

# BPS Series

## Slim, Long detecting distance type

### ■ Features

- Easy to mount by Flat type
- Realization of 3M detecting distance as small size
- Water proof structure by IP 67 (IEC specification)



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

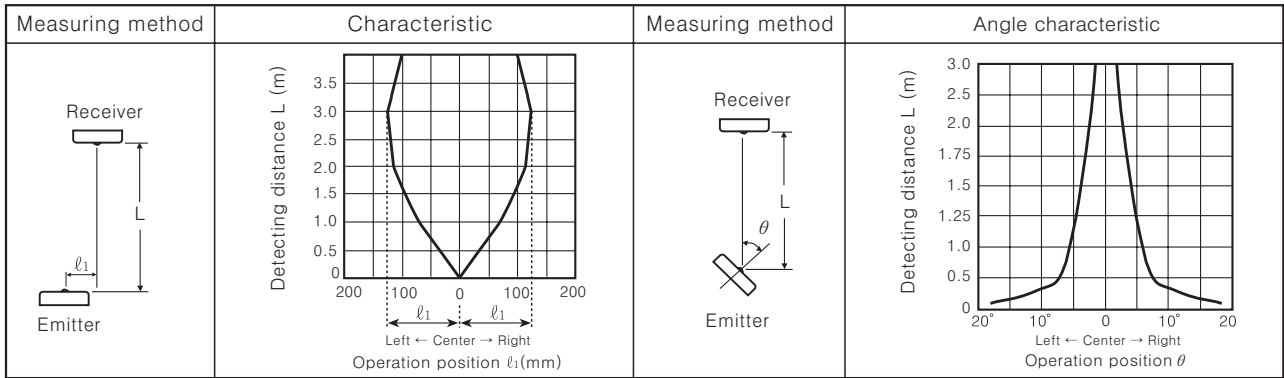


### ■ Specifications

Model	BPS3M-TDT	BPS3M-TDTL	BPS3M-TDT-P	BPS3M-TDTL-P
Type	Through beam			
Detecting target	Opaque materials of Min. $\phi$ 5mm			
Operation mode	Dark ON mode	Light ON mode	Dark ON mode	Light ON mode
Detecting 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 ⚡ Load voltage : Max. 30VDC, Load current : Max.100mA, Residual voltage : Max.1V		PNP open collector output ⚡ Output voltage : (Min. Power supply-2.5V), Load current : Max. 100mA	
Protection circuit	Reverse polarity protection, Short-circuit protection			
Indication	Emitter : Power indicator (Red LED), Receiver : Operation indicator (Red LED) <input type="checkbox"/>			
Connection	Outgoing cable			
Insulation resistance	Min. 20M $\Omega$ (at 500VDC)			
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 specification)			
Material	Case : PC			
Cable	• Emitter : $\phi$ 3mm, 2P		• Receiver : $\phi$ 3mm, 3P, Length : 2m	
Approval	<b>CE</b>			
Weight	Approx. 66g			

