

# XDT200H

## INDOOR COMBINED PASSIVE INFRARED AND MICROWAVE DETECTOR FOR INTRUSION ALARM SYSTEMS

The XDT200H Professional Series PIR and Microwave detector is especially suited for indoor applications.

Digital signal processing (DSP), a dual pyroelectric PIR element and a microwave sensor provide the XDT200H with a perfect combination of high sensitivity and an ultra-low false alarm rate.

The powerful combination of digital signal processing and the latest extremely-stable signal amplification and filtering technology allows this device to respond efficiently to intrusion in the protected area and to deliver superior catch performance and precision.

DSP technology provides temperature compensation for perfect operation in the protected area.

The XDT200H is suitable for a vast range of residential and commercial applications.

Trouble-free configuration allows easy installation with various brands of intrusion control panels with diversified EOLR (balance resistance). This is the result of the configurable line balance option which can be set by inserting the required EOL resistors directly into the EOL connectors on-board the device.

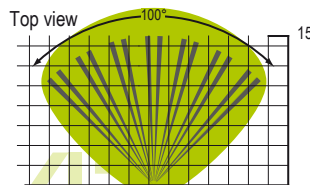
### MAIN FEATURES

The main features of the XDT200H are:

- Digital analysis of signals
- Detection range 15m
- Detection angle 100°
- Pulse count
- Automatic temperature compensation
- White light immunity
- Bypassable LEDs
- 3 signalling LEDs
- Anti-tamper and anti-dislodgement switches
- End Of Line resistors
- AND/OR function to trigger alarm
- "Smart-OR" function

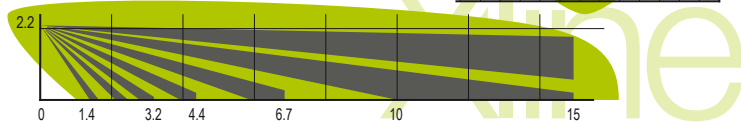
### TECHNICAL SPECIFICATIONS

Operating supply voltage	from 9 to 16V $\overline{---}$	Environmental conditions	from -10 to +55°C
Supply voltage	13.8V $\overline{---}$	Security grade	2
Stand-by current draw	16mA	Environmental class	II
Maximum current draw	20mA	Detection range (max)	15m
Sensor type	digital dual PIR, microwave module	Detection angle	100°
Detecting mode	infrared emission + doppler effect	Installation method	wall mount
Antenna type	plane antenna with FET-GaAs oscillator	Installation height	2.2m
MW frequency	10.525GHz	Size (HxLxD)	120x60x44mm
Alarm pulses	from 1 to 4	Weight	103g
Intrusion alarm output	N.C., 28V $\overline{---}$ , 100mA max	green LED	MW detection
Alarm relay pulse duration	5s	blue LED	alarm signal
Tamper output	N.C., 28V $\overline{---}$ , 100mA max	yellow LED	PIR detection



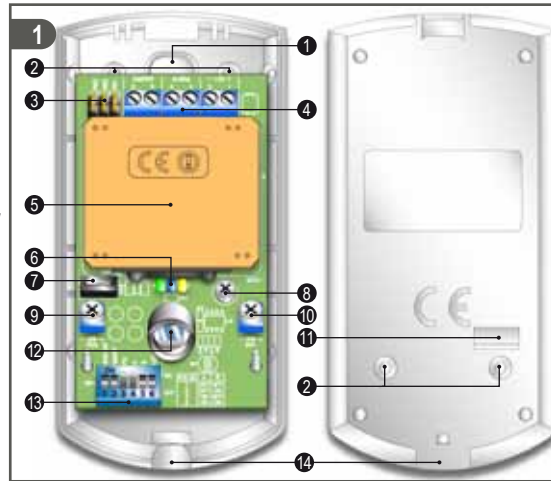
### DETECTION RANGE

Side view



### GENERAL VIEW

- Wire-entry
- Mounting screw locations
- EOL resistor connectors
- Terminal board
- MW sensor
- LEDs
- Anti-opening tamper
- PCB retaining screw
- MW sensitivity trimmer
- PIR sensitivity trimmer
- Anti-snatch tamper
- PIR sensor
- Configuration DIP switch
- Cover retaining screw location



### OPERATING PRINCIPLES

- On first 12V power up, the LEDs will blink and the detector will initialise the auto-test phase.
- Within 60 seconds the detector will stabilise and become operational and the LEDs will go Off. The microswitch 6 on the DIP switch enables the LEDs.

**Note:** The microswitch 6 influences the LEDs only, and in no way influences the functionality of the detector.

- If motion is detected in the protected area, the detector will trigger the alarm signal depending on AND/OR function, the blue LED will go On and the alarm contact will open for 5 seconds at least.

**"AND/OR" function:** function to select the way XDT200H triggers alarm

- AND**, PIR and MW sensors detect movement at the same time
- OR**, one of the two sensors detects movement

**Note:** The "OR" function does not comply with the EN 50131-2-4 requirements.

**"Smart-OR" function:** if this function is activated when the device is operating in "AND" mode, the alarm signal will activate even when only one of the two detectors senses continuous motion for at least 7 seconds.

- The microswitches 4 and 5 on the DIP switch are for alarm pulse number (from 1 to 4).
- The temperature in the protected area influences the performance of the PIR sensor. The MW sensor detection is influenced by moving or vibrating objects. The trimmers on-board the PCB will allow you to adjust detection sensitivity:
  - clockwise (+) increases the sensitivity (maximum 15 m)
  - anticlockwise (-) decreases the sensitivity (minimum 3 m)
- Any changes to the DIP switch configuration or any adjustments to detection sensitivity will be signalled by three fast blinks on the device LEDs.

