

# 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

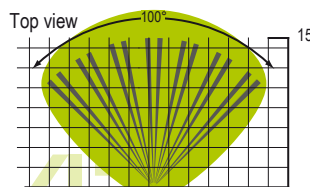
The main features of the XDT200H are:

- 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

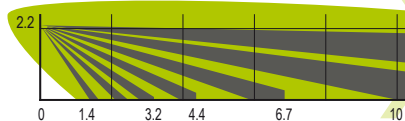
Operating supply voltage	from 9 to 16V $\overline{---}$
Supply voltage	13.8V $\overline{---}$
Stand-by current draw	16mA
Maximum current draw	20mA
Sensor type	digital dual PIR, microwave module
Detecting mode	infrared emission + doppler effect
Antenna type	plane antenna with FET-GaAs oscillator
MW frequency	10.525GHz
Alarm pulses	from 1 to 4
Intrusion alarm output	N.C., 28V $\overline{---}$ , 100mA max
Alarm relay pulse duration	5s
Tamper output	N.C., 28V $\overline{---}$ , 100mA max

Environmental conditions	from -10 to +55°C
	$\leq 93\%$
Security grade	2
Environmental class	II
Detection range (max)	15m
Detection angle	100°
Installation method	wall mount
Installation height	2.2m
Size (HxLxD)	120x60x44mm
Weight	103g
green LED	MW detection
blue LED	alarm signal
yellow LED	PIR detection



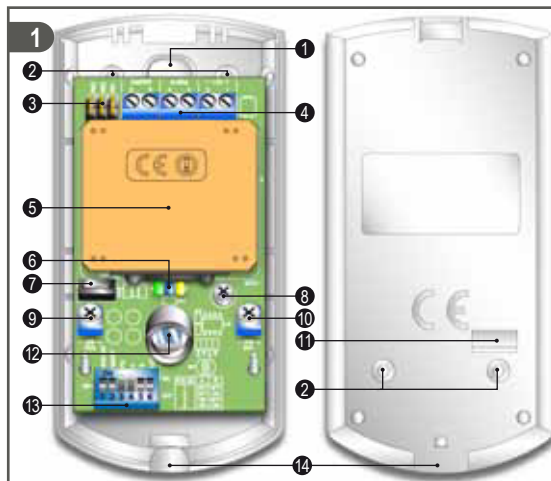
### DETECTION RANGE

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.

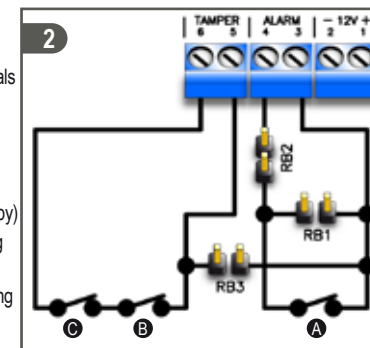
### INSTALLATION

- 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
1	Alarm trigger ON - "OR" mode OFF - "AND" mode
2	Smart-OR ON - Function enabled OFF - Function disabled
3	Not used

Microswitch	Function
4	Alarm pulse number selection 1 2 3 4
5	OFF OFF ON ON OFF ON OFF ON
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.



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Product: 100-205