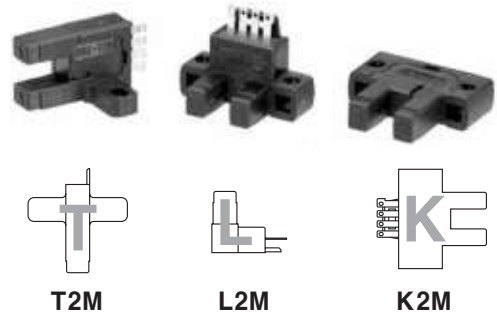


BS5 Series

Photo micro sensor

■ Features

- Built-in miniature amplifier, NPN open collector output
- Various selection by installation position
(Appearance: K, T, L Type)
- Light ON / Dark ON selectable
- High speed response frequency : 2kHz
- Wide range of power source: 5-24VDC
(Easy to connect with various IC, Relay, Programmable Controller etc)
- Dust resistance structure: Protecting by window of Emitter/Receiver
- Red LED status indication



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

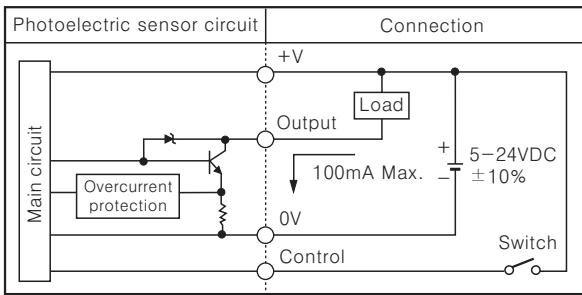


■ Specifications

Type	Photo micro sensor		
Model	BS5-K2M	BS5-T2M	BS5-L2M
Sensing distance	Fixed 5mm		
Sensing type	Transmitted beam (Not modulated)		
Sensing target	Opaque material of Min. 0.8×1.8mm		
Hysteresis	0.05mm		
Power supply	5-24VDC ±10% (Ripple P-P : Max. 10%)		
Current consumption	Max. 30mA (at 26.4VDC)		
Control output	NPN open collector output \Rightarrow Load voltage : Max. 30VDC, Load current : Max. 100mA Residual voltage : Max. 1.2V		
Operation mode	Light ON / Dark ON mode selectable by control wire		
Operation indicator	Red LED		
Response time	Received light : Max. 20 μ s, Interrupted light : Max. 100 μ s		
Response frequency	2kHz (Please see the measuring range of frequency response)		
Connection	Connector type		
Light emitting element	RED		
Light receiving element	Photo TR		
Vibration	1.5mm amplitude at frequency of 10 ~ 55Hz in each of X, Y, Z directions for 2 hours		
Shock	500m/s ² (50G) in X, Y, Z directions for 3 times		
Noise strength	±240V the square wave noise (pulse width: 1 μ s) by the noise simulator		
Dielectric strength	1,000VAC 50/60Hz for 1minute		
Insulation resistance	Min. 20M Ω (at 250VDC mega)		
Ambient illumination	Fluorescent lamp : Max. 1000lx		
Ambient temperature	-20 ~ + 55 $^{\circ}$ C (at non-freezing status), Storage : -25 ~ + 85 $^{\circ}$ C		
Ambient humidity	35 ~ 85%RH (Storage : 35 ~ 85%RH)		
Protection	IP50 (IEC standard)		
Material	PA-6		
Approval	CE		
Unit weight	Approx. 30g		

