

Slim Plastic Single-Beam Picking Sensors



BWPK 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

- Flat and compact size : W 30 × H 140 × D 9.9 mm
- High strength PC / ABS plastic body
- Sensing distance switch (long / short mode switch)
- Mutual interference prevention function (frequency switching), Picking indicators on emitter and receiver, Light ON/Dark ON operation mode switch
- IP40 protection structure (IEC standard)

Ordering Information

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

BWPK 25 - 05 ①

① Control output

No-mark: NPN open collector output

P: PNP open collector output

Product Components

- Product
- Instruction manual

Specifications

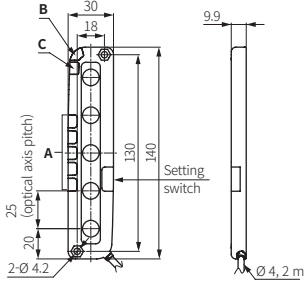
Model	BWPK25-05(P)
Sensing method	Through-beam
Light source	Infrared LED (850 nm modulated light)
Sensing distance	Long / Short mode (switch)
Long mode	0.1 to 3.0 m
Short mode	0.05 to 1.0 m
Sensing target	Opaque material
Min. sensing target	≥ Ø 35 mm
Number of optical axes	5
Sensing height	100 mm
Optical axis pitch	25 mm
Response time	≤ 30 ms
Operation mode	Light ON / Dark ON (switch)
Functions	Selection for sensing distance, selection for operation mode, Picking indicator ON / flashing
Interference protection	Interference protection by transmission frequency selection
Synchronization type	Timing method by synchronous line
External picking input	Non-contact or contact input NPN open collector output: lighting (0 - 2 V), light out (5 - 30 V or open) PNP open collector output: lighting (4 - 30 V), light out (0 - 3 V or open)
Indicator	Emitter / receiver: operation indicator (red, green, yellow)
Approval	CE ENEC
Weight (packaged)	≈ 180 g (≈ 220 g)
Power supply	12 - 24 VDC≒ (ripple P-P: ≤ 10 %)
Current consumption	Emitter / receiver: ≤ 60 mA
Control output	NPN / PNP open collector output model
Load voltage	≤ 30 VDC≒
Load current	≤ 150 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 V the square wave noise (pulse width: 1μs) by the noise simulator
Dielectric strength	1,000 VAC~ 50 / 60 Hz for 1minute
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 illum. (receiver)	Sunlight: 10,000 lx, incandescent lamp: 3,000 lx
Ambient temp.	-10 to 55 °C, storage: -20 to 60 °C (no freezing or condensation)
Ambient humi.	35 to 85 %RH, storage: 35 to 85 %RH (no freezing or condensation)
Protection rating	IP40 (IEC standard)
Cable spec.	Ø 4 mm, 4-wire, 2 m (emitter: 3-wire)
Wire spec.	AWG 22 (0.08 mm, 60-core), insulator diameter: Ø 1.25 mm
Material	Case: PC / ABS, sensing part: PMMA

Dimensions

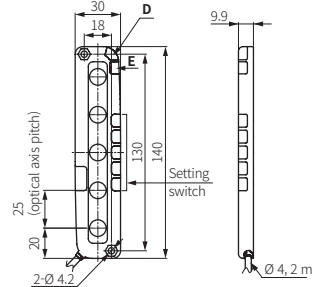
- Unit: mm, For the detailed drawings, follow the Autonics website.

A	Picking indicator (yellow)	B	Frequency A indicator (green)	C	Frequency B indicator (green)
D	Stable indicator (green)	E	Operation indicator (red)		

Emitter



Receiver



Model	Product length (L)	Number of optical axis	Sensing height
BWPK25-05(P)	140 mm	5	100 mm

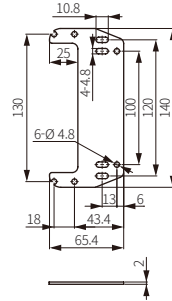
Sold Separately

- Flat bracket (BK-BWPK-ST)
- L-shaped bracket (BK-BWPK-L)
- Protection bracket (BK-BWPK-P)

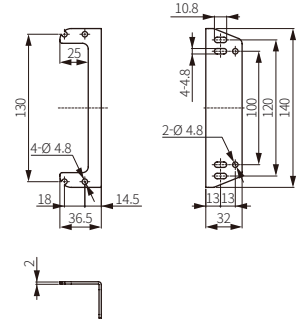
Sold Separately: Bracket

- Unit: mm, For the detailed drawings, follow the Autonics website.

Flat bracket (BK-BWPK-ST)

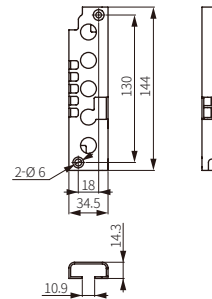


L-shaped bracket (BK-BWPK-L)



Protection bracket (BK-BWPK-P)

- Emitter



- Receiver

