

## VOLUMETRIC PROTECTIONS

# INFRARED DETECTORS

### A COMPLETE RANGE OF DETECTORS

#### A NEW RANGE OF DETECTORS

Elkron presents its new range of detectors gathering, into one family only, the best anti-tamper technology, ready to meet any installation need. It is a smart and unmistakable series coming up complete and well structured in performances, joining different technologies into the same design and integrating them into a sole offer.

This series is ranging from passive infrared models to double technology (infrared plus micro wave) models, then up to revolutionary Extravision® detectors with three-function lens that are also available in either infrared or double technology version. Therefore, it is a range offering the capability to integrate, within the same attractive appearance, the different best anti-tamper technologies at the highest performance level available today to design complete systems, ranging from a small flat to the most sophisticated and complex implementation.

It is also to be reminded that all detectors are equipped with a distinguished innovative patented articulated joint, i.e. a new design for highest level performances.

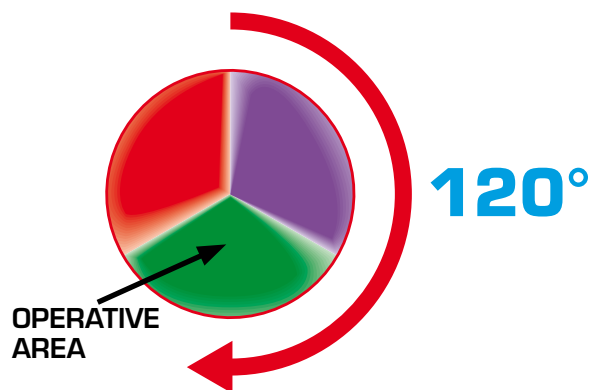
#### NEW SERIES IRA

Series IRA is born to offer a passive infrared detector family available in its different types of lenses. Models are provided using "classic" flat (cylindrical) lens detection system, as well as models using three-function Extravision® hemispherical Fresnel lens patented by Elkron, the latter being a very high density lens with 3 selectable covered ranges (volumetric, long range, curtain covering), where uniform sensitivity optics allow detection capacities independent of burglar distance or position within covered range

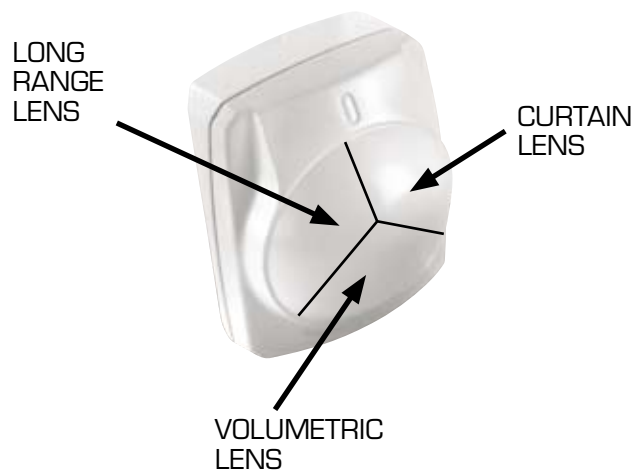


**SPA10 BRACKET**  
- wall or ceiling fastening  
- cables passing inside  
- removal protection (optional)

#### EXTRAVISION® THREE-FUNCTIONAL HEMISPHERICAL LENS



THE COVERAGE FIELD IS EASILY SELECTABLE BY TURNING THE LENS BY 120°



# VOLUMETRIC PROTECTIONS

## IRA SERIES INFRARED DETECTORS

### ANALOGIC infrared detector with EXTRAVISION® trifunctional lens

IRA 12 cod. IR4B00211

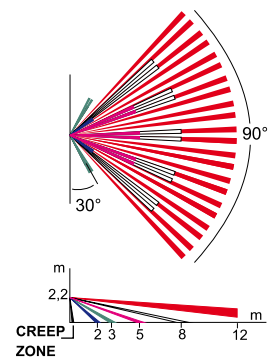
Passive infrared detector IRA12 is equipped with three-function Extravision® hemispherical Fresnel lens.

