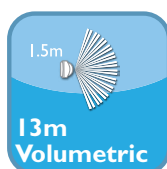
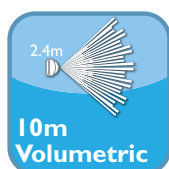


## High security outdoor protection

# XD10TTAM



The XD10TTAM is a high security outdoor detector from Pyronix, combining established and patented technologies such as **Tri Digital Detection Signal Processing** and **Tri Anti-Mask Technology** which have been adapted to enhance its performance in extreme outdoor conditions.



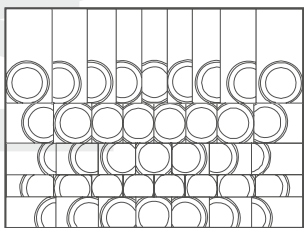
## XD10TTAM Explained

### Tri Detection Range

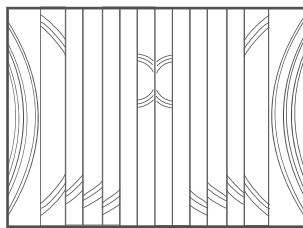
The range of **XD10TTAM** is determined by the combined range of the three detection technologies it uses that are two PIR sensors and one microwave detector.

The microwave detector range is adjustable from 5m to 15m while the PIR range is fixed to 15m. The Tri Detection range is adjustable by changing the microwave detection range. For best performance in outdoor conditions the Tri Detection range is specified between 10m to 13m depending on the lens fitted to the PIR detectors.

#### Lens 5



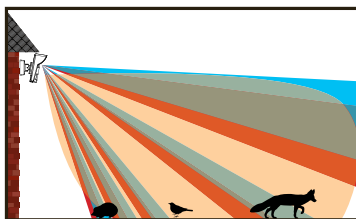
#### Lens 3



The **XD10TTAM** is designed to be used in 2 installation modes:

#### 2.4m Installation Mode (Lens 5)

In this mode the detector is installed at height of 2.4m providing volumetric coverage of the area and animal immunity of up to 10kg. This is the factory default configuration where the detector is fitted with Lens 5.



- 90° Volumetric Lens
- 78 Zone Edges
- 5 Planes
- Animal immunity up to 10kg
- Mounting height 2.4m
- 10m range

#### 1.5m Installation Mode (Lens 3)

In this mode the detector is installed at an height of 1.5m providing horizontal curtain coverage of the area and animal immunity of up to 25kg. This is an alternative configuration where the detector is fitted with the supplied Lens 3.



- 142° Volumetric Lens
- 24 Zone Edges
- Single Plane
- Animal immunity up to 25kg
- Mounting Height 1.5m
- 13m range

### Animal Immunity

Wild animals such as, foxes, birds, squirrels etc. as well as pets will not cause an alarm activation.

### Heavy Duty Ultra Violet Filter

Ultra violet light is always present in our environment. It is particularly strong at high altitude and sea side. The exposure to such high radiation reduces performance and can fully blind the PIR lenses. Therefore the **XD10TTAM** lenses are manufactured to high standards and coated with a heavy duty ultra violet filter to ensure their protection from UV radiation.

### Lens Masking Grids

The masking grids can be used for two specific reasons:

- (1) To mask zones off the lens, giving the installer the ability to create specific protection areas.
- (2) To create 2 non overlapping PIR detection areas.

#### Fixed Masking Grid



The fixed masking grid is used to create two non overlapping detection areas. This is recommended to be used on installations in extremely harsh

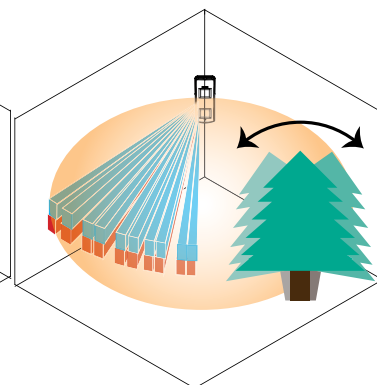
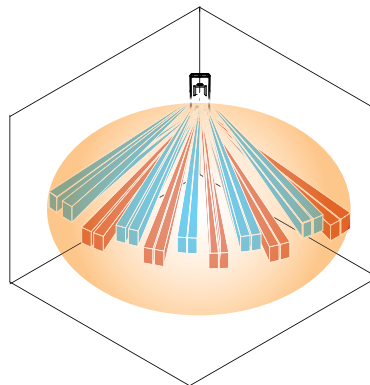
environmental conditions where exposure to direct, low and bright sun light and reflections on snow covered surface is unavoidable.

