

Groove-Depth 6.5 mm

Photomicro Sensors

with Built-In Connector

BS4 Series



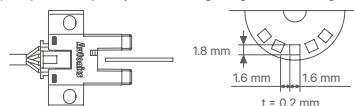
Features

- Minimize the external size with the assembled connector insertion part
 - Dedicated sold separately and universal connector cables available
 - Various shapes available for installation flexibility (K, L, R, T, TA, F, Y types)
- Minimize malfunction and improved visibility
 - Minimize sensing part and body level to reduce malfunctions caused by foreign substances
 - Built-in operation indicators viewable from multiple directions
- Selectable models for the operation of indicator
 - Indicator turns ON under the light received condition
 - Indicator turns ON under the light interrupted condition
- Resistant structure for shock and vibration
 - Shock 15,000 m/s² (≈ 1,500 G), vibration 10 to 2,000 Hz (1.5 mm double amplitude)
- Selectable operation modes (Light ON / Dark ON)
- High-frequency response: 2 kHz

Specifications

Series	BS4
Sensing type	Through-beam
Sensing distance	5 mm
Sensing target	Opaque materials
Min. sensing target	≥ 0.8 mm × 1.8 mm
Hysteresis	≤ 0.05 mm
Response time	Received light: ≤ 20 μs, Interrupted light: ≤ 80 μs
Response frequency	2 kHz ⁰¹⁾
Light source	Infrared LED
Peak emission wavelength	940 nm
Operation mode	Built-in Light ON / Dark ON
Indicator	Operation indicator (Red)
Approval	CE, RoHS, REACH, ENEC
Unit weight	≈ 2.4 g

01) Response frequency is the value getting from revolving the circle panel below.



Power supply	5-24 VDC= ±10% (ripple P-P: ≤ 10%)
Current consumption	≤ 15 mA
Control output	NPN open collector output / PNP open collector output Model
Load voltage	≤ 24 VDC=
Load current	≤ 50 mA
Residual voltage	NPN: ≤ 1.2 VDC=, PNP: ≤ 1.2 VDC=
Protection circuit	Reverse power polarity protection circuit, output short overcurrent protection circuit
Insulation resistance	≥ 20 MΩ (250 VDC= megger)
Noise immunity	± 240 VDC= square wave noise (pulse width 1 μs) by the noise simulator
Dielectric strength	1,000 VAC~ 50/60 Hz for 1 min
Vibration	1.5 mm double amplitude (max. acceleration 196 m/s ²) at frequency of 10 to 2,000 Hz in each X, Y, Z direction for 2 hours
Shock	15,000 m/s ² (≈ 1,500 G) in each X, Y, Z direction for 3 times
Ambient illuminance (receiver)	Fluorescent lamp: ≤ 1,000 lx
Ambient temperature	-20 to 55°C, Storage: -25 to 85°C (no freezing or condensation environment)
Ambient humidity	35 to 85%RH, Storage: 35 to 85%RH (no freezing or condensation environment)
Protection rating	IP50 (IEC standard)
Connection method	Connector type
Material	Case: PBT, sensing part: PC



View product detail