- High-density lens with selectable coverage fields (volumetric, long-range, curtain) where the uniform sensitivity optics allow detection capacities regardless of the intruder's distance or position inside the coverage field.
- Range:
  - 12 m nominal (volumetric lens)
  - 12 m nominal (curtain lens)
  - 20 m nominal (long range lens)
- IR coverage:
  - 90° (volumetric lens)
  - 6° (curtain lens)
  - 6° (long range lens)
- Sensitive zones:
  - 23 on 5 levels + 2 creep-zone (volumetric lens)
  - 1 on 1 levels + 1 creep-zone (curtain lens)
  - 7 on 5 levels + 1 creep-zone (long range lens)
- PROTECTED P.I.R.: The PIR sensitive element is completely protected against disturbances due to insects and/or air draughts which might generate false alarms.
- HALOGEN LIGHT PROTECTION: The lens colouring prevents false alarms should the sensitive element be hit by white light rays.
- ALARM MEMORY: In case of detection (when the system is on), the detector led comes on with steady light to indicate the alarm memory.
- STAND-BY "S" CONTROL: Through this input the detector is informed on the system state (on or off). Therefore, it is possible to program the detector so that this information can control the alarm relay and LED activation/deactivation.
- ALARM RELAY INHIBITION: Possibility of programming the alarm output so that it is inhibited when the detector is in "stand-by" mode.
- The detector is fitted with an automatic temperature adjustment system which adapts the detection sensitivity to the different environmental conditions.
- WALK TEST: The detector operation is signalled by the LED coming on (it can be cut off)
- Min - max operation voltage: 9 – 15 Vcc
- Supply nominal voltage: 12 Vcc
- Absorption 12V— : 11 mA nom. ; 17 mA max
- Pulse counter: X1/X2
- Alarm relay : solid state relay - NC D.1A@24V— / R max = 35 ohm
- Anti-tamper device: 50 mA @ 24 Vcc
- Operating temperature: -10 °C / +55 °C (declared by the manufacturer) +5°C ÷ +40°C (certified according to CEI 79.2)
- Dimensions (H x L x D) : : 85 x 70 x 50 mm.
- Weight: 80 g.

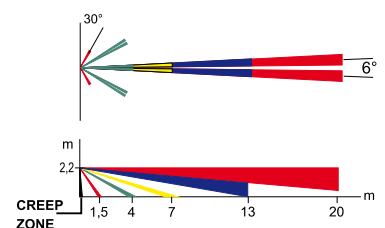


IRA 12

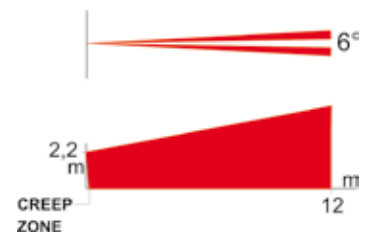
### VOLUMETRIC LENS





### LONG RANGE LENS



### CURTAIN LENS



MODEL	Quality Certification
IRA 12	 



# VOLUMETRIC PROTECTIONS

## IRA SERIES INFRARED DETECTORS

### ANALOGIC infrared detector with cylindric Fresnel Lens

IRA 13 cod. IR6100211

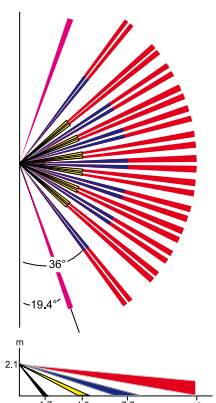
Passive infrared detector equipped with interchangeable cylindric Fresnel lens.

- The Fresnel® volumetric lens manufactured in the factory can be replaced with a curtain or long-range lens, optional.
  - For installations at heights different from 2.1 metres it is possible to adjust the pyroelectric detector position by translating the printed circuit board up or down.
- |                    |                                  |
|--------------------|----------------------------------|
| • Range:           | 12 m nominal (volumetric lens)   |
|                    | 12 m nominal (curtain lens)      |
|                    | 20 m nominal (long range lens)   |
| • IR coverage:     | 108° (volumetric lens)           |
| • Sensitive zones: | 31 on 4 levels (volumetric lens) |
|                    | 1 on 1 levels (curtain lens)     |
|                    | 7 on 4 levels (long range lens)  |
- PROTECTED P.I.R.: The PIR sensitive element is completely protected against disturbances due to insects and/or air draughts which might generate false alarms.
  - HALOGEN LIGHT PROTECTION: The lens colouring prevents false alarms should the sensitive element be hit by white light rays.
  - ALARM MEMORY: In case of detection (when the system is on), the detector led comes on with steady light to indicate the alarm memory.
  - STAND-BY "S" CONTROL: Through this input the detector is informed on the system state (on or off). Therefore, it is possible to program the detector so that this information can control the alarm relay and LED activation/deactivation.
  - ALARM RELAY INHIBITION: Possibility of programming the alarm output so that it is inhibited when the detector is in "stand-by" mode.
  - The detector is fitted with an automatic temperature adjustment system which adapts the detection sensitivity to the different environmental conditions.
  - WALK TEST: The detector operation is signalled by the LED coming on (it can be cut off)
  - Min - max operation voltage: 9 – 15 Vcc
  - Supply nominal voltage: 12 Vcc
  - Absorption 12V— : 11 mA nom. ; 17 mA max
  - Pulse counter: X1/X2
  - Alarm relay : solid state relay - NC 0.1A@24V— / R max = 35 ohm
  - Anti-tamper device: 50 mA @ 24 Vcc
  - Operating temperature: -10 °C / +55 °C (declared by the manufacturer) +5°C ÷ +40°C (certified according to CEI 79.2)
  - Dimensions (H x L x D) : 70 x 85 x 54 mm.
  - Weight: 80 g.

