RP50 SERIES

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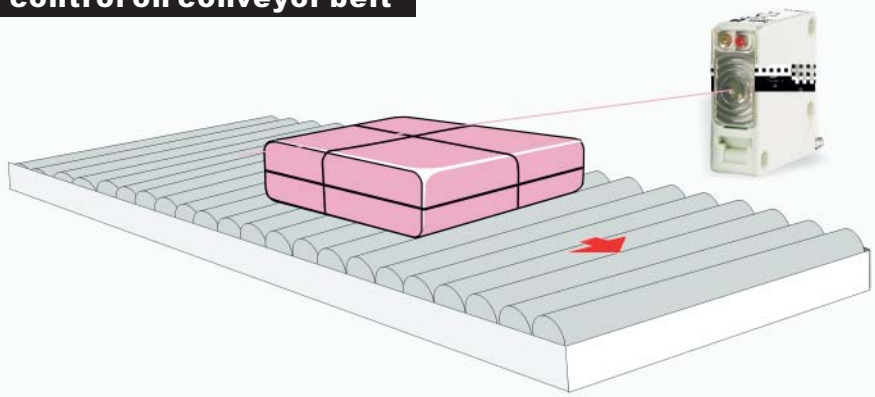
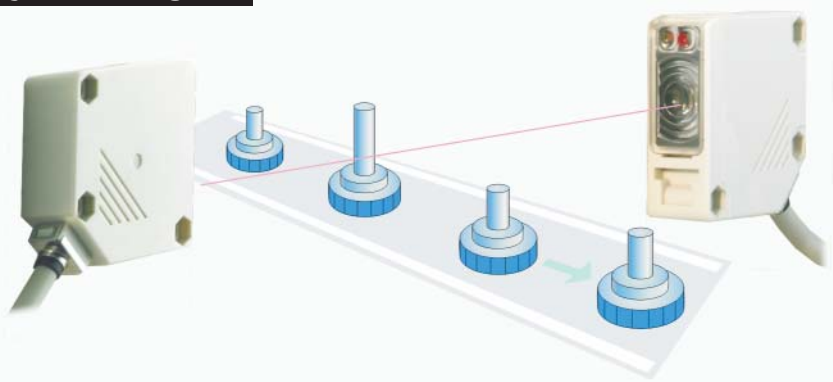
SENSORS SELECTION GUIDE

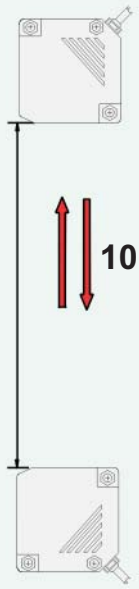
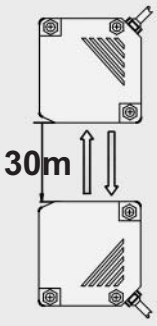
RP50 SERIES

Material control on conveyor belt



Control of object is height



Sensing mode	Connection	Supply Voltage	Output mode	Part Number
 **Oppose mode** Sensing distance: **10m** Light sourse : **red led**	2m cable 	12-240V DC or 24-240V AC	Emitter	RP50-T010MD-EY6C2L2
			SPDT RELAY(Light-ON)	RP50-T010MR-LY6C5L2
			SPDT RELAY (Dark-ON)	RP50-T010MR-DY6C5L2
	5m cable 	12-240V DC or 24-240V AC	Emitter	RP50-T010MD-EY6C2L5
			SPDT RELAY(Light-ON)	RP50-T010MR-LY6C5L5
			SPDT RELAY (Dark-ON)	RP50-T010MR-DY6C5L5
	EURO 4 Pin 	12-240V DC or 24-240V AC	Emitter	RP50-T010MD-EY6Q4LE
			SPDT RELAY(Light-ON)	RP50-T010MR-LY6Q4LE
			SPDT RELAY (Dark-ON)	RP50-T010MR-DY6Q4LE
	EURO 4 Pin 	12-240V DC or 24-240V AC	Emitter	RP50-T010MD-EY6P4LE
			SPDT RELAY(Light-ON)	RP50-T010MR-LY6P4LE
			SPDT RELAY (Dark-ON)	RP50-T010MR-DY6P4LE
 **Diffuse mode** Sensing distance: **30m** Light sourse : **infrared led**	2m cable 	12-240V DC or 24-240V AC	Emitter	RP50-T030MD-EY9C2L2
			SPDT RELAY(Light-ON)	RP50-T030MR-LY9C5L2
			SPDT RELAY (Dark-ON)	RP50-T030MR-DY9C5L2
	5m cable 	12-240V DC or 24-240V AC	Emitter	RP50-T030MD-EY9C2L5
			SPDT RELAY(Light-ON)	RP50-T030MR-LY9C5L5
			SPDT RELAY (Dark-ON)	RP50-T030MR-DY9C5L5

