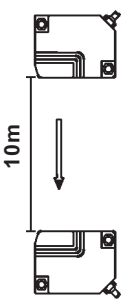
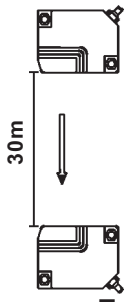
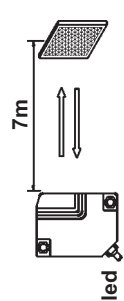
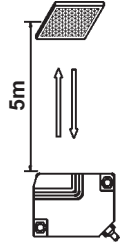
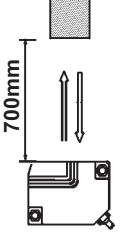


RS62 SENSORS SELECTION GUIDE

Sensing mode	Connection	Supply Voltage	Output mode	Part number	
 Oppose mode Sensing distance: 10m Light source : red led	2m cable 	12-240V DC or 24-240V AC	Emitter	RS62-T010MD-EY6C2L2	
	5m cable 		SPDT RELAY (Light-ON)	RS62-T010MR-LY6C5L2	
			SPDT RELAY (Dark-ON)	RS62-T010MR-DY6C5L2	
		Oppose mode Sensing distance: 30m Light source: infrared led	5m cable 	Emitter	RS62-T030MD-EY9C2L5
	SPDT RELAY (Light-ON)			RS62-T010MR-LY6C5L5	
	SPDT RELAY (Dark-ON)			RS62-T010MR-DY6C5L5	
 Oppose mode Sensing distance: 30m Light source: infrared led	2m cable 	12-240V DC or 24-240V AC	Emitter	RS62-T030MD-EY9C2L2	
	5m cable 		SPDT RELAY (Light-ON)	RS62-T030MR-LY9C5L2	
			SPDT RELAY (Dark-ON)	RS62-T030MR-DY9C5L2	
		 Retroreflective mode Sensing distance: 7m Light source : infrared led	2m cable 	12-240V DC or 24-240V AC	SPDT RELAY (Light-ON)
	5m cable 		SPDT RELAY (Dark-ON)		RS62-L7000R-DY9C5L2
			—		—
Retroreflective mode Sensing distance: 7m Light source : infrared led			5m cable 	SPDT RELAY (Light-ON)	RS62-L7000R-LY9C5L5
	SPDT RELAY (Dark-ON)			RS62-L7000R-DY9C5L5	
	—			—	

RS62 SENSORS SELECTION GUIDE

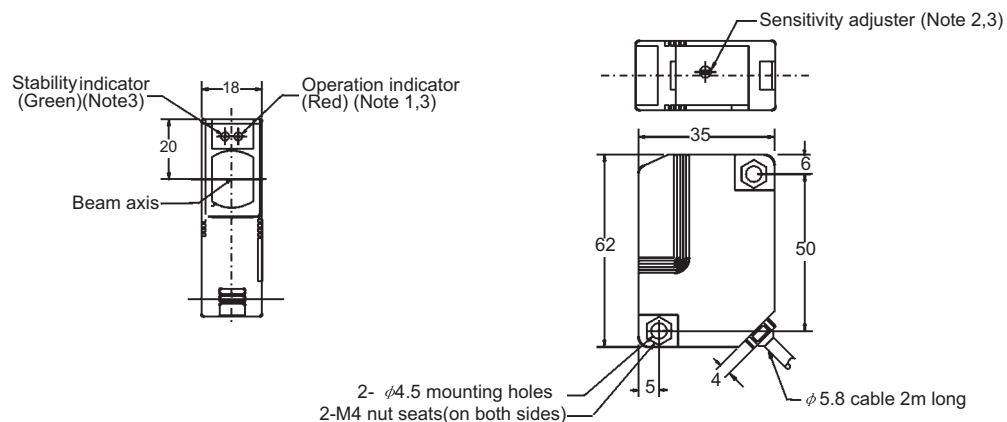
Sensing mode	Connection	Supply Voltage	Output mode	Part number
 Retroreflective mode With Polarizing filter Sensing distance: 5m Light source : red led	2m cable 	12-240V DC or 24-240V AC	SPDT RELAY (Light-ON)	RS62-L5000R-LY6C5L2-PF
			SPDT RELAY (Dark-ON)	RS62-L5000R-DY6C5L2-PF
			—	—
	5m cable 	12-240V DC or 24-240V AC	SPDT RELAY (Light-ON)	RS62-L5000R-LY6C5L5-PF
			SPDT RELAY (Dark-ON)	RS62-L5000R-DY6C5L5-PF
			—	—
 Diffuse Mode Sensing Distance: 0.7m Light source: infrared led	2m cable 	12-240V DC or 24-240V AC	SPDT RELAY (Light-ON)	RS62-D0700R-LY9C5L2
			SPDT RELAY (Dark-ON)	RS62-D0700R-DY9C5L2
			—	—
	5m cable 	12-240V DC or 24-240V AC	SPDT RELAY (Light-ON)	RS62-D0700R-LY9C5L5
			SPDT RELAY (Dark-ON)	RS62-D0700R-DY9C5L5
			—	—
		12-240V DC or 24-240V AC	SPDT RELAY (Light-ON)	—
			SPDT RELAY (Dark-ON)	—
			—	—
		12-240V DC or 24-240V AC	SPDT RELAY (Light-ON)	—
			SPDT RELAY (Dark-ON)	—
			—	—

