

# Twintec

Dual technology detector



The TWINTEC detector has been designed to offer the best indoor protection and to meet maximum security requirements. The elegant and functional Pininfarina design guarantees a perfect blending with any home decoration and architectural framework.

The AND detection logic and the RDV and Walk functions provide high reliability and great versatility.

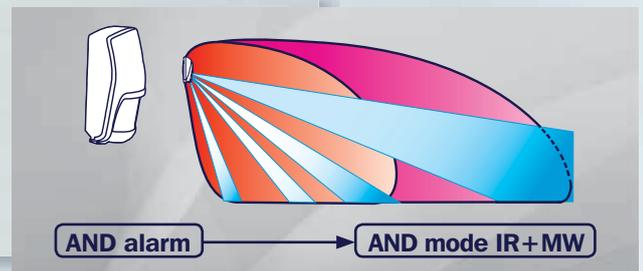
**Tecnoalarm**  
Hi-Tech Security Systems  
design by *pininfarina*

Remote Digital Verification  technology is an international patent by Tecnoalarm. In the event of an alarm, it permits to verify in real time whether a burglar is actually breaking into your home. The detected signal is transformed into a special Doppler wave whose amplitude is directly proportional to the detected movement. This information can be sent, either as a sound signal or a digital signal, to the mobile phone of the user or the monitoring station for immediate action.



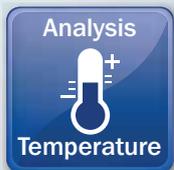
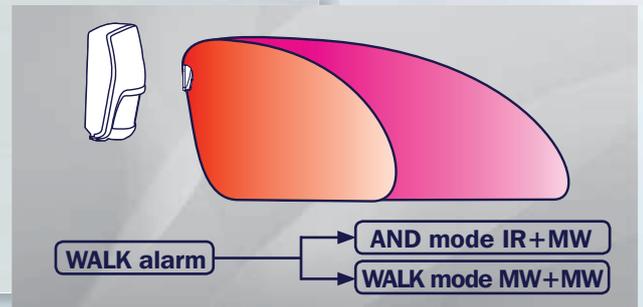
## AND detection logic

The detector is composed of a passive infrared section and a 10,5GHz microwave section. Functioning is based on the AND detection logic, i.e. the alarm is only released if both sections, infrared and microwave, simultaneously detect an intrusion in the protected area.



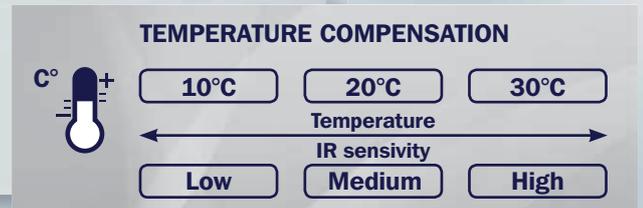
## WALK function

The WALK function guarantees correct functioning in case the detection capacity of the infrared section fails. The WALK function is programmable. If it is enabled, it works parallel to the normal alarm detection causing an increase of the detector's sensitivity and detection capacity. The signal of the microwave is processed in a way that an alarm is validated even if the infrared has not detected any intrusion because of jamming of the detector or due to an excessive ambient temperature.



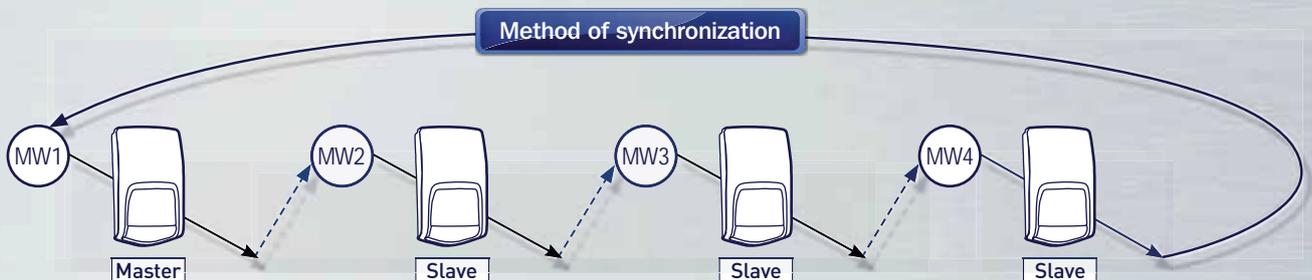
## Temperature compensation

The detector is equipped with a temperature probe which measures the ambient temperature in the room where the detector has been installed. If necessary, the detector adjusts the sensitivity of the infrared section. The automatic temperature compensation has the scope to guarantee full efficiency of the infrared section, even in critical operating conditions.