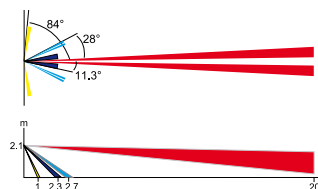


IRA 13

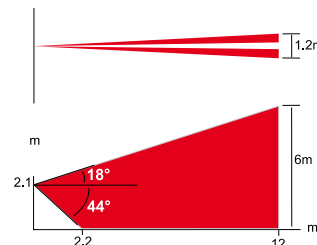
### VOLUMETRIC LENS



### LONG RANGE LENS



### CURTAIN LENS



MODEL	Quality Certification
IRA 12	  



# VOLUMETRIC PROTECTIONS

## IRA SERIES INFRARED DETECTORS

DIGITAL infrared detector with EXTRAVISION® trifunctional lens

IRA 14 cod. IR7B00211

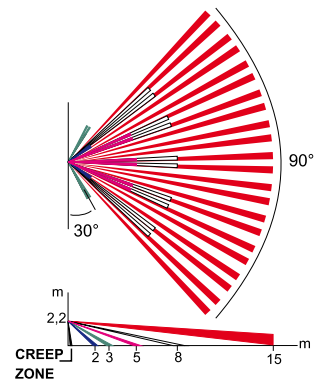
Detector with passive infrared signal digital processing equipped with three-function Extravision® hemispherical Fresnel lens.

- High-density lens with selectable coverage fields (volumetric, long-range, curtain) where the uniform sensitivity optics allow detection capacities regardless of the intruder's distance or position inside the coverage field.
- Range:
  - 12 / 15 m nominal (volumetric lens)
  - 12 / 15 m nominal (curtain lens)
  - 18 / 25 m nominal (long range lens)
- IR Coverage:
  - 90° (volumetric lens)
  - 6° (curtain lens)
  - 6° (long range lens)
- Sensitive zones:
  - 23 on 5 levels + 2 creep-zone (volumetric lens)
  - 1 on 1 level + 1 creep-zone (curtain lens)
  - 7 on 5 levels + 1 creep-zone (long range lens)
- PROTECTED P.I.R.: The PIR sensitive element is completely protected against disturbances due to insects and/or air draughts which might generate false alarms.
- HALOGEN LIGHT PROTECTION: The lens colouring prevents false alarms should the sensitive element be hit by white light rays.
- ALARM MEMORY: In case of detection (when the system is on), the detector led comes on with steady light to indicate the alarm memory.
- FAULT DISPLAY: The detector can detect infrared section faults by displaying them through the flashing LED.
- STAND-BY "S" CONTROL: Through this input the detector is informed on the system state (on or off). Therefore, it is possible to program the detector so that this information can control the alarm relay and LED activation/deactivation.
- ALARM RELAY INHIBITION: Possibility of programming the alarm output so that it is inhibited when the detector is in "stand-by" mode.
- SENSITIVITY ADJUSTMENT: It is possible to adjust the detector sensitivity according to two levels.
- AUTOMATIC TEMPERATURE COMPENSATION: The detector is provided with two-direction automatic compensation, i.e., when environment temperature increases and approaches human body temperature, actuation threshold is decreased, while, when environment temperature becomes higher than human body temperature, the threshold rises back.
- WALK TEST: The detector operation is signalled by the LED coming on (it can be cut off)
- PRE-ALARM FUNCTION: The approaching of the alarm threshold is indicated by the flashing LED, while the threshold reaching is indicated by the LED steady light.
- Min - max operation voltage: 9 – 15 Vcc
- Supply nominal voltage: 12 Vcc
- Absorption 12V— : 10,5 mA nom. ; 13 mA max
- Pulse counter: X1/X2
- Alarm relay : solid state relay - NC 0.1A@24V— / R max = 35 ohm
- Anti-tamper device: 50 mA @ 24 Vcc
- Operating temperature: -10 °C / +55 °C (declared by the manufacturer) +5°C ÷ +40°C (certified according to CEI 79.2)
- Dimensions (H x L x D) : 85 x 70 x 50 mm.
- Weight: 80 g.

