

# 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

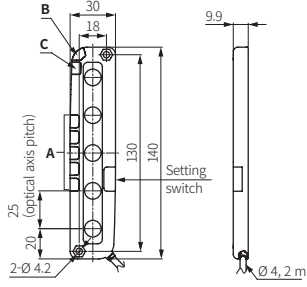
Model	BWPK25-05(P)
<b>Sensing method</b>	Through-beam
<b>Light source</b>	Infrared LED (850 nm modulated light)
<b>Sensing distance</b>	Long / Short mode (switch)
Long mode	0.1 to 3.0 m
Short mode	0.05 to 1.0 m
<b>Sensing target</b>	Opaque material
<b>Min. sensing target</b>	≥ Ø 35 mm
<b>Number of optical axes</b>	5
Sensing height	100 mm
Optical axis pitch	25 mm
<b>Response time</b>	≤ 30 ms
<b>Operation mode</b>	Light ON / Dark ON (switch)
<b>Functions</b>	Selection for sensing distance, selection for operation mode, Picking indicator ON / flashing
<b>Interference protection</b>	Interference protection by transmission frequency selection
<b>Synchronization type</b>	Timing method by synchronous line
<b>External picking input</b>	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)
<b>Indicator</b>	Emitter / receiver: operation indicator (red, green, yellow)
<b>Approval</b>	CE ENEC
<b>Weight (packaged)</b>	≈ 180 g (≈ 220 g)
<b>Power supply</b>	12 - 24 VDC≒ (ripple P-P: ≤ 10 %)
<b>Current consumption</b>	Emitter / receiver: ≤ 60 mA
<b>Control output</b>	NPN / PNP open collector output model
Load voltage	≤ 30 VDC≒
Load current	≤ 150 mA
Residual voltage	NPN: ≤ 1 VDC≒, PNP: ≤ 2.5 VDC≒
<b>Protection circuit</b>	Reverse power protection circuit, output short overcurrent protection circuit
<b>Insulation resistance</b>	≥ 20 MΩ (500 VDC≒ megger)
<b>Noise immunity</b>	± 240 V the square wave noise (pulse width: 1μs) by the noise simulator
<b>Dielectric strength</b>	1,000 VAC~ 50 / 60 Hz for 1minute
<b>Vibration</b>	1.5 mm double amplitude at frequency of 10 to 55 Hz (for 1 min) in each X, Y, Z direction for 2 hours
<b>Shock</b>	500 m/s <sup>2</sup> (≈ 50 G) in each X, Y, Z direction for 3 times
<b>Ambient illum. (receiver)</b>	Sunlight: 10,000 lx, incandescent lamp: 3,000 lx
<b>Ambient temp.</b>	-10 to 55 °C, storage: -20 to 60 °C (no freezing or condensation)
<b>Ambient humi.</b>	35 to 85 %RH, storage: 35 to 85 %RH (no freezing or condensation)
<b>Protection rating</b>	IP40 (IEC standard)
<b>Cable spec.</b>	Ø 4 mm, 4-wire, 2 m (emitter: 3-wire)
<b>Wire spec.</b>	AWG 22 (0.08 mm, 60-core), insulator diameter: Ø 1.25 mm
<b>Material</b>	Case: PC / ABS, sensing part: PMMA

## Dimensions

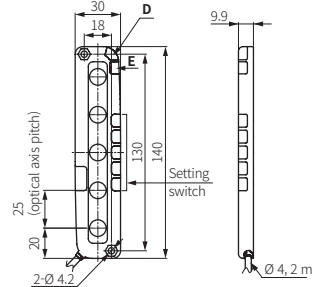
- Unit: mm, For the detailed drawings, follow the Autonics website.

<b>A</b>	Picking indicator (yellow)	<b>B</b>	Frequency A indicator (green)	<b>C</b>	Frequency B indicator (green)
<b>D</b>	Stable indicator (green)	<b>E</b>	Operation indicator (red)		

### Emitter



### Receiver



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

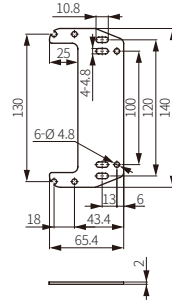
## Sold Separately

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

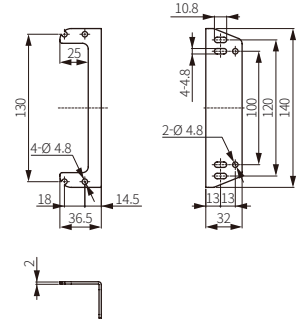
## Sold Separately: Bracket

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

### Flat bracket (BK-BWPK-ST)

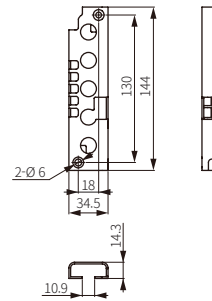


### L-shaped bracket (BK-BWPK-L)



### Protection bracket (BK-BWPK-P)

- Emitter



- Receiver

