

1-Channel U-Shaped Photoelectric Sensors

BUP Series



Features

- Various sensing distance's lineup:
30 mm, 50 mm models
- High speed response type: Max. 1 ms
- Offers the sensitivity adjustable model
- Light ON / Dark ON operation mode
selectable by control wire

Specifications

Model	BUP-□-□		BUP-□-E		BUP-□S-□	
Sensing type	Through-beam					
Sensing distance	30 mm	50 mm	30 mm	50 mm	30 mm	50 mm
Sensing target	Opaque materials					
Min. sensing target	≥ Ø 4 mm				≥ Ø 1.5 mm	
Response time	≤ 1 ms					
Light source	Infrared					
Peak emission wavelength	940 nm					
Sensitivity adjustment	Fixed				YES (Adjuster)	
Operation mode	Light ON mode - Dark ON mode selectable (Control wire)					
Indicator	Operation indicator (red), power indicator (green)					
Approval	CE EAC		CE		CE EAC	
Unit weight (packaged)	≈ 85 g (≈ 120 g)	≈ 115 g (≈ 160 g)	≈ 60 g (≈ 95 g)	≈ 90 g (≈ 125 g)	≈ 85 g (≈ 120 g)	≈ 115 g (≈ 160 g)
Power supply	12-24 VDC±10% (ripple P-P: ≤ 10%)					
Current consumption	≤ 30 mA					
Control output	NPN open collector output / PNP open collector output model					
Load voltage	≤ 30 VDC±					
Load current	≤ 200 mA					
Residual voltage	NPN: ≤ 1 VDC±, PNP: ≤ 2.5 VDC±					
Protection circuit	Reverse power protection circuit, output short overcurrent protection circuit					
Insulation resistance	≥ 20 MΩ (500 VDC± megger)					
Noise immunity	±240 VDC± the square wave noise (pulse width: 1 μs) by the noise simulator					
Dielectric strength	1,000 VAC~ 50/60 Hz for 1 min					
Vibration	1.5 mm double amplitude at frequency of 10 to 55 Hz (for 1 min) in each X, Y, Z direction for 2 hours					
Shock	500 m/s ² (≈ 50 G) in each X, Y, Z direction for 3 times					
Ambient illuminance (receiver)	Sunlight: ≤ 11,000 lx, incandescent lamp: ≤ 3,000 lx					
Ambient temperature	Fixed sensitivity model: -25 to 65 °C, storage: -25 to 70 °C (no freezing or condensation) Sensitivity adjustable model: -10 to 60 °C, storage: -25 to 70 °C (no freezing or condensation)					
Ambient humidity	35 to 85 %RH, storage: 35 to 85 %RH (no freezing or condensation)					
Protection rating	Fixed sensitivity model: IP66 (IEC standard) Sensitivity adjustable model: IP50 (IEC standard)					
Connection	Cable type, cable connector type					
Cable spec.	Cable type: Ø 4 mm, 4-wire, 2 m Cable connector type: Ø 4 mm, 4-wire, 0.5 m					
Wire spec.	AWG22 (0.08 mm, 60-core), insulator outer diameter: Ø 1.25 mm					
Connector	5-pin socket type					
Material	Case: ABS, CAP: PC					



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