



VL-DT15PI-Fx

DUAL TECHNOLOGY DETECTOR



1. INTRODUCTION

The detector represents the best choice for residential and industrial installations in the security sector.

It uses only digital PIRs, thus avoiding the conversion that generally must be done in traditional detectors, where the analog PIR is amplified and converted to digital. Thanks to the TOTALLY digital technology, the detector is much more accurate in detecting intrusions and not suffering of alterations such as: white light, ultraviolet light, temperature, air movement due to heating/cooling systems and it is totally immune to radiated and conducted electromagnetic disturbances. The detector is equipped with lenses designed made by Fresnel Technologies, Inc.

LODIFF® technology for optics realization in combination with **POLY IR®** materials make it a product with highest quality and efficiency.

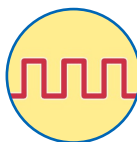
The detector is pet immune with range of 15 mt, with 100 degrees angle.

The sensor is equipped with latest generation microwave modules, with very low background noise, and can be supplied with different frequencies in compliance with the legislation of the individual countries.



White light protection

The detector is digitally filtered from white light.



Full digital PIR

The detector has no analog components, the full digital PIR is connected directly to the microprocessor.



High RFI protection

Thanks to the total lack of traditional amplifiers, the detector has a very high RFI immunity.



Pet immunity

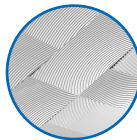
All our detectors are pet immune up to 15 Kg, thanks to the new lens design combined with the digital analysis system.



Ultraviolet stabilization

POLY IR®4 material for lenses

The lens materials is **POLY IR®**. It offers the best combination of transmittance, environmental stability, and color of any polymer. Materials available for the 8-14 micron region of the infrared.

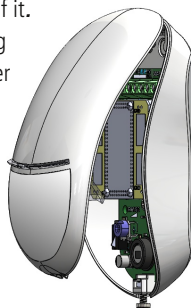


LODIFF® Fresnel Lens Technology

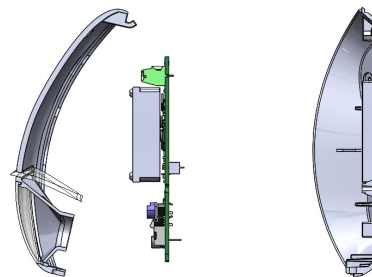
The lens array is made by tiling pieces of **LODIFF®** lenses. These lenses offer significantly improved performance over typical constant-groove-width Fresnel.

2. INSTALLATION PROCEDURE

- Open the housing of the detector (fig. 1).
- Remove the PCB from the base by loosening the screw in the middle of it.
- Pierce the knock out the base of cover on the desired point for fixing
- Pierce the knock on the base and fix a screw between wall and cover for back tamper protection.
- recommended height from 2m to 2,2m.
- Slide the cable out of the housing creating a hole in the back
- Select the connection to the intruder alarm control panel (IACP) and wire the detector (see Schematic).
- Set the required parameters on the dip switch.(see Adjustments)
- plug in the nut at the bottom of the detector
- close the housing and insert the fixing screw at the bottom



- Fig 1 -



- Fig 2 -

3. LED FUNCTIONS

During normal operation:

- GREEN LED: PIR Alarm
- YELLOW LED: MW Alarm
- BLUE LED: General Alarm (PIR and MW)

3. ADJUSTMENTS

Dip 1 --> off = led off - on = led on

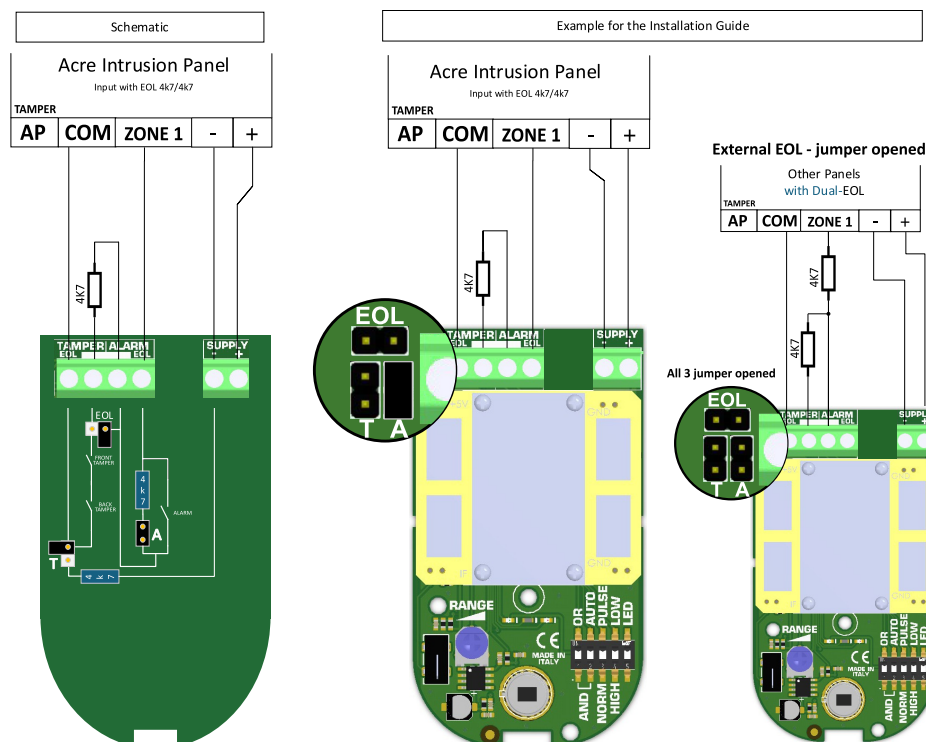
Dip 2 --> off = 15m - on = 7m range

Dip 3 --> off = 1 pulse - on = 2 pulse

Dip 4 - 5 --> OFF-OFF = AND ON-OFF=OR ON-ON=AUTO OR (the AUTO-OR feature switches the detector to OR operation in case of 5 consecutive alarms coming from only one technology - not certified by IMQ approval)

