Detectors
dual technology detectors

KX15DTAM

INDUSTRIAL / COMMERCIAL

Digital Combined Dual Element PIR and Microwave Blue Wave Technology Anti Masking Detector

Main Features

- Unique patented anti-masking detection
- Dual Element Pyro-Electric Sensor
- Blue Wave Technology
- Selectable EOL (End of Line) Resistors
- 15m PIR Detection Range
- 5 – 15m Adjustable Microwave Detection
- 0 – 1m Adjustable Mask Detection
- Active Self Test
- Remote Self Test Input
- Patented Independent Floating Thresholds (IFT)
- Adjustable Sensitivity Settings
- Digital Temperature Compensation
- AND / OR Technology
- Selectable NO or NC Relay
- X-band DRO based Microwave
- Tamper Proof Brackets Included

Product Features

Features	Description	Benefits
Independent Mask Relay	In the event of one of the technologies being masked, the KX15DTAM will go into a mask fault condition. The mask relay will open. This can be connected to the 24hr zone of a control panel	Immediate alert in the event of a sabotage attempt
Selectable EOL Resistors	The KX15DTAM incorporates selectable alarm resistor values of 6K8, 5K6, 4K7,1K and tamper values of 5K6, 4K7, 2K2 and 1K catering for most control panels on the market.	Completely eliminates the need for separate resistors, therefore reducing installation time
Blue Wave Technology (BWT)	The very latest technological development from Pyronix	See reverse for more detailed information
Active Self Test	If there is no activation after a 5 hour period the KX15DTAM will actually self test both the PIR and microwave	Unique to Pyronix, this ensures that the detector is always operating effectively
Remote Self Test	The same self test can be initiated at any time by using a compatible control panel. When the self test is carried out remotely the PIR relay will open momentarily, storing the initiated test in the control panel log	Panel will log all activated detectors saving engineer test time
Patented Independent Floating Thresholds (IFT)	This technology patented by Pyronix allows the detector to respond to the environmental changes by automatically adjusting its levels of immunity to background disturbances.	Greater stability, reduces risk of false alarm activations
Adjustable Sensitivity Settings	High sensitivity for use in areas where fast detection is required. Adjustable sensitivity settings for installations in a more hostile environment	Ensures suitability for most environments
Digital Temperature Compensation	When the product is used in a hot environment this technology digitally adjusts the detector's sensitivity allowing it to regain its range even when the external temperature equals the external body temperature of $32^{\circ}C$	Guarantees optimum performance at all times
AND / OR Technology	'AND' mode operates as a standard dual technology detector. 'OR' mode can switch to microwave detection only to overcome cloaking attempts and the traditional vulnerability of PIR detection in environments where the ambient temperature is equal to body temperature.	Overcomes cloaking attempts and therefore is ideal in high security environments
Selectable NO or NC relay	The solid state relay can be selected as Normally Open (NO) or Normally Closed (NC) simply by moving the header link supplied	Ideal for switching electrical devices
Triple LED indication	Microwave - orange, PIR - green, alarm - blue	The technology activated can be easily identified
Frequency options	The KX15DTAM is available in 3 different frequencies	Eliminates the risk of 'cross talk' between detectors located within the same room / environment
X-band DRO based microwave	Metalised microwave housing	Eliminates back lobe radiation
Tamper Proof Brackets	Supplied with both wall and ceiling mount brackets which provides access for up to two 8 core cables. (Tamper kit optional)	Allows ease of installation whilst enhancing tamper protection

Lens Coverage

Supplied
15m Volumetric

HORIZONTAL COVERAGE

VERTICAL COVERAGE

85°
74 zones
7 planes
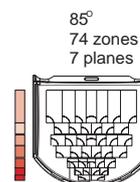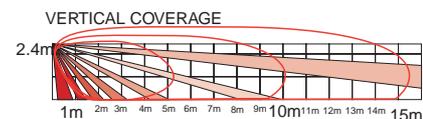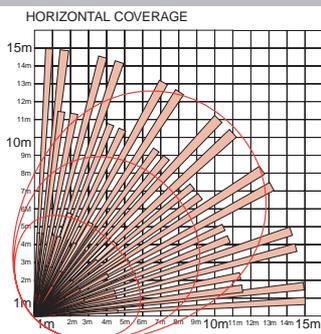
Pyronix Dual Element

The KX15DTAM has a pyro-electric sensor containing two sensing elements and when projected through a lens form zones as illustrated on the right. In order for an alarm to be triggered two or more of these zones would need to be crossed.

