chemical environments
- Do not use in a high humidity environment
- Do not use in direct sunlight
- Do not use in other environmental conditions that exceed the rated value
- Do not disassemble, repair or modify this product without authorization

Scrap Treatment

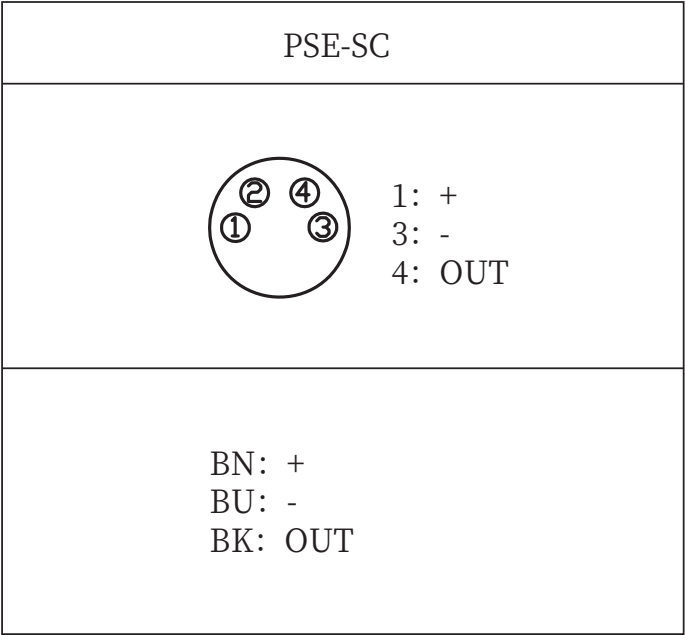
- When the product is scrapped, please dispose of it as industrial waste

■ Technical specifications

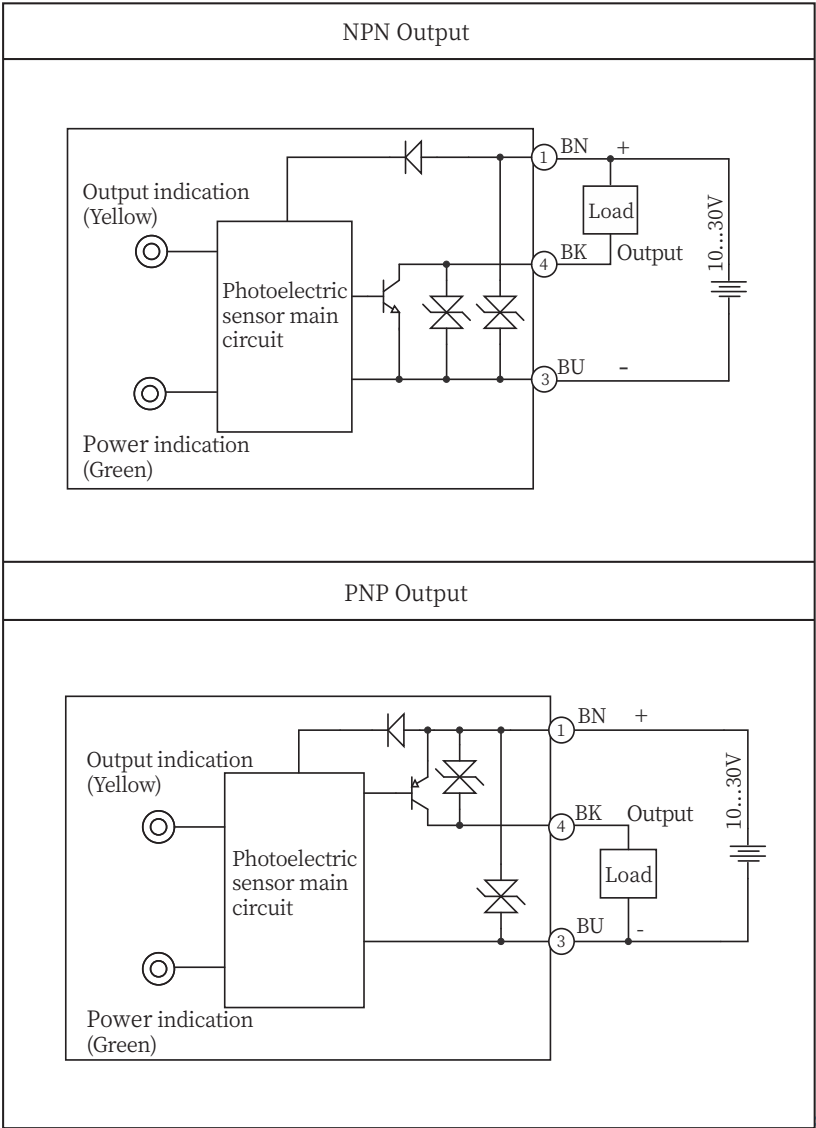
Type		Convergent reflection(Line light source)	
Model	NPN	PSE-SC5DNBX	PSE-SC5DNBX-E3
	PNP	PSE-SC5DPBX	PSE-SC5DPBX-E3
Detection distance		5cm	
Dead zone		$\leq 5\text{mm}^{①}$	
Standard target		100*100mm white cards	
Light spot size		3*40mm@50mm	
Color sensitivity		$\geq 80\%$	
Return difference		$< 5\%^{①}$	
Supply voltage		10...30VDC(Ripple P-P: $< 10\%$)	
Consumption current		$< 25\text{mA}$	
Load current		200mA	
Voltage drop		$\leq 1.5\text{V}$	
Light source		Red light(640nm)	
Protection circuit		Short circuit protection、Polarity protection、Overload protection	
Indicator		Green:Power indication;Yellow:output indication	
Response time		$< 0.5\text{ms}$	
Anti-ambient light		Sunlight $\leq 10,000\text{Lux}$;Incandescent light $\leq 3,000\text{Lux}$	
Operating temperature		$- 25...55\text{ }^{\circ}\text{C}$ (No condensation、No icing)	
Storage temperature		$- 30...70\text{ }^{\circ}\text{C}$	
Protection degree		IP67	
Certification		CE	
Shell material		PC+ABS	
Lens		PMMA	
Weight		Cable:about 50g;Connector:about 10g	
Accessory		Mounting Bracket ZJP-8、Operation manual	

