

# INTERNAL DETECTORS

Wired and two-way wireless grade 2 and 3 internal detectors

An extensive range of internal detectors utilising the latest Pyronix patented technologies for residential, commercial and light industrial use.

The KX range of Passive Infrared Detectors (PIRs) are ideal for residential installs, delivering detection up to 30m, animal immunity up to 25kg, auto sensitivity and more. There is also the compact pet immune Colt which has an unobtrusive style or the Break-Glass detector which monitors your windows. Any combination of these can cover lounges, kitchens, bedrooms, extended corridors, bedroom areas and more.

For light industrial and commercial use there is our KX Dual Technology range. As both sensors need to be triggered to sound the alarm, these are perfect for harsher environments, such as mechanics workshops, aisles or storage facilities. The range also includes fantastic anti-blocking and antimask variant for Grade 3 installs.



### KX Internal dual technology detectors

### Dual technology

Dual technology improves the reliability of the detectors as, to get an alarm condition, both PIR and Microwave technologies have to be activated simultaneously, thus increasing stability in hostile environments.

### Blue Wave Technology

Safeguards against false alarms and improving immunity to interference through advanced signal processing and 3D optics.

### Digital temperature compensation

Digital temperature compensation digitally adjusts the sensitivity of the detectors, maintaining the detectors specified range when the background temperature is near to body temperature.

### Anti-cloaking technology

AND/OR anti-cloaking technology gives priority to the microwave sensor under certain conditions, such as an intruder wearing clothing with infrared cloaking properties, maintaining performance.\*

### Independent Floating Thresholds

IFT technology (Independent Floating Thresholds) ensures that the alarm thresholds are always kept within predetermined limits, eliminating electrical environmental disturbances.

### Automatic sensitivity

The detector is able to self-adapt to changing environmental conditions, ensuring stability and intruder catch performance is maintained.

### Anti-masking (anti-spray)

Adjustable anti-masking technology offers unique protection against attempts to mask the PIR or microwave and detects masking with a variety of materials, such as, cardboard, duct tape, spray, lacquer or aluminium foil.\*

### **DEOL** resistors

On board DEOL resistors reduce installation time. The range of values covers the majority of systems.\*

### Different microwave frequencies

Avoids interference (cross-talk) that can occur when two detectors with microwave modules in them are installed within close proximity of each other. This optimises detector stability.

### Anti-blocking technology

Any attempt to block the field of view is detected. This allows the detector to send a signal to the panel to inform it that the detection area is being blocked, and must be removed before the system is set.\*

# KX internal dual technology detectors









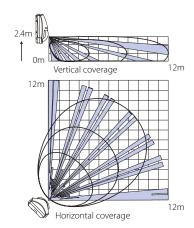


	KX12DT-WE	KX10DTP-WE	KX15DTAM	KX15DT	KX10DTP
			Volumetric,		
Coverage	Volumetric	Volumetric	Curtain, Long rage	Volumetric	Volumetric
Maximum range	12m	10m	15m/18m/30m	15m	10m
Optimal installation height	1.8-2.4m	1.8-2.4m	1.8-2.4m	1.8-2.4m	1.8-2.4m
Creep-zone protection	✓	×	✓	✓	x
Key features					
Adjustable anti-masking (anti-spray)	×	x	✓	×	×
Anti blocking technology	×	×	✓	×	×
Animal immune	×	Up to 24kg	×	×	Up to 24kg
Blue Wave Technology	✓	✓	✓	✓	✓
Automatic sensitivity	✓	✓	✓	✓	✓
Digital temperature compensation	✓	✓	✓	✓	✓
Anti-cloaking technology	×	×	Anti-Blocking	And/or	And/or
Separate indication: microwave, PIR and alarm	✓	✓	✓	✓	✓
3 microwave frequencies to avoid interference	✓	✓	✓	✓	✓
DEOL resistors on board	x	x	✓	✓	✓
Tamper protection included	✓	✓	✓	✓	✓
Signal Strength Indicators (SSI)	✓	✓	n/a	n/a	n/a
Wired					
Power supply		-	9-	16 DC (12DC nomin	al)
Current consumption at rest		-		23mA	
Current consumption in alarm		-		30mA	
Relay type		-		Solid state	
Output relay		-	60	DC, 50mA protection	on
Tamper terminal		-	12DC max, 50mA max		X
Wireless electrical specifications					
Transmission frequency	868MHz, FN	A transceiver		-	
Transmission method	128bit encrypte	ed radio protocol	col -		
Range in open space		00m		-	
3V lithium battery included	2x Cl	R123A	-		
Minimum battery life (years)		2		-	
Electrical specifications					
RFI immunity from continuous wave (CW), modulated wave (AM) and pulse (PM) 80-2700MHz	25	V/m		25 V/m	
Microwave frequency	10.515, 10.52	25, 10.535GHz	10.	515, 10.525, 10.5350	SHz
Alarm response		-		2.5 second	
Detection speed	0.3 -	3m/s		0.3 - 3m/s	
Direct light filter	>650	00 Lux		6500 Lux	
Optics	Se	aled		Sealed	
Geometric lens configuration	3	BD		3D	
Other details					
Operating   storage temperature		-20°C/+50°C	-30	°C / 50°C   -40°C / 7	0°C
Weight		35g		125g	
Dimensions		9x59mm		117 x 69 x 55 mm	
Warranty	2 y	rears		5 years	
Accessories					
Wall/ceiling brackets included (KXBRACKET-C, KXBRACKET-W)	Sold separately	Sold separately	<b>√</b>	✓	✓
Long range and curtain lenses included (KX30-LR e KX18-LC)	Sold separately	Sold separately	<b>√</b>	×	×
Bracket back tamper kit included	X	x	✓	×	×
Certification					
Electrical conformity	CE	CE	CE	CE	CE
EN50131	Grade 2	Grade 2	Grade 3	Grade 2	Grade 2
Environmental class	II .	ll	II .	II	II
<b>@</b> ((()	CA12.01483	CA12.01484	CA12.01176	CA12.01175	CA12.01425

