



Air2-OTT100W
Triple technology wireless detector
for outdoor use
Installation and programming manual



GameOver

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GENERAL INFORMATION

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About this manual 1-1

DCMIINIEA2OTT100W **MANUAL CODE**
1.10 **VERSION**

Manufacturer's details 1-2

Manufacturer: INIM ELECTRONICS S.R.L.
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The persons authorized by the manufacturer to repair or replace the parts of this system, hold authorization to work on INIM Electronics brand devices only.

Description of the product 1-3

- Wireless detector for outdoor use
- Air2 two-way wireless intrusion protection system (868MHz frequency)
- Dual PIR infrared sensors, low consumption and UV filter
- UV resistant Fresnel lens
- Low consumption, power supply range 3 to 9V---
- "Test" function to signalling each alarm by LED blinking; auto power off after 4 minutes
- Tamper and dislodgement system
- Inhibition LED and transmitting function for battery life saving (always on)
- Two PIRs and one microwave (MW) programmable sensors
- AND/OR selectable function
- Mechanism for horizontal coverage adjustment
- Precision adjustment of lower beam (patented)
- Stainless steel pole brackets (not supplied)
- UV resistant polycarbonate casing

Table 1: Air2-OTT100W technical features

Power-supply	from 3 to 9V---
Stand-by current	22µA
Maximum current	25mA
Microwave frequency	10,525GHz
Detection range	from 3 to 12m
Horizontal coverage angle	60°
Horizontal coverage adjustment	+/- 45°
IP protection degree	IP44
Working temperature	from -20° to 55°C
Dimensions	189x81x95 mm
Weight (only detector)	450g
Battery	Lithium CR17450 3V (2)
Battery life	4 years

The manufacturer cannot guarantee the declared battery life.

Note

Table 2: Mechanical parts description

A	"U" shaped bracket
B	"L" shaped bracket
C	Hermetic casing base
D	Electronic holder (sensors in front and transceiver on the back)
E	Cover with Fresnel lens
F	Lower PIR range adjustment knob
G	Anti tamper microswitch
H	Electronics and sensors
I	"O-ring" gasket
J	Cover enclosure screw
K	Inner screw for "L" and "U" brackets fixing
L	External screw for "L" and "U" brackets fixing
M	Base enclosure screw

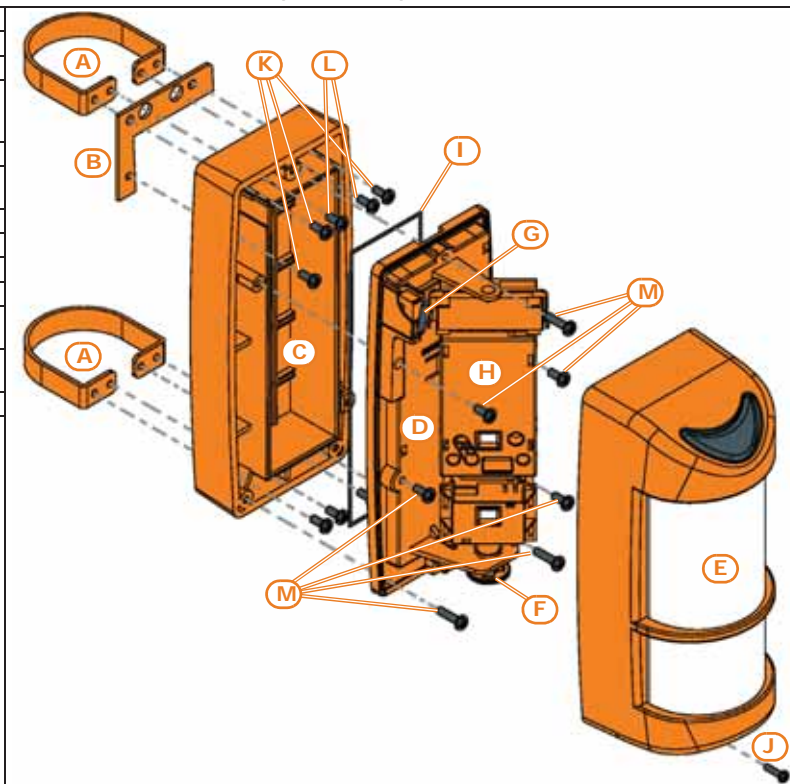
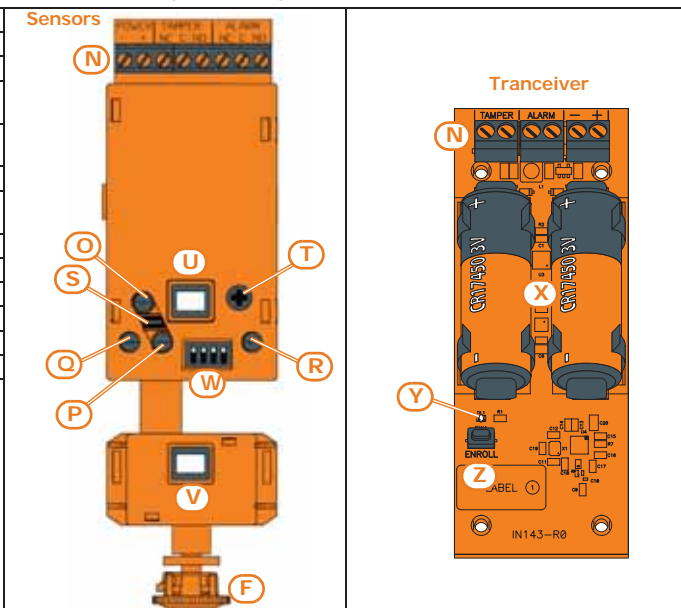