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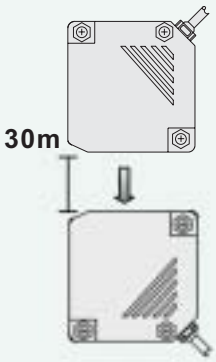
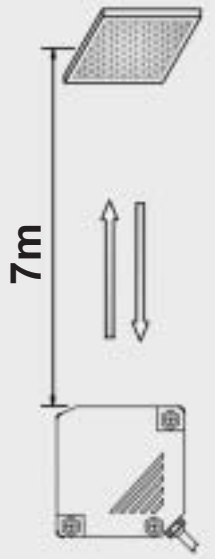
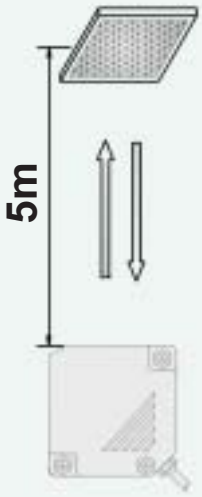
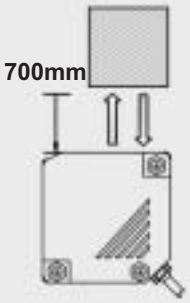
SENSORS TYPE

RP50 SERIES

Sensing mode	Connection	Supply Voltage	Output mode	Part Number
 **Oppose mode** Sensing distance: **30m** Light sourse: **infrared led**	EURO 4 Pin 	12-240V DC or 24-240V AC	Emitter	RP50-T030MD-EY9Q4LE
			SPDT RELAY (Light-ON)	RP50-T030MR-LY9Q4LE
			SPDT RELAY (Dark-ON)	RP50-T030MR-DY9Q4LE
	EURO 4 Pin 	12-240V DC or 24-240V AC	Emitter	RP50-T030MD-EY9P4LE
			SPDT RELAY (Light-ON)	RP50-T030MR-LY9P4LE
			SPDT RELAY (Dark-ON)	RP50-T030MR-DY9P4LE
 **Retroreflective mode** Sensing distance: **7m** Light sourse : **infrared led**	2m cable 	12-240V DC or 24-240V AC	SPDT RELAY (Light-ON)	RP50-L7000R-LY9C5L2
			SPDT RELAY (Dark-ON)	RP50-L7000R-DY9C5L2
			—	—
	5m cable 	12-240V DC or 24-240V AC	SPDT RELAY (Light-ON)	RP50-L7000R-LY9C5L5
			SPDT RELAY (Dark-ON)	RP50-L7000R-DY9C5L5
			—	—
	EURO 4 Pin 	12-240V DC or 24-240V AC	SPDT RELAY (Light-ON)	RP50-L7000R-LY9Q4LE
			SPDT RELAY (Dark-ON)	RP50-L7000R-DY9Q4LE
			—	—
	EURO 4 Pin 	12-240V DC or 24-240V AC	SPDT RELAY (Light-ON)	RP50-L7000R-LY9P4LE
			SPDT RELAY (Dark-ON)	RP50-L7000R-DY9P4LE
			—	—

Sensing mode	Connection	Supply Voltage	Output mode	Part Number
 **Retroreflective mode** **With Polarizing filter** Sensing distance: **50m** Light sourse : **red led**	2m cable 	12-240V DC or 24-240V AC	SPDT RELAY(Light-ON)	RP50-L5000R-LY6C5L2-PF
			SPDT RELAY (Dark-ON)	RP50-L5000R-DY6C5L2-PF
			—	—
	5m cable 	12-240V DC or 24-240V AC	SPDT RELAY(Light-ON)	RP50-L5000R-LY6C5L5-PF
			SPDT RELAY (Dark-ON)	RP50-L5000R-DY6C5L5-PF
			—	—
	EURO 4 Pin 	12-240V DC or 24-240V AC	SPDT RELAY (Light-ON)	RP50-L5000R-LY6Q4LE-PF
			SPDT RELAY (Dark-ON)	
			—	—
	EURO 4 Pin 	12-240V DC or 24-240V AC	SPDT RELAY (Light-ON)	RP50-L5000R-LY6P4LE-PF
			SPDT RELAY (Dark-ON)	RP50-L5000R-DY6P4LE-PF
			—	—
 **Diffuse mode** Sensing distance: **0.7m** Light sourse : **infrared led**	2m cable 	12-240V DC or 24-240V AC	SPDT RELAY (Light-ON)	RP50-L0700R-LY9C5L2
			SPDT RELAY (Dark-ON)	RP50-D0700R-DY9C5L2
			—	—
	5m cable 	12-240V DC or 24-240V AC	SPDT RELAY (Light-ON)	RP50-D0700R-LY9C5L5
			SPDT RELAY (Dark-ON)	RP50-D0700R-DY9C5L5
			—	—

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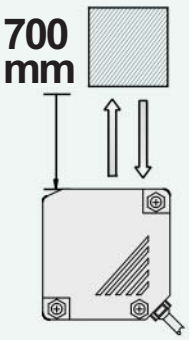
SENSORS TYPE

RP50 SERIES

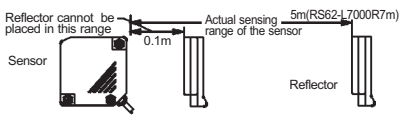
Sensing mode	Connection	Supply Voltage	Output mode	Part Number
 **Diffuse mode** Sensing distance: **0.7m** Light sourse : **infrared led**	EURO 4 Pin 	**12-240V DC or 24-240V AC**	SPDT RELAY (Light-ON)	RP50-L0700R-DY9Q4LE
			SPDT RELAY (Dark-ON)	RP50-D0700R-DY9Q4LE
			—	—
	EURO 4 Pin 	**12-240V DC or 24-240V AC**	SPDT RELAY (Light-ON)	RP50-L0700R-DY9P4LE
			SPDT RELAY (Dark-ON)	RP50-D0700R-DY9P4LE
			—	—

