

# BPS Series

## Slim photoelectric sensor for long sensing distance

### ■ Features

- Easy to mount by Flat type
- Realization of 3m sensing distance as small size
- IP67 rated waterproof structure (IEC standard)



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

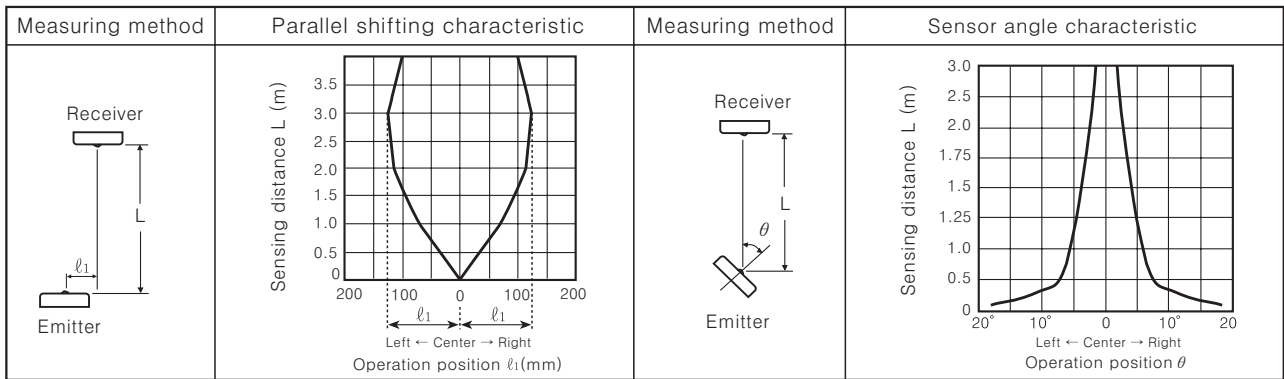


### ■ Specifications

Model	BPS3M-TDT	BPS3M-TDTL	BPS3M-TDT-P	BPS3M-TDTL-P
Sensing type	Transmitted beam			
Sensing target	Opaque materials of Min. $\phi$ 5mm			
Operation mode	Dark ON	Light ON	Dark ON	Light ON
Sensing distance	3m			
Response time	Max. 1ms			
Power supply	12-24VDC $\pm$ 10% (Ripple P-P : Max. 10%)			
Current consumption	Max. 20mA			
Light source	Infrared LED (modulated)			
Control output	NPN open collector output <small>☞</small> Load voltage : Max. 30VDC, Load current : Max.100mA, Residual voltage : Max.1V		PNP open collector output <small>☞</small> Output voltage : (Min. Power supply-2.5V), Load current : Max. 100mA	
Protection circuit	Reverse polarity protection, Short-circuit protection			
Indicator	Emitter : Power indicator (Red LED), Receiver : 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	1,000VAC 50/60Hz for 1minute			
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 (at non-freezing status), Storage : -25 ~ +70 $^{\circ}$ C			
Ambient humidity	35~ 85%RH, Storage : 35 ~ 90%RH			
Protection	IP67 (IEC standard)			
Material	Case : PC			
Cable	• Emitter : $\phi$ 3mm, 2P • Receiver : $\phi$ 3mm, 3P • Length : 2m			
Approval	CE			
Unit weight	Approx. 66g			