# KX internal dual technology detectors

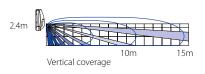
### Lens diagrams

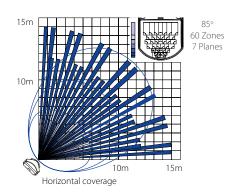
### KX12DT-WE



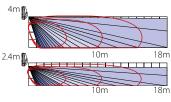
### KX15DT - KX15DTAM

### Volumetric lens 15m

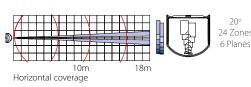




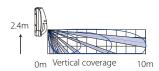
### KX15DTAM

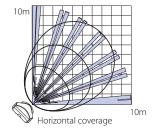


Vertical coverage



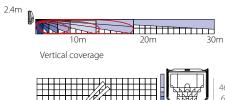
### KX10DTP-WE & KX10DTP

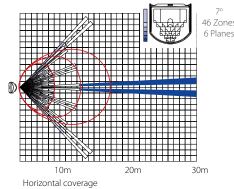




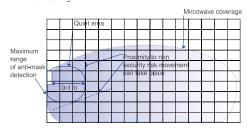
### KX15DTAM long range

Long range lens 30m





Anti-Masking



### Accessories

Accessories					
1	KXBRACKET-C	Ceiling bracket for the KX range (10pcs)		KX15-VL	Replacement volumetric lens for KX 15m (3pcs)
3	KXBRACKET-W	Wall bracket for the KX range (10pcs)	0	KX-TAMPER	Tamper kit for the KX brackets (10pcs)
	KX30-LR	Replacement long range lens for KX 30m (3pcs)	i	BATT-CR123A	Replacement 3V lithium battery CR123A



### KX internal PIR range detectors

### Blue Wave Technology

Safeguards against false alarms and improving immunity to interference through advanced signal processing and 3D optics.

### Digital temperature compensation

Digital temperature compensation digitally adjusts the sensitivity of the detectors, maintaining the detectors specified range when the background temperature is near to body temperature.

### Optical 3D system

Allows for better focusing of areas to improve the detection of moving targets and ensure more precise signals can be received from the PIR. The 3D system also allows protects of the area below the detector (creep zone).

### Independent Floating Thresholds

IFT technology (Independent Floating Thresholds) ensures that the alarm thresholds are always kept within predetermined limits, eliminating electrical environmental disturbances.

### Automatic sensitivity

The detector is able to self-adapt to changing environmental conditions, ensuring stability and intruder catch performance is maintained.

### **DEOL** resistors

On board DEOL resistors reduce installation time. The range of values covers the majority of systems.\*

#### 3mm ABS plastics

Detector housings are consistent throughout the range of KX detectors and ensure great resistance to environmental factors to maintain consistent performance over long periods of time.

### Ceiling mount technology

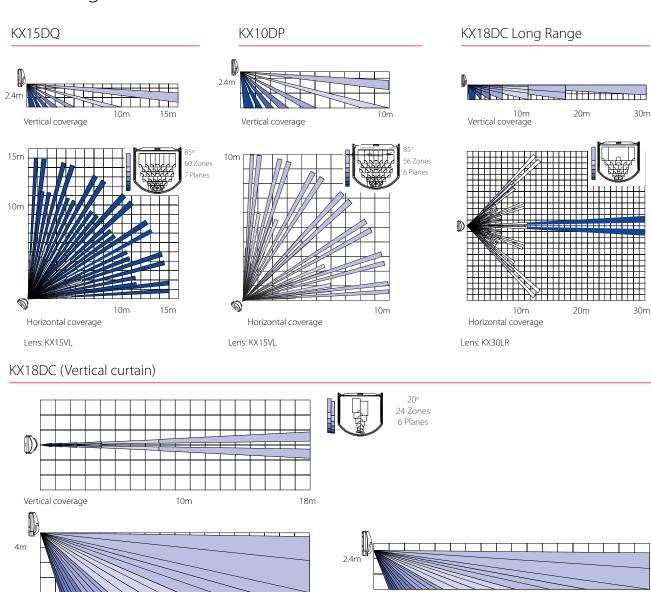
Combines a quad interlocking sensor and the 360 degree optical system, to provide large volumetric coverage at all installation heights up to 4m.