PHOTOELECTRIC SPECIFICATIONS

Item \ Type	Retroreflective				Diffuse Mode		Diffuse reflective			
	With filters		Long sensing range						Long sensing range	
Model No.	RP50-L5000R-LY6C5L2-PF	RP50-L5000R-DY6C5L2-PF	RP50-L7000R-LY9C5L2	RP50-L7000R-DY9C5L2	RP50-D0700R-LY9C5L2	RP50-D0700R-DY9C5L2	RP50-T010MD-EY6C2L2(Emitter)		RP50-T030MD-EY6C2L2(Emitter)	
							RP50-T010MR-EY6C2L2 (Receiver)	RP50-T010MR-EY6C2L2 (Receiver)	RP50-T030MR-LY9C5L2 (Receiver)	RP50-T030MR-DY9C5L2 (Receiver)
Sensing range	0.1 to 5 m		0.1 to 7 m		700 mm		10 m		30 m	
Sensing object	ϕ50 mm or more Opaque, translucent or specular Object		ϕ50 mm or more opaque or translucent object		Opaque, translucent or transparent object		ϕ20 mm or more opaque object (If slit masks are fitted, an object as small as 3x6 mm can be detected.)			
Hysteresis	———				15% or less of operation		———			
Repeatability	0.2 mm or less				distance 0.3 mm or less		0.1 mm or less		0.2 mm 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 or less		Emitter:1.5VA or Less Receiver: 2VA or less	
Output	**Relay contact 1c** • Switching capacity:250V AC 1A (resistive load) 30V DC 2A (resistive load) • Electrical life:100,000 or more operations (at rated AC load) 500,000 or 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	10 ms 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:11,000 × at the light-receiving face, Incandescent light:3500 × 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,ESD>4KV(contact)									
Vlotage withstandability	IEC 60947-5-2 Parts 8.3.3.4, or 500V DC for one min between all supply terminals connected together and enclosure									
Insulation resistance	>20M,with 500V DC 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 directiors for 30 min									
Shock resistance	IEC 60947-5-2 Parts 7.4.1 or 30g 11ms in X Y and Z directiors 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	0.3 mm² 5-core (thru-beam type emitter:2-core) cabtyre cable,2m long									
Cable length	Extension up to total 100m is possible with 0.3mm² ,or more, cable(thru-beam type: both emitter and receiver).									
Weight	140g approx.						Emitter: 100g approx Receiver:140g approx.		Emitter: 125g approx.. Receiver:140g approx.	

Notes

1) The sensing range and the sensing object of the retroreflective type sensor is specified for the reflector. Further, the sensing range is the possible setting range for the reflector.
2)The sensing range of the diffuse reflective type sensor is specified for white non-glossy paper (200 x 200 mm)as the object.

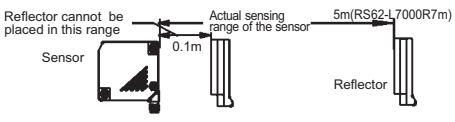


PHOTOELECTRIC

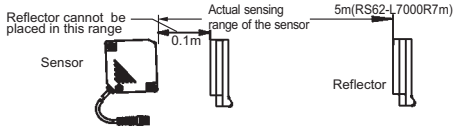
SPECIFICATIONS

RP50 SERIES

Item \ Type	Retroreflective				Diffuse Mode		Diffuse reflective			
	With filters		Long sensing range						Long sensing range	
Model No.	RP50-L5000R-LY6Q4LE-PF	RP50-L5000R-DY6Q4LE-PF	RP50-L7000R-LY9Q4LE	RP50-L7000R-DY9Q4LE	RP50-D0700R-LY9Q4LE	RP50-D0700R-DY9Q4LE	RP50-T010MD-EY6Q4LE(Emitter)		RP50-T030MD-EY6Q4LE(Emitter)	
							RP50-T010MR-EY6Q4LE (Receiver)	RP50-T010MR-EY6Q4LE (Receiver)	RP50-T030MR-LY9Q4LE (Receiver)	RP50-T030MR-DY9Q4LE (Receiver)
Sensing range	0.1 to 5 m		0.1 to 7 m		700 mm		10 m		30 m	
Sensing object	ϕ50 mm or more Opaque, translucent or specular Object		ϕ50 mm or more opaque or translucent object		Opaque, translucent or transparent object		ϕ20 mm or more opaque object (If slit masks are fitted, an object as small as 3x6 mm can be detected.)			
Hysteresis	———				15% or less of operation		———			
Repeatability	0.2 mm or less				distance 0.3 mm or less		0.1 mm or less		0.2 mm 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 or less		Emitter:1.5VA or Less Receiver: 2VA or less	
Output	**Relay contact 1c** • Switching capacity:250V AC 1A (resistive load) 30V DC 2A (resistive load) • Electrical life:100,000 or more operations (at rated AC load) 500,000 or 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	10 ms 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:11,000 × at the light-receiving face, Incandescent light:3500 × 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,ESD>4KV(contact)									
Vlotage withstandability	IEC 60947-5-2 Parts 8.3.3.4, or 500V DC for one min between all supply terminals connected together and enclosure									
Insulation resistance	>20M,with 500V DC 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 directiors for 30 min									
Shock resistance	IEC 60947-5-2 Parts 7.4.1 or 30g 11ms in X Y and Z directiors 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	0.3 mm² 5-core (thru-beam type emitter:2-core) cabtyre cable,2m long									
Cable length	Extension up to total 100m is possible with 0.3mm² ,or more, cable(thru-beam type: both emitter and receiver).									
Weight	140g approx.						Emitter: 100g approx Receiver:140g approx.		Emitter: 125g approx.. Receiver:140g approx.	
Notes	1) The sensing range and the sensing object of the retroreflective type sensor is specified for the reflector. Further, the sensing range is the possible setting range for the reflector. 2)The sensing range of the diffuse reflective type sensor is specified for white non-glossy paper (200 x 200 mm)as the object.									

