TAKEX

PHOTOELECTRIC BEAM SENSOR

<"ANTI-CRAWL" HIGH SECURITY PHOTOBEAM>

PX B-100ATC

<Outdoor 100m(330 ft.)>



Selectable for AND-gated or an OR-gated system for high security

Anti crawl function

The basic operation is required for the purpose of preventing lost alarms from intrusion by crawling burdening the system with false alarms via small animals.

Dual Response Time System

Two individual response times are provided for separate adjustment of AND/OR gates.This enables detection of intruders but minimizes false alarms.

(4 beams simultaneous interruption : 0.05sec)
(Upper 2 beams or Lower 2 beams interruption : 0.1,0.2,0.3,0.5sec)

Duble modulation pulsed beam

Double modulated beams are designed to distinguish the external lights. It increases the reliablity in the outdoor security systems. (50,000 lux light immunity)

IP65 Highest rating in the industry

Water tight bushings and seals maintain device integrity from water, insects, and dust; further inclusion of a breathable membrane prevents internal condensation from affecting performance.

Eco-Friendly

RoHS certified compliant : free from Lead, Mercury, Cadmium, Hexavalent Chromium, Polybrominated biphenyl, and Polybrominated biphenyl ether.

Lightning Protection

Maximum lightening induced surge protection to 10,000VDC (normal mode) and 15,000VDC(common mode)

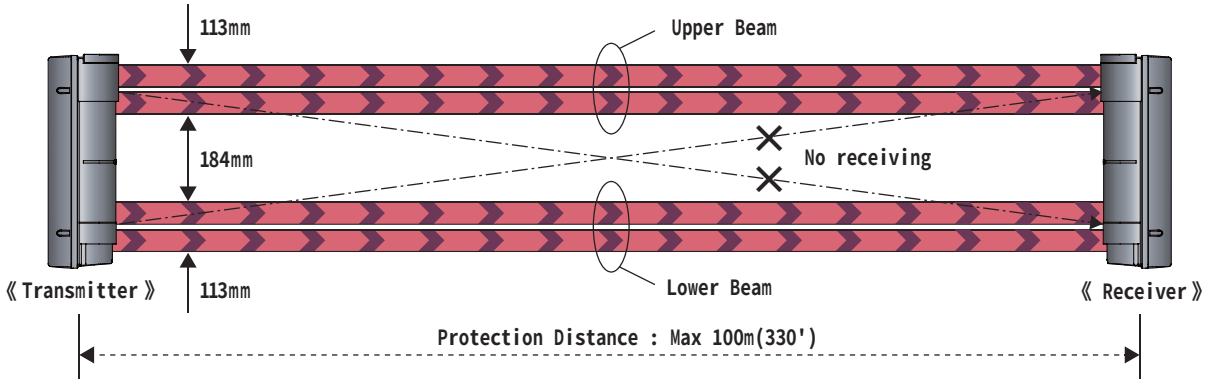
Advanced Reticle Sighting System

Enables a faster and easier alignment process.

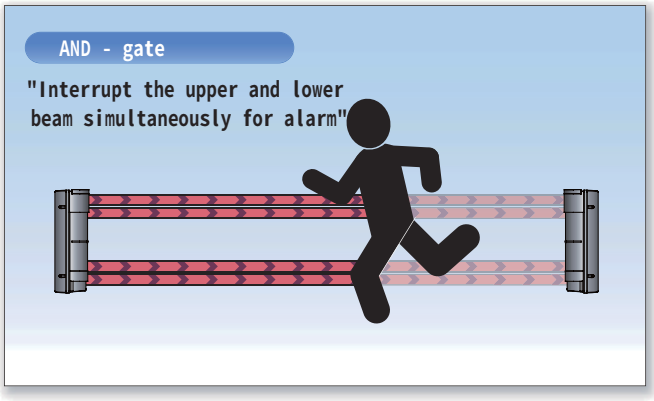
Target color

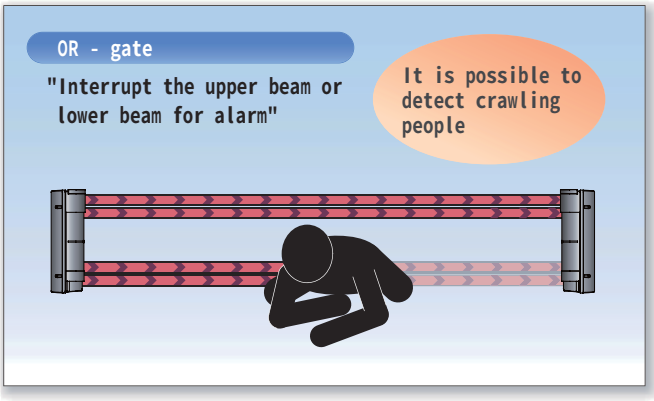
Structure colors are tuned to the Peak. Wavelengths of the Human Eye Response(Photopic eye response),to be easily targeted in the beam alignment process.