RS62 SENSORS SPECIFICATIONS

Item	Type	Retroreflective Mode				Diffuse Mode		Through-beam Mode				
		With filters		Long sensing Range				Long sensing range				
		Model Number	RS62-L5000R-LY6C5L2-PF	RS62-L5000R-DY6C5L2-PF	RS62-L7000R-LY9C5L2	RS62-L7000R-DY9C5L2	RS62-D0700R-LY9C5L2	RS62-D0700R-DY9C5L2	RS62-T010MD-EY6C2L2(Emitter)	RS62-T010MR-LY6C5L2 (Receiver)	RS62-T010MR-DY6C5L2 (Receiver)	RS62-T030MD-EY9C2L2(Emitter)
Sensing range		0.1 to 5m(Note 1)		0.1 to 7m(Note 1)		700mm(Note 2)		10m		30m		
Sensing object		φ50 mm or more opaque,translucent or specular Object(Note 1)		φ50mm or more opaque or translucent Object(Note 1)		Opaque,translucent or transparent object		φ 20mm or more opaque object (If slit masks are fitted, an object as small as 3x6mm can be detected.)				
Hysteresis						15% or less of operation distance						
Repeatability		0.2mm or less				0.3mm or less		0.1mm or less		0.2mm or less		
Power supply		24 to 240V AC ± 10% or 12 to 240V DC ± 10% Ripple P-P 10% or less										
Power consumption		2VA or less						Emitter: 1VA or less Receiver:2VA orless		Emitter:1.5VA or less Receiver: 2VA orless		
Output		Relay contact 1c • Switching capacity:250V AC 1A (resistive load) 30V DC 2A (resistive load) • Electrical life:100,000or more operations (at rated AC load) 500,000or more operations (at rated DC load) • Mechanical life:100,000,000 or more operations										
Light/Dark operation		Light-ON	Dark-ON	Light-ON	Dark-ON	Light-ON	Dark-ON	Light-ON	Dark-ON	Light-ON	Dark-ON	
Response time		10ms or less										
Operation indicator		Red LED (lights up when the output is ON)										
Stability indicator		Green LED(lights up under stable light received condition or stable dark condition)										
Power indicator										Red LED (lights up when the power is ON)		
Sensitivity adjuster		Continuously variable adjuster			Continuously variable adjuster			Continuously variable adjuster				
Interference immunity		Incorporated (Two units of sensors can be mounted closely.)						(Use optional interference prevention filters)				
Pollution degree		3 (Industrial environment)										
Enclose category		IP66(IEC)										
Operating temperature		-20 to +55°C (No dew condensation or icing allowed) (Note3), Storage:-30 to +70°C										
Operating humidity		35 to 85% RH,Storage:35 to 85% RH										
Ambient illuminance		Sunlight:11,000l × at the light-receiving face,Incandescent light:3500l × at the light-receiving face										
EMC		IEC 60947-5-2 Parts 7.2.6.1,2,3 or RFI>3V/m(In30-1000MHz),EFT>1KV,ESO>4KV(contact)										
Voltage withstandability		IEC 60947-5-2 Parts 8.3.3.4, or 500VDC for one min between all supply terminals connected together and enclosure										
Insulation resistance		>20M,with 500VDC megger between all supply terminals										
Vibration resistance		IEC 60947-5-2 Parts 7.4.2 or 10-55Hz 1.0m amplitude in X Y and Z directions for 30 min										
Shock resistance		IEC 60947-5-2 Parts 7.4.1 or 30g 11ms in X Y and Zdirections for six time each										
Emitting element		Red LED (modulated)		Infrared LED (modulated)			Red LED (modulated)		Infrared LED (modulated)			
Material		Enclosure:Acrylonitrile Butadine Styrene (ABS),Lens:Polycarbonate,Cover:Acrylonitrile Butadine Styrene (ABS), Front cover:Acrylic (retroreflective type sensor only)										
Cable		0.3mm ² 5-core (thru-beam type emitter:2-core) cabtbye cable,2m long										
Cable length		Extension up to total 100m is possible with 0.3mm ² ,or more,cable(thru-beam type:both emitter and receiver).										
Weight		140g approx.						Emiter: 100g approx. Receiver:140g approx.		Emiter: 125g approx. Receiver:140g approx.		
Accessories		SRF-230(Reflector):1 No. Adjusting screwdriver:1 No.		SRF-230(Reflector): 1 No.		Adjusting screwdriver: 1 No.		Adjusting screwdriver:1 No.				
Notes: 1)The sensing range and the sensing object of te retroreflective type sensor is specified for the reflector.further,the sensing range is the possible setting range for the reflector. The sensor can detect an object less than 0.1m away. 2)The sensing range of the diffuse reflective type sensor is specified for white non-glossy paper(200 x 200mm)as the object. 3)In case the sensor is to be used at an ambient temperature of -15, or less,please contact our office. Reflector cannot be placed in this range Sensor 0.1m Actual sensing range of the sensor 5m(RS62-L7000R7m) Reflector												

