

### SA1E Miniature Photoelectric Switches


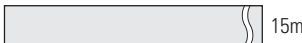
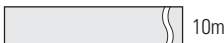

**Key features:**

- Seven sensing methods: through-beam, polarized retroreflective, small beam reflective, diffuse, background suppression, convergent, and transparent.
- 2m cable type and M8 connector.
- NPN output, PNP output, light ON, dark ON can be selected.
- Coaxial polarized retro-reflective type (SA1E-X) available for sensing transparent objects.
- Background suppression (SA1E-B) type detects objects only, ignoring the background.
- Red LED available for easy alignment in long distance applications (SA1E-T, -P, -N, and -B)
- Convergent reflective type (SA1E-G) is ideal for detecting objects at a short distance with a background.
- Also available without sensitivity adjustment (SA1E-T, -P)
- Air blower mounting block for installing an air blower to clean the lens surface. Ideal to maintain a clean lens surface and sensor performance.
- UL Listed and CE marked
- IP67



**Part Numbers**

**Photoelectric Switches**

Sensing Method		Sensing Range	Connection	Cable Length	Operation Mode	Part No.	
						NPN Output	PNP Output
Through-beam	Infrared LED w/Sensitivity Adjustment	 10m	Cable	2m	Light ON	SA1E-TN1-2M	SA1E-TP1-2M
					Dark ON	SA1E-TN2-2M	SA1E-TP2-2M
			Connector	-	Light ON	SA1E-TN1C	SA1E-TP1C
					Dark ON	SA1E-TN2C	SA1E-TP2C
	Infrared LED w/o Sensitivity Adjustment	 15m	Cable	2m	Light ON	SA1E-TN1-NA-2M	SA1E-TP1-NA-2M
					Dark ON	SA1E-TN2-NA-2M	SA1E-TP2-NA-2M
			Connector	-	Light ON	SA1E-TN1C-NA	SA1E-TP1C-NA
					Dark ON	SA1E-TN2C-NA	SA1E-TP2C-NA
	Red LED w/Sensitivity Adjustment	 10m	Cable	2m	Light ON	SA1E-TAN1-2M	SA1E-TAP1-2M
					Dark ON	SA1E-TAN2-2M	SA1E-TAP2-2M
			Connector	-	Light ON	SA1E-TAN1C	SA1E-TAP1C
					Dark ON	SA1E-TAN2C	SA1E-TAP2C
Class 1 Laser w/Sensitivity Adjustment	 30m	Cable	2m	Light ON/ Dark ON	SA1E-LTN3-2M	SA1E-LTP3-2M	
		Connector	-	Light ON/ Dark ON	SA1E-LTN3C	SA1E-LTP3C	

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Photoelectric Switches

Sensing Method		Sensing Range	Connection	Cable Length	Operation Mode	Part No.				
						NPN Output	PNP Output			
Polarized Retroreflective	Red LED	<p>Note: Maintain at least the distance shown in the ( ) between the SA1E photoelectric switch and reflector. Reflectors are not supplied and must be ordered separately. See the characteristics on page 219.</p>	w/Sensitivity Adjustment	Cable	2m	Light ON	SA1E-PN1-2M	SA1E-PP1-2M		
						Dark ON	SA1E-PN2-2M	SA1E-PP2-2M		
				Connector	-	Light ON	SA1E-PN1C	SA1E-PP1C		
						Dark ON	SA1E-PN2C	SA1E-PP2C		
						Light ON	SA1E-PN1-NA-2M	SA1E-PP1-NA-2M		
	w/o Sensitivity Adjustment		Cable	2m	Light ON	SA1E-PN1-NA-2M	SA1E-PP1-NA-2M			
					Dark ON	SA1E-PN2-NA-2M	SA1E-PP2-NA-2M			
			Connector	-	Light ON	SA1E-PN1C-NA	SA1E-PP1C-NA			
					Dark ON	SA1E-PN2C-NA	SA1E-PP2C-NA			
					Light ON/Dark ON	SA1E-LPN3-2M	SA1E-LPP3-2M			
Class 1 Laser	w/Sensitivity Adjustment	10m	Cable	2m	Light ON/Dark ON	SA1E-LPN3-2M	SA1E-LPP3-2M			
			Connector	-	Light ON/Dark ON	SA1E-LPN3C	SA1E-LPP3C			
Diffuse-reflective	Infrared LED	<p>700 mm</p>	w/Sensitivity Adjustment	Cable	2m	Light ON	SA1E-DN1-2M	SA1E-DP1-2M		
						Dark ON	SA1E-DN2-2M	SA1E-DP2-2M		
	Connector		-	Light ON	SA1E-DN1C	SA1E-DP1C				
				Dark ON	SA1E-DN2C	SA1E-DP2C				
Small-beam Reflective	Red LED	<p>50 to 150 mm</p>	w/Sensitivity Adjustment	Cable	2m	Light ON	SA1E-NN1-2M	SA1E-NP1-2M		
						Dark ON	SA1E-NN2-2M	SA1E-NP2-2M		
	Connector		-	Light ON	SA1E-NN1C	SA1E-NP1C				
				Dark ON	SA1E-NN2C	SA1E-NP2C				
Background Suppression	Red LED	<p>Adjustable Sensing Range</p>	w/Sensing Range Adjustment	Cable	2m	Light ON	SA1E-BN1-2M	SA1E-BP1-2M		
						Dark ON	SA1E-BN2-2M	SA1E-BP2-2M		
				Connector	-	Light ON	SA1E-BN1C	SA1E-BP1C		
	Dark ON		SA1E-BN2C			SA1E-BP2C				
	Class 1 Laser		w/Sensitivity Adjustment	<p>Adjustable Sensing Range</p>	w/Sensitivity Adjustment	Cable	2m	Light ON/Dark ON	SA1E-LBN3-2M	SA1E-LBP3-2M
								Connector	-	Light ON/Dark ON

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