Detection Zone



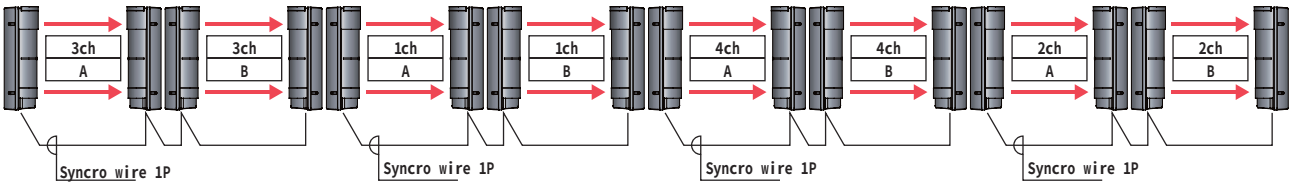
The transmitter radiate the different pattern beam between upper beam and lower beam. and the each upper and lower receiving unit receive those signal. So the alarm outputs when "Interrupt the upper beam only", "Interript the lower beam only", "block the upper and lower beam simultaneously."





Example

In order to avoid the crosstalk,the PXB-100ATC has 2 kind of timing in the same channel.The PXB-100ATC achieves hight reliablity and stable operation by using syncronizing wire.



3ch / A ··· Frequency (1~4 ch selectable) / Syncronizinous timing

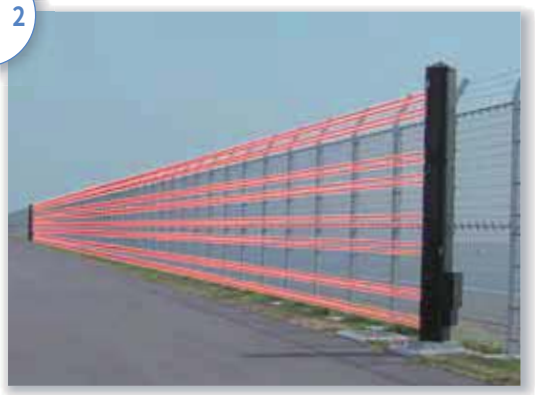
* Conect the syncronizing wire betwen transmitter and receiver
* Connect the power supply and the alarm signal wire

Case 1



* It can detect the intruder who jump over or break the fence.