## Synchronization

The microwave section emits a pulse signal which is propagated and reflected within the protected zone. This is the reason why several detectors installed in the same place may cause interferences. Connecting the Sync terminals among each other, the microwave sections will be controlled by a synchronism which activates the detectors in sequence, one at a time, so that the origin of the reflected signal can be unequivocally identified. The synchronization is triggered by the master detector which controls up to three slave detectors, so that it is possible to install a total of 4 Twintec detectors in the same room.





## Stand-by voltage

When the alarm system is disarmed the stand-by signal deactivates the detector, i.e. the sensors and the LED of both technologies, infrared and microwave, are deactivated. The inhibition of the LED avoids that a possible intruder may identify the actual perimeter of the protected zone.



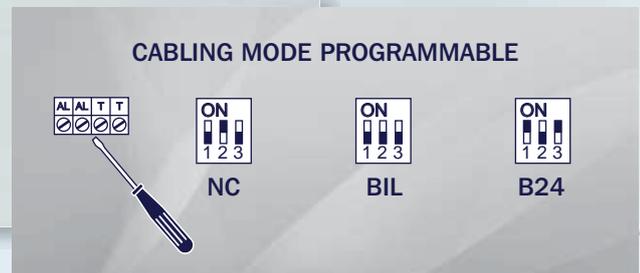
## Self test

The detector is equipped with a self test function. The test is automatically executed once every 4 hours (240 minutes) and has a duration of several seconds. It verifies the efficiency of the infrared section and, in case this should fail, puts the detector automatically into the Walk mode. The blinking red LED signals the failure of the infrared section.



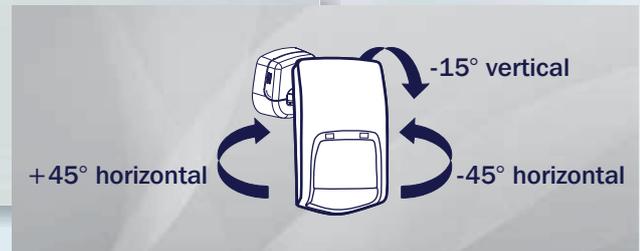
## Contact type

A series of dip-switches permit easy and comfortable programming of the contact type as normally closed, end-of-line resistor and double end-of-line resistor.



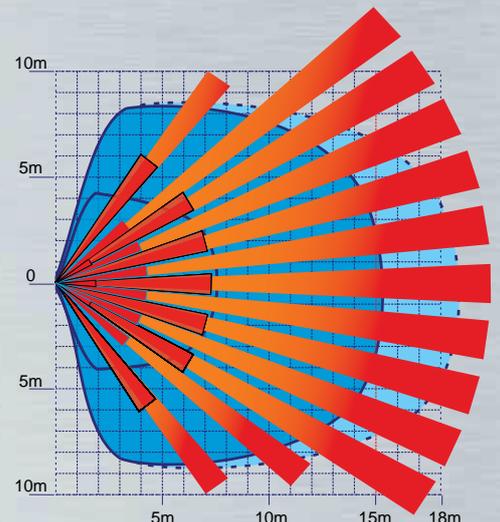
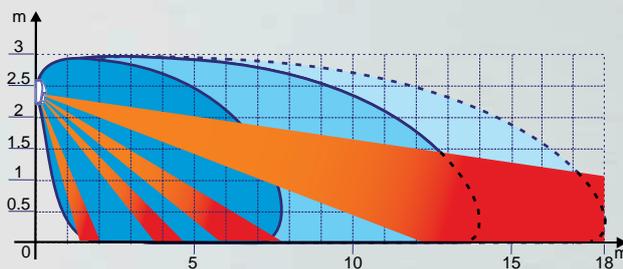
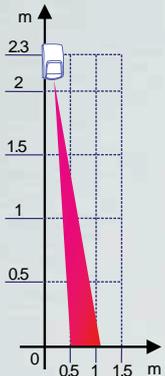
## Orientation

The optional swivel mounting bracket permits a more precise orientation of the detector towards the zone to be protected. It provides a horizontal orientation of +/-45° and a maximum 15° downward orientation. The swivel mounting bracket is protected against tamper and the mechanical block provides high resistance to the attempts at putting out of alignment the detector.



