

- Suitable for location not allowing use of through-beam type

The SSR Series is a series of light curtain sensors used together with a reflector and ideal for locations with a wall or other obstacle on one side that hinders the installation of the transmitter or receiver of through-beam type.

- Metal connector for simple connection and handling
- Reflective type for simple installation and wiring
- No adjustment on sensor required
- Compact size achieved by unitization of transmitter and receiver
- Wide variation of detecting widths: 140/220/300/380/460 mm

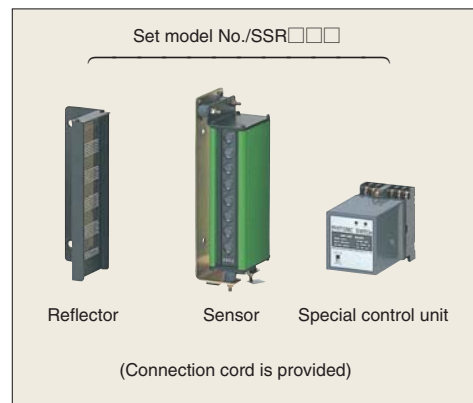
Type

Detection method	Detecting distance	Detecting width	Set model No.	No. of light axes	Light axis interval	Detecting object
 Reflector type		140mm	SSR304	4	40mm	Opaque object of ϕ 60 mm min. (At 1.5 m from sensor; ϕ 80 mm min. near reflector)
		220mm	SSR306	6		
		300mm	SSR308	8		
		380mm	SSR310	10		
		460mm	SSR312	12		

Optional parts

Type	Appearance	Model	Description
Reflector		SSM304S	For 0.4-1 m detecting distance
		SSM306S	
		SSM308S	
		SSM310S	
		SSM312S	
Mounting bracket		PSZ300	Applicable sensor SSB304-SSB308 Applicable reflector SSM304-SSM308
		PSZ300L	Applicable sensor SSB-310-SSB312 Applicable reflector SSM310-SSM312
		PSZ300S	Applicable sensor SSB-310-SSB312 Applicable reflector SSM310-SSM312
Connection cord		SSR-H10	Cord with connector (10 m)

*For prices of the sensor, reflector and control unit for separate purchase, see the Price List at the end of this book.



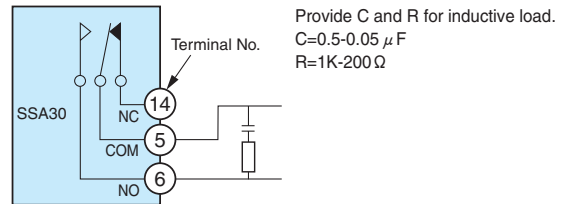
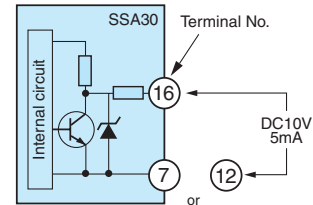
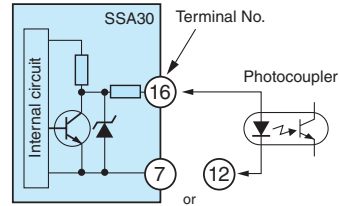
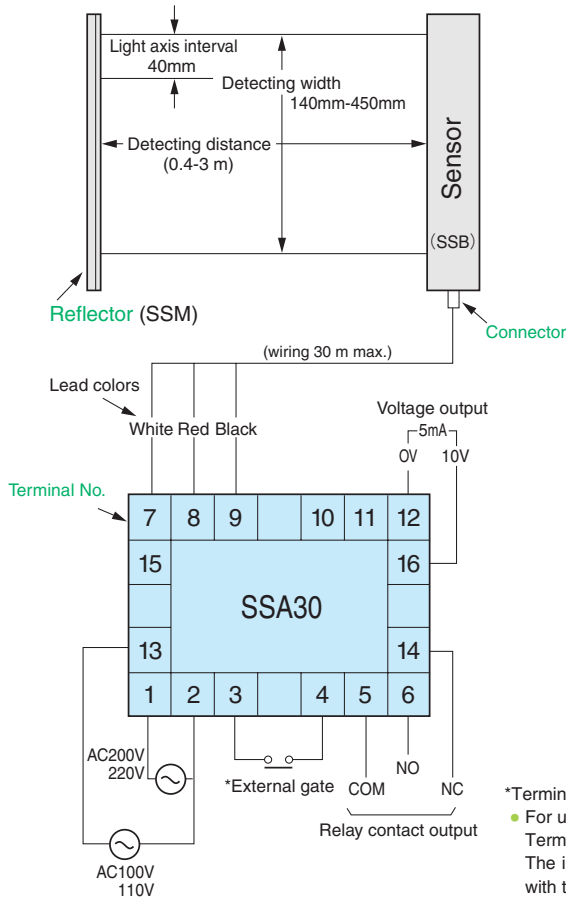
Rating/Performance/Specification