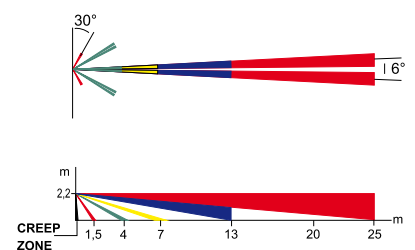


IRA 14

### VOLUMETRIC LENS



### LONG RANGE LENS



### CURTAIN LENS



MODEL	Quality Certification	
IRA 14	1°/2° liv.	



# VOLUMETRIC PROTECTIONS

## IRA SERIES INFRARED DETECTORS

### DIGITAL infrared detector with Fresnel lens

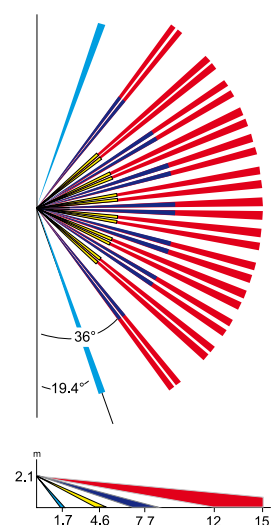
IRA 15P cod. IR6B00211

**Detector with passive infrared signal digital processing equipped with interchangeable flat (cylindrical) Fresnel lens.**

- **PET IMMUNITY:** Through programming the detector can distinguish between animals with weight below 18KG (range 12m) or below 35KG (range 15m)
- **Range:** 12 / 15 m nominal
- **IR coverage:** 88,5°
- **Sensitive zones:** 52 on 11 levels
- **PROTECTED P.I.R.:** The PIR sensitive element is completely protected against disturbances due to insects and/or air draughts which might generate false alarms.
- **HALOGEN LIGHT PROTECTION:** The lens colouring prevents false alarms should the sensitive element be hit by white light rays.
- **ALARM MEMORY:** In case of detection (when the system is on), the detector led comes on with steady light to indicate the alarm memory.
- **FAULT DISPLAY:** The detector can detect infrared section faults by displaying them through the flashing LED.
- **STAND-BY "S" CONTROL:** Through this input the detector is informed on the system state (on or off). Therefore, it is possible to program the detector so that this information can control the alarm relay and LED activation/deactivation.
- **ALARM RELAY INHIBITION:** Possibility of programming the alarm output so that it is inhibited when the detector is in "stand-by" mode.
- **AUTOMATIC TEMPERATURE COMPENSATION:** The detector is provided with two-direction automatic compensation, i.e., when environment temperature increases and approaches human body temperature, actuation threshold is decreased, while, when environment temperature becomes higher than human body temperature, the threshold rises back.
- **WALK TEST:** The detector operation is signalled by the LED coming on
- **PRE-ALARM FUNCTION:** The approaching of the alarm threshold is indicated by the flashing LED, while the threshold reaching is indicated by the LED steady light.
- **Min - max operation voltage:** 9 – 15 Vcc
- **Supply nominal voltage:** 12 Vcc
- **Absorption 12V— :** 10,5 mA nom. ; 13 mA max
- **Pulse counter:** X1/X2
- **Alarm relay :** solid state relay - NC 0.1A@24V— / R max = 35 ohm
- **Anti-tamper device:** 50 mA @ 24 Vcc
- **Operating temperature:** -10 °C / +55 °C (declared by the manufacturer) +5°C ÷ +40°C (certified according to CEI 79.2)
- **Dimensions (H x L x D) :** 85 x 70 x 50 mm.
- **Weight:** 80 g.



