

Photoelectric Switch

PLX SERIES CE

AC · DC free power source

- Though-beam type 10m, Retro-reflective type (With polarized filter) 4m, Refection type 70cm.
- Free power source, 24 to 240VAC/12 to 110VDC.
- Protective structure IP66.
- Sensing distance 30m for PLX-305W. Easy to adjust optical axis because of large margin lamp (red).

Through-beam type



Retro-reflection type


Diffuse-reflection type

Specifications

Type	Through-beam type		Retro-reflection type (with polarized filter)	Diffuse-reflection type	
Model No.	PLX-105W	PLX-305W	PLX-403W	PLX-701L	PLX-701R
Power source	24 to 220VAC ($\pm 10\%$, 50/60Hz), 12 to 110VDC ($\pm 10\%$, Ripple 10% or less)				
Power consumption	Projector/receiver: each 4W or less		5W or less		
Light source	Infrared LED		Red LED		Infrared LED
Detection distance	10m or less	30m or less	0.1 to 4m or less* ¹		70cm or less (white paper with 10cm×10cm)
Detectable object	Opaque object with 13×13mm or more		Opaque object with 30×30mm or more		Transparent/opaque objects
Operating mode	Changeover by adjuster* ² ● Light-ON: Set to L side ● Dark-ON: Set to D side			Dark-ON	Light-ON
Control output	1C relay, 250VAC 3A or less (Resistance load), 30VDC 3A or less (Resistance load) Mechanical life: 50 million times, Electrical life: 0.1 million times				
Response time	20msec or less				
Sensitivity adjustment	Fixed			Provided	
Indication lamps	Projector: power lamp (Orange LED) Receiver: control output lamp (Orange LED), margin lamp (Red LED)* ³		Control output lamp (Orange LED)		
Connection	Cable type (length 2m, 0.3mm ² ×5 cores* ⁴ , UL heat-resistance vinyl cable)				
Ambient illuminance	Sunlight: 10,000lx or less, incandescent lamp: 3,000lx or less				
Ambient temperature and humidity	-25 to +55°C (-40 to +70°C when stored), 35 to 85% (35 to 95% when stored), not icing/not condensing				
Insulation resistance	20M Ω or more (500VDC megger)				
Withstand voltage	2,000VAC, 1min.				
Vibration resistance	Double amplitude 1.5mm, 10 to 55Hz, each 2 hour in X, Y and Z directions				
Impact resistance	500m/s ² , each 3 time in X, Y and Z directions				
Protective structure	IP66 (IEC standard)				
Case material	Case: ABS, lens: acrylic resin				
Weight	Approx. 160g for both projector and receiver		Approx. 160g		
Attachment	Mounting bracket		Mounting bracket and Reflector (RRP-50S-V)		Mounting bracket

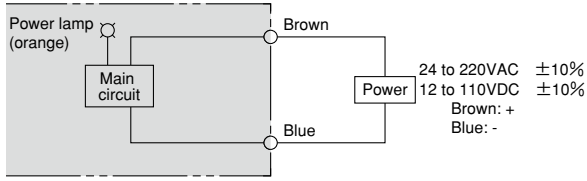
*1. When using RRP-50S-V. *2. Light-ON is set when delivery. *3. Provided to PLX-305W only. *4. Projector of through-beam type is 2 cores.

Reflector (Attachment)

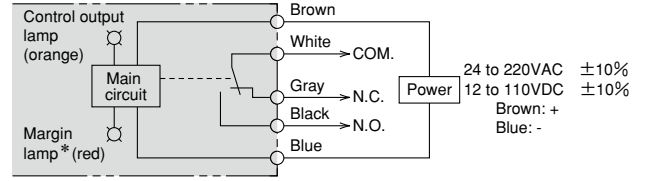
Appearance	Model No.	Remark
	RRP-50S-V	It provides with retro-reflection type. Specifications are as per this reflection.