RS62 SENSORS DIMENSIONS

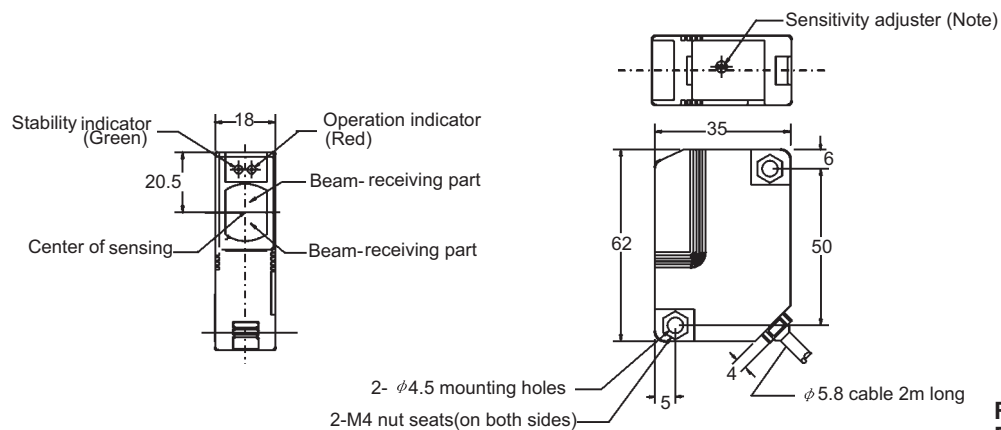
Oppose mode



Notes: 1) It is the power indicator on the emitter of RS62-T030MD...
 2) Not incorporated on RS62-T030MR...
 3) Not incorporated on the emitter