Table 3: Electronic part description

N	Terminal board for wire connection
O	Red LED for radio transmission
P	Yellow LED for MW
Q	Left green LED for each higher PIR detection
R	Right green LED for each lower PIR detection
S	Jumper
T	Microwave sensitivity adjustment trimmer
U	Higher infrared sensor (PIR 1)
V	Lower infrared sensor (PIR 2)
W	DIP switches
X	Batteries
Y	Transmission green LED
Z	ENROLL button



The Air2-OTT100W detector communicates with INIM intrusion control panel via the Air2 two-way wireless intrusion protection system.

Table 4: Technical specifications of Air2 system

Operating frequency	range	868.0 - 868.6MHz
	selectable channels	868.1, 868.3, 868.5MHz
Communication type		Two-way
Modulation		GFSK
Device supervision		From 12 to 250 minutes

Package contents 1-4

Inside the package you will find:

- Air2-OTT100W detector
- Hermetic casing base
- Installing manual (this)
- Plastic bag containing:
 - 6 stainless steel metric screw M3 x 20
 - 4 anchor screws and plugs for wall mounting
 - "O ring" gasket

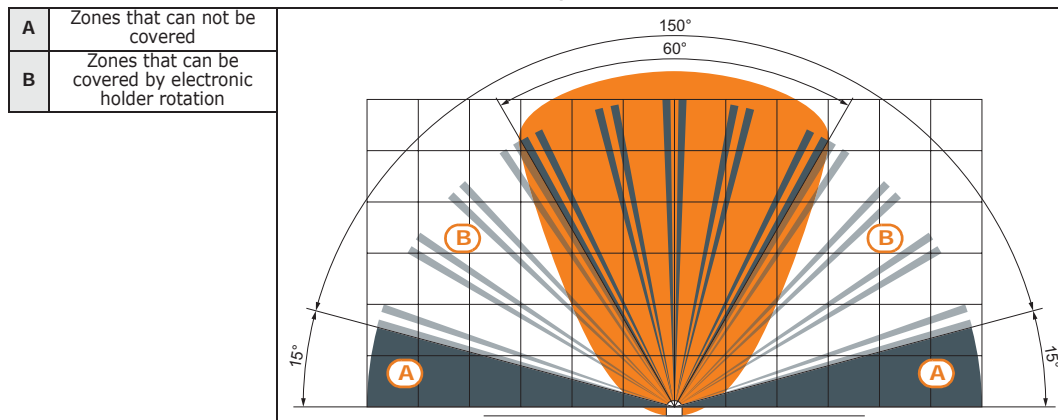
Items not included in the package (accessory items to be purchased separately; see *Appendix 2, Order codes*):

