



BH Series Laser Sensors



Features

- The Laser light source projects a 2mm spot at 400mm distance (Diffuse mode)
- Sn=30m (Through-beam mode), fast 250µs response time
- Compact size with Laser source, small 2mm diameter projected beam
- BGS (Background Suppression Type) Sensors are not influenced by the background, available with conventional laser light source
- 1mm projected spot size with BGS optical system (BHG Laser types)
- IP67 rating
- 2m cable / M8 Connector types are available

Applications

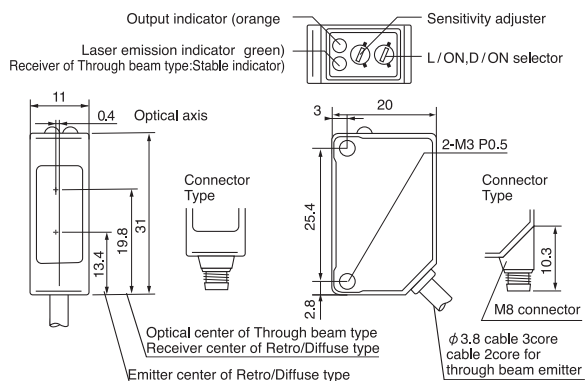
- Edge control (BHB)
- Height control of multi-colored object (BHB)
- Counting metal parts
- Thin plates counting

Sensing mode		Through-beam	Polarized Retro-reflective	Diffuse	BGS Laser Type	
Sensing distance		30m	10m (P250F Reflector)	400mm	50 ... 300mm	20 ... 100mm
Adjustable distance		/	/	/	10 ... 300mm	2 ... 100mm
Spot size		30mm/30m	10mm/8m	2mm/400mm	1.5mm/300mm	1mm/100mm
Hysteresis		/	/	<20%	<5%	<3%
Cable version	NPN	BHCH30MA	BHFG10MA	BHDH040A	BHBH030A	BHBH010A
	PNP	BHCG30MA	BHFG10MA	BHDG040A	BHBG030A	BHBG010A
M8 connector	NPN	BHCH30MG	BHFG10MG	BHDH040G	BHBH030G	BHBH010G
	PNP	BHCG30MG	BHFG10MG	BHDG040G	BHBG030G	BHBG010G

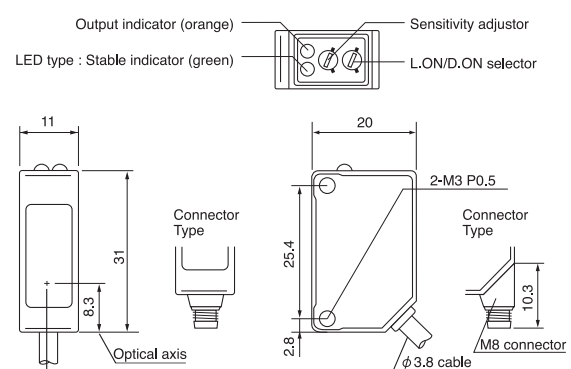
Specifications						
Type	Laser sensor(31x20x11mm)					
Nominal Voltage	10-30VDC					
Rated Voltage	24VDC					
Rated Insulation Voltage	75VDC					
Residual Ripple	<10%					
Response Time	250µs					
Light Source	Laser(650nm)					
Laser Class (IEC)	Class 1	Class 2	Class 2	Class 1	Class 1	
Laser Class (FDA)	Class I	Class II	Class II	Class I	Class I	
Output Indicator	Yellow LED					
Laser Power Indicator	Green LED					
Sensitivity Adjustment	Single turn potentiometer			4-turn, adjustment pot		
Operating Mode	NO/NC selectable (Light on / Dark on)					
Protection Category	IP67					
Operating Temperature	-10 ... 50°C					
Storage Temperature	-25 ... 70°C					
Operating Humidity	35% ... 95%*C					
Vibration	10-55Hz, width=1.5mm					
Shock	50G(500m/s ²)					
Housing Material	ABS					
Sensing Surface Material	PMMA					
Connection	2m cable / M8 connector					
Weight (g)	42g/35g					

Dimensions (mm)

