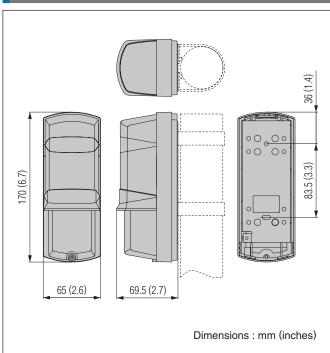
#### SPECIFICATIONS Model AX-70TN AX-130TN AX-200TN AX-100TF AX-200TF Detection method Infrared beam interruption detection Maximum detection range 20m (70ft.) 40m (130ft.) 60m (200ft.) 30m (100ft.) 60m (200ft.) Maximum arrival range 200m (700ft.) 400m (1300ft.) 600m (2000ft.) 300m (1000ft.) 600m (2000ft.) Interruption period Selectable between 50, 100, 250, and 500m sec. Selectable beam frequency 10.5 - 28V DC Power supply 45mA (max.) 48mA (max.) Current consumption (transmitter + receiver) 38mA (max.) 41mA (max.) 44mA (max.) Alarm period 2sec. (±1) nominal N.C./N.O. 28V DC. 0.2A (max.) Alarm output N.C. 28V DC. 0.2A (max.) N.C. 28V DC, 0.2A (max.) D.Q. output Tamper switch Opens when cover is removed at 28V DC, 0.2A max. -35°C to +60°C (-31°F to +140°F) Operating temperature Use the optional heating unit (HU-3) in conditions of -25°C (-13°F) or below. Operating humidity 95% max. Alignment angle $\pm$ 90° Horizontal, $\pm$ 5° Vertical Wall and pole mounting Mounting Weight (transmitter + receiver) 650g (22.9oz.) 700g (24.7oz.)

#### DIMENSIONS

Housing protection (EN 00529)



#### **OPTIONS**

IP65





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SHORT RANGE PHOTOELECTRIC DETECTOR

# **AX-70/130/200TN AX-100/200TF**



## **The Best Short Range Photoelectric Detector**

AX-TN/TF series is a compact photoelectric detector with "the IP65 high durability", and "stable detection performance".

These features reduce false alarms drastically caused by outdoor severe environmental changes and provide a wide range of applications.

<sup>\*</sup>Specifications and design are subject to change without prior notice.

NOTE: These units are designed to detect an intruder and activate an alarm control panel. Being only a part of a complete system, we cannot accept responsibility for any damages or other consequences resulting from an intrusion. These products conform to the EMC Directive 89/336 ECC.

## The best short range photoelectric detector from OPTEX



OPTEX succeeded to strengthen the basic performance and ability of photoelectric detector to reduce false alarms under severe outdoor environments.

The rubber packing for wiring hole prevents rain, dust, and tiny insects from getting into the unit and the widely designed optical pitch maximizes the detection principle of twin beam.

SHORT BANGE PHOTOELECTRIC DETECTOR

#### AX-70/130/200TN (STANDARD MODEL) AX-100/200TF (FNHANCED MODEL)

#### ☐ IP65 structure with high sealing rubber packing

Rubber packing is used for all conceivable points where water or dust may penetrate, such as wiring holes, wire ports and the outer chassis. Prevention from dust, bugs and water delivers performance with higher reliability against false alarms and breakdowns.



#### 5 degrees of water conditions were used to evaluate the protection against water

provided by enclosures

Tests were conducted using a water jet stream that applied 12.5 liters/min of water at a distance of approximately 3 meters for roughly 3 minutes. This test was directly applied to the chassis of the AX-TN and TF series



The tests resulted with the AX-TN/TF unit undamaged due to the highly durable IP65 rated structure. It aids in the prevention of water damage to the unit while keeping the detector operating accurately in outdoor environments.



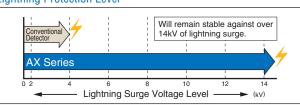
#### ☐ Anti-frost hood cover

A hood is installed to prevent frost forming on lower beams. It also makes the maintenance easy because the surface of the cover is flat.

#### Lightning protection

An improved Electro-Magnetic Interference surge absorber and high surge resistive relay has been installed to protect from lightning surges and maintain stable operation.

#### Lightning Protection Level



#### Easy angle adjustment

It allows the installer to finely adjust the beam easily. [ Horizontally ±90° with hand ]

#### [ Vertically ±5° with screwdriver ] ☐ High grade spherical lens

The high grade spherical lens creates more sharply defined & precise infrared beams compared to ordinary fresnel lenses.

#### ☐ A.G.C. (Automatic Gain Control) Circuit

A.G.C. circuit continually monitors for gradual changes in the signal's strength caused by changing weather conditions. It adjusts the sensitivity accordingly to maintain the proper signal level for the current environmental conditions.

#### 99% beam blocking stability

Enables stable operation with as much as 99% loss of beam energy caused by heavy rain, dust storms, fog or snow.

#### Adjustable beam interruption period

The beam interruption time can be adjusted to fit any application. For example, when protecting a wall or fence, a longer interruption time will catch intruders.

### **AX-100/200TF only**

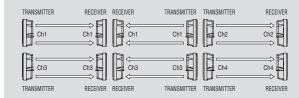
#### Selectable beam frequencies

The selectable beam frequencies can be used to avoid unwanted crosstalk that can occur when using multiple photobeams for long distance or beam stacking applications.

#### 1. Long distance stacking

TRANSMITTER	RECEIVER	RECEIVER	TRANSMITTER	TRANSMITTER	RECEIVER
Ch1	Ch1 €	Ch1	Ch1	Ch3	Ch3

#### 2. Two beam long distance

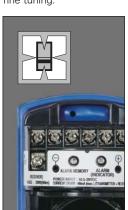


#### D.Q. Circuit

D.Q. circuit (environmental disqualification) sends a trouble signal when the beam strength is below and acceptable level due to heavy fog, rain, snow or other changes in the installation site. The trouble signal output continues as long as the beam strength is below an acceptable level.

#### 4 step alarm indicator LED for fast & accurate optical alignment

The alignment condition is visually displayed on the LED. It shows the alignment condition by using 4 different process to achieve accurate and easy alignment before fine tuning.



#### LED is "Fast Flickering" Under the beam alignment LED indication changes by beam receiving level.

LED is "ON"

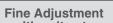
Before alignment.



Beam energy fromtransmitter is



Ready for fine tuning



with voltmeter