



KH Beams and TA Beam Towers in Marine Environment

**TAKEX**

**QUAD BEAMS**

<b>PB50HF-KH</b>	Up to 50m External / 100m Internal
<b>PB100HF-KH</b>	Up to 100m External / 200m Internal
<b>PB200HF-KH</b>	Up to 200m External / 400m Internal

**ANTI-CRAWL BEAM**

<b>PB100AT-KH</b>	Up to 100m External / 200m Internal
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INTELLIGENT PHOTOELECTRIC BEAM SENSORS



**FEATURES**

**4 SYNCHRONISED HIGH POWER BEAMS**  
 'AND-Gated' to prevent 'nuisance-alarms' from birds, animals and blown litter (HF-KH models).

**'ANTI-CRAWL' FEATURE**  
 For high-security applications the PB100AT-KH model detects low-level or crawling intrusion: selectable AND/OR facility for 2 or 4-beam activation with variable response times for maximum security while minimising 'nuisance-alarms'.

**'DOUBLE-MODULATED' BEAM SIGNAL**  
 This unique feature combined with external light compensation circuitry offers unrivaled immunity to accidental or deliberate interference from sunlight, car headlights and other artificial light sources.

**4 SELECTABLE BEAM FREQUENCIES (CHANNELS)**  
 Allows multiple beams to be used 'in-line' or 'stacked' without 'cross-talk' (interference).

**AUTO-GAIN LOCK / AUTO-GAIN CONTROL**  
 Maintains beam stability in the harshest of weather conditions - eg. fog, rain, snow or frost.

**ENVIRONMENTAL MONITORING (FOG WARNING)**  
 Can be used to warn of the build up of mist, fog or snow on the protected site.

**EASY BEAM ALIGNMENT**  
 Beam heads adjust horizontally  $\pm 90^\circ$  (180° total) and vertically  $\pm 10^\circ$ , with signal-strength indicated by audible signal or test-meter: LED indicators for 'Alarm', 'Signal Attenuated', 'Alarm Memory', and LED or audible 'Walk-Test' mode.

**DOUBLE COATED ELECTRONICS**  
 Electronic components are double coated for resistance to corrosion from moisture and condensation.

**12/24VDC OPERATION**  
 For maximum system flexibility.

Takex PBHF-KH Intelligent Quad Beams are designed specifically for use in Takex TA Series Beam Towers. Unique Quad beams are synchronised to maintain range and stability in severe weather, while rejecting 'nuisance-alarms' caused by birds, animals, or blown-litter.

PB100AT-KH Anti-Crawl beams are available for high-security applications to detect low-level or crawling intrusion.

Supplied with PTKH 'Quickfix' mounting brackets for fast, trouble-free assembly, the beam units locate in vertical slide-channels in the TA tower spine, allowing easy and precise height adjustment.

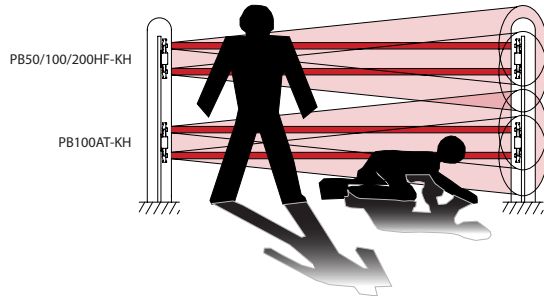
Takex KH Beams and TA Towers are the perfect combination for reliable perimeter intrusion detection in the most demanding of situations - as illustrated in the 'Marine Environment' example above.



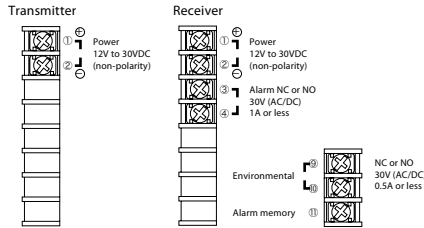
## INTELLIGENT PHOTOELECTRIC BEAM SENSORS



### EXAMPLE APPLICATION

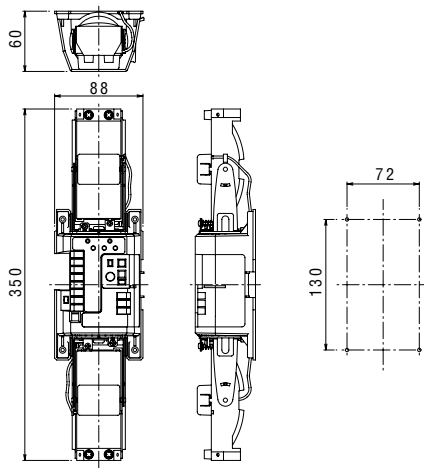


### TERMINAL ARRANGEMENT



<b>PB50HF-KH</b>	Up to 50m External / 100m Internal Quad Beam (4-Channel)
<b>PB100HF-KH</b>	Up to 100m External / 200m Internal Quad Beam (4-Channel)
<b>PB200HF-KH</b>	Up to 200m External / 400m Internal Quad Beam (4-Channel)
<b>PB100AT-KH</b>	Up to 100m External / 200m Internal Anti-Crawl Beam (4-Channel)

### DIMENSIONS



### ASSOCIATED PRODUCTS



TA SERIES	PTS	PTH	CRFB	TAPS
Takek TA Series Beam Towers are available as attractive but rugged Wall- or Floor-Mount units, as Single- or Double-Sided variants.	Thermostat for use with PTH heaters (one thermostat required per Tower).	Heater 12VDC, 250mA to prevent the build-up of condensation or frost on the Tower covers. Use one PTH under each Beam unit.	Mounting Base Bolt Set for TAD and TAS Towers (optional - for setting into wet concrete).	Pressure-sensitive Anti-Climb switch for all TA series Towers (activation pressure approx. 20Kg).

### SPECIFICATIONS

Product name	Photoelectric beam sensor			
Model	PB50HF-KH	PB100HF-KH	PB200HF-KH	PB100AT-KH
Detection System	Near infrared beam interruption system			
Infrared beam	Double modulation pulsed beams by LED			
Protection distance	50m	100m	200m	100m
Max. arrival distance	500m	1000m	2000m	1000m
Response time	50msec. to 700msec. variable (standard: 50msec.)			Var. 35 to 500msec. (AND) 100, 200, 300, 500msec. (OR)
Power supply	12V to 30VDC (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 output 1c Reset: Interruption time + off-delay (approx. 1.5sec) Contact capacity: 30V (AC/DC) 1A or less			
Environmental output (Fog warning)	Dry contact relay output 1c Contact operation: Output when weather condition worsens Contact capacity: 30V (AC/DC) 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			
Ambient temperature range	-35°C to +66°C			
Beam adjustment	Horizontal: ±90° / Vertical: ±10°			
Functions	Modulated beam frequency selection, Tone indicator, Environmental module, Beam power selection, Alarm memory indication, Programmed AGC, Auto-gain lock function, Monitor jack			
Wiring	Terminals			
Weight	Transmitter: 300g / Receiver: 400g			

Due to on going product improvements, specifications may change.

**Note:** This sensor is designed to detect intrusion and to initiate an alarm; it is not a burglary or crime preventing device. TAKEK is not responsible for damages or loss caused by accidents, theft, acts of God (including inductive lightning), abuse, misuse, abnormal use, faulty installation or improper maintenance.



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