

PHOTOELECTRIC BEAM SENSOR

PB-IN-100AT Outdoor 330ft (100m)

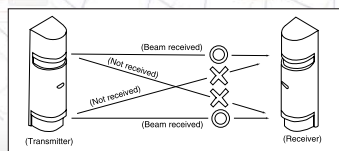


The TAKEX Intelligent-Quad series now has a new member to its product family, the PB-IN-100AT "Anti-crawl" photoelectric beam. This beam has been designed for high security applications where attempts to crawl through a portion of the photobeam create an alarm event instead of no alarm.

Through CPU processing, the upper receiver selects the beam from the upper transmitter and the lower receiver selects the beam from the lower transmitter, allowing for an AND-gated or an OR-gated system.

Features

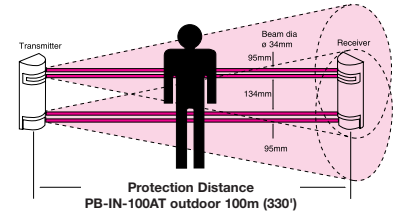
- **FOUR FREQUENCY SELECTION**
4 separate choices of frequency avoids cross-talk in stacked or long linear installations.
- **DUAL RESPONSE TIME SYSTEM**
Two individual response times are provided for separate adjustment of AND/OR gates. This enables detection of intruders, but minimises false alarms.
- **BEAM TRANSMISSION STRENGTH SELECTION**
2 levels of beam transmission strength can be set to suit the protection distance.
- **AUTO-GAIN LOCK**
Optimal sensitivity gain is automatically set at any coverage distance up to the maximum protection distance. Auto-Gain lock is easily confirmed by sound check.
- **EASY BEAM ALIGNMENT**
 - Audible signal for alignment (Utility model) - An alignment tone aids in quick set-up beams. The tone becomes maximum at peak of beam level.
 - Beam selector - Upper and lower beam alignment can be adjusted without using a shading plate.
 - Sensitivity attenuation LED lights when beam level is attenuated, which shows low sensitivity.
 - Monitor jack output.
- **PROGRAMMED AGC**
Sensitivity is automatically increased in bad weather to contend with fog, heavy rain, frost or snow.
- **ENVIRONMENTAL MODULE BUILT-IN**
Environmental trouble signal is sent when beam reception level is reduced below an acceptable level.
- **WEATHER PROOF**
As a special hood is attached on sensor cover, beam protection continues without interruption even when the cover is screened by frost or dew.
- **BASIC OPERATION**
 - Lower or upper beams interrupted
An alarm is not initiated by instantaneous beam interruption, but only when the interruption continues over a set response time. The response time can be tailored to prevent intrusion by crawling while at the same time avoiding false alarms due to small animals.
 - All beams interrupted
Same as PB-IN-HF series, an alarm is initiated when beam interruption continues over the response time.



Specifications

Model	Photoelectric Beam Sensor
Model Number	PB-IN-100AT
Detection System	Near infrared beam interruption system (TR,-RE 4 beams simultaneous interruption or upper 2 beams interruption or lower 2 beams interruption)
Infrared Beam	Double modulation pulse beam by LED
Detection Area	Outdoor 100m (330') or less
Sensitive Zone	Tenfold: 1000m (3330')
Response Time	Dual response time system 35 - 500 msec. (AND gated) 100, 200, 300, 500 msec. (OR gated)
Supply Voltage	12V to 30VDC (non-polarity)
Current Consumption	85mA or less at protection (Max. 120mA or less)
Alarm Output	Dry contact relay output 1c Reset : Interruption time+off-delay (approx. 1.5 sec.) Contact capacity : 30V AC/DC, 1A or less Dry contact relay : 1c
Environmental Output	Contact operation: Output when weather condition gets worse Contact capacity : 30V AC/DC, 1A or less Dry contact relay : 1b
Tamper Output	Contact operation: Output when transmitter or receiver cover is detached. Contact capacity : 30V AC/DC, 0.1A or less
Alarm LED	Red LED (receiver) lights when an alarm is initiated
Sensitivity	Red LED (receiver) lights when beam reception is attenuated
Attenuation LED	
Functions	Modulated beam frequency selection, Tone indicator, Environmental module, Beam power selection, Beam selector, Programmed AGC. Auto-gain lock function, Monitor jack.
Beam Adjustment	Horizontal : $\pm 90^\circ$, Vertical : $\pm 10^\circ$
Ambient Temperature	-35°C to 66°C (-31°F to +151°F)
Installation Places	Outdoor
Wiring Method	Terminals
Weight	Transmitter: 1200g (42 oz.) Receiver : 1300g (46 oz.)
Appearance	PC resin (wine red)
	Due to ongoing product improvements, specifications may change without notice.

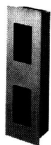
Coverage



Optional



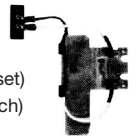
- Pole Cover
BP-200F (2pcs/set)



- Flush mount attachment
BU-50F (1pce)
(with stainless plate)

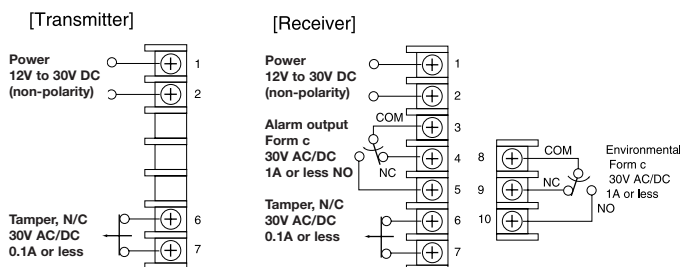


- Pole Side Cover
BS-50F (1pce)

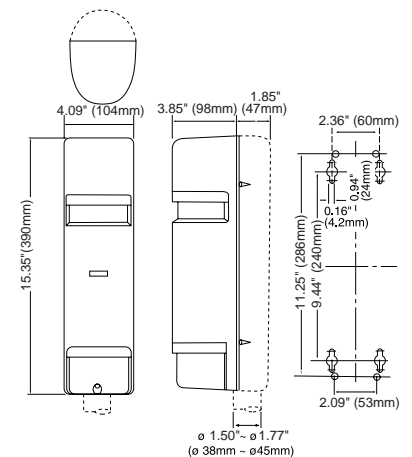


- Heater (2pcs./set)
HTF-24 (24VDC, 860mA/set)
(Temperature control switch)

Terminal Arrangement



External Dimensions



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



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