### INSTALLATION

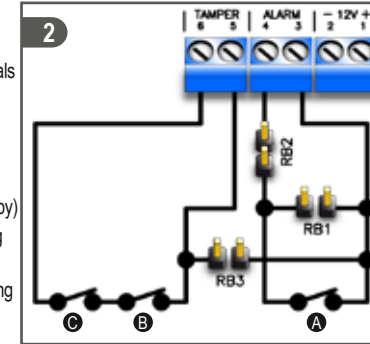
- Choose a suitable mounting location.
- Remove the retaining screw and detector cover.
- Remove the wire-entry and wall-plug knockouts, pull the wires through the wire entry and, using wall plugs, attach the mounting plate to the wall.
- Insert the EOL resistors on the connectors depending on the requested balancing.
- Complete the connections on the terminal board.
- Configure the microswitches on the DIP switch.
- Adjust the sensitivity of the sensors.
- Replace the detector cover and tighten the retaining screw.

**Notes:** Recommended installation height: 2.2m.

- Do not drill in the vicinity of electrical wiring or plumbing, etc.
- The detector should be located in place that is far from sources of interference, such as: reflective surfaces, direct air flow, air-conditioning systems, windows, steam, oil vapour, infrared sources, power lines, neon lamps and appliances which may cause temperature changes (heaters, ovens, refrigerators, etc.).
- Only one detector XDT200H should be installed in each room. When installing XDT200H detectors in different rooms, the detector placements should be at least 2 meters one from the other.
- Do not blind the field of detection of the sensor, even partially.
- The LEDs should be located over the lens.

### CONNECTORS

- +12V (1)** - Positive power supply
- 12V (2)** - Negative power supply
- ALARM (3-4)** - Alarm signal output terminals
- TAMPER (5-6)** - Tamper signal output terminals
- RB1 - RB2 - RB3** - EOL resistor connectors
- A** - Alarm signal contact (N.C. during standby)
- B** - Open-tamper signal contact (N.C. during standby)
- C** - Snatch-tamper signal contact (N.C. during standby)



### BALANCING

The following balancing table refers to INIM Electronics s.r.l. anti-intrusion control panels, such as SmartLiving.

Balancing	EOL resistor connectors			Terminals to be short-circuited
	RB3	RB2	RB1	
Normally Closed	/	0 (shorted)	/	/
Single balancing	/	6K8 $\Omega$	/	/
Double balancing	6K8 $\Omega$	6K8 $\Omega$	/	4 - 5
Double-zone balancing	/	0 (shorted) detector1 0 (shorted) detector2	3K9 $\Omega$ detector1 6K8 $\Omega$ detector2	3 detector1 - 4 detector2
Double-zone balancing with EOL	/	0 (shorted) detector1 3K9 $\Omega$ detector2	3K9 $\Omega$ detector1 6K8 $\Omega$ detector2	4 - 5 detector1, 4 - 5 detector2 6 detector1 - 3 detector2

### DIP SWITCH

Microswitch	Function	Microswitch	Function
1	Alarm trigger	4	Alarm pulse number selection
2	Smart-OR	5	OFF OFF ON ON OFF ON OFF ON
3	Not used	6	LED activation ON - LEDs working OFF - LEDs bypassed

### WARNING

- This detector must be installed in compliance with the laws and standards in force.
- Do not touch the electronic components as this may damage the circuits and reduce the reliability of the detector. If necessary, clean the detector with a soft cloth only.
- Install the detector strictly in accordance with the instructions in this leaflet.
- The device should be tested on a regular basis.

### DECLARATION OF CONFORMITY

**Lietuvių:** Šiuo Inim Electronics s.r.l. deklaruojame, kad šis XDT200H atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.  
**English:** Heresby, Inim Electronics s.r.l., declares that this XDT200H is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.  
**Nederlands:** Hierbij verklaart Inim Electronics s.r.l. dat het toestel XDT200H in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.  
**Norsk:** Inim Electronics s.r.l. erklærer herved at utstyret XDT200H er i samsvar med de grunnleggende krav og øvrige relevante krav i direktiv 1999/5/EF.  
**Polski:** Niniejszym Inim Electronics s.r.l. deklaruje że XDT200H jest zgodny z zasadniczymi wymaganiami i innymi właściwymi postanowieniami Dyrektywy 1999/5/EC.  
**Português:** Eu, Inim Electronics s.r.l., declaro que o XDT200H cumpre os requisitos essenciais e outras provisões relevantes da Directiva 1999/5/EC.  
**Română:** Prin prezenta, Inim Electronics s.r.l., declară că aparatul XDT200H este în conformitate cu cerințele esențiale și cu alte prevederi pertinente ale Directivei 1999/5/CE.  
**Svenska:** Denna utrustning är i överensstämmelse med de väsentliga kraven och andra relevanta bestämmelser i Direktiv Försäkran om över 1999/5/EC.  
**Slovenski:** Inim Electronics s.r.l. izjavlja, da je ta XDT200H v skladu z bistvenimi zahtevami in drugimi relevantnimi določili direktive 1999/5/ES.

The declaration of conformity may be consulted at [www.inim.biz/certifications](http://www.inim.biz/certifications)