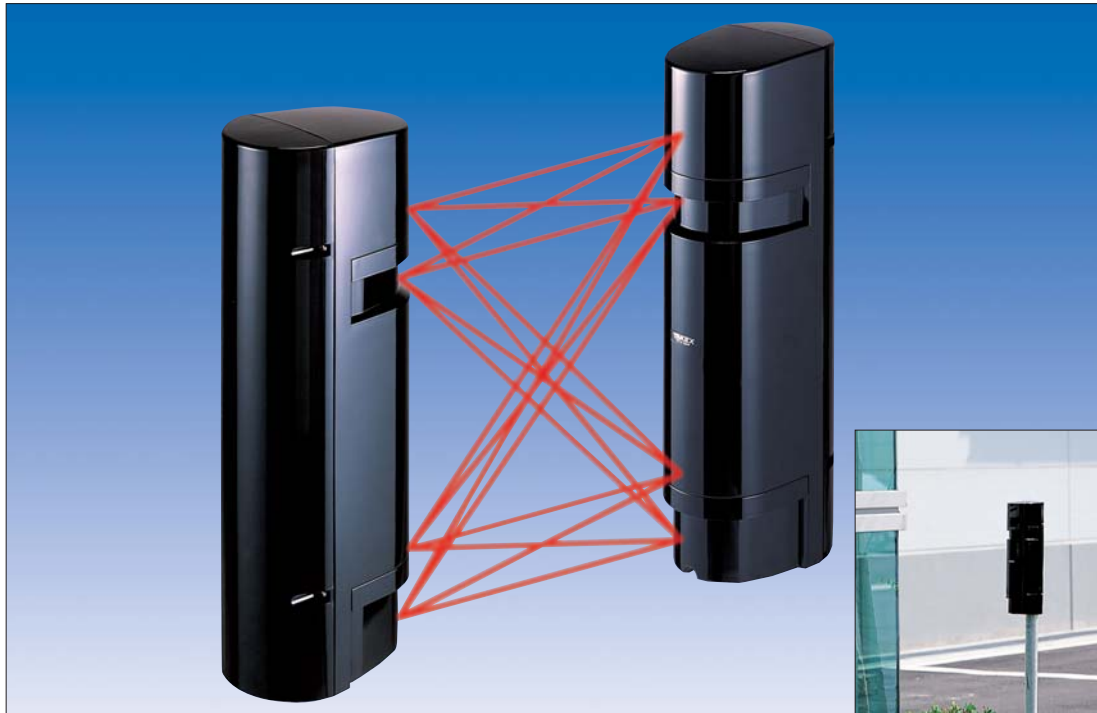


# PHOTOELECTRIC BEAM SENSOR

## (INTELLIGENT QUAD SERIES)

PB-50FA : Outdoor 165 ft. ( 50m)  
 PB-100FA : Outdoor 330 ft. (100m)  
 PB-200FA : Outdoor 660 ft. (200m)



[POLE COVERS SOLD SEPARATELY]

Application

The TAKEX intelligent "QUAD" photoelectric beam is especially designed for outdoor protection. Unique Quad beams are synchronized to reinforce the range and stability in severe weather conditions. The PB-FA series beams provide a wide choice of field options which result in considerable flexibility for a variety of application requirements.

### 4 SYNCHRONIZED HIGH POWER INFRARED

- \* 4 beams are "and-gated", which helps to prevent false alarms by falling leaves and small animals.
- \* 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 to sun light, automobile head lights, fluorescent light or mercury light.

### EASY BEAM ALIGNMENT

- \* Audible signal for alignment  
Alignment tone aids in quick set-up of beams. The tone becomes maximum at the peak beam level.
- \* Sensitivity attenuation LED lights when beam is attenuated, which shows low sensitivity.
- \* Monitor jack output
- \* Target color
- \* Wide adjustment (horizontally  $\pm 90^\circ$ , vertically  $\pm 10^\circ$ )

### RoHS CERTIFIED COMPLIANT



Environment friendly. Free from Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls, Polybrominated diphenyl ethers.

### AUTO-GAIN LOCK

Optimal sensitivity gain is automatically set at any coverage distance within the maximum protection distance. Auto-Gain lock is easily confirmed with sound check.

### PROGRAMMED AGC

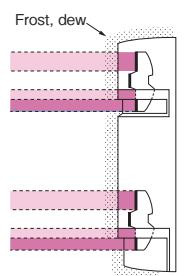
Sensitivity is automatically increased in bad weather to cope with fog, heavy rain, frost or snow.

### ALARM MEMORY

Alarm memory LED located on receiver can be automatically reset.

### PROTECTION AGAINST FROST/DEW

Special hoods attached on sensor cover keep beam protection continuing without interruption even when the cover is screened by frost or dew.