• General Use Type except BGS

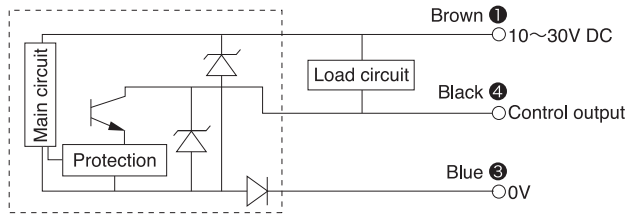


• BGS Type

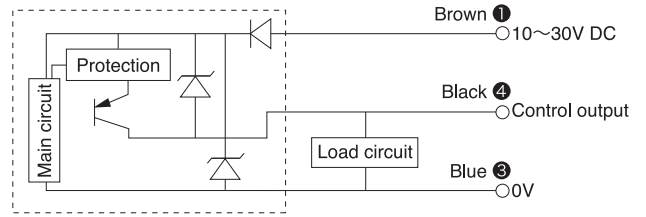


Circuit diagram

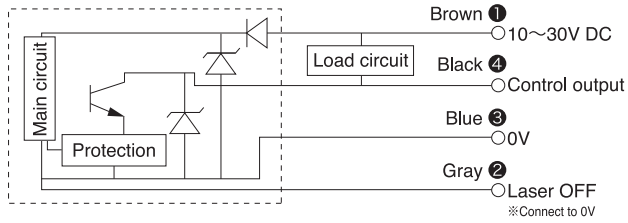
NPN output Thru-beam receiver



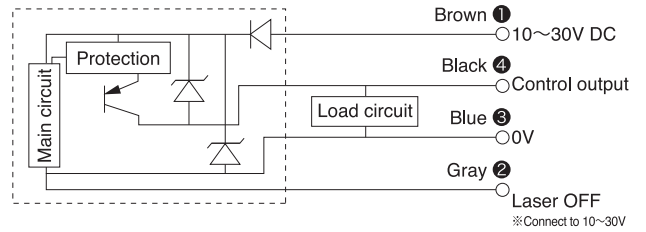
PNP output Thru-beem receiver



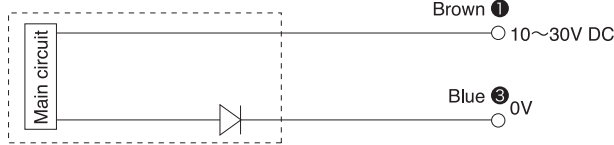
NPN output (other type)



PNP output (other type)

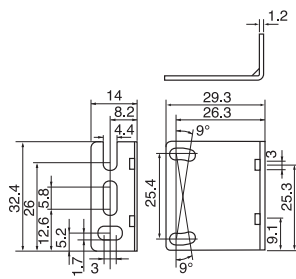


Emitter of Thru-beam type

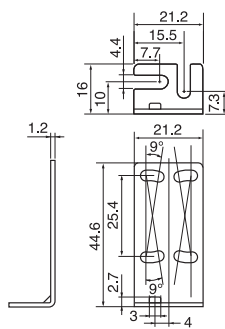


Accessory

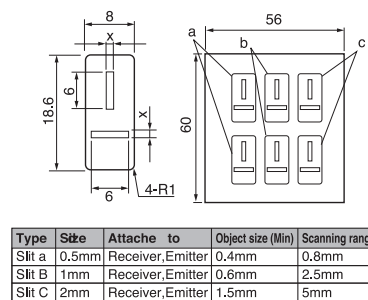
Standard bracket For M8 connector type sensors



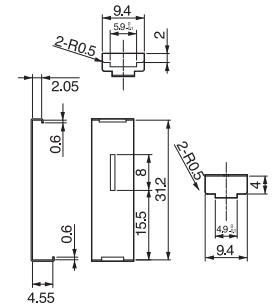
Standard bracket For Cable type sensors



Slit mask (for Thru-beam type)

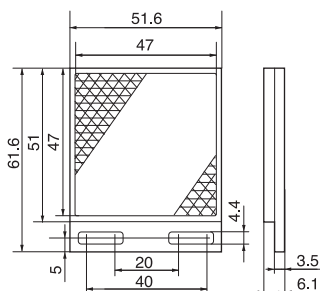


Slit mask

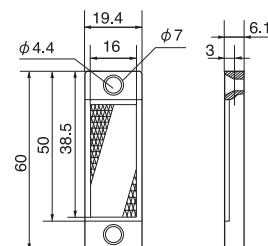


Reflectors for Laser Type

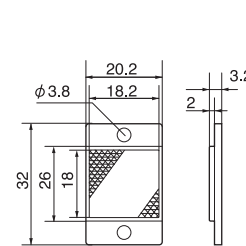
P250F (Standard, 0.2-10m)



PL20F (Optional, 0.2-8m)



PL10F (Optional, 0.2-7m)



V-42F (Optional, 0.1-5m)