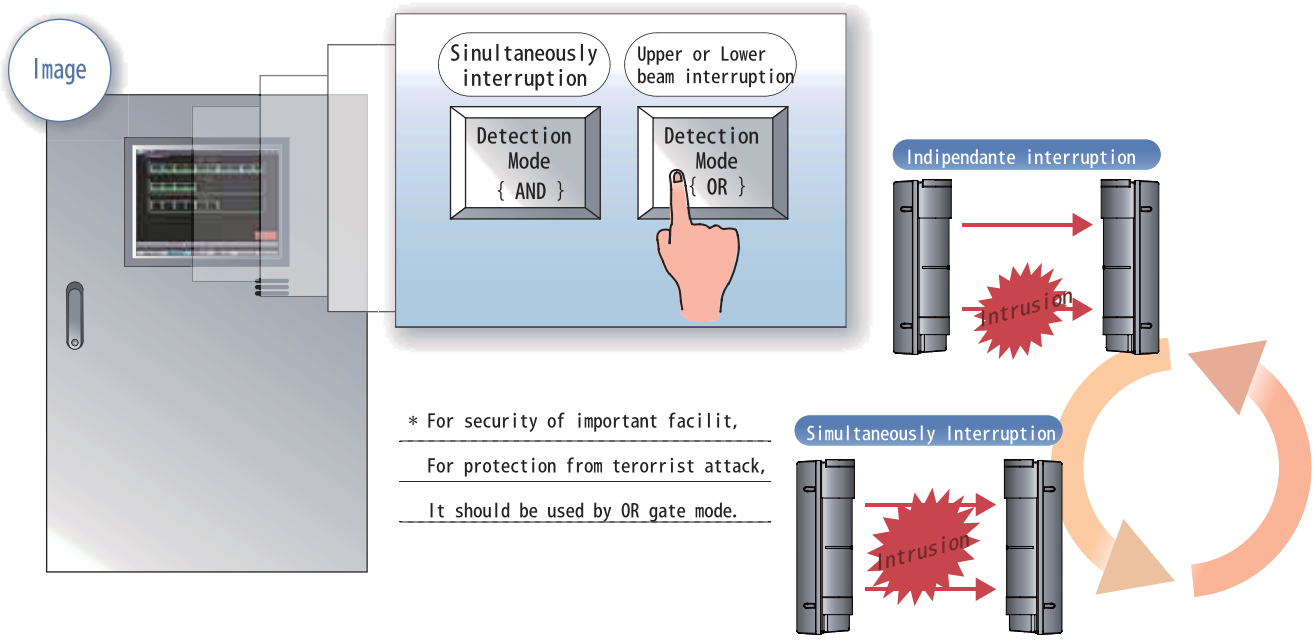
Case 2



* It can detect the intruder who come into by crawling and it can be installed in beam tower.

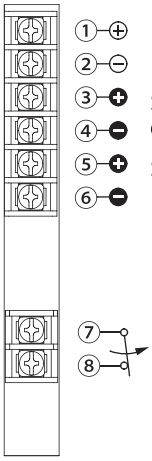
Alarm System

You can choice detection mode (AND gate or OR gate) as the situation demands.



Wiring connection

《Transmitter》



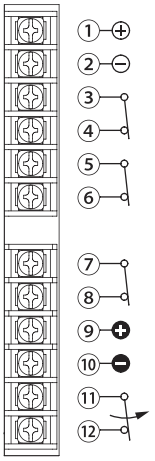
① ⊕ ② ⊖ Power supply DC12~30V (non-polarity)

③ ⊕ ④ ⊖ Synchronized signal output (polarity)

⑤ ⊕ ⑥ ⊖ Synchronized signal input (polarity)

⑦ ⑧ Tamper singnal output AC/DC30V 0.1A Dry contact N.C

《Receiver》



① ⊕ ② ⊖ Power supply DC12~30V (non-polarity)

③ ④ Alarm singnal output (AT output "OR gate") ※1 AC/DC30V 1A Dry contact N.O/N.C Switchable

⑤ ⑥ Alarm singnal output (HF output "AND gat)※2 AC/DC30V 1A Dry contact N.O/N.C Switchable

⑦ ⑧ Environmental singnal output AC/DC30V 1A Dry contact N.O/N.C Switchable

⑨ ⊕ ⑩ ⊖ Synchronized signal input (polarity)

⑪ ⑫ Tamper singnal output AC/DC30V 0.1A Dry contact N.C

*1 AT output : When either upper or lower beam is blocked (OR gate) Response time is set as selected. When both of upper and lower beam are blocked simultaneously.- Response time is 0.05 Sec

*1 HF output : The alarm signal is issued only when both of upper and lower beam are blocked (AND gate) simultaneously.-Respose time is 0.05 Sec.

Option

☐ Pole(2pcs for 1set)
〈KP-48L〉
Height 48cm



☐ Pole(2pcs for 1set)
〈KP-90L〉 Height 90cm



☐ Pole(2pcs for 1set)
〈KP-100/KP-100B〉 Height 100cm
〈KP-150/KP-150B〉 Height 150cm



☐ L Pole(1pc)
〈KP-80LS/KP-80LSB〉
Height 80cm x Depth 15cm
〈KP-80LL/KP-80LLB〉
Height 80cm x Depth 30cm



☐ Alignment wireless cgecker
ER-02 (2pcs for 1set)