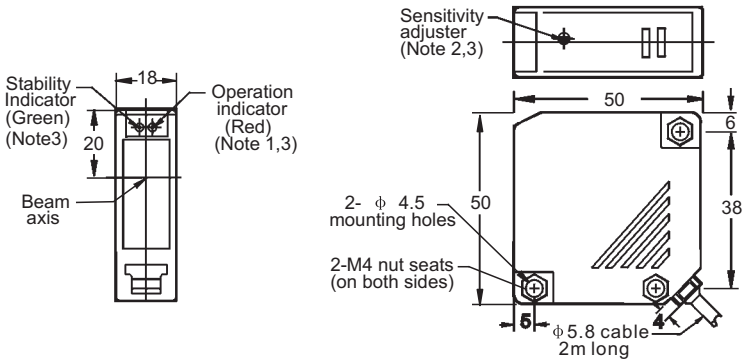


Item \ Type	Retroreflective				Diffuse Mode		Diffuse reflective			
	With filters		Long sensing range						Long sensing range	
Model No.	RP50-L5000R-LY6P4LE-PF	RP50-L5000R-DY6P4LE-PF	RP50-L7000R-LY9P4LE	RP50-L7000R-DY9P4LE	RP50-D0700R-LY9P4LE	RP50-D0700R-DY9P4LE	RP50-T010MD-EY6P4LE(Emitter) RP50-T010MR-EY64LE (Receiver)	RP50-T010MD-EY6P4LE(Emitter) RP50-T010MR-EY6P4LE (Receiver)	RP50-T030MD-EY6P4LE(Emitter) RP50-T030MR-LY9P4LE (Receiver)	RP50-T030MD-EY6P4LE(Emitter) RP50-T030MR-DY9P4LE (Receiver)
Sensing range	0.1 to 5 m		0.1 to 7 m		700 mm		10 m		30 m	
Sensing object	ϕ50 mm or more Opaque, translucent or specular Object		ϕ50 mm or more opaque or translucent object		Opaque, translucent or transparent object		ϕ20 mm or more opaque object (If slit masks are fitted, an object as small as 3x6 mm can be detected.)			
Hysteresis	———				15% or less of operation		———			
Repeatability	0.2 mm or less				distance 0.3 mm or less		0.1 mm or less		0.2 mm 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 or less		Emitter:1.5VA or Less Receiver: 2VA or less	
Output	**Relay contact 1c** • Switching capacity:250V AC 1A (resistive load) 30V DC 2A (resistive load) • Electrical life:100,000 or more operations (at rated AC load) 500,000 or 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	10 ms 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:11,000 × at the light-receiving face, Incandescent light:3500 × 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,ESD>4KV(contact)									
Vlotage withstandability	IEC 60947-5-2 Parts 8.3.3.4, or 500V DC for one min between all supply terminals connected together and enclosure									
Insulation resistance	>20M,with 500V DC 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 directiors for 30 min									
Shock resistance	IEC 60947-5-2 Parts 7.4.1 or 30g 11ms in X Y and Z directiors 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	0.3 mm² 5-core (thru-beam type emitter:2-core) cabtyre cable,2m long									
Cable length	Extension up to total 100m is possible with 0.3mm² ,or more, cable(thru-beam type: both emitter and receiver).									
Weight	140g approx.						Emitter: 100g approx Receiver:140g approx.		Emitter: 125g approx.. Receiver:140g approx.	
Notes	1) The sensing range and the sensing object of the retroreflective type sensor is specified for the reflector. Further, the sensing range is the possible setting range for the reflector. 2)The sensing range of the diffuse reflective type sensor is specified for white non-glossy paper (200 x 200 mm)as the object.									



RP50-T010MD-EY6C2L2 RP50-T030MD-EY9C2L2
RP50-T010MR-DY6C5L2 RP50-T030MR-DY9C5L2

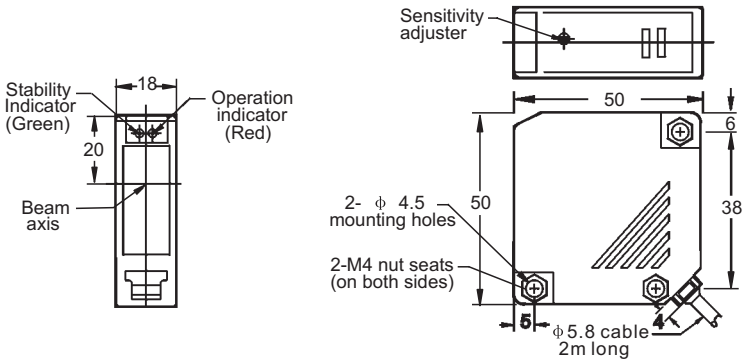
Oppose mode



Notes:
1) It is the power indicator on the emitter of RP50-T030MD...
2) Not incorporated on RP50-T030MR...
3) Not incorporated on the emitter