# KX internal PIR range detectors

	KX15DQ	KX10DP	KX18DC	
Optical and range features				
Volumetric coverage: 85 degree, 7 planes, 60 zones	✓	×	×	
Pet detection: 85 degree, 6 planes, 56 zones	×	···	×	
Curtain coverage: 20 degree, 6 planes, 46 zones	×	×		
Long range coverage: 20 degree, 6 planes, 24 zones	×	×	· · · · · · · · · · · · · · · · · · ·	
Maximum range Optimal installation height	15m	10m	18m / 30m LR	
Optimal installation height	1.8-2.4m ✓	1.8-2.4m <b>x</b>	Max 4m / 1.8-2.4m  ✓	
Creep-zone protection	•	*	<b>v</b>	
Key features				
Animal immune	×	24kg	x	
Blue Wave Technology	✓	✓	✓	
Automatic sensitivity	✓	✓	✓	
Digital temperature compensation	✓	✓	✓	
Optical quad	✓	×	×	
DEOL resistors on board	✓	✓	✓	
Tamper protection included	✓	✓	✓	
Electrical specifications				
Power supply		9-16 DC (12DC nominal)		
Current consumption at rest	11mA			
Current consumption in alarm		13mA		
Relay type	Solid state			
Outputs relay T		60DC, 50mA protection		
Tamper terminal		12DC max, 50mA max		
RFI immunity from continuous wave (CW), modulated wave (AM) and pulse (PM) 80-2700MHz		25 V/m		
Alarm response		2.5 seconds		
Detection speed		0.3 - 3m/s		
Direct light filter		6500 Lux		
Optics		Sealed optics		
Geometric lens configuration		3D		
Other details				
Operating   storage temperature		-30°C -50°C   -40°C - 70°C		
Weight		125g		
Dimensions		117 x 69 x 55 mm		
Warranty	5 years			
Accessories				
Ceiling bracket included, KXBRACKET-C	<b>√</b>	<b>✓</b>	✓	
Wall bracket included, KXBRACKET-W	· ✓	<u> </u>	✓	
Additional long range lens included, KX30-LR	×	×	<b>√</b>	
Certification and warranty				
Electrical conformity	CE	CE	CE	
EN50131	Grade 2	Grade 2	Grade 2	
Environmental class	II		II	
<b>@</b> ((()	CA12.01172	CA12.01173	CA12.01174	

# KX internal PIR range detectors

### Lens diagrams



### Accessories

Horizontal coverage

10m

7	KXBRACKET-C	Ceiling bracket for the KX range (10pcs)	KX30-LR	Replacement long range lens for KX 30m (3pcs)
3	KXBRACKET-W	Wall bracket for the KX range (10pcs)	KX15-VL	Replacement volumetric lens for KX 15m (3pcs)
	KX18-LC	Replacement curtain lens for KX 18m (3pcs)	KX-TAMPER	Tamper kit for the KX brackets (10pcs)

18m

10m

18m



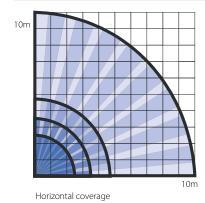
# Colt range



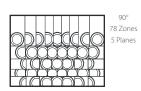
### COLT10DL

	COLITODE
Optical and range features	
Volumetric coverage: 90 degree, 56 zone and 5 planes	✓
Maximum range	10m
Optimal installation height	1.8-2.4m
Key features	
Animal immune	Up to 10kg
Digi logic technology	✓
Adjustable sensitivity	✓
Tamper protection	✓
Electrical features	
Operating voltage	9 - 16 VDC
Quiescent current consumption	15mA at 12V
Relay outputs	SELV limits, 60Vdc, 50mA (42.4Vac peak)
Tamper switch	12V 50mA
Other details	
Operating   storage temperature	-30°C to 70°C   -40°C to 80°C
Weight	58g
Dimensions	82 x 50 x 41mm
Warranty	5 years
Certifications	
Electrical conformity	CE
EN50131	Grade 2
Environmental class	II
N Pyronix	Self-certified

### Lens diagrams







### Accessories

	Lens 5	Replacement lens. 90 degree, 5 planes, 74 zones (3pcs)
3	KXBRACKET-C	Ceiling bracket included, KXBRACKET-C (10pcs)
	KXBRACKET-W	Wall bracket included, KXBRACKET-W (10pcs)

# Internal ceiling mount PIR detector - Octopus EP



OCTOPUS EP

✓
12m
2,4-4m
✓
✓
✓
✓
✓
9-16DC (12DC nominal)

Grade 2

Self-certified

Independent Floating Threshold (IFT) technology	✓
Adjustable sensitivity	✓
Automatic temperature compensation	✓
Power supply	9-16DC (12DC nominal)
Relay type	Solid state
Outputs relay	60DC, 50mA protection
Tamper terminal	12DC max, 50mA max
RFI immunity from continuous wave (CW), modulated wave (AM) and pulse (PM) 80-2700MHz	10 V/m
Alarm response	2.5 seconds
Detection speed	0.3 - 3m/s
Geometric lens configuration	3D
Warranty	5 years
Certification	
Electrical conformity	CE