☐ Heater
〈HTF 24A〉
24VDC 430mA



☐ Pole side cover
〈BS-50X〉



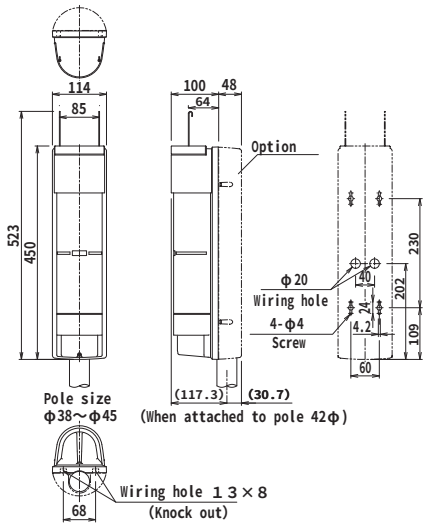
PHOTOELECTRIC SENSOR

SPECIFICATIONS

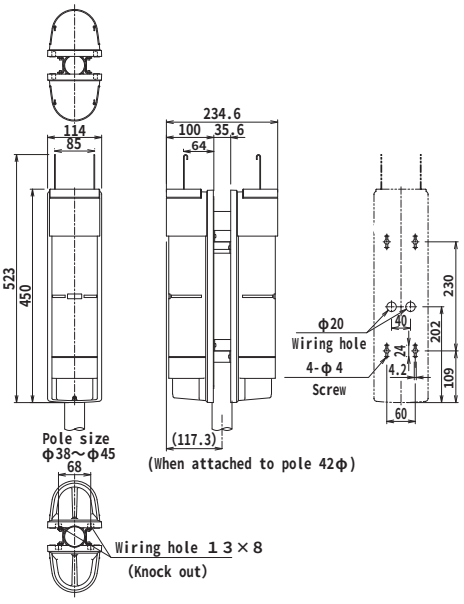
	PHOTOELECTRIC SENSOR
MODEL	PXB-100ATC
DETECTION SYSTEM	NearInfrared beam interruption system (TR-RE 4 beams simultaneous interruption or upper 2 beams interruption or low 2 beams interruption)
INFRARED BEAM	Double modulation pulsed beam by Ir LED
PROTECTION DISTANCE	Outdoor 100m(330') or Less
Max.arraival distance	Tenfold 1,000m (3300')
Response time	OR gated : upper 2 beams and lower 2 beams simultaneous interruption : 0.05sec upper 2 beams interruption or low 2 beams interruption : 0.1/0.2/0.3/0.5sec (selectable by setting switch)
	AND gated output : upper 2 beams and lower 2 beams simultaneous interruption : 0.05sec :
Power supply	DC12～30V (non-polarity)
Current consumption	Transmitter : 27mA Receiver : 48mA
Alarm output (OR gate) (AND gate)	Dry contact output : N/C or N/O selectable Contact action : Interruption time(Min.2sec) *During the Syncro signal down, alarm signal out put continuously. Capacity : AC/DC30V 1A (resistive load) Protective resistor
Environmental Output	Dry contact output : N/C or N/O selectable Action : Activated when weather condition gets worse Capacity AC/DC30V 1A (resistive load) Protective resistor
Tamper output	Dry contact output : N/C Action : Activated when cover is detached Capacity AC/DC30V 0.1A (resistive load) Protective resistor
Alarm LED	RED LED (only receiver) ON: when an alarm is initiated
Attenuation LED	RED LED (only receiver) ON: when beam is attenuated
Function	・Modulated beam frequency selection,Tone indicator,Environment module Beam Power selection, Transmitting power adjustment Programmed AGC, Syncro timing selection, Auto-gain lock function,Monitor jack, Tamper, Response time adjustment, Alarm output selection, Environment output selection, Upper/Lower beam switch, Wireless Alignment Checker connecting function
Beam Adjustment	Horizontal : ±90° Vertical : ±20°
Ambient temperature range	-13°F to 140°F (−25℃～+60℃)
Mounting positions	Outdoor, Indoor
Wiring	Terminals
Weight	Transmitter : 49oz(1,400g), Receiver : 51.5oz(1,470g)
Appearance	PC resin (wine red)
Accessory	Pole attachment, Anti-Bird spike, Screws, Instruction manual

EXTERNAL DIMENTION (mm)

<Dimensions>



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Please Note : This sensor is designed to detect intrusion and to initiate an alarm; it is not a burglay-preveting device.Takex is not responsible for damage,injuly or losses caused by accident,theft,Acts of God(including inductive surge by lightning),abuse,misuse,abnormal usage, faulty installation or improper maintenance.

TAKEX

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http://www.takex-eng.co.jp/

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