Connection

Projector of through-beam type



Receiver of through-beam type, retro-reflection and diffuse reflection type

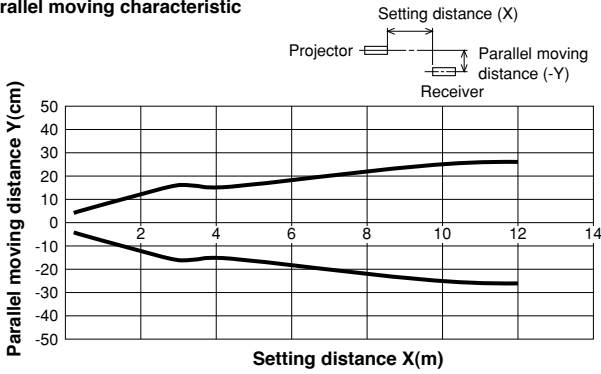


* Provided to PLX-305W only.

Characteristic data (Typical)

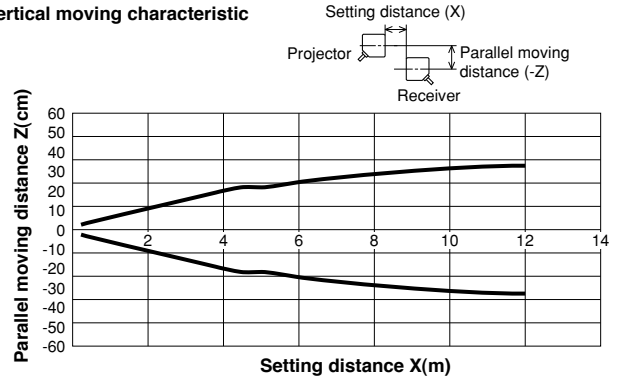
Through-beam type (PLX-105W)

Parallel moving characteristic



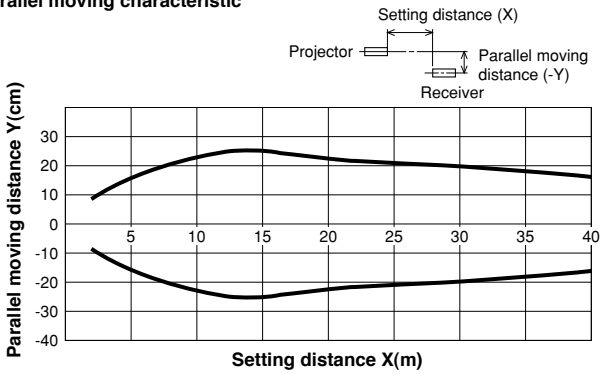
Through-beam type (PLX-105W)

Vertical moving characteristic



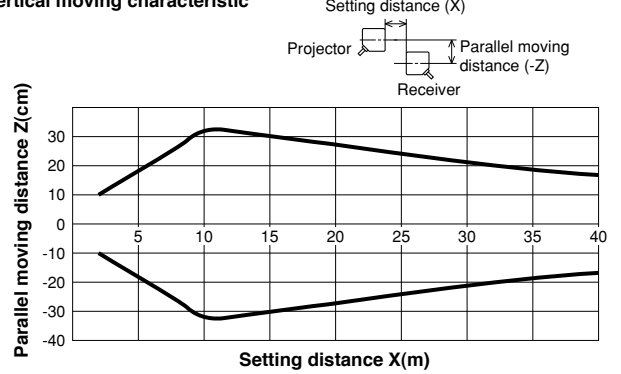
Through-beam type (PLX-305W)

Parallel moving characteristic



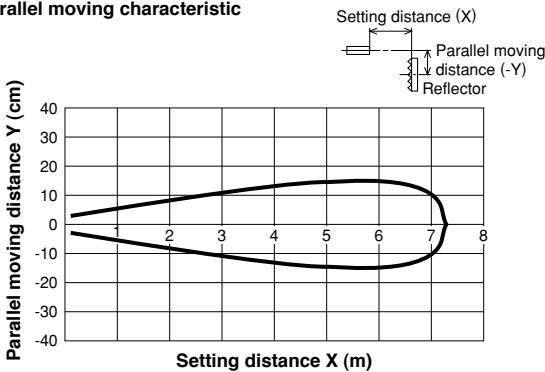
Through-beam type (PLX-305W)