#### Adjustable Masking Grid



The adjustable masking grid allows the creation of targeted protection areas by removing strips from the grid. This allows the creation of: (1) Specific

targeted detection areas; (2) Further prevention from possible false alarm activations caused by swaying trees or passing traffic within the Tri Detection range.

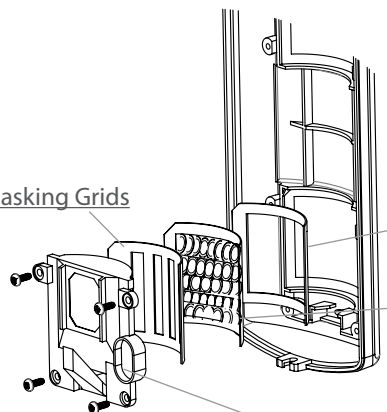


Masking Grids

Rubber Gasket

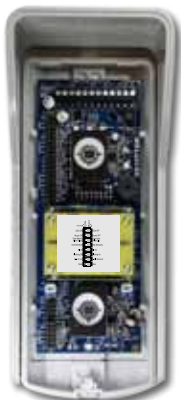
Lens

Optical Chamber



## XD10TTAM Technology

### Weatherproof Housing



The housing of the XD10TTAM is made of 3mm thick polycarbonate plastics. This solid material enhances the durability and protects the high performing PCB from adverse weather conditions. The plastic is also coated with a heavy duty ultraviolet filter to prevent from its discoloration over time.

### Conformly Coated PCB

The PCB of XD10TTAM has a special coating to protect it from the effect of moisture and smog.

### Front Cover



#### Sealed Optics

The lens collet is designed to firmly hold the lens in place and create a stable environmental chamber between it and the PIR sensor. The rubber gasket on the lens and the foam gasket on the PIR sensor are used as a further sealant against all weather conditions and humidity. In addition the sealed PIR sensor chamber protects the sensors from possible insect infestation and internal air movement.

### Hood and Optional Bracket

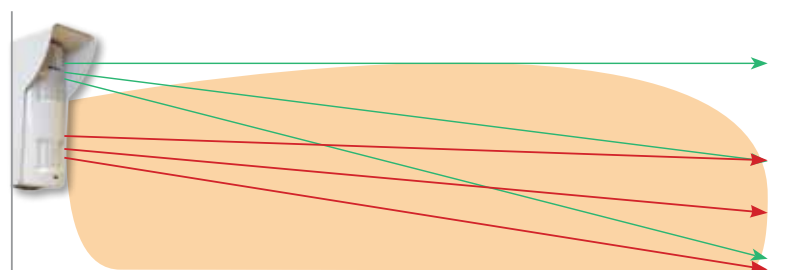
Both, the hood and the back of the XD10TTAM are equipped with a cable channel, as well as back wall tamper for added protection.

#### Hood

The Hood is fixed to the back of the detector to secure its high performance in any weather condition.

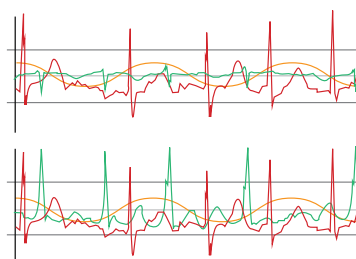
#### Wall Bracket (optional)

The optional heavy duty tamper proof bracket consists of a cable through feature for easy installation and added security as the wires are hidden away within the bracket. It moves 45° left and right allowing a total area coverage of up to 90° when two detectors are installed next to each other. If for any reasons the wire can not be hidden in the bracket there is the possibility to install a conduit to protect the cables.