Photo Micro Sensor

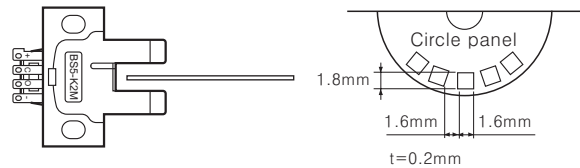
Control output diagram



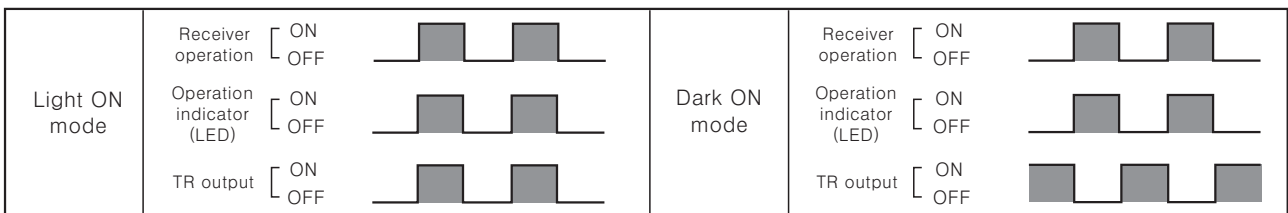
※Switch OFF : Dark ON, Switch ON : Light ON

How to measure response frequency

Response frequency value is from revolving of below circle panel.

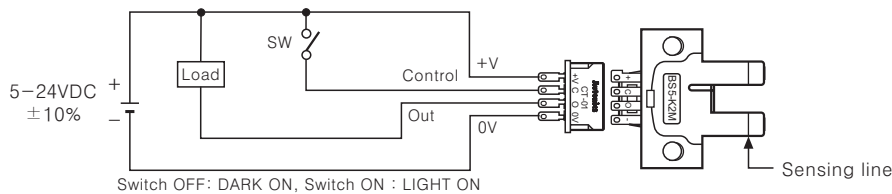


Operation mode



※If the control output terminal is short-circuited or overcurrent condition is existed, the control output will turn off due to protection circuit.

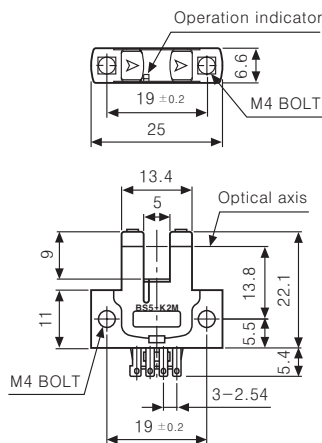
Connections



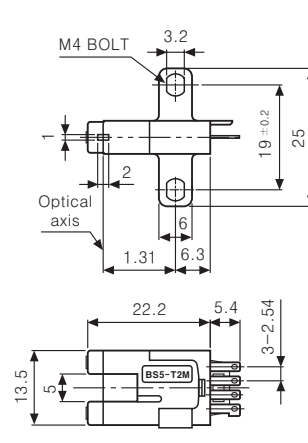
※Connect the unit by socket or, if it is soldered on terminal pin, it can be broken.

Dimensions

●BS5-K2M

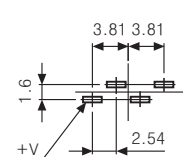


●BS5-T2M

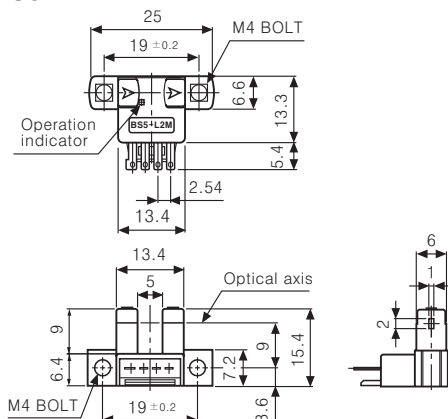


(Unit:mm)

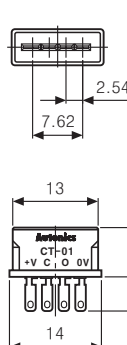
●PCB mounting hole



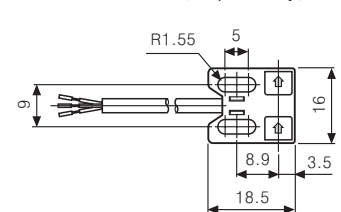
●BS5-L2M



●Socket : CT-01 (Separately)



●Socket : CT-02 (Separately)



※Cable : 4P, ϕ 4, 1m
※Cable length is customizable.

- (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) Switching power supply
- (J) Proximity sensor
- (K) Photo electric sensor
- (L) Pressure sensor
- (M) Rotary encoder
- (N) Stepping motor & Driver & Controller
- (O) Graphic panel
- (P) Production stoppage models & replacement