Model	Set model No.	SSR304	SSR306	SSR308	SSR310	SSR312	
	Sensor only	SSB304	SSB306	SSB308	SSB310	SSB312	
	Reflector only	SSM304	SSM306	SSM308	SSM310	SSM312	
	Control unit	SSA30					
Rating/performance	Detection method	Reflector type					
	Detecting distance	1-3m (0.4-1m)*					
	Detection object	Opaque object of ϕ 60 mm min. (At 1.5 m from sensor; ϕ 80 mm min. near reflector)					
	No. of light axes	4	6	8	10	12	
	Detecting width	140mm	220mm	300mm	380mm	460mm	
	Light axis interval	40mm					
	Power supply	100VAC 110V / 200V 220V \pm 10% 50/60Hz					
	Power consumption	4VA max.					
	Output mode	Relay output 1c Voltage output	(Rating)	Relay output :5 A (250 VAC) max. noninductive load Voltage output :output impedance 4.7 k Ω (10 VDC)			
	Operation mode	Light-ON/Dark-ON selectable (with switch on control unit)					
	External gate	Contact/voltage input		H:6V min. L:1V max.			
	Response time	Relay output Voltage output		25ms max. 5ms max.			
	Specification	Light source (light wavelength)	Infrared LED(950nm)				
Light-sensitive element		Photo transistor					
Indicator		Sensor: Light reception indicator (red LED) \times No. of light axes		Control unit: PL Power indicator (red LED) OP.L Operation indicator (red LED)			
Switch (SW)		Light-ON/Dark-ON selector switch provided (on control unit)					
Material		Case: aluminum / Reflector and control unit: resin					
Connector		Sensor: connector connection with VCT cord with 3-pin connector / three 0.75 mm ² cores / 5 m Control unit :terminal block with M3.5 screws					
Mass		Sensor	1.3kg max.	1.7kg max.	2.1kg max.	2.5kg max.	2.9 kg max.
		Reflector	300g max.	400g max.	500g max.	600g max.	700g max.
	Control unit	400g max.					
Notes	*For a detection distance between 0.4-1 m, use an appropriate model of special reflector (see Optional Parts on the previous page).						

Environmental Specification

Environment	Ambient light	8,000lx max.
	Ambient temperature	-10 - +55°C (non-freezing)
	Ambient humidity	35-85%RH (non-condensing)
	Protective structure	Sensor : IP42 Control unit:IP20
	Vibration	10-55 Hz / 1.5 mm amplitude / 2 hours each in 3 directions
	Shock	1000 m/s ² / 2 times each in 3 directions
	Dielectric withstanding	1500 VAC for 1 minute
	Insulation resistance	500 VDC, 20 M Ω

Input/Output Circuit and Connection



*Terminals 3 and 4 compose the external gate (shorting bar is provided).