RP50-L5000D-EY6C2L2-PF RP50-L7000D-EY9C2L2
RP50-L5000R-DY6C2L2-PF RP50-L7000R-DY9C5L2

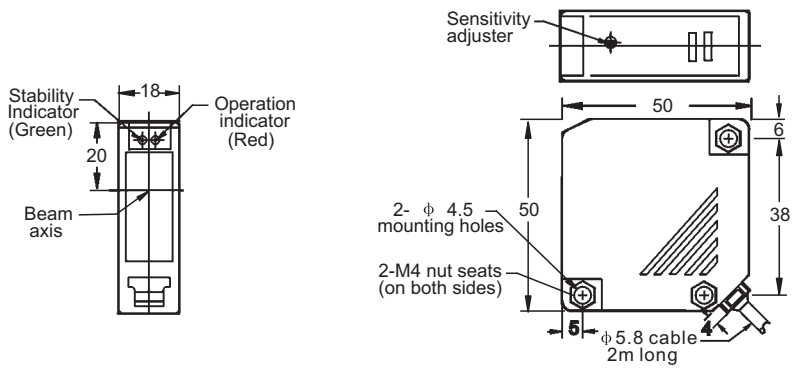
Retroreflective mode



Notes:
Not incorporated on RP50-L7000R

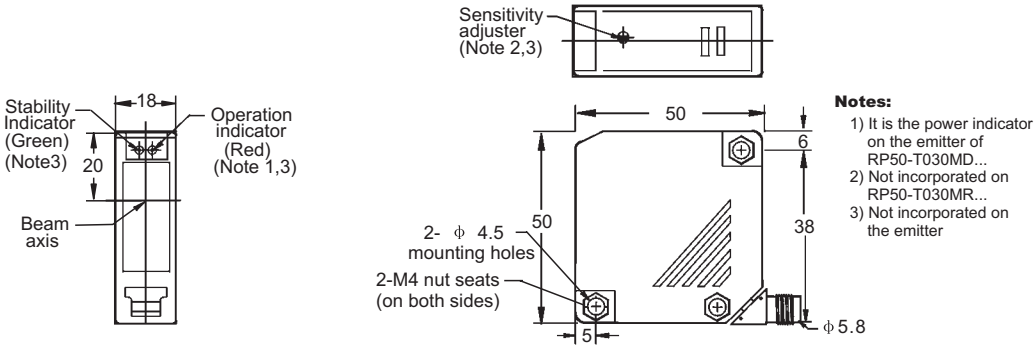
RP50-D0700R-LY9C5L2
RP50-D0700R-DY9C5L2

Diffuse Mode



RP50-T010MD-EY6Q4LE RP50-T030MD-EY9Q4LE
RP50-T010MR-DY6Q4LE RP50-T030MR-DY9Q4LE

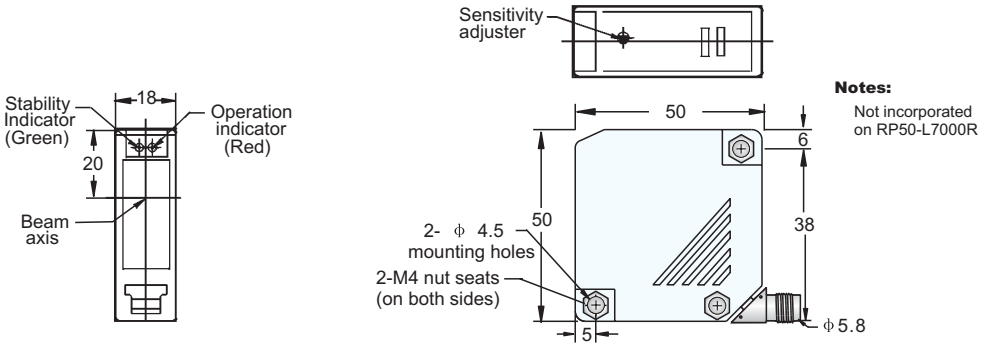
Oppose mode



Notes:
1) It is the power indicator on the emitter of RP50-T030MD...
2) Not incorporated on RP50-T030MR...
3) Not incorporated on the emitter

