

PTX series

Power supply build-in type Photoelectric Sensors

- Terminal block type connection for convenient wiring
- various range of power supply voltage (24 - 240 V d.c./a.c., 12 - 24 V d.c.).
- Long-Distance detection.
- Timer function available.
- Ip66 protection structure.

Specification

Power built-in type (Type A)

Model	Normal type	PTX-T15A	PTX-M7A	PTX-R1A
	Timerbuilt-in type	PTX-T15A-T	PTX-M7A-T	PTX-R1A-T
Sensing type		Through beam type	Retro reflection type	Diffuse reflection type
Sensing distance		15m	7m (Note 1)	1m
Sensing object		Opaque object above Ø20 mm	Opaque object above Ø60 mm	White paper with no gloss 200 mm × 200 m
Power supply voltage	24 - 240 V d.c./a.c. ±10 %, 50/60 Hz			
Power Consumption		Emitter : 2 VA max. Transmitter : 1 VA max.	2 VA max.	
Control output	Relay contact output (Contact composition 1a, 1b), Contact capacity : 30 V d.c. 5 A / 250 V a.c. 5 A Resistive load, Rated load life expectancy less than 100,000 times.			
Operating Mode	Light ON/Dark ON are selectable by the selector switch			
Response Time	20 ms max.			
Hysteresis		-	Less than 20 % of sensing distance	
Indicator	Output indication : Red LED, Stability indication : Green LED (However, the red LED of the through-beam type transmitter is the power indicator.)			
Sensitivity adjustment		-	Sensitivity adjusting volume built-in	
Protection circuit	Surge protective circuit			
Timer function (Only corresponds to timer built-in type)	Select OFF Delay, ON Delay or One Shot Delay by using the ON/OFF switch. Delay Time : 0.1 ~ 5 sec adjust by the volume.			
Light source (wavelength)	IR (850 nm)			
Ambient temperature	Operating: -20 to 60 ° C, Storage: -25 ~ 70 ° C (with no icing nor dew condensation)			
Ambient humidity	35 ~ 85 % RH (with no icing nor dew condensation)			
Degree of protection	IP 66 (IEC standard)			
Insulation resistance	20 MΩ or min (standard on 500 V d.c. mega)			
Dielectric strength	1500 V a.c. (1 minute)			
Vibration resistance	10 - 55 Hz, Double amplitude : 1.5 mm, X . Y . Z 2 hours in each directions			
Shock resistance	500m/s ² (approx 50 G), X . Y . Z 3 times in each directions			
Connection method	Terminal			
Material	Case : ABS, Lens : PC			
Weight	Transmission type : Approx 300 g, Mirror reflection type : about 160 g, Diffuse reflection type : about 150 g			

Accessories	Individual	-	Reflector (HY-M5)	-
	Common	Driver, Bracket, Bolt, Nut, Water-proof rubber, Wire holder		

■ Amp built-in type (Type B)

Model	Normal type	PTX-T15B	PTX-T30B	PTX-M7B	PTX-R1B
	Timerbuilt-in type	PTX-T15B-T	PTX-T30B-T	PTX-M7B-T	PTX-R1B-T
Sensing type		Through beam type		Retro reflection type	Diffuse reflection type
Sensing distance		15m	30m	7m (Note1)	1m
Sensing object		Opaque object above Ø20 mm		Opaque object above Ø60 mm	White paper with no gloss 200 mm × 200 m
Power supply voltage		12 - 24 V d.c. ±10 %			
Power consumption		Emitter : 35 mA max. Transmitter : 20 mA max.		45 mA max.	
Control output		NPN/PNP open collector yield output at the same time, Load current : 150 mA d.c. (Resistive load) NPN Residual voltage : Max 1 V d.c. / PNP Residual voltage : Max 2 V d.c.			
Operation mode		Light ON/ Dark ON Selection by selector switch			
Response Time		1 ms max.			
Hysteresis		-			Less than 20 % of sensing distance
Indicator		Output display : Red LED, Stable display : Green LED (However, the red LED of the through-beam type transmitter is the power indicator.)			
Sensitivity adjustment		-		Sensitivity adjusting volume built-in	
Protection circuit		Protective circuits for power reverse connection and output break			
Timer function (Only corresponds to timer built-in type)		Select OFF Delay, ON Delay or One Shot Delay by using the ON/OFF switch. Delay Time : 0.1 ~ 5 sec adjust by the volume.			
Light source (wavelength)		IR (850 nm)			
Ambient temperature		Operation : -20 ~ 60 °C, Storage : -25 ~ 70 °C (with no icing nor dew condensation)			
Ambient humidity		35 ~ 85 % RH (with no icing nor dew condensation)			
Degree of protection		IP 66 (IEC standard)			
Insulation resistance		20 MΩ or min (standard on 500 V d.c. mega)			
Dielectric strength		1500 V a.c. (1 minute)			
Vibration resistance		10 - 55 Hz, Double amplitude : 1.5 mm, X . Y . Z 2 hours in each directions			
Shock resistance		500m/s ² (approx 50 G), 3 times to each of X, Y, Z directions			
Connection method		Terminal			
Material		Case : ABS, Lens : PC			
Weight		Transmission type : about 280 g, mirror reflection type : about 150 g, diffuse reflection type : about 140 g			
Accessories	Individual	-	Reflector (HY-M5)	-	
	Common	Driver, Bracket, Bolt, Nut, Water-proof rubber, Wire holder			

- Note 1)The sensing distance of PTX-M7A (-T), PTX-M7B (-T) is the distance when using the reflector (HY-M5)
- Note)The sensing distance may change depending on the size, surface condition, glossy, non-glossy of the sensing object.