- "U" shaped brackets
- "L" shaped brackets

FUNCTIONING 2

Detection range 2-1

Table 5: Top view

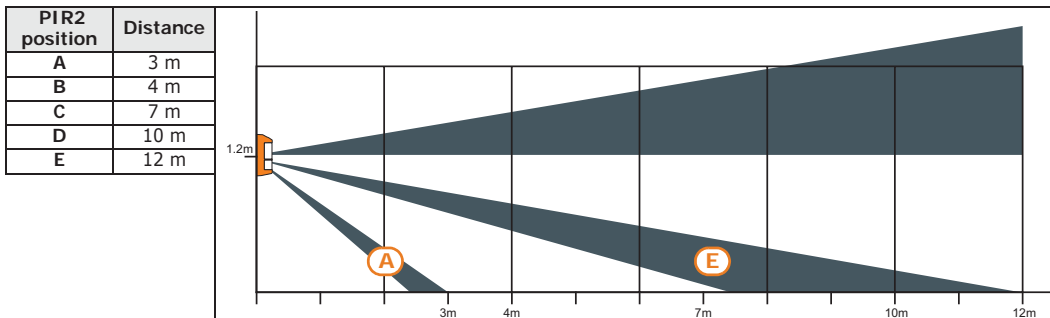


Use the trimmer "MW" (*table 3, T*) to adjust the microwave sensitivity (the **ADJUSTMENT** sensitivity is increased turning it clockwise).

By using the knob (*table 2, F*) it is possible to move the PIR2 (lower) in order to obtain different ranges from 3m to 12m.

The knob moves vertically the RIP along the marked positions on the holder. Each position corresponds to a distance:

Table 6: Side view



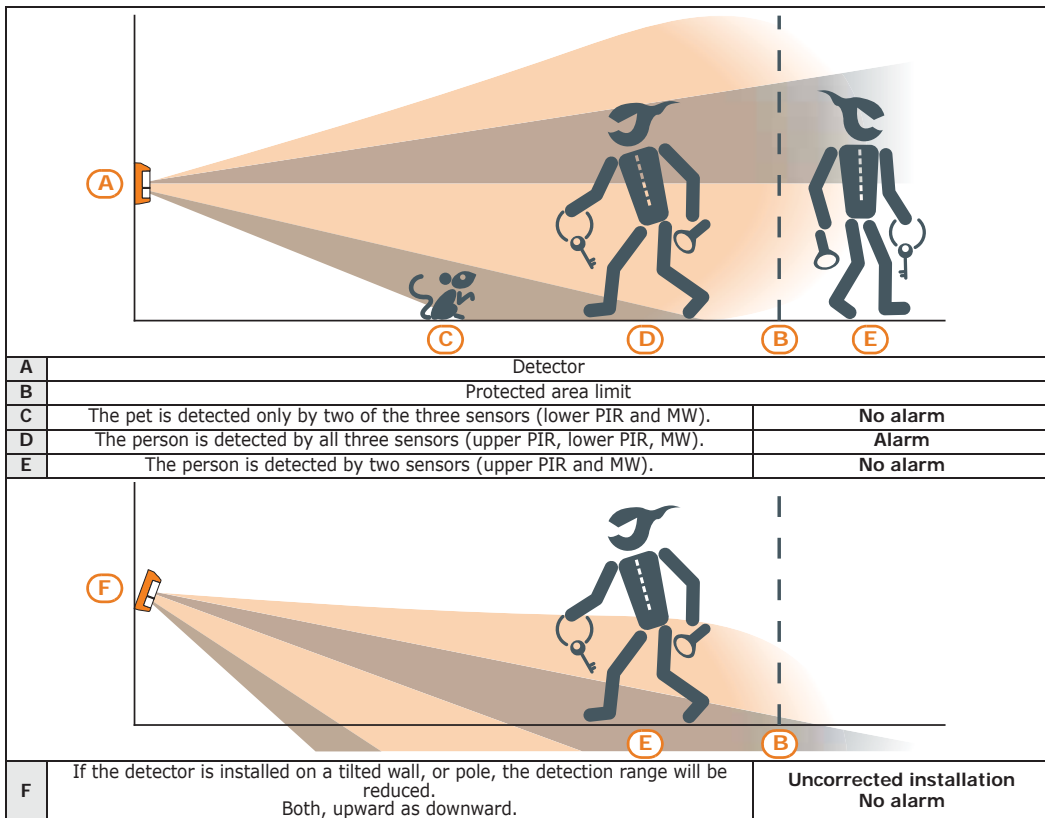
These distances are reached when the detector is installed at about 120cm (height).

Operating principles 2-2

The detector works on the combined action of two PIRs and a microwave sensors.

The figures below shows some of most relevant working examples.

Table 7: Working examples



“Test” function 2-3

This function has been implemented in order to make the detector easy to set up.