RP50-L5000D-EY6Q4LE-PF RP50-L7000D-EY9Q4LE
RP50-L5000R-DY6Q4LE-PF RP50-L7000R-DY9Q4LE

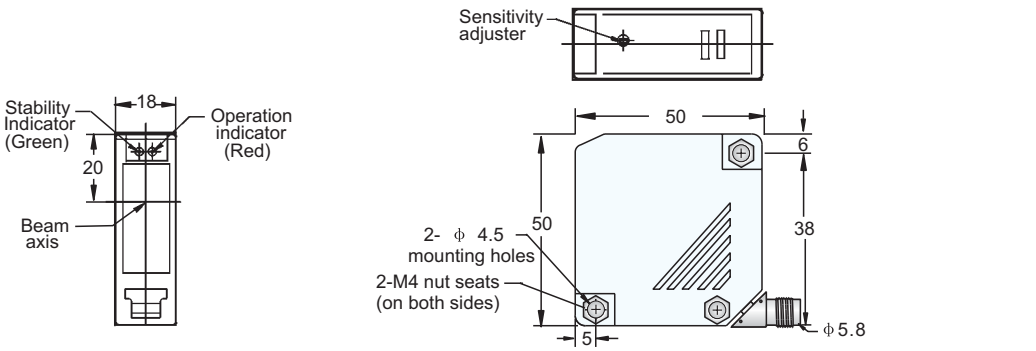
Retroreflective mode



Notes:
Not incorporated on RP50-L7000R

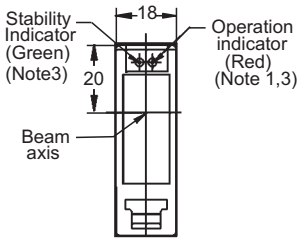
RP50-D0700R-LY9Q4LE
RP50-D0700R-DY9Q4LE

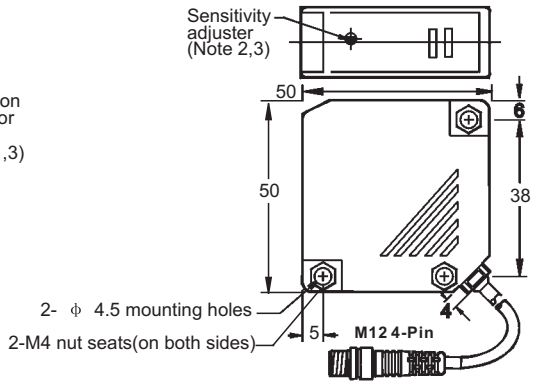
Diffuse Mode



RP50-T010MD-EY6P4LE RP50-T030MD-EY9P4LE
RP50-T010MR-DY6P4LE RP50-T030MR-DY9P4LE

Oppose mode

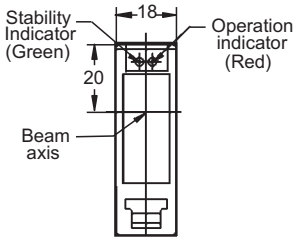


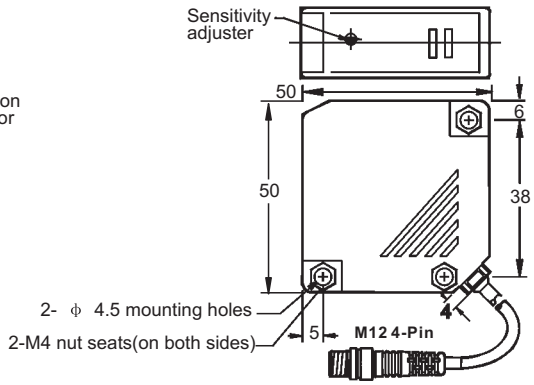


Notes:
1) It is the power indicator on the emitter of RP50-T030MD...
2) Not incorporated on RP50-T030MR...
3) Not incorporated on the emitter

RP50-L5000D-EY6P4LE-PF RP50-L7000D-EY9P4LE
RP50-L5000R-DY6P4LE-PF RP50-L7000R-DY9P4LE

Retroreflective mode

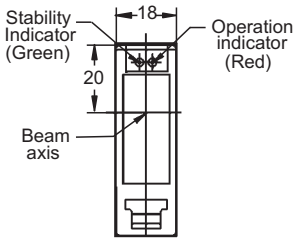


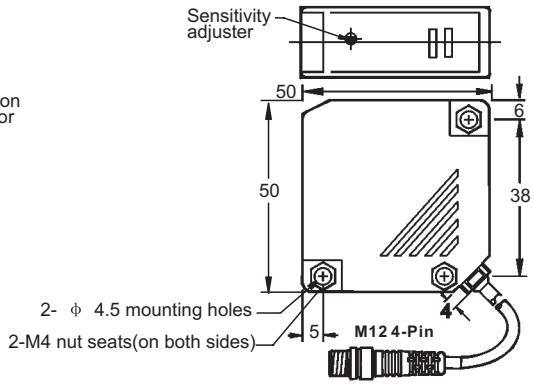


Notes:
Not incorporated on RP50-L7000R

RP50-D0700R-LY9P4LE
RP50-D0700R-DY9P4LE

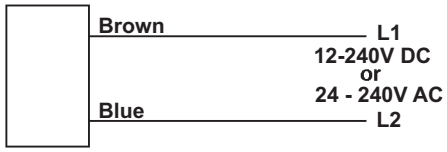
Diffuse Mode





Circuit diagram

Note: receiver or others mode's connection



Note: Emitter's connection

Object detected state

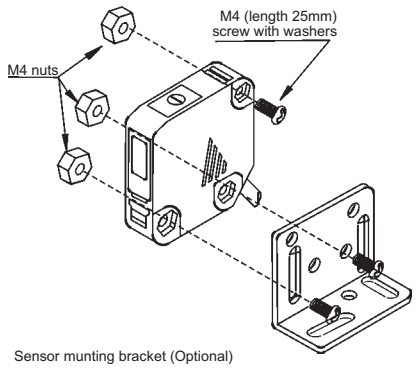
Sensing mode		Thru-beam & Retroreflective type				Diffuse reflective type			
		Light-ON type		Dark-ON type		Light-ON type		Dark-ON type	
Output		NO (Black cable)	NC (Gray cable)	NO (Black cable)	NO (Gray cable)	NO (Black cable)	NC (Gray cable)	NO (Black cable)	NO (Gray cable)
Output condition	Power OFF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

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.

