# 4-CH U-shaped Type

#### Features

- Highly reliable 4 channel detection
- High-speed response time under 1 ms
- Reverse polarity protection circuit and output short-circuit (overcurrent) protection circuit
- IP65 protection structure (IEC standard)



Please read "Caution for your safety" in operation manual before using.

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### Specifications

	•	BUM4-40D-	BUM4-40D-	BUM4-40D-	BUM4-40D-	BUM4-40D-	BUM4-40D-	BUM4-40D-	
Model		W-4M	W-2M/A	W-3M/A	W-4M/A	W-2M/B	W-3M/B	W-4M/B	
Sensing type		Through-beam							
Sensing distance		40mm							
Sensing target		Opaque materials of min. Ø4.0mm							
Sensing CH		4 channels							
Hysteresis		Max. 1ms							
Power supply		18-35VDC ±10% (ripple P-P: max. 10%)							
Current consumption		Max. 50mA							
Light source Operation mode		Infrared LED (940nm)							
		Dark ON							
Control output		NPN open collector output (individual 4 outputs)  • Load voltage: Max. 35VDC, • Load current: Max. 100mA, • Residual voltage: Max. 4V							
Protection circuit		Power reverse polarity protection circuit, output short-circuit over current protection circuit							
Indicator		Output indicator: red LED, Power indicator: green LED							
Insulation resistance		Max. 20MΩ (at 500VDC megger)							
Noise resistance		±240V the sqaure wave noise (pulse width 1μs) by noise simulator							
		1000VAC 50/60Hz for 1 min							
Vibration		1.5mm amplitude at frequency of 10to 55Hz (for 1 min) in each of X, Y, Z directions for 2 hours							
Shock		500m/s² (approx. 50G) in each of X, Y, Z directions for 3 times							
ent	Ambient illumination	Sunlight: Max. 11000lx , Incandescent lamp: Max. 3000lx (receiver illumination)							
Environment	Ambient temperature	-25 to 65°C, storage: -25 to 70°C							
En	Ambient humidity	35 to 85%RH, storage: 35 to 85%RH							
Protection		IP65 (IEC standards)							
Material		Case, Cover: ABS							
Cable		Ø6.0mm, 8-wire(AWG 22, core diameter: Ø1.2, number of cores: 60)							
Cable length		4m	2m	3m	4m	2m	3m	4m	
Bracket		_	H01/H04 (G01	)		H03/H04 (G02)	)		
Approval		CE							
Weight		Approx. 510g (approx. 500g)	Approx. 1.5kg	(approx. 500g)					

 $\times$ 1: The weight is with packaging and the weight in parentheses is only unit weight.

\*The temperature or humidity mentioned in Environment indicates a non-freezing or condensation environment.

## Operation Mode

Operaiton mode	Dark ON				
Receiver operation	Received light Interrupt light				
Operation indicator (LED)	ON OFF				
Transistor output	ON OFF				

When shorting control output terminal or flow over the rated current, protection circuit operates and normal signal is not output.

(A) Photoelectric Sensors

(B) Fiber Optic Sensors

> (C) Door/Area Sensors

(D) Proximity Sensors

(E) Pressure Sensors

(F) Rotary Encoders

(G) Connectors/ Connector Cables/ Sensor Distribution Boxes/ Sockets

(H) Temperature Controllers

(I) SSRs / Power Controllers

Counters

(K) Timers

Panel Meters

(M) Tacho / Speed / Pulse Meters

0)

Sensor Controllers

(P) Switching Mode Power Supplies

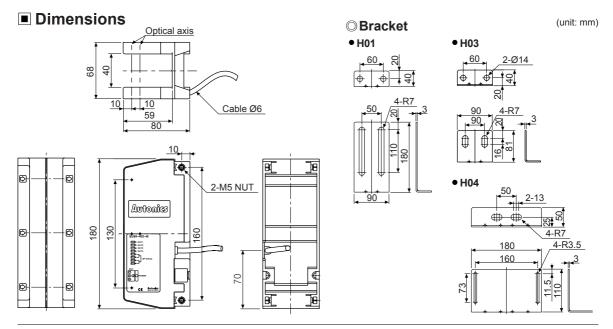
(Q) Stepper Motors & Drivers & Controllers

(R) Graphic/ Logic Panels

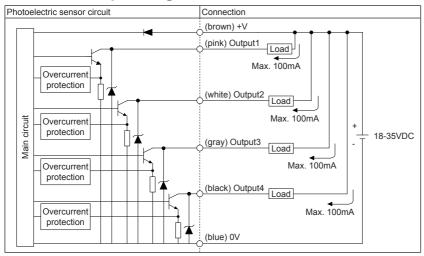
Field Network Devices

(T) Software

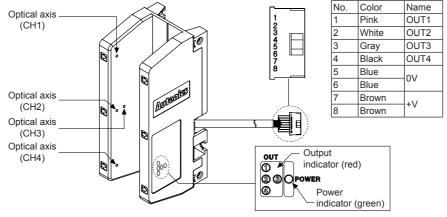
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### **■** Control Output Diagram







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