RS62-T010MD-EY6C2L2
 RS62-T010MR-DY6C5L2
 RS62-T030MD-EY9C2L2
 RS62-T030MR-DY9C5L2

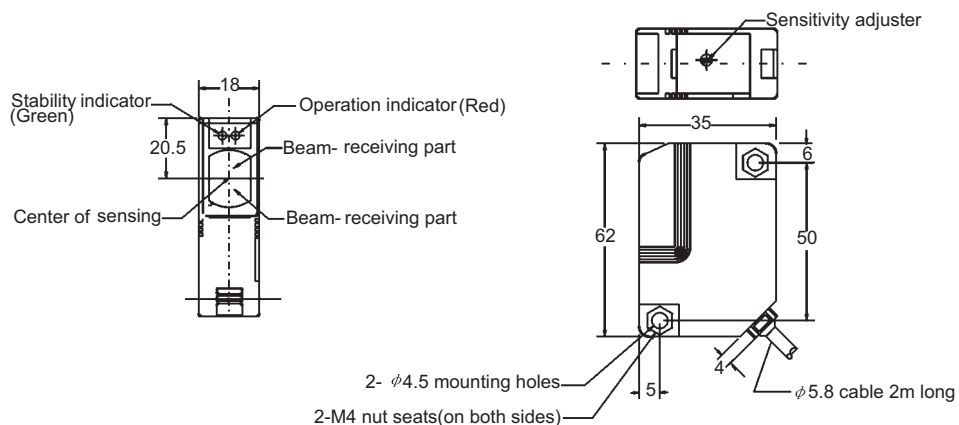
Retroreflective mode



Notes: Not incorporated on RS62-L7000R

RS62-L5000D-EY6C2L2-PF
 RS62-L5000R-DY6C2L2-PF
 RS62-L7000D-EY9C2L2
 RS62-L7000R-DY9C5L2

Diffuse Mode



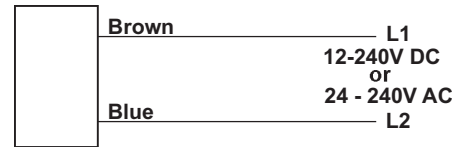
RS62-D0700R-LY9C5L2
 RS62-D0700R-DY9C5L2

RS62 SENSORS CIRCUIT DIAGRAM

CIRCUIT DIAGRAM



Note: receiver or others mode's connection



Note: Emitter's connection

Object detected state

Sensing mode		Thru-beam & Retroreflective type				Diffuse reflective type			
		Light-ON type		Dark-ON type		Light-ON type		Dark-ON type	
Output		NO (Black cable)	NC (Gray cable)	NO (Black cable)	NO (Gray cable)	NO (Black cable)	NC (Gray cable)	NO (Black cable)	NO (Gray cable)
Output condition	Power OFF	Open	Close	Open	Close	Open	Close	Open	Close
	Beam-received	Close	Open	Open	Close	Close	Open	Open	Close
	Beam-interrupted	Open	Close	Close	Open	Open	Close	Close	Open

RS62 SENSORS PRECAUTIONS FOR PROPER USE

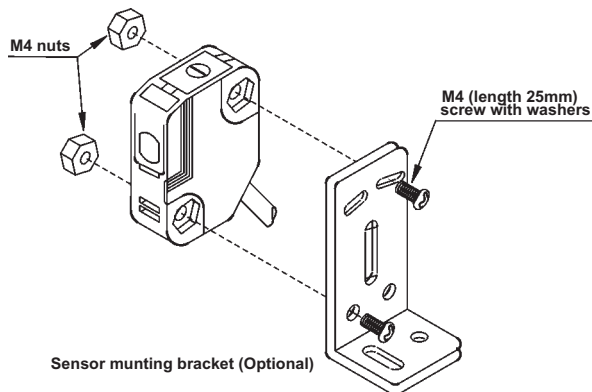
PRECAUTIONS FOR PROPER USE

Cautions:

Don't use the sensor for a safety aim, because it's only designed for a normal object detection

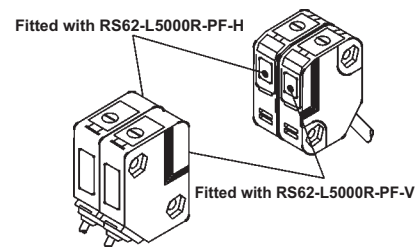
Mounting

The tightening torque should be 0.8N.m or less.

**Interference prevention filter**

(Exclusively for RS62-T010M...)

Use the interference prevention filters (optional) when two units of thru-beam type sensors are mounted closely.

**Others**

Do not use during the initial transient time (50ms) after the power supply is switched on.

There are two types of interference prevention filters.

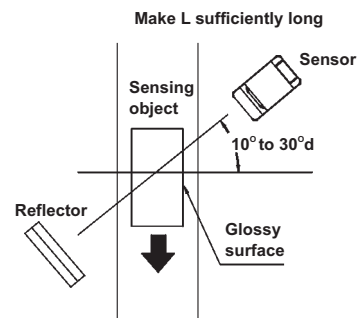
The two sets of thru-beam type sensors should be fitted with different types of interference prevention

Retroreflective type sensor (RS62-L7000R-LY9C5L2)

Please take care of the following points when detecting materials having a gloss.

- Make L, shown in the diagram, sufficiently long.
- Install at an angle of 10 to 30 degrees to the sensing object.

RS62-L500R-LY6C5L2-PF; does not need the above adjustment.

