

## Plastic square shape photoelectric sensors PSE series



### Features

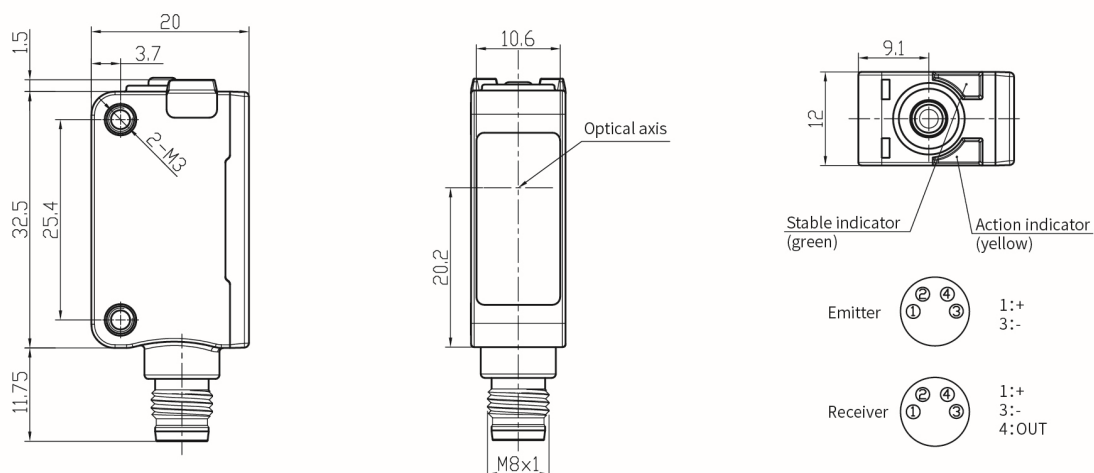
- Universal housing, an ideal replacement for a wide range of sensor types;
- IP67, suitable for harsh environments;
- Fast and stable setting;
- NO and NC are switchable;



Model					
	Emitter		Receiver		
NPN NO/NC	PSE-TM20D-E3	PSE-TM20DNB-E3	PNP NO/NC	PSE-TM20D-E3	PSE-TM20DPB-E3

Specifications			
Detection type	Through beam	Indicator	Green light: power, stable signal (unstable signal flash)
Rated distance	20m		Yellow light: output, overload or short circuit (flash)
Output	NPN NO/NC or PNP NO/NC	Anti-ambient light	Anti-sunlight interference $\geq 10,000\text{lux}$ ;
Response time	$\leq 1\text{ms}$		Incandescent light interference $\geq 3,000\text{lux}$
Sensing object	$\geq \Phi 10\text{mm}$ opaque object (within Sn range)	Operating temperature	$-25^{\circ}\text{C} \dots 55^{\circ}\text{C}$
Direction angle	$> 2^{\circ}$	Storage temperature	$-25^{\circ}\text{C} \dots 70^{\circ}\text{C}$
Supply voltage	10...30 VDC	Protection degree	IP67
Consumption current	Emitter: $\leq 20\text{mA}$ ; Receiver: $\leq 20\text{mA}$	Certification	CE
Load current	$\leq 200\text{mA}$	Production standard	EN60947-5-2:2012、IEC60947-5-2:2012
Voltage drop	$\leq 1\text{V}$	Material	Housing: PC+ABS; Filter: PMMA
Light source	Infrared (850nm)	Weight	10g
Circuit protection	Short-circuit, overload, reverse polarity and zener protection	Connection	M8 connector
NO/NC adjustment	Press the button for 5...8s, when the yellow and green light flash synchronously at 2Hz, and lift. Finish state switch.		
Distance adjustment	Press the button for 2...5s, when the yellow and green light flash synchronously at 4Hz, and lift to finish the distance setting.		
	If the yellow and green light flash asynchronously @8Hz for 3s, setting fails and the product distance goes to the maximum.		

