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.**

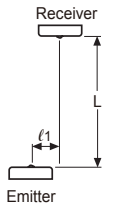
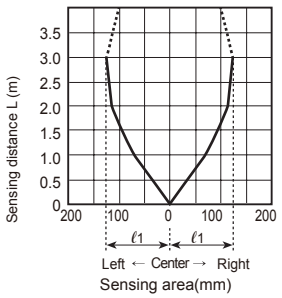
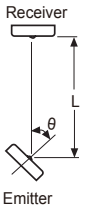
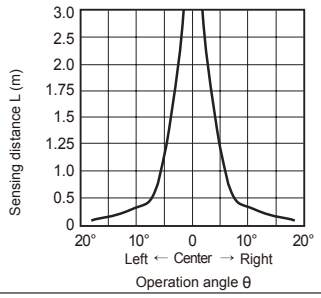
CE

▣ Specifications

Model	NPN open collector output	**BPS3M-TDT**	**BPS3M-TDTL**
	PNP open collector output	**BPS3M-TDT-P**	**BPS3M-TDTL-P**
Sensing type		Through-beam	
Sensing target		Opaque materials of Min. ø5mm	
Operation mode		Dark ON	Light ON
Sensing distance		3m	
Response time		Max. 1ms	
Power supply		12-24VDC ±10%(Ripple P-P : Max. 10%)	
Current consumption		Max. 20mA	
Light source		Infrared LED(850nm)	
Control output		NPN or PNP open collector output ●Load voltage: Max. 30VDC ●Load current: Max. 100mA ●Residual voltage - NPN: Max. 1V, PNP: Max. 2.5V	
Protection circuit		Reverse polarity protection, Output short-circuit protection	
Indicator		Emitter : Power indicator(red LED), Receiver : Operation indicator(red LED)	
Insulation resistance		Min. 20MΩ(at 500VDC megger)	
Noise resistance		±240V the square wave noise(pulse width:1μs) by the noise simulator	
Dielectric strength		1,000VAC 50/60Hz for 1minute	
Vibration		1.5mm amplitude or 300m/s² at frequency of 10 to 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	
Environment	Ambient illumination	Sunlight : Max. 11,000lx , Incandescent lamp : Max. 3,000lx(Receiver illumination)	
	Ambient temperature	-25 to 65℃, storage : -25 to 70℃	
	Ambient humidity	35 to 85%RH, storage : 35 to 90%RH	
Protection		IP67(IEC standard)	
Material		Case : PC	
Cable		ø3, 3-wire, Length : 2m(Emitter of through-beam type : ø3, 2-wire, Length : 2m) (AWG24, Core diameter : 0.08mm, Number of cores : 40, Insulator out diameter : ø1)	
Approval		CE	
Unit weight		Approx. 66g	

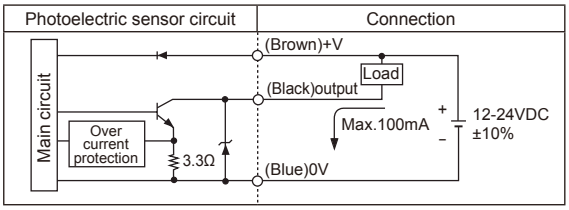
※The temperature or humidity mentioned in Environment indicates a non freezing or condensation environment.

■ Feature data

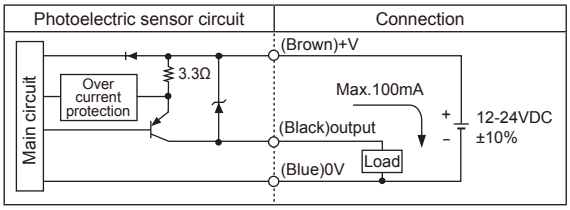
Measuring method	Parallel shifting characteristic	Measuring method	Sensor angle characteristic
			

■ Control output diagram

● NPN open collector output



● PNP open collector output



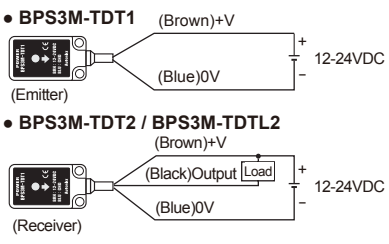
■ Operation mode

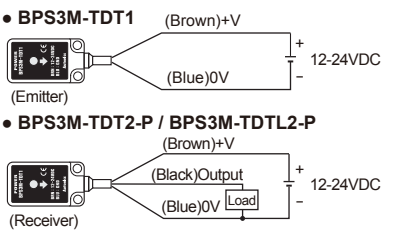
Operation mode	Light ON	Dark ON
Receiver operation	Received light / Interrupted light	Received light / Interrupted light
Operation indicator (red LED)	ON / OFF	ON / OFF
Transistor output	ON / OFF	ON / OFF

※If the control output terminal is short-circuited or overcurrent condition exists, the control output turns OFF due to protection circuit.
※Dark ON mode is standard and Light ON(Received light: ON) mode is customizable.

■ Connections

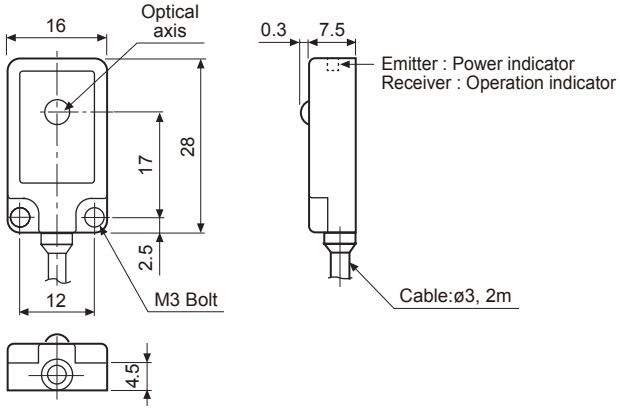
NPN open collector output	PNP open collector output
● **BPS3M-TDT1**	● **BPS3M-TDT1**
● **BPS3M-TDT2 / BPS3M-TDTL2**	● **BPS3M-TDT2-P / BPS3M-TDTL2-P**





■ Dimensions

(unit: mm)



●Cover(sold separately)

