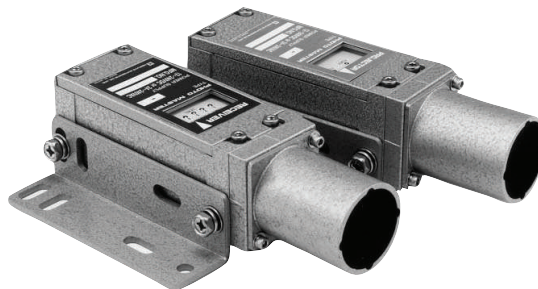


# LED Type CMD

## PH-DX/WX

**Free voltage, 12 to 240VDC and 24 to 240VAC**

- Light-reception amount can be display with 5-point level lamp and so it is easy to check light-reception margin or dirty lens surface and dislocation of optical axis.
- Self-diagnosis function that checks light-reception margin provides with projector. This output is executed.
- Output will be made when level of light-reception amount is lower than specific value caused by dirty lens surface or dislocation of optical axis.



### Specifications

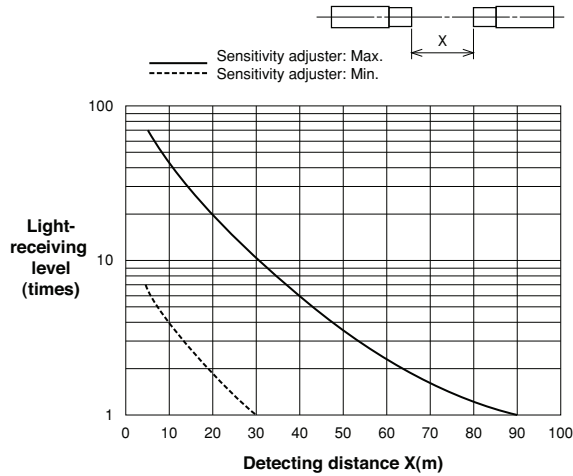
Type	Through-beam type					
Kind	Standard type		Non-air dust hood type		Water-cooling type	
Model No.	PH-DX-R-21	PH-DX-M-21	PH-DX-R-71	PH-DX-M-71	PH-WX-R-21	PH-WX-M-21
Power source	12 to 240VDC or 24 to 240VAC (10%, -15%)					
Power consumption	AC power: Projector 0.5VA or less, Receiver: 3VA or less DC power: Projector 0.5W or less, Receiver: 3W or less					
Detection distance	30m or less (Without slit for both projector and receiver)					
Detectable object	Opaque object with $\phi$ 30mm or more					
Output	1a relay	1a phot-mos relay	1a relay	1a phot-mos relay	1a relay	1a phot-mos relay
Control output	1a relay: 250VAC 3A, 30VDC 5A, $\cos \phi = 1$					
Stable operating output	1a phot-mos relay: 125VAC/DC 100mA, Residual voltage 3V or less (at 100mA)					
Response time	10msec or less	3msec or less	10msec or less	3msec or less	10msec or less	3msec or less
Operating mode	Changeover for Light-ON and Dark-ON					
Sensitivity adjustment	Provided					
Indication lamps	Projector: Power lamp (Green), Test input (Yellow) Receiver: Power lamp (Green), Output lamp (Yellow), Stable lamp (Green, lights up when normal operation), Level monitor (Yellow, 5 points)					
Connection	M3 screw terminal					
Ambient illuminance	10,000lux or less (Incandescent lamp)					
Ambient temperature	-10 to +55°C *					
Ambient humidity	45 to 85%RH (not icing, not condensing)					
Insulation resistance	20M $\Omega$ or more (between power/output contact and case, by megohmmeter with 500V)					
Withstand voltage	AC1,500V, 1min. (between power/output contact and case)					
Vibration resistance	Double amplitude 1.5mm, 10 to 55Hz, each 2 hour in X, Y and Z directions					
Impact resistance	490m/s <sup>2</sup> , each 10 times in X, Y and Z directions					
Protective structure	IP66 (IEC standard), when using the cable with $\phi$ 7.8 to 9.0					
Case material	Aluminum die-casting					
Weight	Approx. 1.5kg for both projector and receiver					

\*-10 to +150°C when water-cooling.

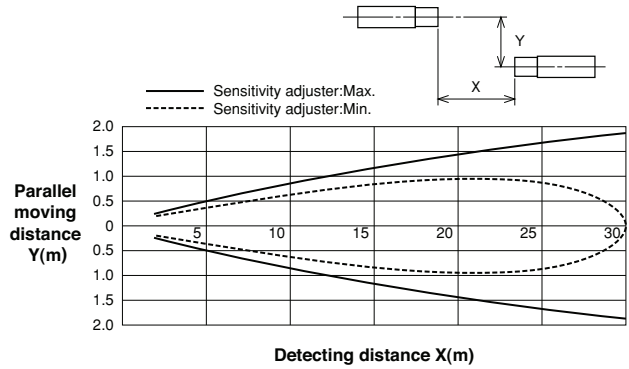
★PH-DX with stable operating output, 1b and several kind of slits are lined-up.

## Characteristic data (Typical example)

### Operating margin characteristics

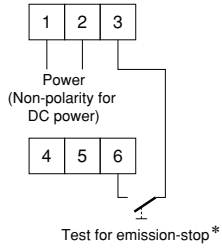


### Parallel moving characteristics



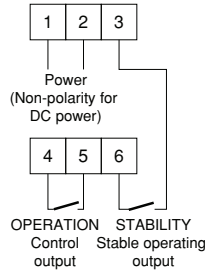
## Connection

### Projector (Common use for all series)



\*Operation of projector can be checked.

### Receiver (PH-DX-2A□-□1)



### Control output (Operating mode can be changed by inner switch)

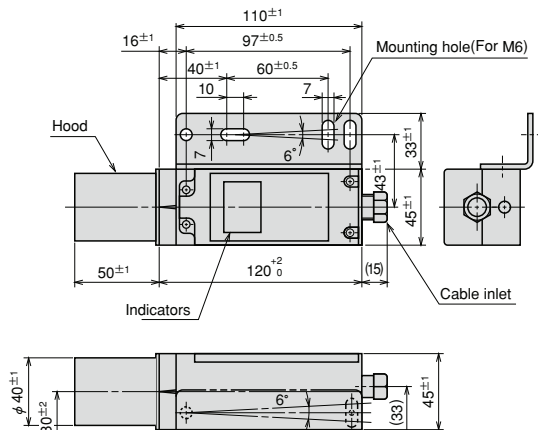
Operating mode	Light-ON		Dark-ON	
	Terminal No.	Indicator	Terminal No.	Indicator
	4—5	OPERATION	4—5	OPERATION
Power-off state	OFF	Goes off	OFF	Goes off
Power-on state	When light-entering	ON	OFF	Goes off
	When light-interrupting	OFF	Goes off	ON

### Stable operating output output

	Terminal No.	Indicator	
	3—6	STABILITY	
Power-off state	OFF	Goes off	
Power-on state	When normal	ON	Lights on
	When troubled	OFF	Goes off

## External dimensions

### Common use for projector/receiver (PH-DX)



### Common use for projector/receiver (PH-WX)