**Retroreflective type sensor with polarizing filters(RS62-L7000R-LY9C5L2)**

If a shiny object is covered or wrapped with a transparent film, such as those described below, the retroreflective type sensor with polarizing filters may not be able to detect it.

In that case, follow the steps given below.

Example of sensing objects

- Can wrapped by clear film
- Aluminum sheet covered by plastic film
- Gold or silver color (glossy) label or wrapping paper

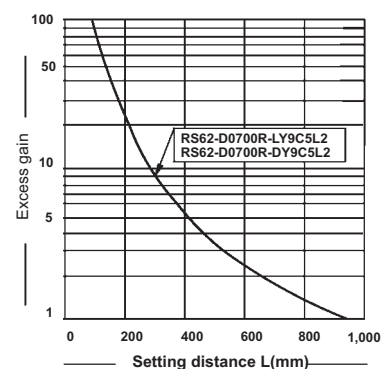
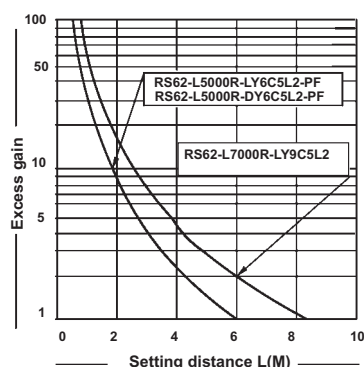
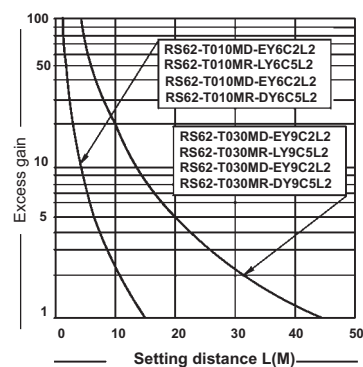
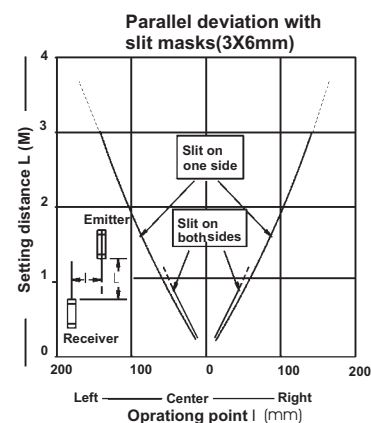
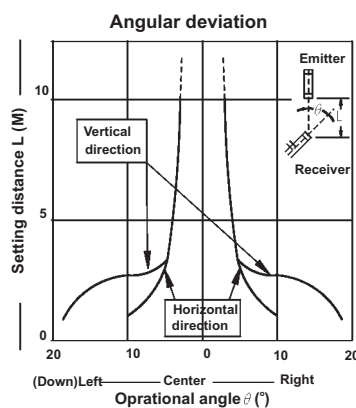
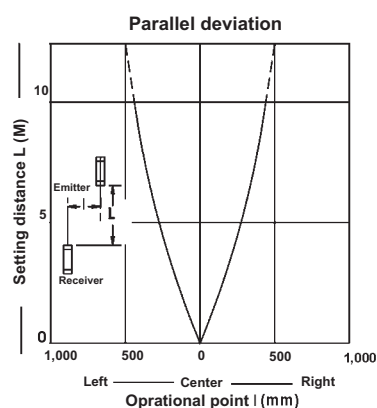
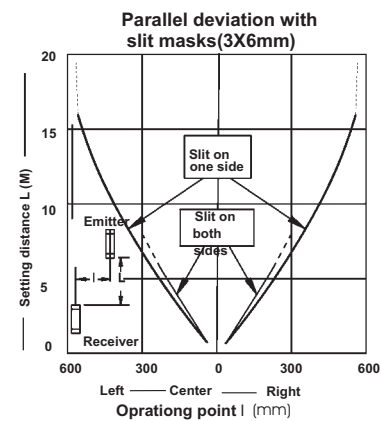
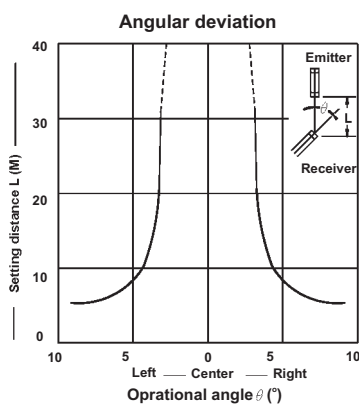
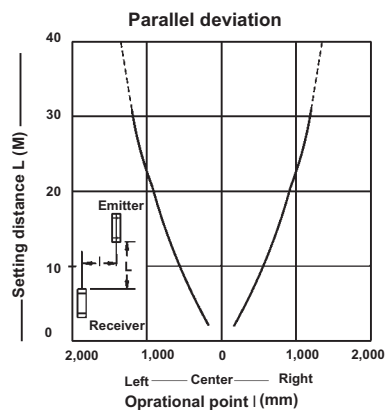
Steps

