

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.



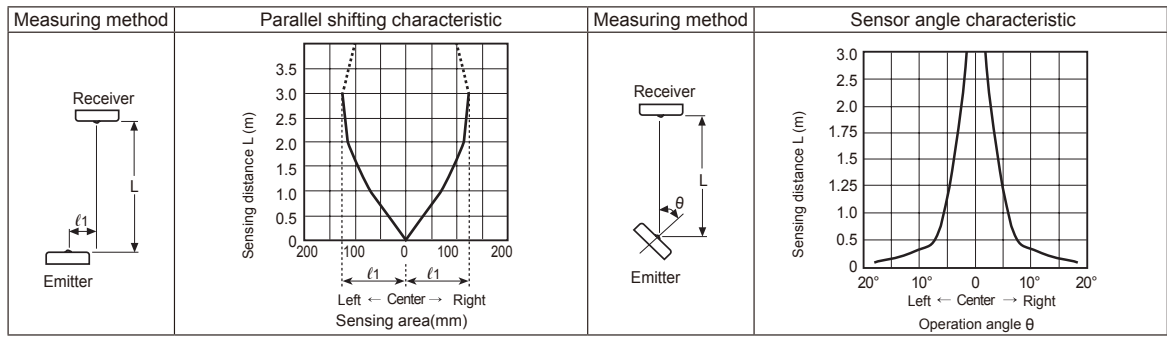
■ Specifications

Model	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/s ² at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours	
Shock		500m/s ² (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°C, storage : -25 to 70°C	
	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.

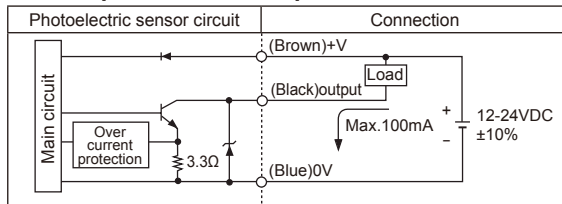
Slim and Amplifier Built-in type

Feature data

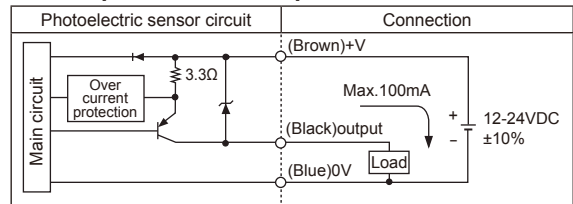


Control output diagram

• NPN open collector output



• PNP open collector output

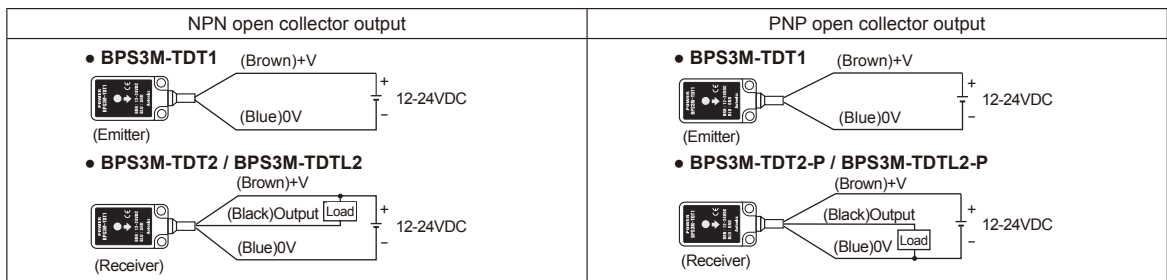


Operation mode

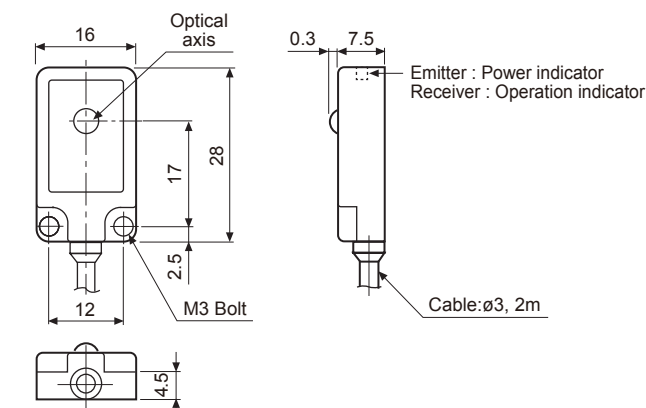
Operation mode	Light ON	Dark ON
Receiver operation	Received light Interrupted light	Received light Interrupted light
Operation indicator (red LED)	ON OFF	ON OFF
Transistor output	ON OFF	ON OFF

※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.

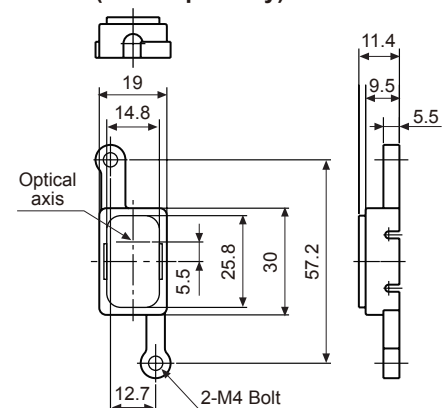
Connections



Dimensions



• Cover(sold separately) (unit: mm)



(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 mode power supply
(Q) Stepper motor& Driver&Controller
(R) Graphic/ Logic panel
(S) Field network device
(T) Software
(U) Other