### Lens diagrams

Electrical conformity EN50131

Environmental class

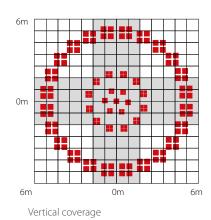
Pyronix

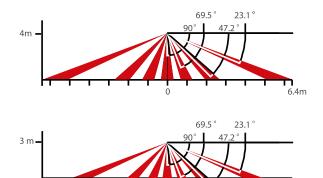
Optical and range features

Maximum range
Optimal installation height
Ceiling mount PIR
Key features

Volumetric coverage: 360 degree, 156 zone, 3 planes

Quad-interlocking element pyroelectric sensor





Horizontal coverage

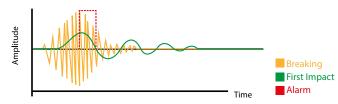
# Breakglass detectors





Designed for most types of glass         ✓         ✓           Coverage diameter         8m         6m           Angle of coverage         360°         360°           Digital technology         ✓         ✓           Dual confirmation detection - first impact         ✓         ✓           Detects the frequency of glass flexing         ✓         ✓           Detects the frequency of glass breaking         ✓         ✓           Option to Latch Alarm Relay         ✓         ✓           Electrical specifications         30mA (a 13.80°)           Current consumption at rest         30mA (a 13.80°)           Current consumption in alarm         28m A (a 13.80°)           Outputs relay         60DC, 50mA protection           Tamper terminal         12V max, 50mA max           RFI immunity from continuous wave (CW), modulated wave (AM) and pulse (PM) 80-2700MHz         10V/m           Glass type         Float, piano, reinforced, laminated, leaded, double glazed           Glass thickness         24mm to 64mm           Glass glimensions         0.3 m x 0.3 m to 3 m x 3 m           Detection speed         0.2 - 3 m/s           Installation height         2.4 - 8m           Other details         90 x 90 x 30mm           Weight		BG2000	BG16DF
Coverage diameter         8m         6m           Angle of coverage         360°         360°           Digital technology         ✓         ✓           Dual confirmation detection - first impact         ✓         ✓           Detects the frequency of glass flexing         ✓         ✓           Detects the frequency of glass breaking         ✓         ✓           Detects the frequency of glass breaking         ✓         ✓           Option to Latch Alarm Relay         ✓         ✓           Detect style         Sepecifications         ✓           Electrical specifications           Power         9-16DC (12V nominal)         ✓           Current consumption at rest         30mA (a 13.8V)         ✓           Current consumption in alarm         28mA (a 13.8V)         ✓           Outputs relay         60DC, 50mA protection         Total restrictions           RFI immunity from continuous wave (CW), modulated wave (AM) and pulse (PM) 80-2700MHz         10V/m         Total restrictions           Glass type         Float, piano, reinforced, laminated, leaded, double glazed         Glass time sink restrictions         Total restrictions           Other details         0.2 - 3m/s         Total restrictions         Total restrictions           Other detai	Key features		
Angle of coverage         360°         360°           Digital technology         ✓         ✓           Detects the frequency of glass flexing         ✓         ✓           Detects the frequency of glass flexing         ✓         ✓           Detects the frequency of glass breaking         ✓         ✓           Installation Test Mode         ✓         ✓           Option to Latch Alarm Relay         ✓         ✓           Electrical specifications         Server         9-16DC (12V nominal)           Current consumption at rest         30mA (a 13.8V)         9-16DC (12V nominal)           Current consumption in alarm         28mA (a 13.8V)         9-16DC (12V nominal)           Current consumption in alarm         12V max, 50mA protection         10V max, 50mA protection           Tamper terminal         12V max, 50mA protection         10V max, 50mA protection           RFI immunity from continuous wave (CW), modulated wave (AM) and pulse (PM) 80-270MHz         10V max, 50mA max           Glass type         Float, piano, reinforced, laminated, leaded, double glazed           Glass dimensions         0,3mx 0,3m to 3m x 3m           Alarm duration         2,5 seconds           Detection speed         0,2 - 3m/s           Installation height         100g           Orber	Designed for most types of glass	✓	✓
Digital technology	Coverage diameter	8m	6m
Dual confirmation detection - first impact  Detects the frequency of glass flexing  Potects the frequency of glass flexing  Potects the frequency of glass breaking  Potects the frequency of glass breaking  Potential stallation Test Mode  Potential specifications  Power  Current consumption at rest  Current consumption in alarm  Power  P	Angle of coverage	360°	360°