IRA 15P



### Accessories for IMA/IRA detectors

SPA10/10 cod. SP7500111

**Adjustable joint for IRA - IMA detectors. Patented.**

- Wall or ceiling fastening, Cables passing inside
- Removal protection (optional)

KIT TAMPER SPA10 cod. KT7800111

**Tamper for SPA10 Joint to realize removal protections.**

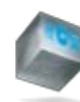
KIT 2 LENTI VB 1,2 G1V1 cod. LT1310111

**Lens for curtain coverage for IRA series.**

KIT 2 LENTI LR 1,2 G1 12V1 cod. LT1410111

**Lens for long range coverage for IRA series**

MODEL	Quality Certification
IRA 15P	 1° liv. 



# VOLUMETRIC PROTECTIONS

## INFRARED DETECTORS

### Infrared detector with Fresnel lens

IR915 VDS cod. IR7A02211

**Passive infrared detector equipped with three-function Extravision® hemispherical Fresnel lens.**

- Range: 15 m (wide angle lens), 15 m (curtain lens), 25 m (long range lens)
- Coverage: 90° (wide angle lens), 6° (curtain lens), 120° (long range lens)
- Sensitive zones: 20 on 3 levels + 2/creep-zone (wide angle lens), 1 on 1 level + 1/creep-zone (curtain lens), 7 on 5 levels + 1/creep-zone (long range lens)
- CREEP-ZONE detection, Optics with uniform sensitivity rays, Halogen light shielding, Protected optics, Custom badge, Wall / corner mounting without joint, Joint (option) with complete anti-tamper protection, Rear wire channels, Cover screw type mounting, Surface mounting devices, DUAL PIR detector, Microprocessor management, AUTOEQUALIZER® function, Impulse count x1/x2, Automatic temperature compensation, DUAL EDGE function, Double digital filter, Environmental noise test, Self testing with "OUT OF ORDER" visualization, Masked alarm memory
- Rated voltage: 12 Vdc
- Consumption: at 12 Vdc 19 mA rated
- Operating temperature: -10° C ÷ + 55° C
- Dimensions (hxwx): 100x70x53 mm
- Weight: 95 gr
- Certified NF-A2P Type 2



IR915VDS

IR918AM cod. IR8A00211

**Antimasking passive infrared detector equipped with three-function Extravision® hemispherical Fresnel lens.**

- Range: 18 m (wide angle lens)
- Coverage: 90° (wide angle lens)
- Sensitive zones: 20 on 3 levels + 2/creep-zone (wide angle lens), 1 on 1 level + 1/creep-zone (curtain lens), 7 on 5 levels + 1/creep-zone (long range lens)
- Rated voltage: 12 Vdc
- Consumption: at 12 Vdc 19 mA rated
- Operating temperature: -10° C ÷ + 55° C
- Dimensions (hxwx): 100x70x53 mm
- Weight: 95 gr
- Certified NF-A2P Type 2



IR918AM

### Accessories for detectors 900 series

SP900/10 cod. SP5900111

**Adjustable joint for 900 series detectors**

KIT TAMPER cod. KT5000111

**Tamper for SPA900 Joint to realize removal protections.**

MODEL	Quality Certification
IR915VDS	VdS



## VOLUMETRIC PROTECTIONS

# DOUBLE TECHNOLOGY DETECTORS

### A COMPLETE RANGE OF DETECTORS

#### A NEW RANGE OF DETECTORS

Elkron presents its new range of detectors gathering, into one family only, the best anti-tamper technology, ready to meet any installation need. It is a smart and unmistakable series coming up complete and well structured in performances, joining different technologies into the same design and integrating them into a sole offer.

This series is ranging from passive infrared models to double technology (infrared plus micro wave) models, then up to revolutionary Extravision® detectors with three-function lens that are also available in either infrared or double technology version. Therefore, it is a range offering the capability to integrate, within the same attractive appearance, the different best anti-tamper technologies at the highest performance level available today to design complete systems, ranging from a small flat to the most sophisticated and complex implementation.

It is also to be reminded that all detectors are equipped with a distinguished innovative patented articulated joint, i.e. a new design for highest level performances.

#### IMA SERIES

This new series with double technology is born to offer all the best features of combined infrared and micro wave technologies enhanced to the state of the art in both covered range and protection; models can be chosen provided with either flat (cylindrical) Fresnel lens or three-function Extravision® hemispherical Fresnel lens.

