



## Ordering Information

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

**BUM4** - ① - ② - ③ - ④ / ⑤

### ① Sensing distance

40: 40 mm

### ② Operation mode

D: Dark ON

### ③ Connection

W: Cable connector type

### ④ Cable length

2M: 2 m

3M: 3 m

4M: 4 m

### ⑤ Applied bracket

No mark: None (4 m of cable length model)

A: H01, H04

B: H03, H04

## Cautions during Installation

- Be sure to install this product by following the usage environment, location, and specified ratings. Consider the listed conditions below.
  - Installation environment and background (reflected light)
  - Sensing distance and sensing target
  - Direction of target's movement
- For installation, tighten the screw with a torque of 2 N m. Mount the brackets correctly to prevent the twisting of the sensor's optical axis.
- Do not impact with a hard object or bend the cable excessively. That could decrease the product's water resistance.
- Use this product after the test. Check whether the indicator works appropriately for the positions of the detectable object.

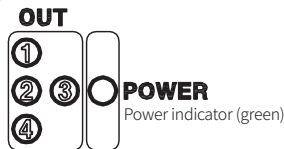
## Operation Timing Chart and Indicators

Operation mode	Dark ON
Received light	Received
	Interrupted
Output indicator (red)	ON
	OFF
Transistor output	ON
	OFF

## Indicators

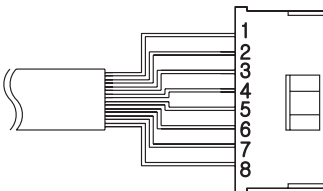
- There is an output indicator (red) and a power indicator (green) in each channel on the side of the body.

Output indicator (red)



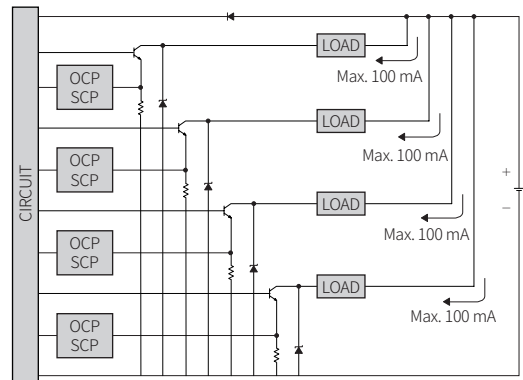
## Connections

- Connector: JST SALES AMERICA Inc. VHR-8N



Pin	Color	Function
1	Pink	OUT 1
2	White	OUT 2
3	Gray	OUT 3
4	Black	OUT 4
5	Blue	0V
6	Blue	0V
7	Brown	+V
8	Brown	+V

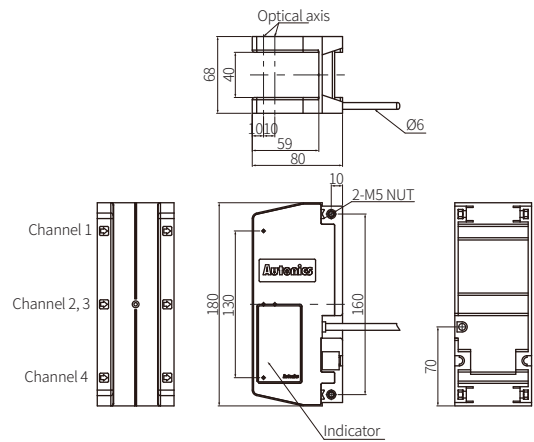
## Circuit



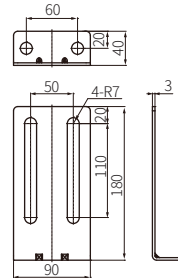
- OCP (over current protection), SCP (short circuit protection)
- If short-circuit the control output terminal or supply current over the rated specification, normal control signal is not output due to the protection circuit.

## Dimensions

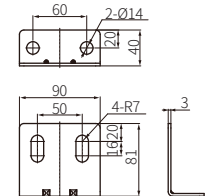
- Unit: mm, For the detailed drawings, follow the Autonics website.,



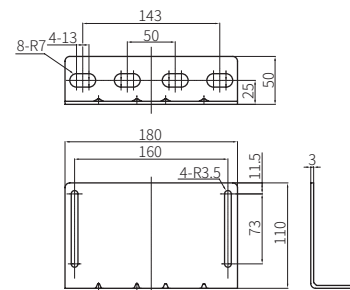
### ■ Bracket H01



### ■ Bracket H03



### ■ Bracket H04



## Specifications

Model	BUM4-40D-W-4M	BUM4-40D-W-□/A	BUM4-40D-W-□/B
Sensing type	Through-beam		
Sensing distance	40 mm		
Sensing target	Opaque materials		
Min. sensing target	≥ Ø 4 mm		
Response time	≤ 1 ms		
Light source	Infrared		
Peak emission wavelength	940 nm		
Operation mode	Dark ON mode		
Indicator	Output Indicator (red), power indicator (green)		
Approval	CE ENEC		
Unit weight (packaged)	≈ 500 g (≈ 510 g)	≈ 500 g (≈ 1.5 kg)	≈ 500 g (≈ 1.5 kg)
Power supply	18-35 VDC± ± 10 % (ripple P-P: ≤ 10%)		
Current consumption	≤ 50 mA		
Control output	NPN open collector output (individual 4 output)		
Load voltage	≤ 35 VDC±		
Load current	≤ 100 mA		
Residual voltage	≤ 4 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	Between the charging part and the case : 1,000 VAC~ 50/60 Hz for 1 min		
Vibration	1.5 mm double amplitude at frequency of 10 to 55 Hz in each X, Y, Z direction for 2 hours		
Shock	500 m/s <sup>2</sup> (≈ 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	-25 to 65 °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	IP65 (IEC standard)		
Connection	Cable type		
Cable spec.	Ø 6 mm, 8-wire, 2 m / 3 m / 4 m model		
Wire spec.	AWG22 (1.2 mm, 60-core)		
Material	Case, cover: ABS		