Detects the frequency of glass flexing	Digital technology	✓	✓
Detects the frequency of glass breaking  Installation Test Mode  Option to Latch Alarm Relay  Electrical specifications  Power  9-16DC (12V nominal)  Current consumption at rest  30mA (a 13.8V)  Current consumption in alarm  28mA (a 13.8V)  Outputs relay  60DC, 50mA protection  Tamper terminal  12V max, 50mA max  RFI immunity from continuous wave (CW), modulated wave (AM) and pulse (PM) 80-2700MHz  Glass type  Float, piano, reinforced, laminated, leaded, double glazed  Glass thickness  24mm to 6.4mm  Glass dimensions  Alarm duration  2.5 seconds  Detection speed  0.2 - 3m/s  Installation height  Other details  Operating   storage temperature  100g  Dimensions  0.9x 90 x 30mm  Warranty  Certifications	Dual confirmation detection - first impact	✓	✓
Installation Test Mode Option to Latch Alarm Relay  ***  ***  ***  **  **  **  **  **  *	Detects the frequency of glass flexing	✓	✓
Detectrical specifications  Power 9-16DC (12V nominal) Current consumption at rest 30mA (a 13.8V) Current consumption in alarm 28mA (a 13.8V) Outputs relay 60DC, 50mA protection Tamper terminal 12V max, 50mA max RRFI immunity from continuous wave (CW), modulated wave (AM) and pulse (PM) 80-2700MHz 10V/m Glass type Float, pianor, reinforced, laminated, leaded, double glazed Glass thickness 24mm to 64mm Glass dimensions 0.3m x 0.3m to 3m x 3m Alarm duration 2.5 seconds Detection speed 0.2 - 3m/s Installation height 2.4-8m  Other details Operating   storage temperature -10 - 50   -20 - 70 Weight 100g Dimensions 90 x 90 x 90 x 30mm Warranty 2 years  Certifications	Detects the frequency of glass breaking	✓	✓
Electrical specifications  Power 9-16DC (12V nominal) Current consumption at rest 30mA (a 13.8V) Current consumption in alarm 28mA (a 13.8V) Outputs relay 60DC, 50mA protection Tamper terminal 12V max, 50mA max RFI immunity from continuous wave (CW), modulated wave (AM) and pulse (PM) 80-2700MHz 10 V/m Glass type Float, piano, reinforced, laminated, leaded, double glazed Glass thickness 2.4mm to 6.4mm Glass dimensions 0.3m x 0.3m to 3m x 3m Alarm duration 2.5 seconds Detection speed 0.2 - 3m/s Installation height 2.4-8m  Other details Operating   storage temperature -10 - 50   -20 - 70 Weight 100g Dimensions 90 x 90 x 30mm Warranty 2 years  Certifications	Installation Test Mode	✓	✓
Power 9-16DC (12V nominal) Current consumption at rest 30mA (a 13.8V) Current consumption in alarm 28mA (a 13.8V) Outputs relay 60DC, 50mA protection Tamper terminal 12V max, 50mA max RFI immunity from continuous wave (CW), modulated wave (AM) and pulse (PM) 80-2700MHz 10V/m Glass type Float, piano, reinforced, laminated, leaded, double glazed Glass thickness 2,4mm to 6,4mm Glass dimensions 0,3m x 0,3m to 3m x 3m Alarm duration 2.5 seconds Detection speed 0,2-3m/s Installation height 2,4-8m  Other details Operating   storage temperature -10-50 -20-70 Weight 100g Dimensions 90 x 90 x 30mm Warranty 2 years  Certifications	Option to Latch Alarm Relay	✓	✓
Current consumption at rest 30mA (a 13.8V) Current consumption in alarm 28mA (a 13.8V) Outputs relay 60DC, 50mA protection Tamper terminal 12V max, 50mA max RFI immunity from continuous wave (CW), modulated wave (AM) and pulse (PM) 80-2700MHz 10V/m Glass type Float, piano, reinforced, laminated, leaded, double glazed Glass thickness 2.4mm to 6.4mm Glass dimensions 0.3m x 0.3m to 3m x 3m Alarm duration 2.5 seconds Detection speed 0.2 - 3m/s Installation height 2.4-8m  Other details Operating   storage temperature 10.0g Weight 10.0g Dimensions 90 x 90 x 30mm Warranty 2 years  Certifications	Electrical specifications		
Current consumption in alarm  Outputs relay  Outputs relay  RFI immunity from continuous wave (CW), modulated wave (AM) and pulse (PM) 80-2700MHz  RFI immunity from continuous wave (CW), modulated wave (AM) and pulse (PM) 80-2700MHz  Glass type  Float, piano, reinforced, laminated, leaded, double glazed  Float, piano, reinforced, laminated, leaded, double glazed  Float, piano, reinforced, laminated, leaded, double glazed  Glass thickness  2.4mm to 6.4mm  6.15 seconds  Detection speed  Ou.2 - 3m/s  Installation height  Other details  Operating   storage temperature  Poperating   storage temperature  Other details  Operating   storage temperature  Poperating   storage temperature  Other details  Order de	Power	9-16DC (12	V nominal)