The function can be activated disconnecting and connecting again the jumper (table 3, S); within a minute the function will be operative. In this mode the LED will be lighted for each detection. Below the meanings of the LED's:

- **Red LED** (table 3, O): switch on when there is an alarm or tamper situation.
- **Yellow LED** (table 3, P): switch on when the microwave detects a motion.
- **Left green LED** (table 3, Q): switch on when the upper PIR detects a motion.
- **Right green LED** (table 3, R): switch on when the lower PIR detects a motion.

After about 4 minutes the test mode is automatically switched off, and the LED are deactivated (paragraph 2-4 “Inhibition” function).

Be sure to have screwed up the cover with Fresnel lens before perform the tests. LEDs activation can be seen through the lens.

Note

Once performed detection and radio transmission range tests, the detector is ready to work.

LEDs are active only in test mode.

Note

In working mode the LEDs are automatically deactivated. In order to verify if the detector is working properly, remove the front cover disconnect and connect again the jumper to activate the testing mode; at the end screw the cover up.

“Inhibition” function 2-4

In working mode (LEDs deactivated) the function inhibition is automatically activated in order to safe battery life. This implies that if the detector has been installed in a populated area, the detector will no switch the alarm relay if the detection area is free for three minutes at least.

This function avoid that the detector triggers the alarm relay continuously.

In order to verify if the detector is working properly, wait at least three minutes after each detection.

INSTALLATION 3

It is important to evaluate the installation site previously. Bush close to the detector might cause false alarm. **WARNING**

The detector is equipped with UV filters in order to avoid problems due to sunshine rays. Anyway, if it is possible, do not direct the detector versus the sun.

Placement 3-1

Start the “test” mode (paragraph 2-3 “Test” function), in order to obtain a real simulation, keep out the protected area, and avoid any crossing into it.

After 30÷40 seconds without events, come in to the detection area and, looking the red LED, verify if the detector works correctly.

After the detection, wait at least 7÷8 seconds before the next detection. Refer to the coverage diagram to estimate the detection area (table 5 “Top view” and table 6 “Side view”).

Environmental conditions are important elements to be evaluated during the installation. Bump, bottomland or slops can modify the performances of the detector.

If into the detection area any medium size animal can walk, it is suggested to choose carefully the installation height in order to avoid false alarms.

The maximum coverage range, 12m, is reached when the detector is installed at about 120cm (height).

Do not obscure partially or completely the detector's field of view.

Note

Mounting 3-2

1. Unscrew the screw for the cover enclosure (*table 2, J*).
2. Remove the cover with lens (*table 2, E*).
3. Unscrew the fixing screws (*table 2, M*) of the detector to the waterproof rear casing.
4. Fix the hermetic casing (*table 2, C*) on the wall, or on a pole (be sure the pole is stable and ripple free).
5. Fix the "L" shape bracket (*table 2, B*) behind the hermetic casing with one screw (*table 2, K*).

Use the upper hole to fix the case to the "L" shaped bracket.

6. Position the two "U" (*table 2, A*) shaped bracket around the pole.
7. Block them with the inner screws (*table 2, L*) and the external screws (*table 2, K*).
5. Perforate the wall in correspondence of the holes on the casing.
6. Insert the wall plugs into the holes.
7. Screw up the case with the screws. Pay attention to not damage anti tamper switch support knock-out.

Use the lower hole to fix the hermetic casing on the wall.

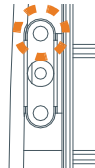
8. Enroll the detector (refer to Air2-BS200 transceiver installation manual).
9. Insert the o-ring gasket (*table 2, I*) into its seat located on the electronic holder (*table 2, D*).

Pay attention to not stretch out the o-ring gasket during its installation.

10. Couple the detector and the hermetic casing then screw (*table 2, M*).
11. Run the range settings (PIR 2 position adjustment, MW sensitivity, PIRs sensitivity). See *paragraph 2-1 Detection range*.
12. Close the detector with the front cover with Fresnel lens as shown opposite.
13. Screw up the metric screw (*table 2, J*).

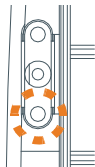
POLE FIXING

Note

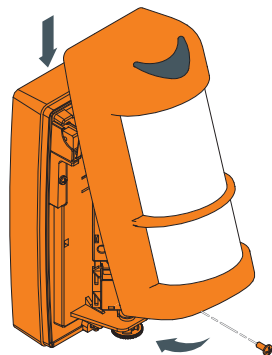


WALL FIXING

Note



Note



PROGRAMMING

4

In order to make the detector suitable for outdoor applications, a single sensor adjustment system has been implemented.