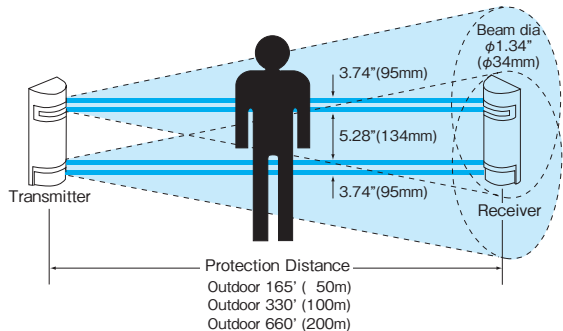


### OTHER FEATURES

- \* Tamper output (transmitter and receiver)
- \* Polycarbonate cover excellent at anti-shock
- \* Optional accessories

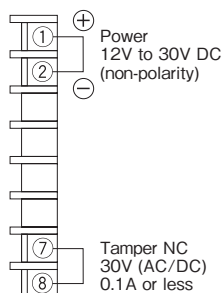
# PHOTOELECTRIC BEAM SENSOR

## COVERAGE

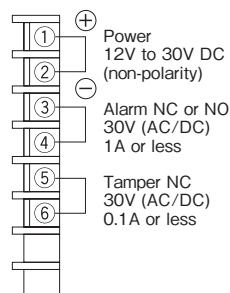


## TERMINAL ARRANGEMENT

### <Transmitter>



### <Receiver>



\*Relay show in energised (non-alarm) condition

## OPTIONAL

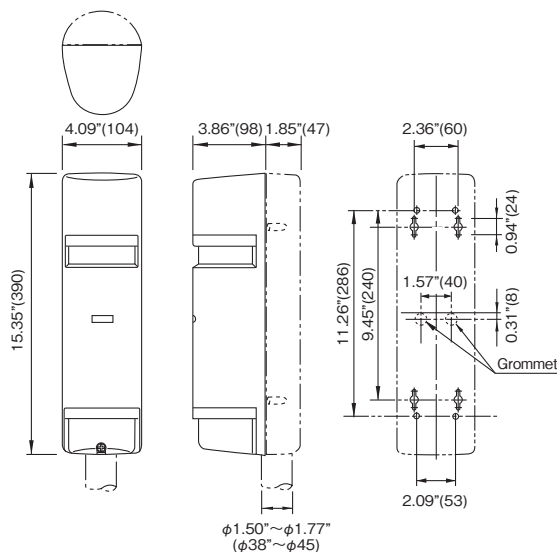
- Pole  
KP-100 (100cm, 2pcs./set)  
KP-150 (150cm, 2pcs./set)
- Pole cover  
BP-200F (2pcs./set)
- Housing case  
KH-120 (1pce.)



- Flush mount attachment  
BU-50F (1pce.)  
(with stainless plate)
- Heater (2pcs./set)  
HTF-100 (100VAC·200mA/set)  
HTF-24 (24VDC·860mA/set)
- Pole side cover  
BS-50F (1pce.)



## EXTERNAL DIMENSIONS (Unit : inch(mm))



## SPECIFICATIONS

Product name	Photoelectric beam sensor		
Model	PB-50FA	PB-100FA	PB-200FA
Detection system	Near infrared beam interruption system (4 beam simultaneous interruption)		
Infrared beam	Double modulation pulsed beams by LED		
Protection distance	outdoor 165'(50m) or less	outdoor 330'(100m) or less	outdoor 660'(200m) or less
Max. arrival distance	1650' (500m)	3300' (1000m)	6600' (2000m)
Response time	50msec. to 700msec. variable (Standard : 50msec.)		
Power supply	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 at protection (max.120mA or less)
Alarm output	Dry contact relay : NO or NC (selectable) Reset : Interruption time + off-delay (approx.1.5sec) Contact capacity : 30V (AC/DC) 1A or less		
Tamper output	Dry contact : NC Contact operation : Output when cover is detached Contact capacity : 30V (AC/DC) 0.1A or less		
Alarm LED	Red LED (receiver) lights when an alarm is initiated		
Sensitivity attenuation LED	Red LED (receiver) lights when beam reception attenuated		
Functions	Tone indicator, Alarm memory indication, Programmed AGC, Auto-gain lock, Monitor jack, Target color		
Beam adjustment	Horizontal : ±90°, Vertical : ±10°		
Ambient temperature range	-31°F to +151°F (-35°C to +66°C)		
Mounting position	Outdoor (IP55)		
Wiring	Terminals		
Weight	Transmitter : 42oz (1,200g) Receiver : 45.5oz (1,300g)		
Appearance	Resin (wine red)		

\*The specifications are subject to change without notice.

**Please note :** This sensor is designed to detect intrusion and to initiate an alarm; it is not a burglary or a crime 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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