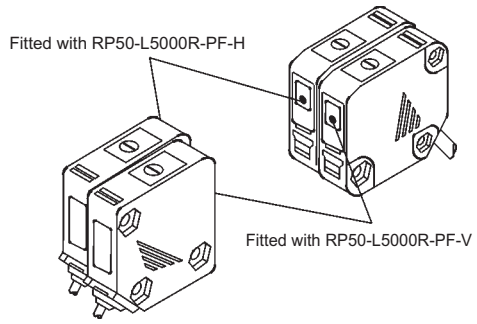


Others

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

Interference prevention filter (Exclusively for RP50-T010M...)

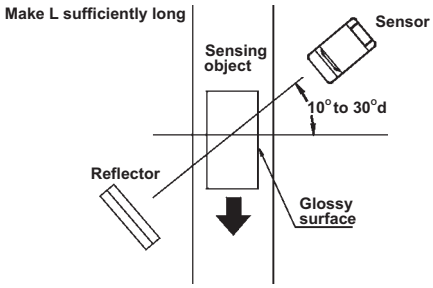
- Use the interference prevention filters (optional)when two units of thru-beam type sensors are mounted closely.



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 filters.

Retroreflective type sensor (RP50-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.
    RP50-L5000R-LY6C5L2-PF; does not need the above adjustment.



Retroreflective type sensor with polarizing filters (RP50-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.

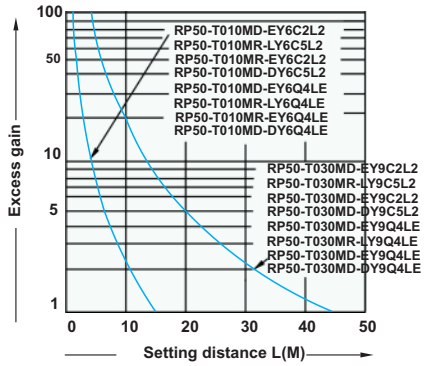
Example of sensing objects

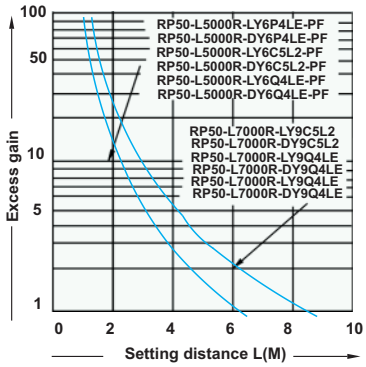
- Can wrapped by clear film
- Aluminum sheet covered by plastic film
- Gold or silver color (glossy) label or wrapping paper

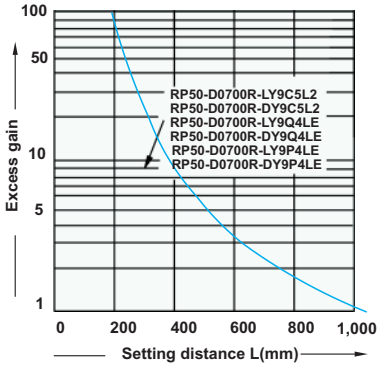
Steps

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

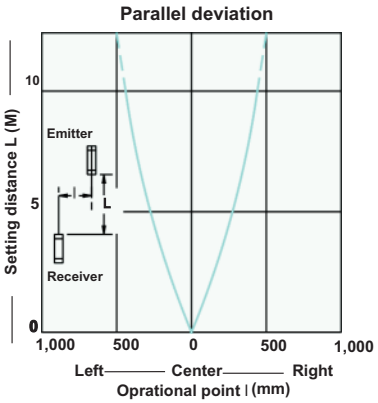
All models

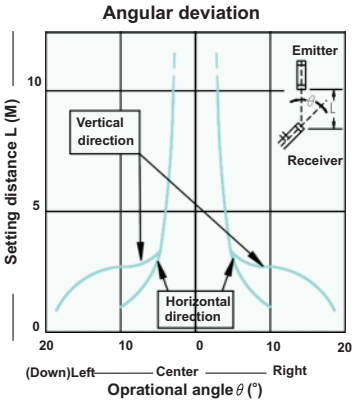


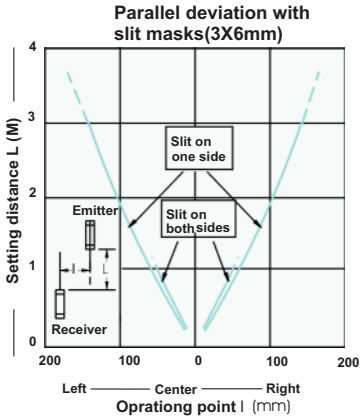




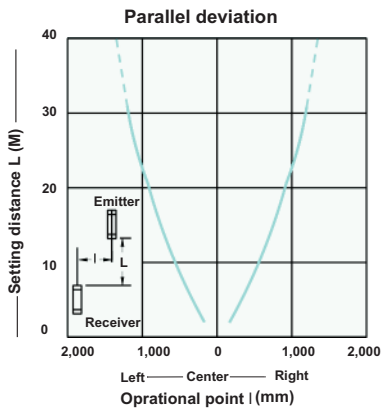
RP50-T010MR-LY6C5L2 RP50-T010MR-DY6C5L2 RP50-T010MR-LY6Q4LE
RP50-T010MR-DY6Q4LE RP50-T010MR-DY6P4LE RP50-T010MR-LY6P4LE