## Coverage

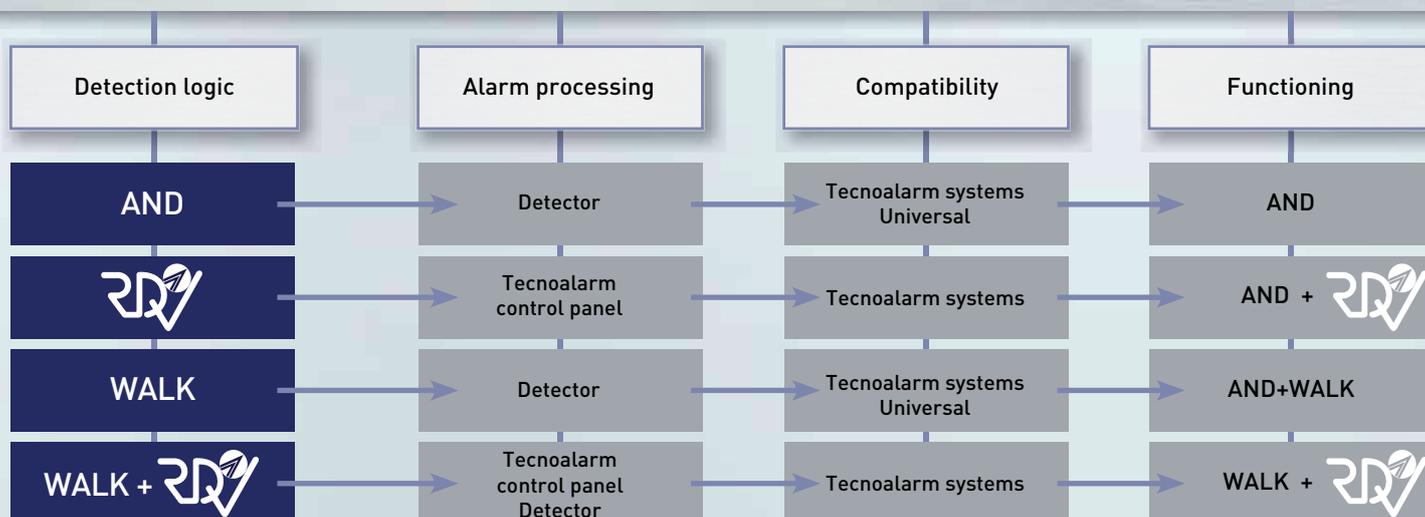
The microwave section generates a lobe with 72° horizontal and 36° vertical beam spread, which is overlaid with 29 infrared beams, spread over 4 levels, plus one look-down beam with a minimum inclination for the protection of the creep zone, the area directly below the detector. From this results a protected zone with 14 meters width and 13 meters length for the Twintec 13 and 18 meters length for the Twintec 18 and an actual coverage of respectively 152m<sup>2</sup> and 211m<sup>2</sup> in an area without obstacles. The two technologies complement each other, as the microwave technology is more sensitive to approaching movements whereas the infrared technology is more sensitive to transversal movements.



## TECHNICAL SPECIFICATIONS AND FUNCTIONS

<b>DETECTION</b>	Microwave	10.5GHz	<b>ANTI-TAMPER PROTECTION</b>	Anti-opening protection	Micro-switch
	Microwave range	Adjustable 3...18m ± 20%		Anti-detachment protection	Micro-switch
	Infrared beams	29	<b>POWER SUPPLY</b>	Rated voltage	12V DC
	Levels (infrared beams)	4		Operating voltage	9V DC...15V DC
	Max. range Twintec 13	13m	<b>CONSUMPTION</b>	Stand-by	17mA @ 12V DC
	Max. range Twintec 18	18m		Alarm (max.)	25mA @ 12V DC
<b>FUNCTIONING MODES</b>	AND	IR+MW	<b>CONTACT TYPE</b>	Programmable	NC-EOL resistor-DEOL resistor
	WALK	IR+MW or MW+MW		Operating temperature	-10°C...+55°C
	RDV	IR+MW with Doppler filter	Environmental class	II	
	WALK+RDV	MW+MW with Doppler filter	Protection class	IP30-IPK02	
<b>COVERAGE</b>	IR	108°	<b>PHYSICAL SPECIFICATIONS</b>	Security grade	2
	MW	72° horiz. axis - 36° vert. axis		Casing	Anti-static ABS
<b>OUTPUTS</b>	Alarm	NC -Electronic relay		Dimensions (L x H x D)	68 x 118 x 51mm
	Tamper	NC - Micro-switch		Weight	160g
<b>INPUTS</b>	St-by	Stand-by input with negative polarity		<b>COMPATIBILITY</b>	EN-50131-1
	Sync	Synchronization input			EN-50131-2-4
<b>FUNCTIONS</b>	RDV	Programmable (excludable)	<b>OPTIONAL ACCESSORIES</b>	Self-protected swivel mounting bracket	
	Walk	Programmable (excludable)		SNODO 2000	
	Self test	Automatic			
	Temperature compensation	Automatic			

## FUNCTIONING MODE AND COMPATIBILITY



All specifications listed in this brochure are subject to change without notice



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