①Use 100*100mm 90% reflectivity white card;Room temperature 25°C.

■ Terminal Wiring Diagram



■ Wiring diagram

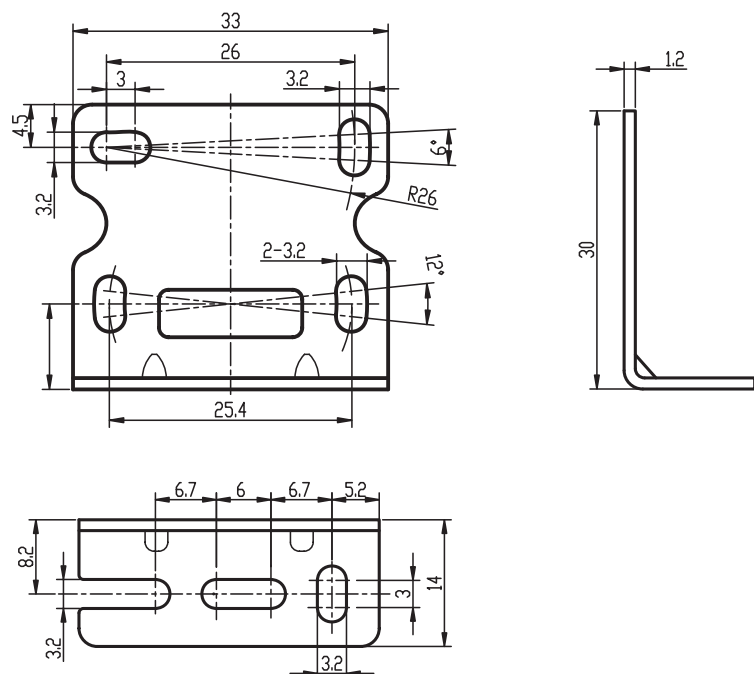


■ Dimensions

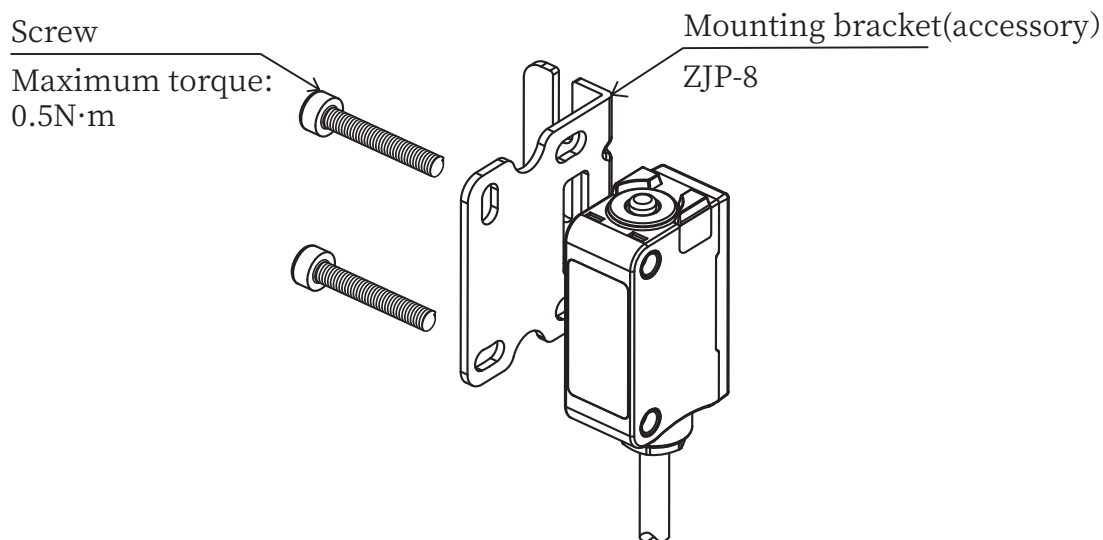
PSE-Connector	PSE-Cable
<p>Receiver</p> <p>Emitter</p> <p>Power indication (green)</p> <p>Output indication (yellow)</p>	<p>Receiver</p> <p>Emitter</p> <p>Power indication (green)</p> <p>Output indication (yellow)</p>

■ Accessory Dimensions

Mounting Bracket ZJP-8



■ Mounting



■ Button instruction

1. Press the button for the duration time “t”, if $t < 2s$ or $t \geq 8s$, the setting is invalid, NO/NC maintains in the original state.

2. Press the button for the duration “t”, if $5s \leq t < 8s$, the yellow and green lights flash synchronously at 2 Hz, when the button is released to finish NO/NC state switchover.