In the tables below are shown the DIP switch configurations (*table 3, W*):

Table 8: Infrared sensitivity adjustment

	OFF	ON
DIP 1	PIR 1 sensitivity LOW	PIR 1 sensitivity HIGH
DIP 2	PIR 2 sensitivity LOW	PIR 2 sensitivity HIGH

I

Table 9: Sensor programming

		DIP 3	
		OFF	ON
DIP 4	OFF	Triple AND: MW + PIR 1 + PIR 2	Double AND: MW + PIR 2
		Each technology must detect a motion to activate the alarm	The detection of the MW and the detection of the PIR 2 activate the alarm (PIR1 disabled)
	ON	Double AND: MW + PIR 1	AND of: MW + (PIR1 OR PIR2)
		The detection of the MW and the detection of the PIR 1 activate the alarm (PIR2 disabled)	The detection of the MW and the detection of one of the PIRs activate the alarm

DECLARATION OF CONFORMITY

Deutsch: Hiermit erklärt INIM Electronics s.r.l., dass sich das Gerät Air2-OTT100W in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet.

Български: С настоящето INIM Electronics s.r.l. декларира, че Air2-OTT100W отговаря на съществените изисквания и другите приложими изисквания на Директива 1999/5/EC.

Ελληνικά: Ο εξοπλισμός αυτός συμμορφώνεται με την Ευρωπαϊκή Οδηγία 1999/5/ΕΚ

Español: Por la presente, el INIM Electronics s.r.l declara que este "producto" cumple con la requisitos esenciales y otras disposiciones relevantes de la Directiva 1999/5/CE.

Français: Par la présente, INIM Electronics s.r.l. déclare que l'appareil Air2-OTT100W est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.

Dansk: Undertegnede INIM Electronics s.r.l. erklærer herved, at følgende udstyr Air2-OTT100W overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.

Magyar: Ez a berendezés megfelel az európai 1999/5/EC irányelvnek.

Malti: Hawnhekk, INIM Electronics s.r.l., jiddikjara li dan Air2-OTT100W jikkonforma mal-htigijiet essenzjali u ma provvedimenti oħrajn rilevanti li hemm fi d-Dirrettiva 1999/5/EC.

Islenska: Hér með lýsir INIM Electronics yfi r því að Air2-OTT100W er í samræmi við grunnkröfur og aðrar kröfur, sem gerðar eru í tilskipun 1999/5/EC.

Italiano: Con la presente, INIM Electronics s.r.l. dichiara che questo Air2-OTT100W è con-forme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.

Lietuvių: Šiuo INIM Electronics s.r.l. deklaruoja, kad šis Air2-OTT100W atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.

English: Hereby, INIM Electronics s.r.l., declares that this Air2-OTT100W 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 Air2-OTT100W 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 Air2-OTT100W 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 Air2-OTT100W jest zgodny z zasadniczymi wymaganiami i innymi właściwymi postanowieniami Dyrektywy 1999/5/EC.

Português: Eu, INIM Electronics s.r.l., declaro que o Air2-OTT100W cumpre os requisitos essenciais e outras provisões relevantes da Directiva 1999/5/EC.

Româna: Prin prezenta, INIM Electronics s.r.l., declară că aparatul Air2-OTT100W 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.

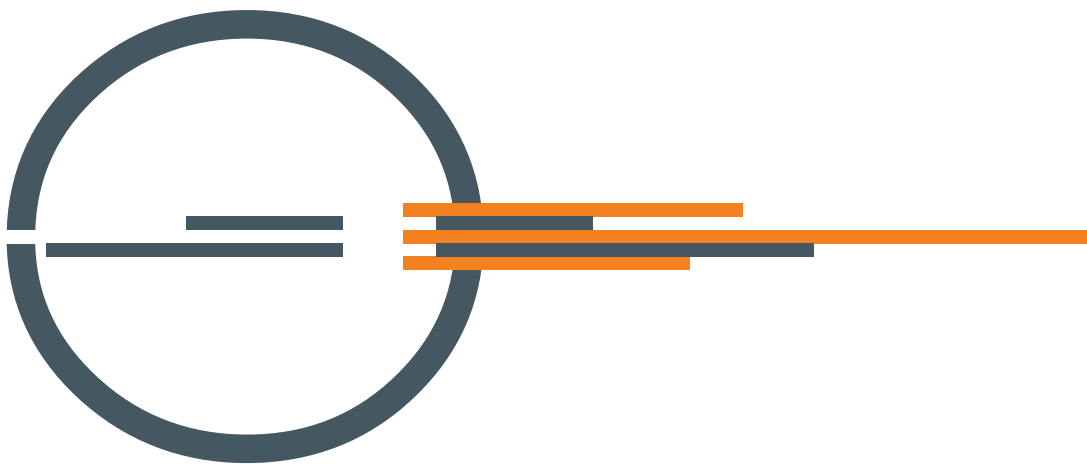
Slovenski: INIM Electronics s.r.l. izjavlja, da je ta Air2-OTT100W v skladu z bistvenimi zahtevami in drugimi relevantnimi določili direktive 1999/5/ES.

