

BGS Sensor  
That is designed in a smallest dimensions

# S series

## BGS-S series

Highest Reliability packed in  
Smallest Dimensions (10 × 17 × 28mm)

### ■ Cable type

ST-400N/P	: Through-Beam type	: 4meter
SD-20N/P	: Diffused Reflection type	: 200mm
SR-150N/P	: Retro type with polarizing	: 1.5meter
BGS-S08N/P	: BGS	: 10 to 80mm

### ■ M8 connector type

ST-400CN/P	: Through-Beam type	: 4meter
SD-20CN/P	: Diffused Reflection type	: 200mm
SR-150CN/P	: Retro type with polarizing	: 1.5meter
BGS-S08CN/P	: BGS	: 10 to 80mm



## Features

**BGS sensors (BGS-S08N/P, etc) designed in smallest dimensions of 17×10×20mm**  
**Ideal for OEM for Sorter of Printed Circuit Board**

### Compliance with applicable standards in major countries

Because of its strict compliance with CE, VDE, and UL, the S series can be used in major areas of world.  
VDE Standard does not allow sparking from the sensor body even if the sensor encounters sudden electrical trouble (short-circuit, over-voltage, etc.)

### High rigidity for 100G shock resistance

Rigid design for high resistance to shock such as contact or collision against object allows you to adopt the S series with ease.

### 0.5ms high speed response

It's the world's top level. The highest speed response among the amplifier built-in sensors.



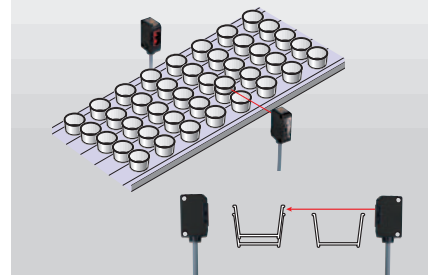
S series  
M8 Connector type

S series  
Cable type

## Applications (example)

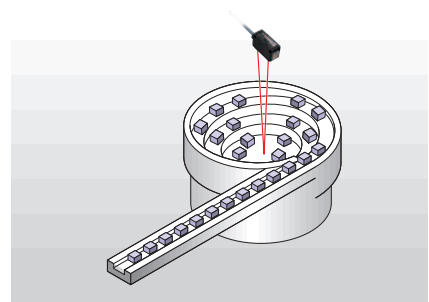
### Double feeding of ice cream cup

Fine spot of ST-400 thru-beam type is helpful to sense double feeding of cups watching height of them.



### Parts feeder

Ideal for such machines that would not allow good space for installing sensors.



# Specifications

Model	Through-beam	Retro-reflection with polarizing Filter	Diffused reflection	BGS	
Cable type	NPN / PNP	ST-400N/P	SR-150N/P	SD-20N/P	BGS-S08N/P
M8 Connector type	NPN / PNP	ST-400CN/P	SR-150CN/P	SD-20CN/P	BGS-S08CN/P
Sensing range	4m	1.5m	20m	10 to 80mm	
Supply voltage	10 to 30 V DC including 10% of ripple				
Current consumption	30mA	20mA MAX			
Hysteresis	—	—	20% MAX	10% MAX	
Minimum Detecting	Ø6 opaque object	□45mm opaque object	—	—	
Response time	0.5msec Max				
Control output	NPN or PNP Open collector, 100mA Max / 30V DC				
Operation Mode	Light ON/Dark ON switchover				
Sensitivity adjustment	1-turn potentiometer			5-turn potentiometer	
Indicator	Red				
Ambient Temp/Humid	-25 to 55 °C / 35 to 85%RH				
Protection category	IP67				
Environment illuminance	Sunlight: 10,000lux max., Incandescent lamp: 3,000 lux max.				
Shock resistance	100G(1,000m/S <sup>2</sup> ), X-Y-Z axis 3times				
Vibration resistance	10 50 55 Hz amplitude 1.5mm, X-Y-Z for 2 hours				
Connection	"Cable type : Cable length 2m Ø3.5mm(Longer cable type of 5m is available as option) Connector type : M8 x 4-pin connector"				

# Specifications

Type	Features
V-61	Reflection mirror for SR-150 (Standard accessory)
V-42	Small reflection mirror (Detection 1.0m)
JCN-L	L-shaped M8×4-pin connector cable 2m
JCN-S	Straight M8×4-pin connector cable 2m
BL-150-10	Slits for ST-400 (Width 4.5mm, 1.0mm, 2.0mm-enedless together in the packing box)
BEF-W150B	Fitting metal (Horizontal type)

# Dimensions

(Unit: mm)