### Dimensions



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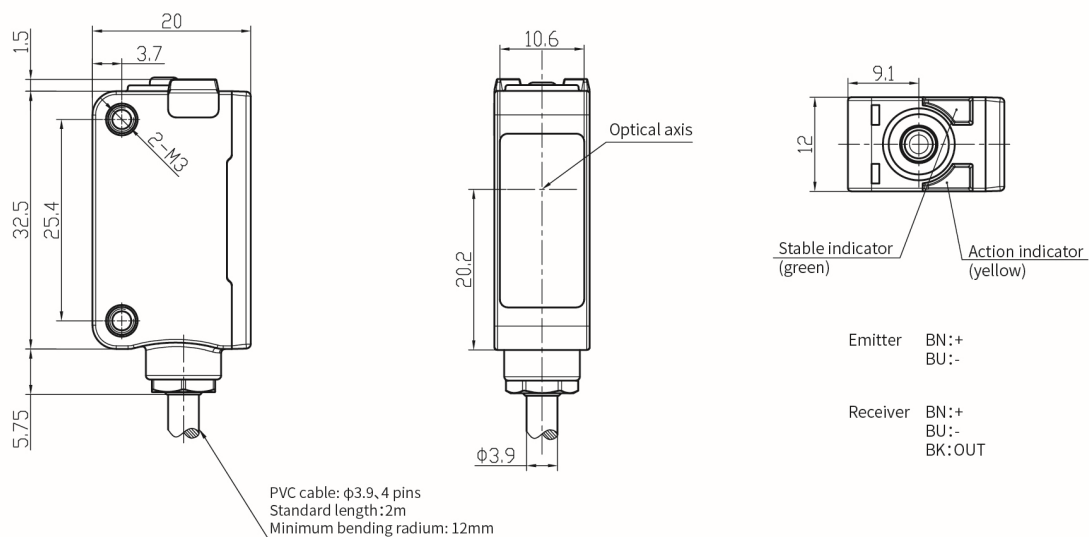
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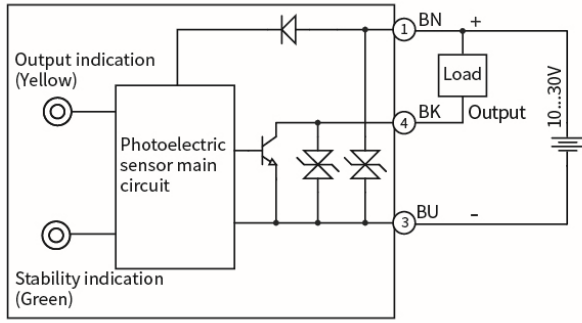
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Voltage drop	$\leq 1\text{V}$	Material	Housing: PC+ABS; Filter: PMMA
Light source	Infrared (850nm)	Weight	50g
Circuit protection	Short-circuit, overload, reverse polarity and zener protection	Connection	2m PVC cable
NO/NC adjustment	Press the button for 5...8s, when the yellow and green light flash synchronously at 2Hz, and lift. Finish state switch.		
Distance adjustment	Press the button for 2...5s, when the yellow and green light flash synchronously at 4Hz, and lift to finish the distance setting.		
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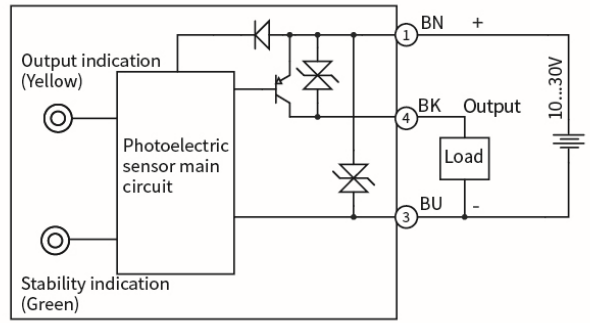
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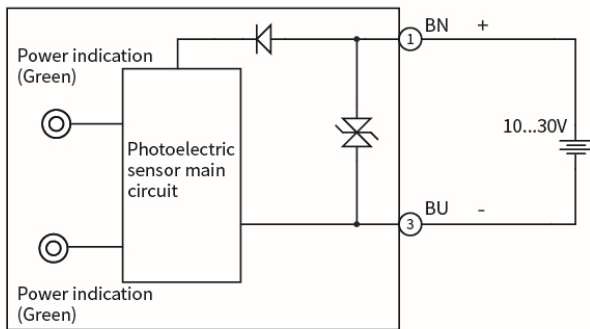
**Circuit Diagrams**



NPN



PNP



Emitter