

# BPS Series

## Slim photoelectric sensor for long sensing distance

### ■ Features

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



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

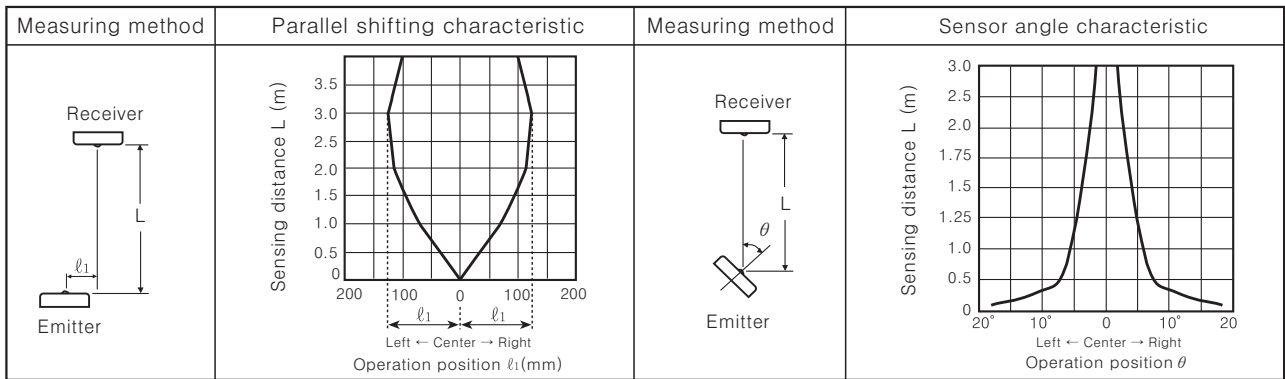


### ■ Specifications

Model	BPS3M-TDT	BPS3M-TDTL	BPS3M-TDT-P	BPS3M-TDTL-P
Sensing type	Through-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(850nm)			
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> Load current : Max. 100mA, Residual voltage : Min. (Power voltage -2.5V)	
Protection circuit	Reverse polarity protection, Output short-circuit protection			
Indicator	Emitter : Power indicator (Red LED), Receiver : Operation indicator (Red LED)			
Connection	Outgoing cable			
Insulation resistance	Min. 20M $\Omega$ (at 500VDC megger)			
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 to 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 to 65 $^{\circ}$ C (at non-freezing status), Storage : -25 to 70 $^{\circ}$ C			
Ambient humidity	35 to 85%RH, Storage : 35 to 90%RH			
Protection	IP67 (IEC standard)			
Material	Case : PC			
Cable	• Emitter : $\phi$ 3mm, 2P		• Receiver : $\phi$ 3mm, 3P • Length : 2m	
Approval	<b>CE</b>			
Unit weight	Approx. 66g			