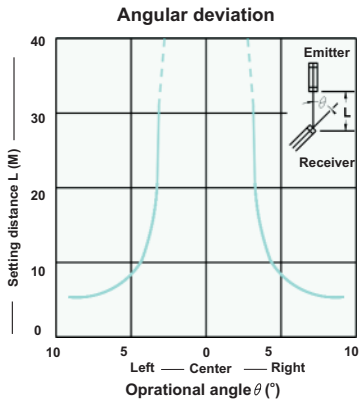


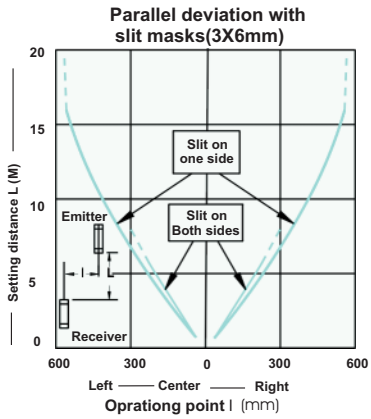




RP50-T030MR-LY9C5L2 RP50-T030MR-LY9C5L2 RP50-T030MR-LY9Q4LE
RP50-T030MR-LY9Q4LE RP50-T030MR-LY9P4LE RP50-T030MR-LY9P4LE



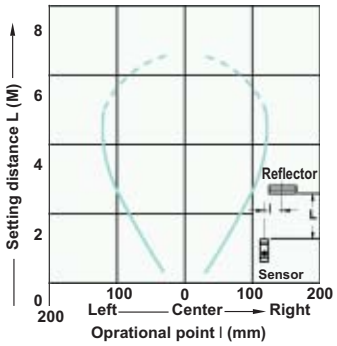




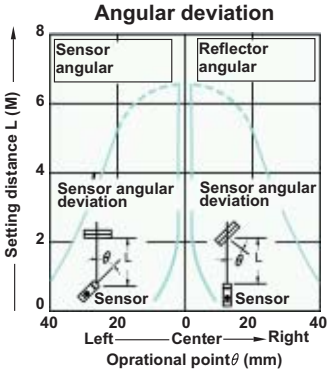
SENSING CHARACTERISTICS(typical)

RP50-L5000R-LY6C5L2-PF RP50-L5000R-DY6C5L2-PF RP50-L5000R-LY6Q4LE-PE
RP50-L5000R-DY6Q4LE-PF RP50-L5000R-DY6P4LE-PF RP50-L5000R-LY6P4LE-PE

Parallel deviation

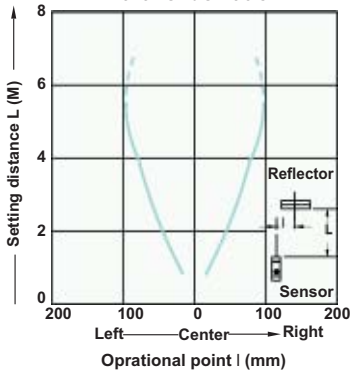


Angular deviation

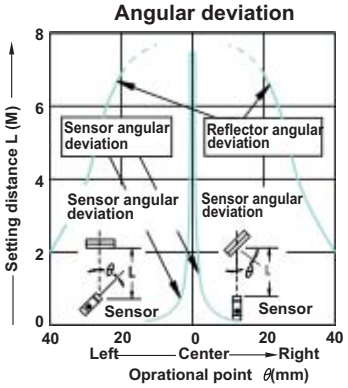


RP50-L7000R-LY9C5L2 RP50-L7000R-DY9C5L2 RP50-L7000R-LY9Q4LE
RP50-L7000R-DY9Q4LE RP50-L7000R-DY9P4LE RP50-L7000R-LY9P4LE

Parallel deviation

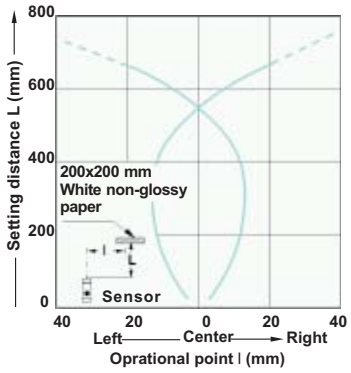


Angular deviation

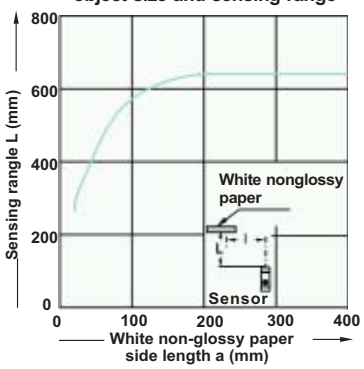


RP50-D0700R-LY9C5L2 RP50-D0700R-DY9C5L2 RP50-D0700R-LY9Q4LE
RP50-D0700R-DY9Q4LE RP50-D0700R-DY9P4LE RP50-D0700R-LY9P4LE

Sensing field



Corelation between sensing object size and sensing range



As the sensing object size becomes smaller than the standard size (white non-glossy paper 200X200 mm), the sensing range shortens, as shown in the left graph.

For plotting the left graph, the sensitivity has been set such that a 200X200 mm white non-glossy paper is just detectable at a distance of 700 mm.