

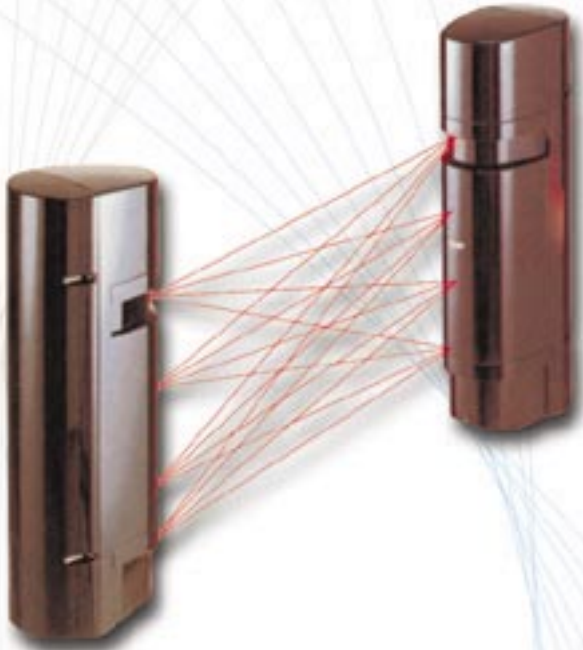
# PHOTOELECTRIC BEAM SENSOR

## Intelligent Quad Series

**PB-IN-50HF** Outdoor 150ft (50m)

**PB-IN-100HF** Outdoor 300ft (100m)

**PB-IN-200HF** Outdoor 600ft (200m)



# TAKEX<sup>®</sup>

The TAKEX intelligent "Quad" photoelectric beam is especially designed for outdoor protection. Unique Quad beams are synchronised to work together to reinforce the range and stability in severe weather conditions.

The PB-IN-HF series beams are equipped with many features which provide a wide choice of field selectable options. These options result in considerable flexibility for a variety of application requirements.

## Features

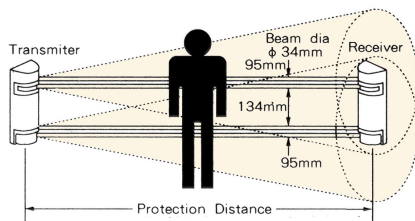
- **4 SYNCHRONISED HIGH POWER INFRARED (Patented)**
  - 4 beams are "and-gated", which helps to prevent false alarms from falling leaves and small animals.
  - The active infrared transmission is exceptionally strong with a maximum arrival distance ten times greater than the specified protection distance.
  - External light compensation circuit provides excellent tolerance against sunlight, automobile headlights, fluorescent light or mercury light.
- **FOUR FREQUENCIES SELECTIONS**  
4 separate frequency choices avoid cross-talk in stacked or long linear installations.
- **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 enables quick set-up of the beams. The tone becomes maximum at peak of beam level.
  - 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.
- **ALARM MEMORY**  
Alarm memory LED located on receiver can be automatically reset (5 mins after alarm, if flickers for 55 mins, then automatically resets) or can be manually controlled.
- **ENVIRONMENTAL MODULE BUILT-IN**  
Environmental trouble signal is sent when beam reception level is reduced below an acceptable level.
  - Wide adjustment (horizontally  $\pm 90^\circ$ , vertically  $\pm 10^\circ$ ).
  - Tamper output.
  - Polycarbonate cover excellent at anti-shock.
  - Optional accessories.

## Specifications

Model	<b>Photoelectric Beam Sensor (Intelligent Quad Series)</b>		
Model Number	PB-IN-50HF	PB-IN-100HF	PB-IN-200HF
Detection System	Near infrared beam interruption system (TR-RE. 4 beams simultaneous interruption)		
Infrared Beam	Double modulation pulsed beam by LED		
Protection Distance	Outdoor 150' (50m) or less	Outdoor 300' (100m) or less	Outdoor 600' (200m) or less
Max.arrival Distance	Tenfold 1500' (500m)	Tenfold 3000' (1000m)	Tenfold 6000' (2000m)
Response Time	50msec. to 700msec. variable (Standard: 50msec.)		
Supply Voltage	12V to 30V DC (non-polarity)		
Current Consumption	60mA or less at protection (Max. 95mA or less)	70mA or less at protection (Max. 105mA or less)	85mA or less 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: 1a or 1b (switchover)		
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 receiver cover is detached Contact capacity: 30V AC/DC, 0.1A or less		
Alarm LED	Red LED (receiver) lights when alarm is initiated		
Sensitivity Attenuation LED	Red LED (receiver) lights when beam reception is attenuated		
Functions	Modulated beam frequency selection, Tone indicator, Environmental module, Beam power selection, Alarm memory indication, Programmed AGC, Auto-gain lock function, Monitor jack.		
Beam Adjustment	Horizontal: $\pm 90^\circ$ , Vertical: $\pm 10^\circ$		
Ambient Temperature Range	- 13°F to +140°F (-25°C to + 60°C)		
Mounting Position	Outdoor		
Wiring	Terminals		
Weight	Transmitter : 42 oz (1200g) Receiver : 45.5 oz (1300g)		
Appearance	PC resin (wine red)		

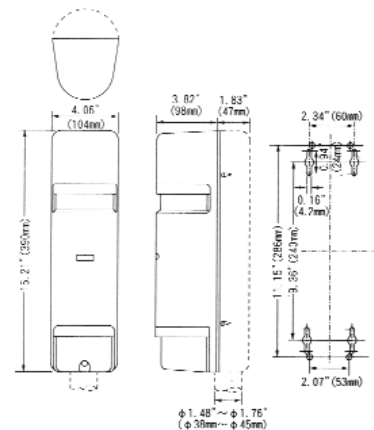
Due to ongoing product improvements, specifications may change without notice.

### Coverage



PB-IN-50HF : outdoor 150' (50m)  
 PB-IN-100HF : outdoor 300' (100m)  
 PB-IN-200HF : outdoor 600' (200m)

### 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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