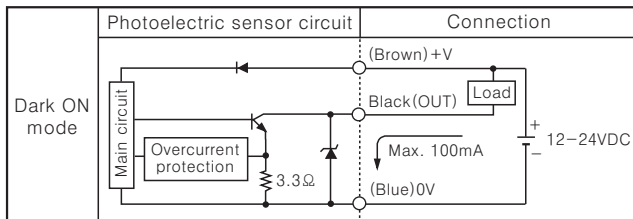
# Slim and Amplifier Built-in Type

## Feature data

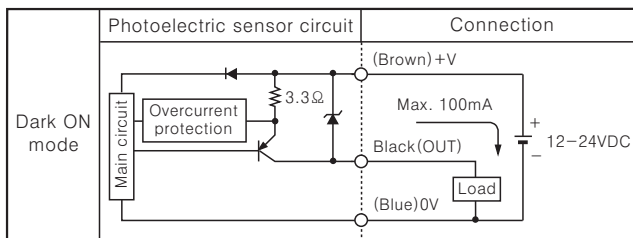


## Control output diagram

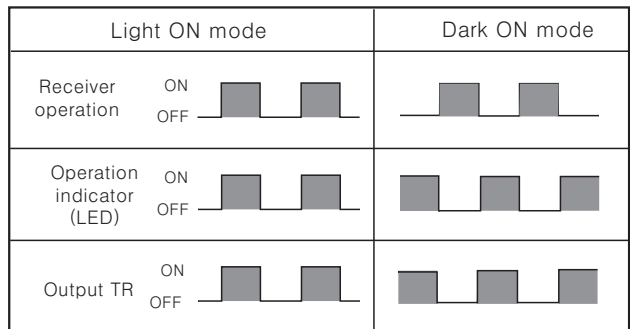
●NPN open collector output



●PNP open collector output

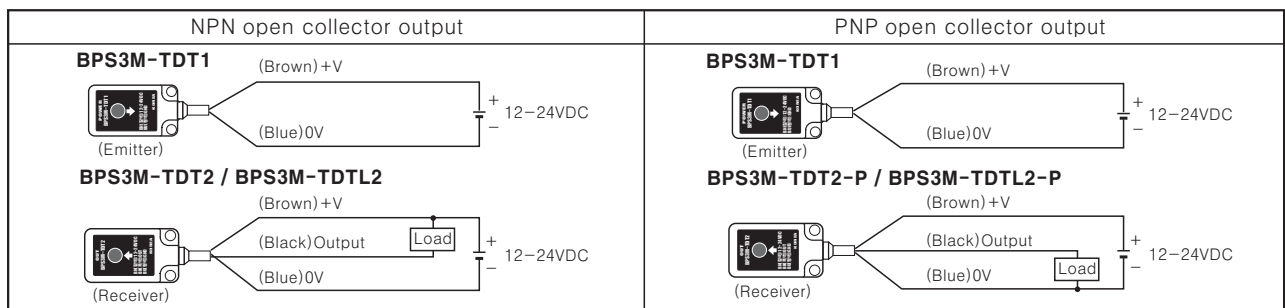


## Operation mode

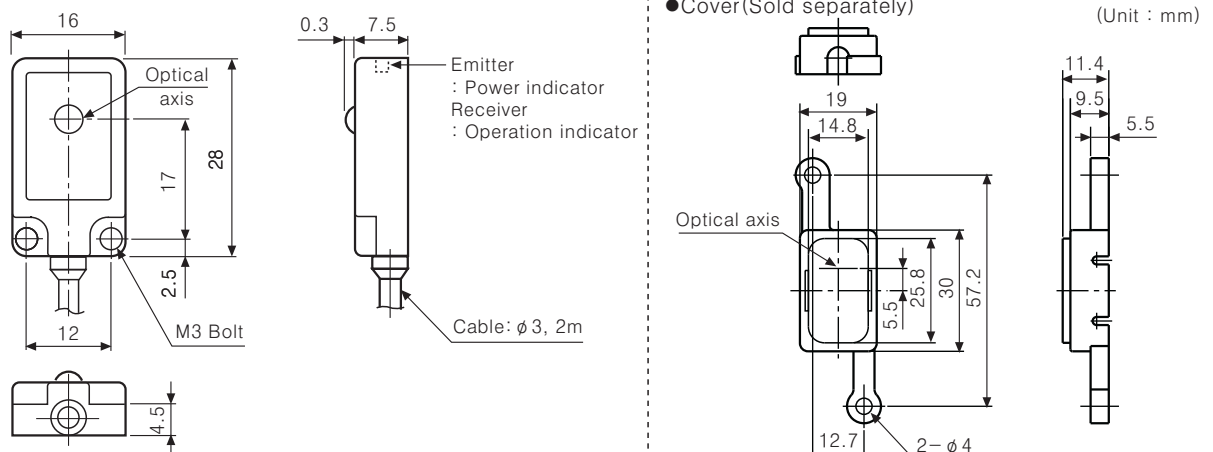


Note) If the control output terminal is short-circuited or over current condition is exited the control output will turn off due to protection circuit.  
 Note) Dark ON mode is standard and Light ON (Received light : ON) mode is customizable.

## Connections



## Dimensions



(A) Photo electric sensor

(B) Fiber optic sensor

(C) Door/Area sensor

(D) Proximity sensor

(E) Pressure sensor

(F) Rotary encoder

(G) Connector/Socket

(H) Temp. controller

(I) SSR/Power controller

(J) Counter

(K) Timer

(L) Panel meter

(M) Tacho/Speed/Pulse meter

(N) Display unit

(O) Sensor controller

(P) Switching power supply

(Q) Stepping motor & Driver & Controller

(R) Graphic/Logic panel

(S) Field network device

(T) Production stoppage models & replacement