Vertical moving characteristic



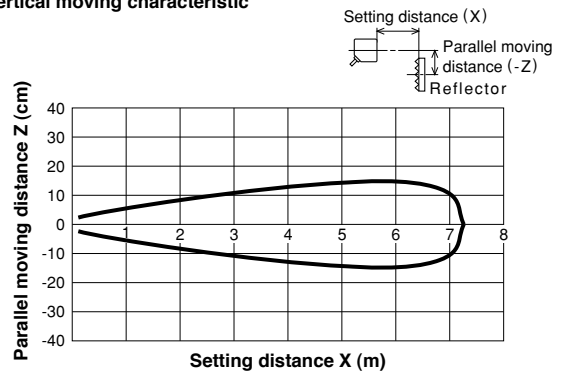
Retro-reflection type (PLX-403W)

Parallel moving characteristic



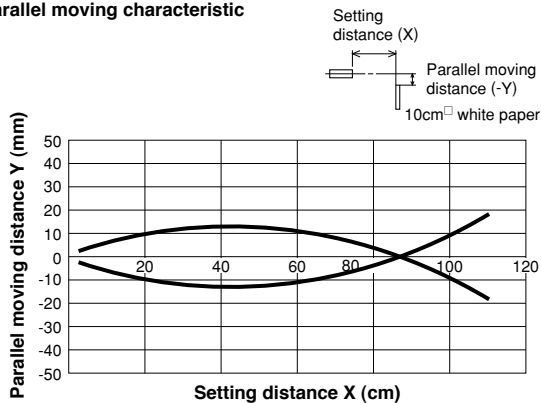
Retro-reflection type (PLX-403W)

Vertical moving characteristic



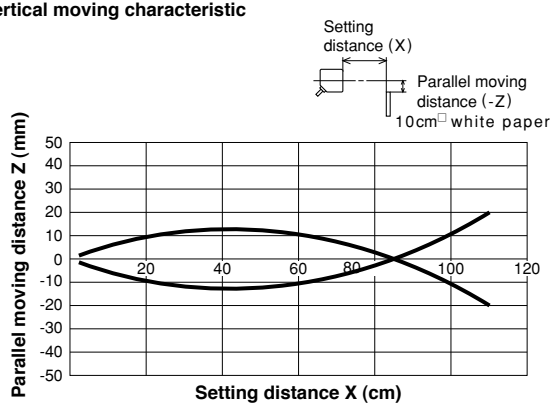
Diffuse-reflection type (PLX-701R/701L)

● Parallel moving characteristic



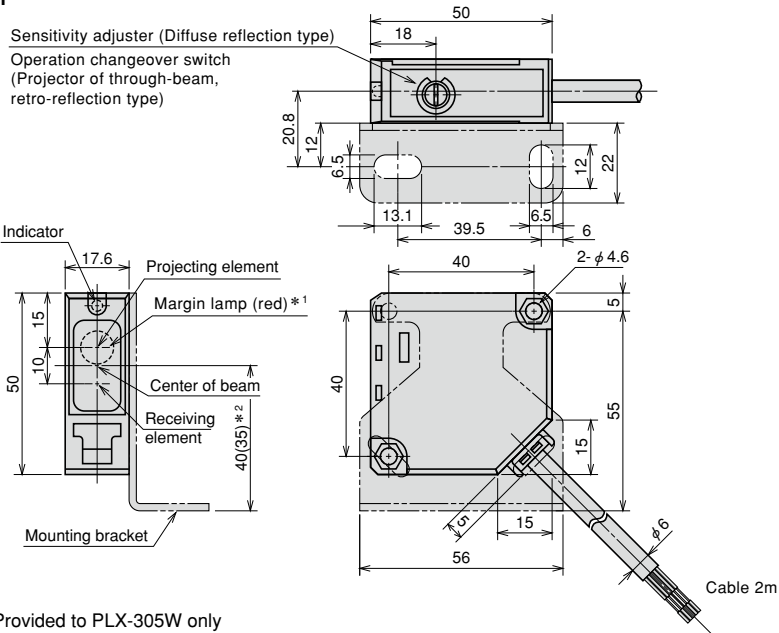
Diffuse-reflection type (PLX-701R/701L)

● Vertical moving characteristic



External dimension

Sensor



*1. Provided to PLX-305W only

*2. Value in parenthesis means through-beam type.

Value for projecting/receiving element means diffuse-reflection and retro-reflection type.

Reflector

(attached to retro-reflection type)