- Tilt the sensor with respect to the sensing object while fitting.
- Reduce the sensitivity.
- Increase the distance between the sensor and the sensing object.

RS62 SENSORS SENSING CHARACTERISTICS

Sensing characteristics(typical)

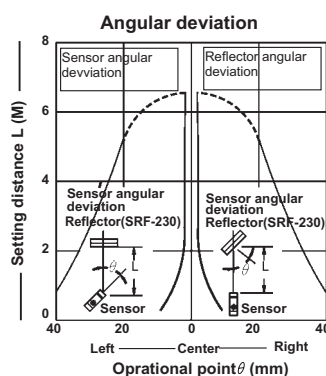
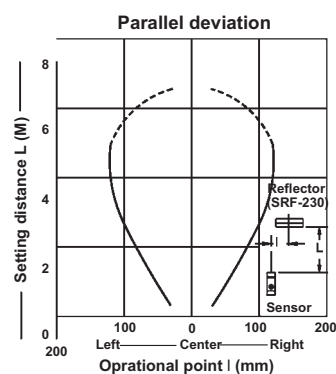
All Models

RS62-T010MR-LY6C5L2
RS62-T010MR-DY6C5L2RS62-T030MR-LY9C5L2
RS62-T030MR-LY9C5L2

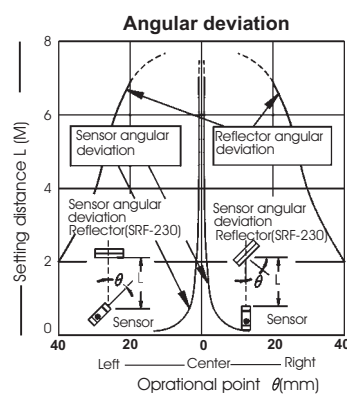
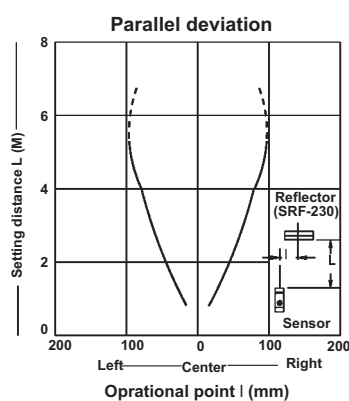
RS62 SENSORS SENSING CHARACTERISTICS

CONNECTION DIAGRAM

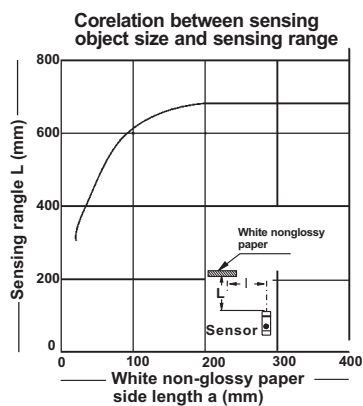
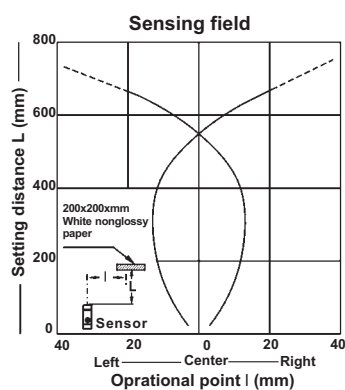
RS62-L5000R-LY6C5L2-PF
RS62-L5000R-DY6C5L2-PF



RS62-L7000R-LY9C5L2
RS62-L7000R-DY9C5L2



RS62-D0700R-LY9C5L2
RS62-D0700R-DY9C5L2



As the sensing object size becomes smaller than the standard size (white non-glossy paper 200X200mm), the sensing range shortens, as shown in the left graph.

For plotting the left graph, the sensitivity has been set such that a 200X200mm white nonglossy paper is just detectable at a distance of 700mm.