Top PIR  
Microwave  
Bottom PIR

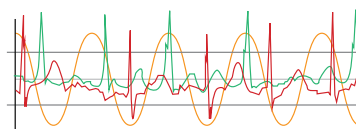
### No Alarm Activation



Top PIR ✗  
Microwave ✗  
Bottom PIR ✓

Top PIR ✓  
Microwave ✗  
Bottom PIR ✓

### Alarm Activation



Top PIR ✓  
Microwave ✓  
Bottom PIR ✓

### Tri Signal Detection Logic

The detection of human presence is based on the advanced analysis of the activation sequence of the microwave movement sensor and the two independent PIR sectors. All three sensors have to activate at the same time in a particular time window to create an alarm. Using tri signal detection logic enhances the detector's immunity to environmental disturbances.

### Digital Temperature Compensation

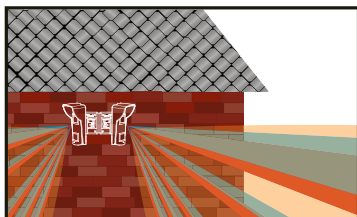
The XD10TTAM detector will digitally adjust itself to maintain detection range in hot and humid environments where the environmental temperature becomes similar to the external body temperature (equivalent of 37°C).

### Built in Walk Test Buzzer

Due to bright sunlight it could be difficult to see the alarm LEDs of the detector from a distance. Therefore the XD10TTAM has a built in walk test buzzer that can be used: (1) To enable the installer to perform an easy and quick walk test during the installation process; (2) As audible indication of a presence in the detection area (if required).

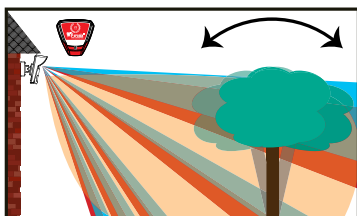
The buzzer can be disabled if it is not required.

## XD10TTAM Features



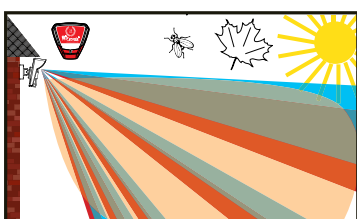
### Microwave

The XD10TTAM is supplied with three different microwave bands. Each of them is indicated with a different colour label. This feature allows the installation of multiple detectors in close proximity without the danger of frequency interference.



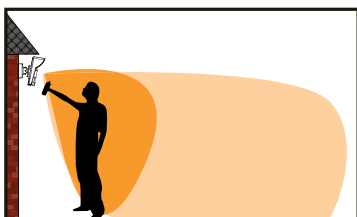
### Vegetation Sway Elimination Filter

Swaying vegetation in windy weather conditions can cause false alarms. The XD10TTAM's Vegetation Sway Elimination Filter is designed to protect against false alarm activations in those conditions. The detectors should not be installed closer than 6m away from trees. If this is not possible the adjustable masking grids should be used.



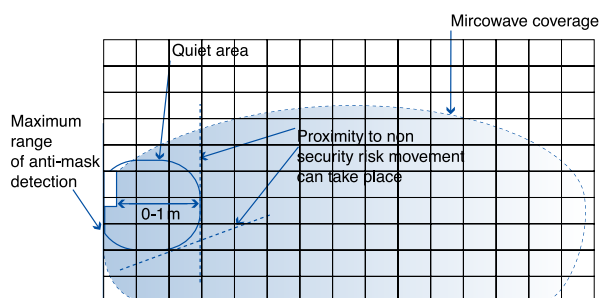
### Insect & Seasonal & Sunlight Protection

The XD10TTAM will differentiate between an actual threat and natural occurrences such as rain, snow, falling leaves, insects etc. Bright sun is a known problem for outdoor protection. If possible it is recommended not to install the detector to face the sun, if this is not possible the fixed masking grid should be used. The grid together with the integrated Tri Detection technology will help to prevent false alarms in those conditions.



### Tri Anti Masking Technology

Pyronix' **PATENTED** anti-masking technology offers the masking protection for both PIR and the microwave detectors. A protective anti-mask microwave bubble is created in front of the detector. It is adjustable from 0 to 1m. Once the protective bubble has been breached and any technology is masked with substances like paper, sprays, lacquers, sellotape, cardboard boxes, etc. the XD10TTAM will go into a mask condition activating a dedicated mask relay.



### Masking and sabotage protection



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