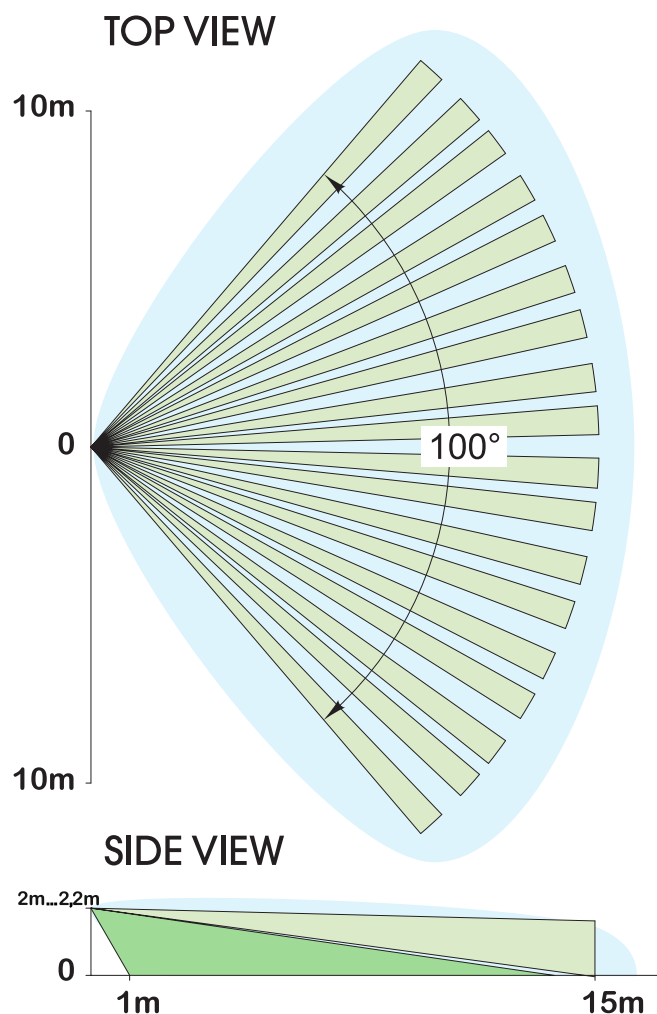
Trimmer Range = used only for MW - turn it counterclockwise to decrease the sensitivity; clockwise to increase it.

Jumpers T - A - see the schematic



- If installing the detector in combination with an ACRE intrusion control unit, close the jumper "A" and connect a 4K7 resistor to the TAMPER and ALARM terminals with the white line. Also connect the POWER, ALARM and TAMPER terminals as shown in the example figure.
- If installing the detector in combination with another intrusion control unit, leave the jumpers open and connect the resistors with the desired values to the TAMPER and ALARM terminals with the white line and also between both ALARM terminals. Also connect the POWER, ALARM and TAMPER terminals as shown in the example figure.

Technical Data	VL-DT15PI-Fx DUAL TECHNOLOGY
RANGE	7m or 15 m
ANGLE	100°
MOUNTING HEIGHT	from 2m to 2.2m
LENS	Fresnel Lens LODIFF® POLY IR@4 material
LED	green, yellow, blue
ALARM TIME	2 sec
SELF TEST	-
WALK TEST'S LED	YES
MICROWAVE FREQUENCY	F1= 10.5Ghz F2=9.3Ghz
SOLID STATE RELAY	YES
INTERNAL EOL RESISTORS	YES
UNDERCRAWL PROTECTION	YES
ANTI-OPENING TAMPER	YES
BACK TAMPER	YES
PULSE COUNTER	YES
RFI PROTECTION	30 V/m
TEMPERATURE COMPENSATION	YES
FULL DIGITAL	YES
POWER SUPPLY	9 - 15 Vdc
MAXIMUM CONSUMPTION	44 mA
HOUSING	ABS
PET IMMUNITY	YES - no IMQ
OPERATING TEMPERATURE	from -10°C to +55°C
RELATIVE HUMIDITY	<= 93% without condensation
DIMENSIONS	114 x 63 x 40 mm



Meets the requirements: EN 50131-2-4 Grade 2 EN 50131-2-4 Class II

Installation must be carried out following the local installation norms by qualified personnel.

The manufacturer refuses any responsibility when changes or unauthorized repairs are made to the product/system.

It is recommended to test the operation of the alarm product/system at least once a month. Despite frequent testing and due to, but not limited to, any or all of the following: tampering, electrical or communication disruption or improper use, it is possible for the product/system to fail to prevent burglary, robbery, fire or otherwise. A properly installed and maintained alarm system can only reduce the risk that this happens.