

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.



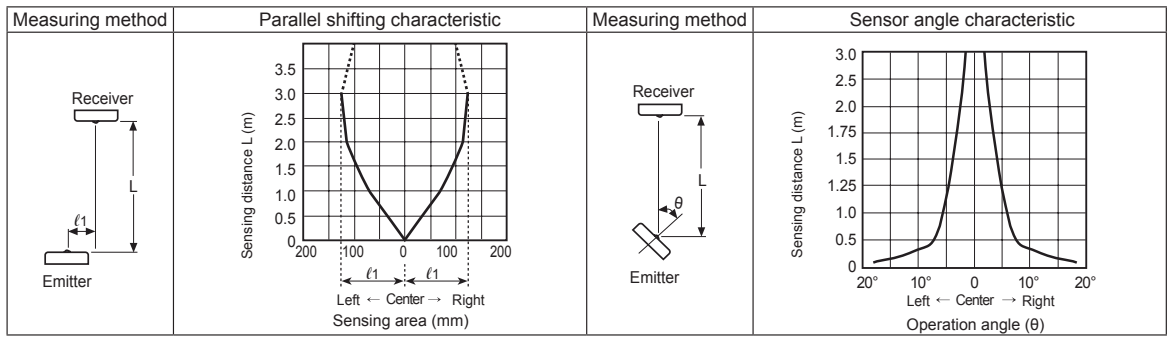
■ Specifications

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 at frequency of 10 to 55Hz (for 1 min.) in each X, Y, Z direction for 2 hours		
Shock	500m/s ² (approx. 50G) in each X, Y, Z direction 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 structure	IP67 (IEC standard)		
Material	Case: PC		
Cable	Ø3mm, 3-wire, Length: 2m (Emitter of through-beam type: Ø3mm, 2-wire, Length: 2m) (AWG24, Core diameter: 0.08mm, Number of cores: 40, Insulator out diameter: Ø1mm)		
Approval	CE		
Unit weight	Approx. 66g		

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

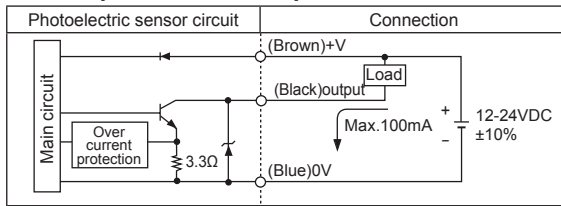
Slim And Amplifier Built-in Type

Feature Data

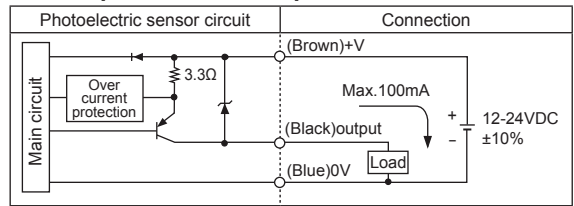


Control Output Diagram

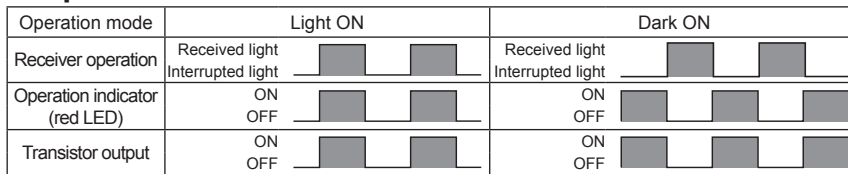
• NPN open collector output



• PNP open collector output

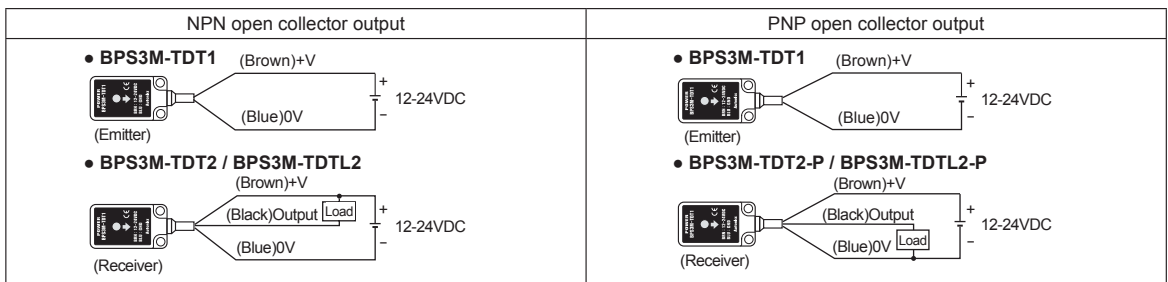


Operation Mode

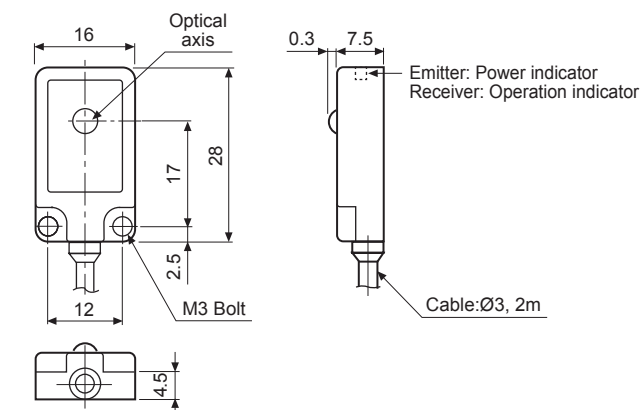


※If the control output terminal is short-circuited or overcurrent condition exists, the control output turns OFF due to protection circuit.
 ※Dark ON mode is standard and Light ON (Received light: ON) mode is customizable.

Connections

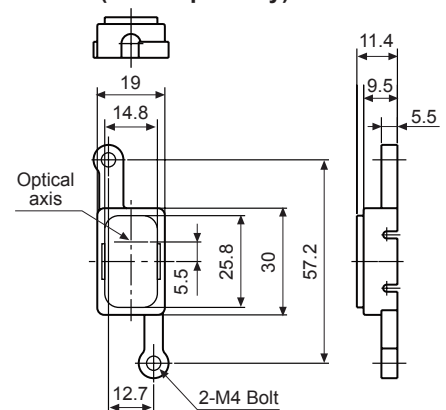


Dimensions



• Cover (sold separately)

(unit: mm)



- (A) Photoelectric Sensors
- (B) Fiber Optic Sensors
- (C) Door/Area Sensors
- (D) Proximity Sensors
- (E) Pressure Sensors
- (F) Rotary Encoders
- (G) Connectors/ Sockets
- (H) Temperature Controllers
- (I) SSRs / Power Controllers
- (J) Counters
- (K) Timers
- (L) Panel Meters
- (M) Tacho / Speed / Pulse Meters
- (N) Display Units
- (O) Sensor Controllers
- (P) Switching Mode Power Supplies
- (Q) Stepper Motors & Drivers & Controllers
- (R) Graphic/ Logic Panels
- (S) Field Network Devices
- (T) Software