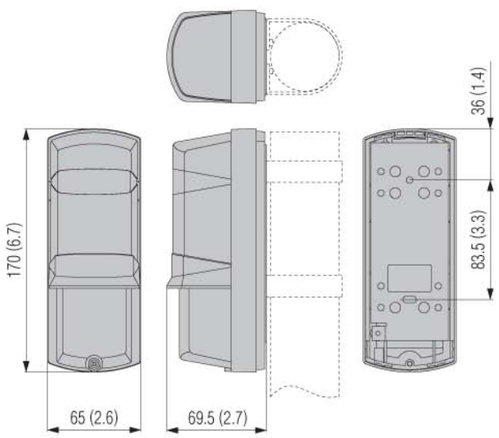
SPECIFICATIONS

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				4 channel	
Power supply	10.5 - 28V DC				
Current consumption (transmitter + receiver)	38mA (max.)	41mA (max.)	45mA (max.)	44mA (max.)	48mA (max.)
Alarm period	2sec. (±1) nominal				
Alarm output	N.C. 28V DC, 0.2A (max.)			N.C./N.O. 28V DC, 0.2A (max.)	
D.Q. output				N.C. 28V DC, 0.2A (max.)	
Tamper switch	Opens when cover is removed at 28V DC, 0.2A max.				
Operating temperature	-35°C to +60°C (-31°F to +140°F) Use the optional heating unit (HU-3) in conditions of -25°C (-13°F) or below.				
Operating humidity	95% max.				
Alignment angle	± 90° Horizontal, ± 5° Vertical				
Mounting	Wall and pole mounting				
Weight (transmitter + receiver)	650g (22.9oz.)			700g (24.7oz.)	
Housing protection (EN 00529)	IP65				

*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.

DIMENSIONS



Dimensions : mm (inches)

OPTIONS

HU-3 : Heating Unit
Heating unit for severe low temperature conditions
24V DC/AC, 420mA max.
1 set (2 units)

BC-3 : Back Cover
Can be used to cover mounting pole.
1 set (2 units)

PSC-3 : Pole Side Cover
Cover for installing 2 units to 1 pole.
1 set (2 units)

OPTEX

SHORT RANGE PHOTOELECTRIC DETECTOR

AX-70/130/200TN
(STANDARD MODEL)

AX-100/200TF
(ENHANCED MODEL)

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.

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.

AX-70/130/200TN (STANDARD MODEL)
AX-100/200TF (ENHANCED 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.

IP65

- **Waterproof.** Protected against water jets from any direction
- **Dust-tight.** No ingress of dust.
- **International Protection Code.** It shows the degress of protection provided by enclosures.

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

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.

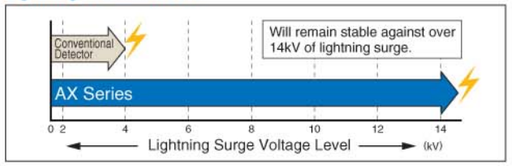
☐ Anti-frost hood cover

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

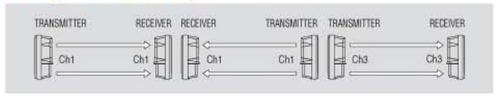
The beam interruption time can be adjusted to fit any application. For example, when protecting a wall or fence, a longer interruption time will catch intruders.

AX-100/200TF only

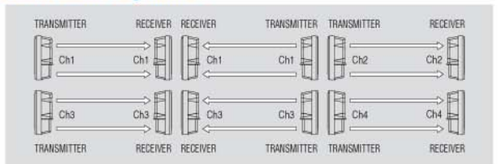
☐ Selectable beam frequencies

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



2. Two beam long distance

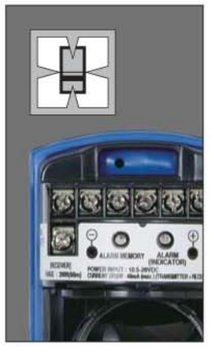


☐ D.Q. Circuit

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 "ON"
Before alignment.

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

LED is "Slow Flickering"
Beam energy fromtransmitter is reaching receiver.

LED is "OFF"
Ready for fine tuning

Fine Adjustment with voltmeter