Technical Specifications

ELECTRICAL	
Operating Voltage	9 - 16VDC (12V nominal)
Current Consumption - No Alarm State	23mA
Current Consumption - Alarm State	30mA
Relay	Solid State
Relay Output	60VDC, 50mA, Protected
Tamper Switch	12V max, 50mA max
RFI Immunity to Continuous Wave (CW) 80 – 2000MHz	75V/m
RFI Immunity to Amplitude Modulation (AM) 80 – 2000MHz	25V/m
RFI Immunity to Pulse Modulation (PM) 80 – 2000MHz	25V/m
DTI approved frequencies:	10.680, 10.687, 10.695GHz
FCC approved frequencies:	10.515, 10.525, 10.535GHz
PTT approved frequencies:	9.87, 9.90, 9.91GHz

OPERATING FEATURES	
Alarm period of	2.5 seconds
Detection Speed	0.3 - 3m/s
Operating Temperature	-30°C to +70°C
Storage Temperature	-40°C to +80°C

OPTICAL	
White Light Filter	6500 Lux
Optics	Sealed
Lens	Fresnel array, 'Grooves in' infrared
compensated	
Protection	Ultraviolet Light Filter
Tilt Adjustment	0° – 12°

MOUNTING	
Optimum Coverage Height	1.8-2.4m

Dimensions

178mm
69mm
50mm

Boxed Dims   83x98x32mm
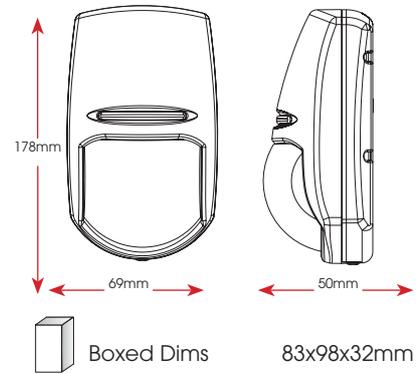
Applications

Features	Applications
Anti-masking detection	Ideal in high security environments where there may be a significant risk of masking. An area immediately in front of the KX15DTAM is monitored continuously and separately from its normal mode. Any intrusion into this quiet area activates the anti masking process.
Blue Wave Technology (BWT)	This further enhances the detector's immunity to infrared noise in the environment. BWT comprises of 2 key components: 1. The new 3D optics system enables perfect focusing of the infrared signal onto the pyro-electric sensor. This allows BWT to clearly identify the positive and negative signal edges. 2. Powerful software embedded into a microprocessor is used to process the received information from the pyro-electric sensor. The result of this combination is lower infrared signal noise amplification and therefore better immunity. 3. A blue LED on the KX digital detectors signifies Blue Wave Technology.

Volumetric

2.4m
15m

Anti masking

Side View

Mircowave coverage

Quiet area

Maximum range of anti-mask detection

Proximity to non security risk movement can take place

0-1 m

Brackets

Wall Bracket   Ceiling Bracket
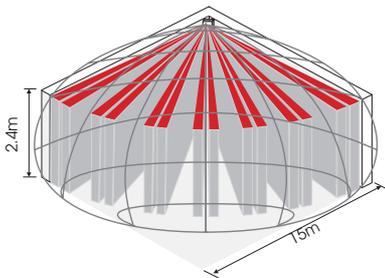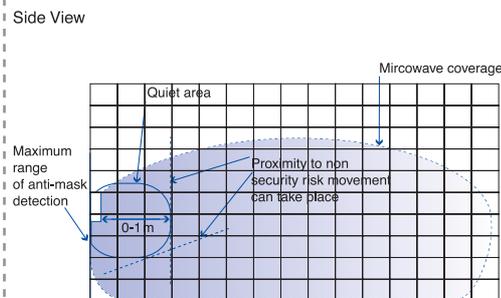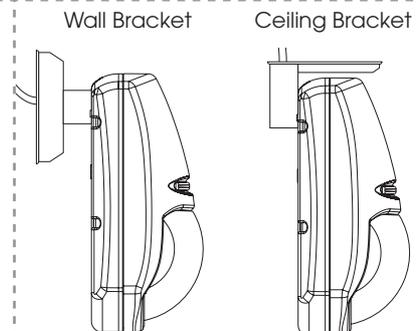
COMPLIANCE		PYRONIX PRODUCT CODE		PACKING INFORMATION	
Europe	CE	FPKX15DTAM		Min Pack:	10
				Accessories:	N/A
				Colour:	White
				Casing:	3mm ABS Electrostatic Shielded
				Warranty:	5 Years
				Manufactured:	UK

For use in EN50131-1 Systems - Environmental Class 3 Security Grade 3

As part of the continued development programme
specifications may change.