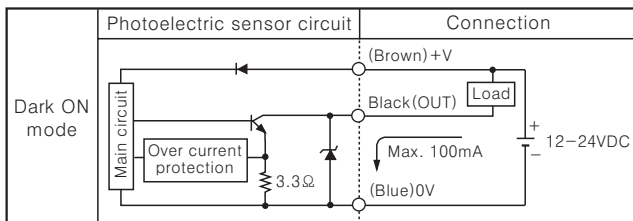
# DC Through Beam, IP67 Housing Type

## Characteristic

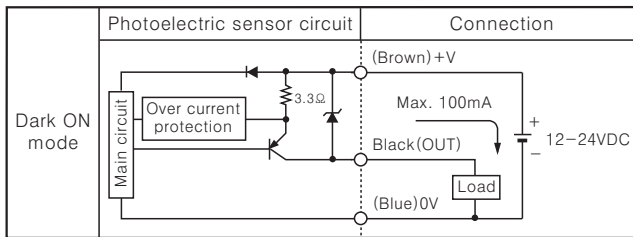


## Control output diagram

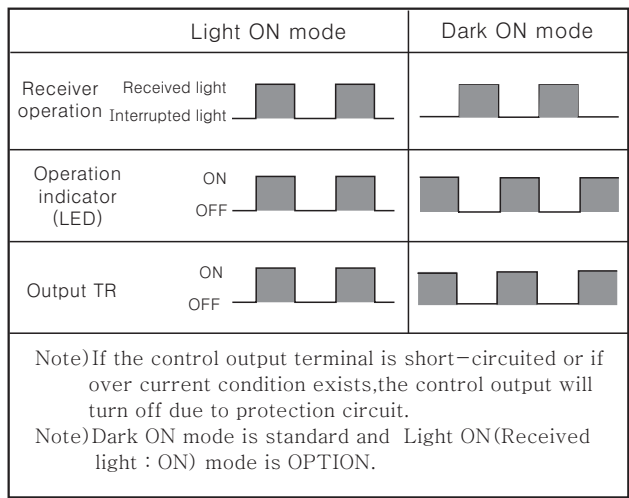
- NPN open collector output



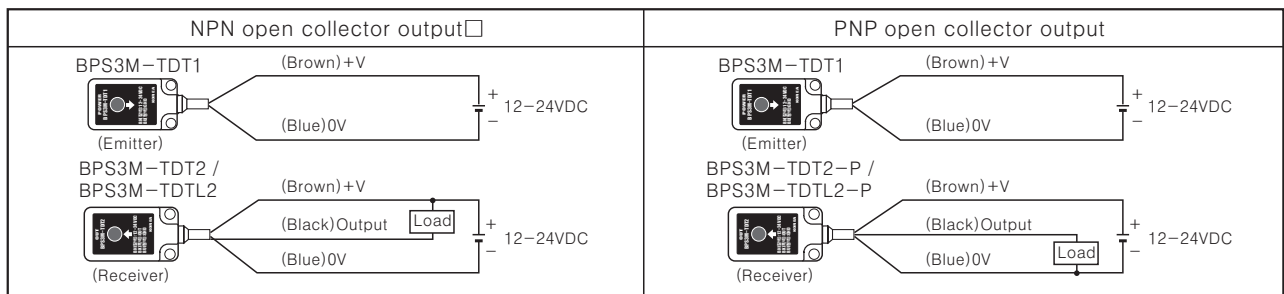
- PNP open collector output



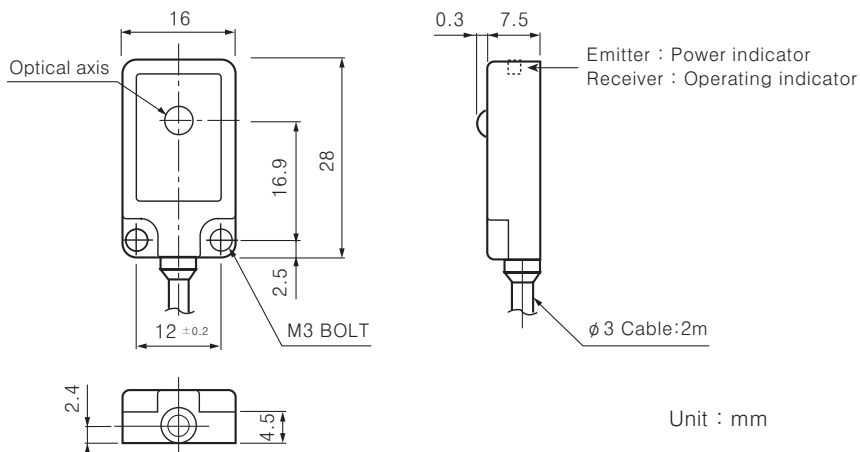
## Operation mode



## Connections



## Dimensions



(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) Proximity sensor

(J) Photo electric sensor

(K) Pressure sensor

(L) Rotary encoder

(M) 5-Phase stepping motor & Driver & Controller