

# DC U-Shaped Type

## Reinforced plastic case U-Shaped type photoelectric sensor

### ■ Features

- High speed response type
- Reverse power polarity and short-circuit (Overcurrent) protection circuit
- Selectable Light / Dark ON mode by control wire
- IP66 rated waterproof structure (IEC standard)  
: BUP-30, BUP-50



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



### ■ Specifications

Model	NPN open collector	BUP-30	BUP-30S	BUP-50	BUP-50S
	PNP open collector	—	—	BUP-50-P	BUP-50S-P
Sensing type	Transmitted beam				
Sensing target	Opaque materials of min. $\phi$ 4mm	Opaque materials of min. $\phi$ 1.5mm	Opaque materials of min. $\phi$ 4mm	Opaque materials of min. $\phi$ 1.5mm	
Operation mode	Selectable Light ON / Dark ON mode by control wire				
Sensing distance	30mm			50mm	
Response time	Max. 1ms				
Power supply	12-24VDC $\pm$ 10% (Ripple P-P : Max. 10%)				
Current consumption	Max. 30mA				
Light source	Infrared LED (modulated)				
Sensitivity adjustment	Fixed	Adjuster	Fixed	Adjuster	
Control output	NPN open collector output $\Rightarrow$ Load voltage : Max. 30VDC, Load current : Max. 200mA, Residual voltage : Max. 1V PNP open collector output $\Rightarrow$ Output voltage : (Min. Power supply - 2.5V), Load current : Max. 100mA				
Protection circuit	Reverse power polarity, Short-circuit (Overcurrent) protection				
Indication	Power indicator : Green LED, Operation indicator : Red LED				
Connection	Outgoing cable				
Insulation resistance	Min. 20M $\Omega$ (at 500VDC mega)				
Noise strength	$\pm$ 240V the square wave noise (pulse width: 1 $\mu$ s) by the noise simulator				
Dielectric strength	500VAC 50/60Hz for 1 minute				
Vibration	1.5mm amplitude at frequency of 10 ~ 55Hz in each of X, Y, Z directions for 2 hours				
Shock	500m/s <sup>2</sup> (50G) in X, Y, Z directions for 3 times				
Ambient illumination	Sunlight : Max. 11,000lx Incandescent lamp : Max. 3,000lx				
Ambient temperature	-25 ~ +65 $^{\circ}$ C <BUP-30S and BUP-50S : -10 ~ +60 $^{\circ}$ C> (at non-freezing staunts), Storage : -35 ~ +70 $^{\circ}$ C (at non-freezing staunts)				
Ambient humidity	35 ~ 85%RH, Storage : 35 ~ 85%RH				
Protection	IP66 (IEC standard)	IP50 (IEC standard)	IP66 (IEC standard)	IP50 (IEC standard)	
Material	Case : ABS12, Cover : PC				
Cable	4P, $\phi$ 4mm, Length : 2m				
Accessory	—	Adjustment driver	—	Adjustment driver	
Approval	<b>CE</b>				
Unit weight	Approx. 90g			Approx. 140g	

(A) Counter

(B) Timer

(C) Temp. controller

(D) Power controller

(E) Panel meter

(F) Tacho/Speed/Pulse meter

(G) Display unit

(H) Sensor controller

(I) Switching power supply

(J) Proximity sensor

(K) Photo electric sensor

(L) Pressure sensor

(M) Rotary encoder

(N) Stepping motor & Driver & Controller

(O) Graphic panel

(P) Production stoppage models & replacement