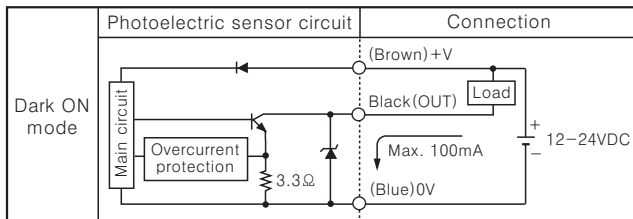
# Slim and Amplifier Built-in Type

## Feature data

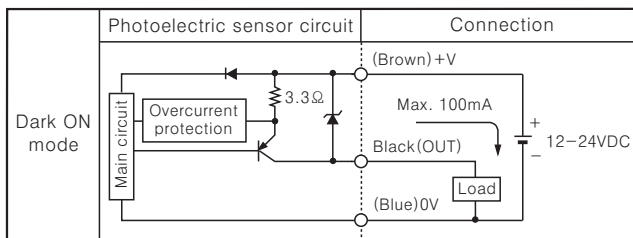


## Control output diagram

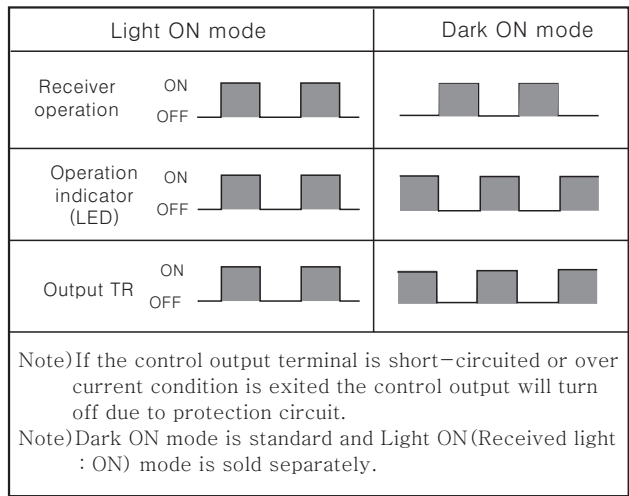
●NPN open collector output



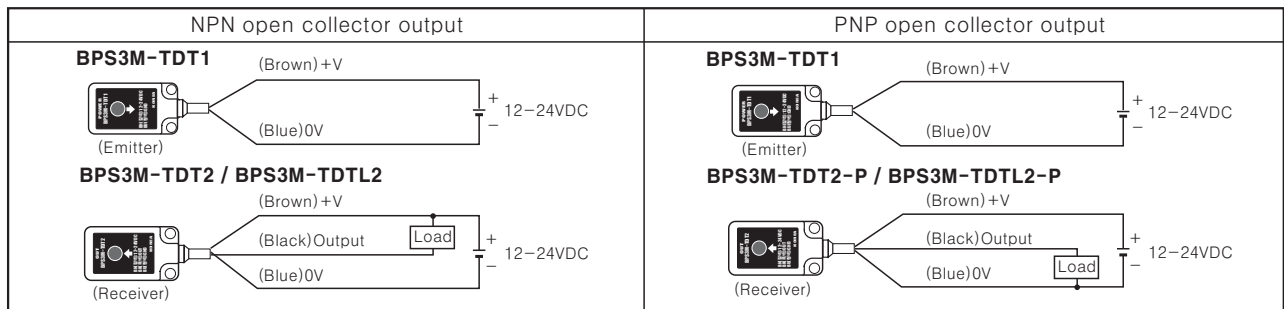
●PNP open collector output



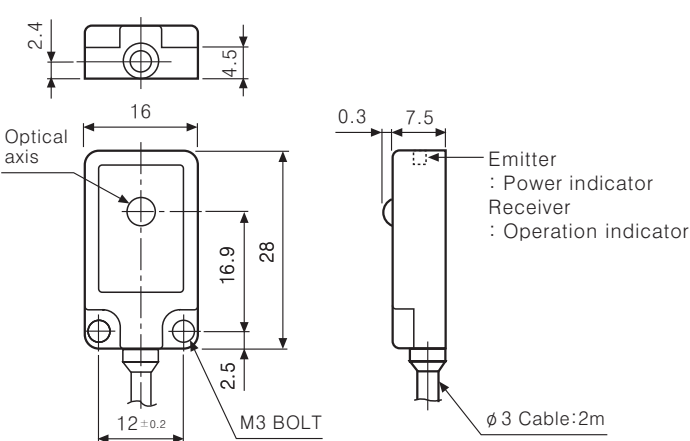
## Operation mode



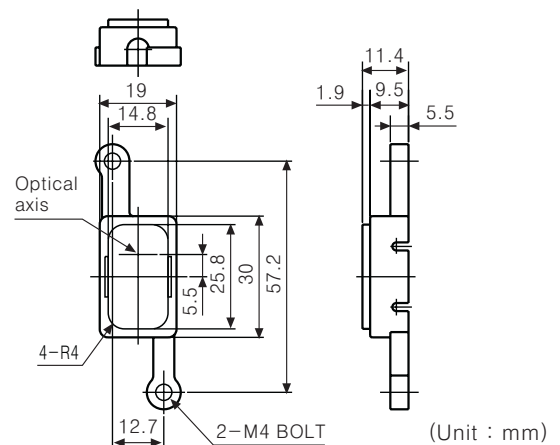
## Connections



## Dimensions



●Cover (Sold separately)



- (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