1-channel U-shaped Photoelectric Sensors

BUP Series

CATALOG

For your safety, read and follow the considerations written in the instruction manual, other manuals and Autonics website.
The specifications, dimensions, etc. are subject to change without notice for product improvement. Some models may be discontinued without notice.

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

Ordering Information

This is only for reference, the actual product does not support all combinations.
For selecting the specified model, follow the Autonics website.

BUP - ❶ ❷ - ❸ - ❹

❶ Sensing distance
Number: Sensing distance (unit: mm)

❷ Function
No mark: Fixed sensitivity
S: Sensitivity adjustable

❸ Connection
No mark: Cable type
E: Cable connector type

❹ Control output
No mark: NPN open collector output
P: PNP open collector output

Product Components

- Product
- Adjustment screwdriver (sensitivity adjustable model)
- Instruction manual

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	≥ Ø4 mm				≥ Ø1.5 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)

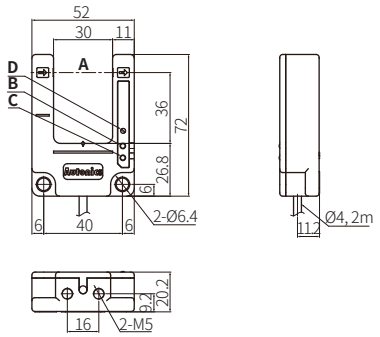
Power supply	12-24 VDC⎓ ±10 % (ripple P-P: ≤ 10%)
Current consumption	≤ 30 mA
Control output	NPN open collector output / PNP open collector output model
Load voltage	≤ 30 VDC⎓
Load current	≤ 200 mA
Residual voltage	NPN: ≤ 1 VDC⎓, PNP: ≤ 2.5 VDC⎓
Protection circuit	Reverse power protection circuit, output 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/s² (≈ 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: Ø4 mm, 4-wire, 2 m Cable connector type: Ø4 mm, 4-wire, 0.5 m
Wire spec.	AWG22 (0.08 mm, 60-core), insulator outer diameter: Ø1.25 mm
Connector	5-pin socket type
Material	Case: ABS, CAP: PC

Dimensions

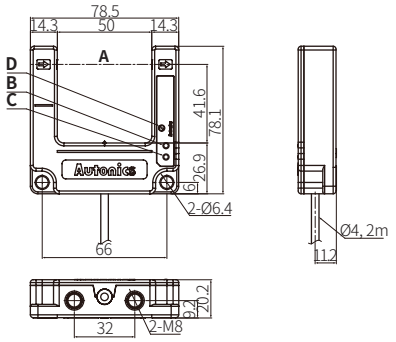
- Unit: mm, For the detailed drawings, follow the Autonics website.
- The sensors have the same size depending on the sensing distance.

A	Optical axis	**C**	Power indicator (green)
B	Operation indicator (red)	**D**	Sensitivity adjuster (sensitivity adjustable model)

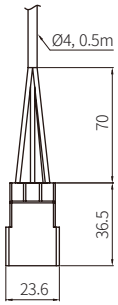
■ Sensing distance 30 mm model



■ Sensing distance 50 mm model



■ Connector



18, Bansong-ro 513Beon-gil, Haeundae-gu, Busan, Republic of Korea, 48002
www.autonics.com | +82-2-2048-1577 | sales@autonics.com