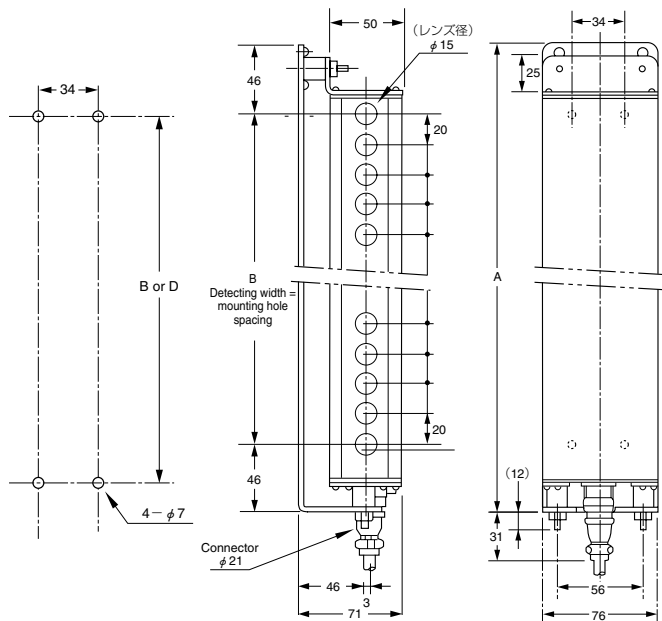
- For use by external voltage input to the external gate, connect the positive electrode to Terminal 3 and negative electrode to Terminal 12. The internal circuit is activated when the gate is closed. The circuit does not function with the gate open. The applicable voltage range is 5-25 V.

Dimensions (in mm)

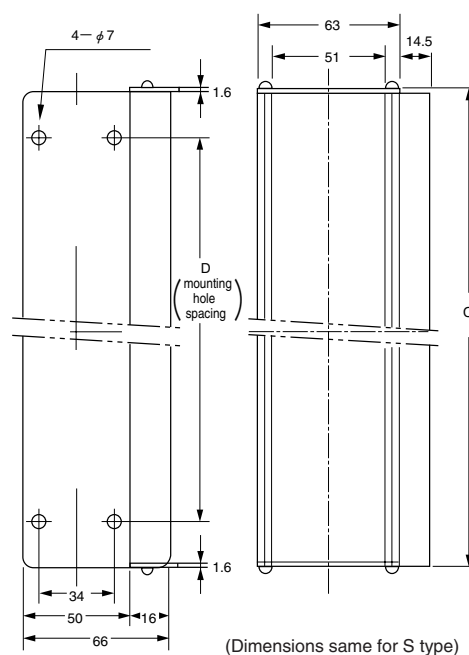
CAD

• Sensor

Sensor mounting hole dimensions



• Reflector



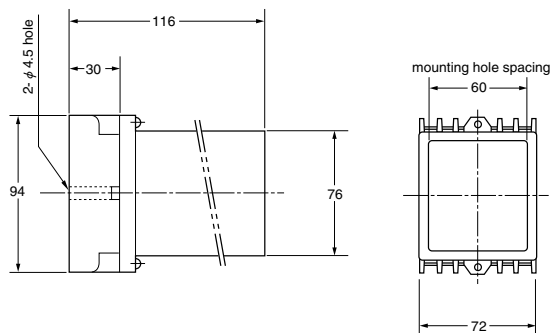
• Dimensions of portions

Model	Sensor (SSB)		Se	
	A (overall length)	B (detecting width)	C (overall length)	D (mounting spacing)
SSB (M) 304	232	140	183.2	140
SSB (M) 306	312	220	263.2	220
SSB (M) 308	392	300	343.2	300
SSB (M) 310	472	380	423.2	380
SSB (M) 312	552	460	503.2	460

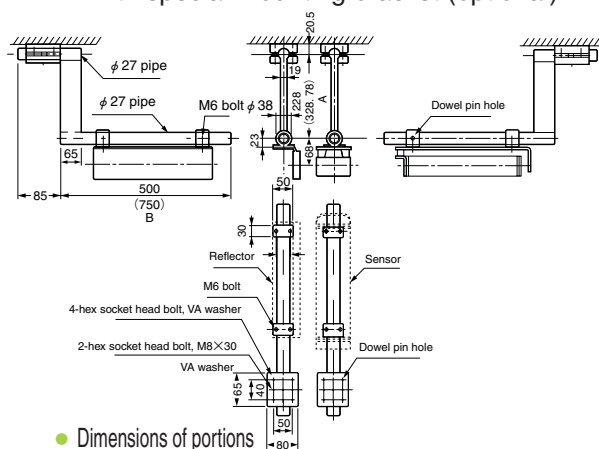
CAD

• Control unit

SSA30



• With special mounting bracket (optional)



• Dimensions of portions

Model	A(mm)	B(mm)	Applicable sensor and reflector model
PSZ300	228	500	SSB304-SSB308 SSM304-SSM308
PSZ300L	328	750	SSB310/SSB312
PSZ300S	78	750	SSM310/SSM312