Outputs relay 60DC, 50mA protection Tamper terminal 12V max, 50mA max RFI immunity from continuous wave (CW), modulated wave (AM) and pulse (PM) 80-2700MHz 10 V/m Glass type Float, piano, reinforced, laminated, leaded, double glazed Glass thickness 2.4mm to 6.4mm Glass dimensions 0.3m x 0.3m to 3m x 3m Alarm duration 2.5 seconds Detection speed 0.2 - 3m/s Installation height 2.4-8m  Other details Operating   storage temperature -10 - 50   -20 - 70 Weight 100g Dimensions 90 x 90 x 30mm Warranty 2 years  Certifications	Current consumption at rest	30mA (	a 13.8V)
Tamper terminal 12V max, 50mA max RFI immunity from continuous wave (CW), modulated wave (AM) and pulse (PM) 80-2700MHz 10 V/m Glass type Float, piano, reinforced, laminated, leaded, double glazed Glass thickness 2.4mm to 6.4mm Glass dimensions 0.3m x 0.3m to 3m x 3m Alarm duration 2.5 seconds Detection speed 0.2 - 3m/s Installation height 2.4-8m  Other details Operating   storage temperature -10 - 50   -20 - 70 Weight 100g Dimensions 90 x 90 x 30mm Warranty 2 years  Certifications	Current consumption in alarm	28mA (	a 13.8V)
RFI immunity from continuous wave (CW), modulated wave (AM) and pulse (PM) 80-2700MHz  Glass type Float, piano, reinforced, laminated, leaded, double glazed Glass thickness 2.4mm to 6.4mm Glass dimensions 0.3m x 0.3m to 3m x 3m Alarm duration 2.5 seconds Detection speed 0.2 - 3m/s Installation height 0.2 - 3m/s  Other details Operating   storage temperature -10 - 50   -20 - 70 Weight Dimensions Warranty Certifications	Outputs relay	60DC, 50mA protection	
Glass type     Float, piano, reinforced, laminated, leaded, double glazed       Glass thickness     2.4mm to 6.4mm       Glass dimensions     0.3m x 0.3m to 3m x 3m       Alarm duration     2.5 seconds       Detection speed     0.2 - 3m/s       Installation height     2.4-8m       Other details       Operating   storage temperature     -10 - 50   -20 - 70       Weight     100g       Dimensions     90 x 90 x 30mm       Warranty     2 years       Certifications	Tamper terminal	12V max, 50mA max	
Glass thickness     2.4mm to 6.4mm       Glass dimensions     0.3m x 0.3m to 3m x 3m       Alarm duration     2.5 seconds       Detection speed     0.2 - 3m/s       Installation height     2.4-8m       Other details       Operating   storage temperature     -10 - 50   -20 - 70       Weight     100g       Dimensions     90 x 90 x 30mm       Warranty     2 years       Certifications	RFI immunity from continuous wave (CW), modulated wave (AM) and pulse (PM) 80-2700MHz	10\	//m
Glass dimensions         0.3m x 0.3m to 3m x 3m           Alarm duration         2.5 seconds           Detection speed         0.2 - 3m/s           Installation height         2.4-8m           Other details           Operating   storage temperature         -10 - 50   -20 - 70           Weight         100g           Dimensions         90 x 90 x 30mm           Warranty         2 years	Glass type	Float, piano, reinforced, lami	nated, leaded, double glazed
Alarm duration         2.5 seconds           Detection speed         0.2 - 3 m/s           Installation height         2.4-8m           Other details           Operating   storage temperature         -10 - 50   -20 - 70           Weight         100g           Dimensions         90 x 90 x 30mm           Warranty         2 years	Glass thickness	2.4mm t	o 6.4mm
Detection speed         0.2 - 3 m/s           Installation height         2.4-8 m           Other details           Operating   storage temperature         -10 - 50   -20 - 70           Weight         100g           Dimensions         90 x 90 x 30 mm           Warranty         2 years           Certifications	Glass dimensions	0.3m x 0.3m	to 3m x 3m
Installation height 2.4-8m  Other details Operating   storage temperature -10 - 50   -20 - 70 Weight 100g Dimensions 90 x 90 x 30mm Warranty 2 years  Certifications	Alarm duration	2.5 se	conds
Other details Operating   storage temperature -10 - 50   -20 - 70 Weight 100g Dimensions 90 x 90 x 30mm Warranty 2 years Certifications	Detection speed	0.2 -	3m/s
Operating   storage temperature -10 - 50   -20 - 70 Weight 100g Dimensions 90 x 90 x 30mm Warranty 2 years  Certifications	Installation height	2.4	-8m
Weight 100g Dimensions 90 x 90 x 30mm Warranty 2 years  Certifications	Other details		
Dimensions 90 x 90 x 30mm Warranty 2 years  Certifications	Operating   storage temperature	-10 - 50	-20 - 70
Warranty 2 years  Certifications	Weight	10	0g
Certifications	Dimensions	90 x 90	x 30mm
	Warranty	2 ye	ears
Electrical conformity CE CE	Certifications		
	Electrical conformity	CE	CE