The declaration of conformity may be consulted at: www.inim.biz/dc.html

ORDER CODES

Please quote the following order codes when ordering items from the INIM Electronics product range:

Code	Product description
Air2-Aria	Tastiera via radio con display grafico retroilluminato
Air2-BS200/10	Wireless transceiver module, 10 terminals
Air2-BS200/30	Wireless transceiver module, 30 terminals
Air2-BS200/50	Wireless transceiver module, 50 terminals
Air2-DT200T	Wireless dual-technology curtain detector, in white or brown colour
Air2-FD100	Wireless smoke detector
Air2-Hedera-F	Wireless outdoor sounder with anti-foam protection
Air2-Hedera-FM	Wireless outdoor sounder with anti-foam protection, in metal effect enclosure
Air2-IR100	Two-way wireless PIR with 12m coverage
Air2-IR100/C	Two-way wireless PIR with 20m coverage
Air2-KF100	4 button remote-control keyfob
Air2-MC100	Wireless magnetic contact with 2 inputs/outputs, in white or brown colour
Air2-MC200	Two-way wireless magnetic contact, in white or brown colour
Air2-ODI100W	Wireless outdoor double infrared detector
Air2-OTT100W	Wireless outdoor triple-technology detector
Air2-UT100	Universal wireless transceiver
Air2-XDT200W	Double technology wireless detector
Air2-XIR200W	Infrared wireless detector
DCMI I N I O A 2 B S 2 0 0 E	Air2 devices installation manual
DCMI I N I E A 2 O T T 1 0 0 W	Air2-OTT100W installation and programming manual
OTTBK200	Inox mounting bracket kit, 2 "U" shaped brackets and 1 "L"-shaped bracket
OTTCV100	Weather proof cover
SmartLiving10100L	Intrusion control panel: manages 10 to 100 terminals, 15 partitions, switching power supply @5A, optional TCP/IP connectivity, comes in metal enclosure with housing for 1 battery @17Ah
SmartLiving10100L/G3	Intrusion control panel: manages 10 to 100 terminals, 15 partitions, switching power supply @5A, optional TCP/IP connectivity, comes in metal enclosure with housing for 1 battery @17Ah. EN50131-6 grade 3 certified.
SmartLiving1050	Intrusion control panel: manages 10 to 50 terminals, 10 partitions, switching power supply @3A, comes in metal enclosure with housing for 1 battery @ 7 or 9Ah
SmartLiving1050/G3	Intrusion control panel: manages 10 to 50 terminals, 10 partitions, switching power supply @3A, comes in metal enclosure with housing for 1 battery @ 7 or 9Ah. EN50131-6 grade 3 certified.
SmartLiving1050L	Intrusion control panel: manages 10 to 50 terminals, 10 partitions, switching power supply @3A, optional TCP/IP connectivity, comes in metal enclosure with housing for 1 battery @17Ah
SmartLiving1050L/G3	Intrusion control panel: manages 10 to 50 terminals, 10 partitions, switching power supply @3A, optional TCP/IP connectivity, comes in metal enclosure with housing for 1 battery @17Ah. EN50131-6 grade 3 certified.
SmartLiving505	Intrusion control panel: manages 5 terminals, 5 partitions, switching power supply @ 1.2A, comes in metal enclosure with housing for 1 battery @7 or 9Ah
SmartLiving515	Intrusion control panel: manages 5 to 10 terminals, 5 partitions, switching power supply @ 1.2A, comes in metal enclosure with housing for 1 battery @7 or 9Ah



ISO 9001 Quality Management
certified by BSI with certificate number FM530352

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