### Combination of both frequencies (Alarm)



# Breakglass tester

	BG-TESTER
Key features	
Reproduces the frequency of first impact	✓
Reproduces the frequency of glass flexing	✓
Reproduces the frequency of glass breaking	✓
Warranty	2 years
Certifications	
Electrical conformity	CE





# EXTERNAL DETECTORS

Wired and two-way wireless detectors for residential and commercial protection

There are two different options within the XD range: a high mount XDH for volumetric coverage and a low mount XDL for perimeter protection.

The detectors combine 1 microwave and 2 PIR sensors to ensure maximum stability in an external environment.

The wired XD detectors also utilise high security features such as anti-masking (anti-spray) and anti-blocking technology.

For ease of use, all detectors include a walk-test buzzer to ensure they have been correctly installed. On the wireless XD detectors this can be enabled by a switch on the detector or by activating walk-test mode on the control panel.



### External detector technology

### XDH detectors (H - high mount)

High mount detectors are designed to be installed at 2.4m. The optics of the XDH detectors are designed to give optimum volumetric coverage of the protected area, using 78 zones, 5 planes and 85 degree coverage.

### XDL detectors (L - low mount)

Low mount detectors are designed to be installed at 1.2m. The optics of the XDL detectors are designed to give optimum curtain coverage of the protected area, using 6 zones, 1 plane and 14 degree coverage.

### Triple technology detection

Helping to reduce false alarms by using a tri-signal detection logic, in which the alarm is only generated when the two PIR and microwave sensors are all activated in a given period of time.

### Automatic sensitivity

The detector is able to self-adapt to changing environmental conditions, ensuring stability and intruder catch performance is maintained.

### Digital temperature compensation

Digitally adjusts the sensitivity of the detectors, maintaining the specified range when the background temperature is near to body temperature.

### Independent Floating Thresholds

IFT technology (Independent Floating Thresholds) ensures that the alarm thresholds are always kept within predetermined limits, eliminating electrical environmental disturbances.

### Anti-blocking technology

Ensures that any attempt to block the field of view is detected. This allows the detector to send a signal to the panel, informing it that the detection area is being blocked.

#### **DEOL** resistors

On board DEOL resistors reduce installation time. The range of values covers the majority of systems.

### Anti-masking (anti-spray)

Adjustable anti-masking technology offers unique protection against attempts to mask the PIR or microwave and detects masking with a variety of materials, such as, cardboard, duct tape, spray, lacquer or aluminium foil.\*

### Different microwave frequencies

Avoids interference (cross-talk) that can occur when two detectors with microwave modules in them are installed within close proximity of each other. This optimises detector stability.

#### Weatherproof technologies

Ensuring the detector is not affected by adverse weather conditions. These technologies employ the use of polycarbonate housing, sealed optics, humidity protection, as well as a heavy duty ultraviolet filter.

### Vegetation sway elimination

Allowing the detector to distinguish between regular movement of trees and plants with the movements of an intruder to ensure maximum false alarm protection.

# Two-way wireless external detectors







Grade 2

Self-certified

	VDU10TT WE	VDI 15TT W/F 6 : 04 2047
	XDH10TT-WE	XDL15TT-WE Coming Q1 2017
Features		
Installation type	XDH	XDL
Optimal installation height	2.4m	1.2m
Coverage	Volumetric	Curtain
Maximum range	10m	15m
Animal immunity	10kg	25kg
Key features		
Two-way wireless		✓
Tri-signal detection logic	2 x infrared	d + 1 x microwave
Automatic sensitivity		✓
Digital IFT technology		✓
Temperature compensation		Digital
3 LED indication for microwave, infrared and alarm		✓
3 different microwave frequencies		✓
Integrated walk test buzzer		✓
Tamper		✓
Electrical specifications		
Transmission frequency	868MHz,	, FM Transceiver
Transmission method	128bit encry	pted radio protocol
Range in open space		1600m
3V lithium battery included	2x 3V 5/	AHr (BATT-ES1)
Minimum battery life (years)		3
Plastic housing material	Poly	vcarbonate
PCB	Ant	i-humidity
Optics		Sealed
Lens UV protection	J	JV Filter
Environmental protection grade		IP55
Other details		
Operating   storage temperature	-30°C/+55	5°C   -40°C/+50°C
Weight		500g
Dimensions	180mm x	80mm x 105mm
Warranty		2 years
Accessories		
2 flexible masking grids	✓	x
2 fixed masking grids to create curtain protection	✓	✓
Certification		
CE declaration	CE	CE
	<u> </u>	

### Accessories

Environmental class

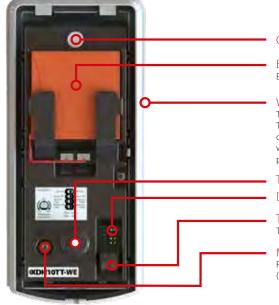
EN50131

	XD-WALLBRACKET	Adjustable wall bracket +/- 45 degrees with anti-tamper protection. This allows for better volumetric coverage.	BATT-ES1	2x Lithium batteries. Used with Deltabell-WE, XD wireless detectors and Keypad, 3v, 5Ah
1	XD ADAPTER	45 degree adapter for use with the XD-WALLBRACKET. This allows the XD detectors to be positioned at 90 degrees to the wall for protection of walls.	XD-LENS 5	Volumetric lens for the XDH. Installation 2.4m, 85 Degrees, 10m detection distance. (3pcs)
	XD FIXEDBRACKET	Wall bracket with rear tamper. This can be used to create 30m coverage protection of external walls.	XD-LENS 4	Long range lens for the XDL series of detectors. 14 degree coverage, 6 zone edges, 1 plane. (3pcs)

Grade 2

Self-certified

### Wireless coverage patterns and features



#### One-push-to-learn button

#### **Batteries**

Extra power pack 2 x 3V Lithium 4700mAh

#### Weatherproof housing

The housing of the XD detectors is made from 3mm thick polycarbonate plastic. This provides a robust barrier to the external environment, protecting the PCB and components from the effects of adverse weather conditions. The housing is made with a UV coating which stops the yellow aging of the plastic over time. The hood provides protection to snow, rain and other environmental disturbances.

### Tamper button

**DIP** switches

#### amper

Terminal input for bracket

#### Microwave potentiometer

For altering microwave range: 0m to 15m (XDL) 0m to 10m (XDH)

#### See in action



### Installation in 4 steps

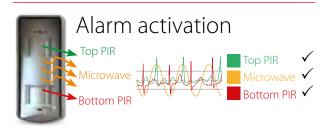
Step 1: Learn the detector and program the zone

Step 2: Perform a signal strength test

Step 3: Install the detector

**Step 4:** Perform a walk test to check the correct installation

### Tri-signal detection logic



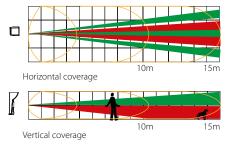
# XDL detectors / L - Low mount installation - 1.2m

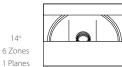
The optics of the XDL15TT-WE are designed to be installed at a low mounting height of 1.2m, giving a larger immunity to animals; 6 zones, 1 plane, and coverage of 14 degrees provides the best perimeter protection.

# XDH detectors / H - High mount installation - 2.4m

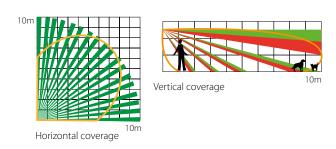
The optics of the XDH10TT-WE detector are specifically designed for maximum protection to a height of 2.4m installation: 78 zones, 5 planes, and the 90 degree coverage provides complete volumetric coverage of the protected area.

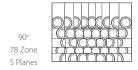
### XDL15TT-WE lens diagrams with the XD-LENS4





### XDH10TT-WE lens diagrams with the XD-LENS5





### Wired external detectors

### External tri-technology detectors





	XDH10TT-AM	XDL15TT-AM
Optical and range features		
Mounting height	XD High Mount	XD Low Mount
Optimal installation height	2.4m	1.2m
Adjustable anti-masking (anti-spray) technology	✓ · · · · ·	✓
Volumetric coverage	<i>,</i> ✓	x
Curtain coverage with fixed mask	x	
Maximum range	10m	15m
	10111	13111
Key features		
Anti-masking (anti-spray)	✓	✓
Anti-blocking technology	✓	✓
Animal immune	Up to 10kg	Up to 25kg
Triple detection logic: 2 x infrared + 1 x microwave	✓	✓
Automatic sensitivity	✓	✓
Independent Floating Threshold (IFT) technology	✓	✓
Digital temperature compensation	✓	✓
Separate indication: microwave, infrared, alarm	✓	✓
3 microwave frequencies to avoid interference	✓	✓
Integrated walk test buzzer	<b>√</b>	✓
DEOL resistors on board	✓	✓
Tamper protection included	✓	✓
Electrical specifications		
Relay output	3x SELV limit; 60DC 50mA (43.4AC at peak)	
Internal tamper	12DC 50mA front and rear	
Current consumption	23mA at rest/30mA in alarm	
Relay	Alarm NC, Tamper, Mask/Fault, Alarm NO	
Power	9-16DC, 13.8DC - 13.8DC nominal	
RFI immunity from modulating wave (AM) and pulse modulated (PM) 80-2700MHz	25 V/m	
RFI immunity from continuous wave (CW) 80-2700MHz	75 V/m	
Microwave frequency	9.87, 9.90, 9.91 GHz	
Direct light filter	>6500 Lux	
Optics	Sealed optics	
Geometric lens configuration	2D	
Protection	IP55	
Detection speed	0.25 - 3 m/s	
Other details		
Operating   storage temperature	-30/+50   -40/+70	
Weight	300g	
Dimensions	118 x 77 x 84mm	
Warranty	2 years	
Accessories		
2 adjustable masking lenses included	✓	x
2 fixed masking grids to create curtain protection	✓	x
Certifications		
Electrical conformity	CE	CE
EN50131	Grade 3	Grade 3
Environmental class	IV	IV
N Pyronix	Self-certified	Self-certified

### Wired coverage patterns and features





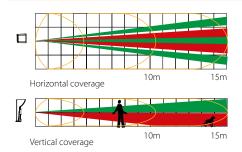
# XDL detectors / L - Low mount installation - 1.2m

The optics of the XDL15TT-AM are designed to be installed at a low mounting height of 1.2m, which gives a larger immunity to animals; 6 zones, 1 plane, and coverage of 14 degrees provide the best perimeter protection.

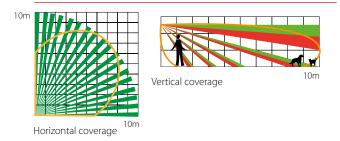
# XDH detectors / H - High mount installation - 2.4m

The optics of the XDH10TT-AM detector are specifically designed for maximum protection to a height of 2.4m installation: 78 zones, 5 planes, and the 90 degree coverage provide complete volumetric coverage of the protected area.

### XDL15TT-AM Lens diagrams with the XD-LENS4



### XDH10TT-AM Lens diagrams with the XD-LENS5



#### Accessories