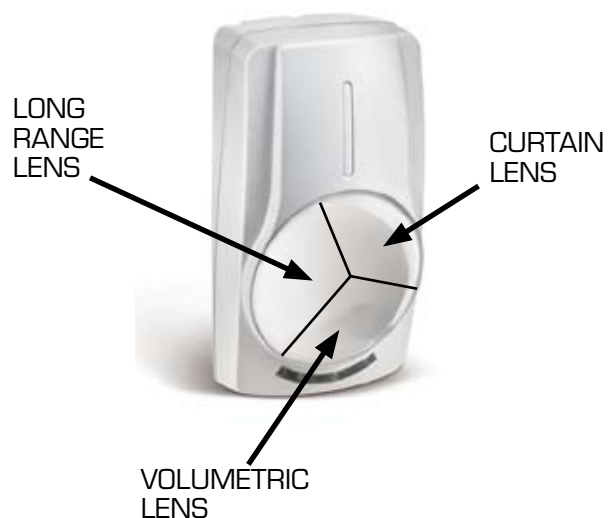
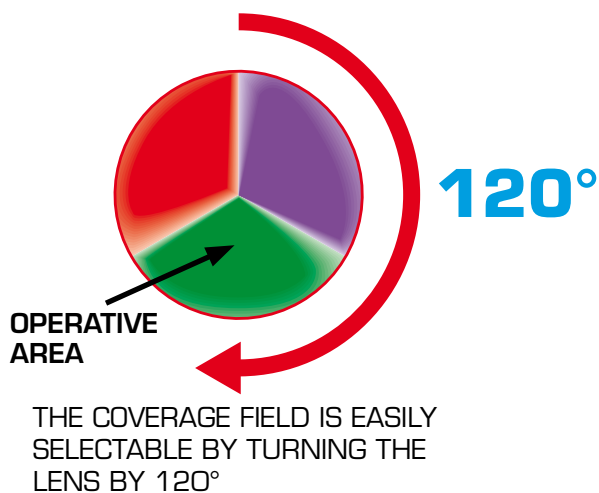
Passive infrared technology is sensitive to the heat of human body and signals its presence by invisible rays passing through projecting each lens element into protected area. Micro wave technology exploits Doppler effect and detects physical bodies moving. This technology is insensitive to environment temperature.

These detectors are provided with function AUTOEQUALIZER®, enabling a dynamic adaptation of alarm threshold and optimises its detection conditions, that is necessary in presence of environments which are troubled to a particular extent. Double technology detectors exploit the matching of passive infrared technology with micro wave technology, so exploiting respective peculiarities and reducing false alarms to zero, because alarm signalling is only present if both detectors confirm it. Model size is small; therefore, models are perfectly integrated into any environment.



**SPA10 BRACKET**  
- wall or ceiling fastening  
- cables passing inside  
- removal protection (optional)

#### EXTRAVISION® THREE-FUNCTIONAL HEMISPHERICAL LENS



# VOLUMETRIC PROTECTIONS

## IMA SERIES DOUBLE TECHNOLOGY DETECTORS

### Double Technology detector with trifunctional EXTRAVISION® Lens

IMA12 cod. IM3000211 IMQ Frequency 10.525 Ghz

IMA12 cod. IM3000311 NFA2P Frequency 9.9 Ghz

**Double technology detector equipped with three-function Extravision® hemispherical Fresnel lens.**

- High-density lens with selectable coverage fields (volumetric, long-range, curtain) where the uniform sensitivity optics allow detection capacities regardless of the intruder's distance or position inside the coverage field.

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- Range:
  - 12 m nominal (volumetric lens)
  - 12 m nominal (curtain lens)
  - 12 m nominal (long range lens)

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- IR coverage:
  - 90° (volumetric lens)
  - 6° (long range and curtain lens)

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- MW coverage: 90° horizontal - 36° vertical

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- Sensitive zones:
  - 23 on 5 levels + 2 creep-zone (volumetric lens)
  - 1 on 1 level + 1 creep-zone (curtain lens)
  - 7 on 5 levels + 1 creep-zone (long range lens)

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- PROTECTED P.I.R. : The PIR sensitive element is completely protected against disturbances due to insects and/or air draughts which might generate false alarms.

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- HALOGEN LIGHT PROTECTION: The lens colouring prevents false alarms should the sensitive element be hit by white light rays.

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- The detector MW section is provided with AUTOEQUALIZER function for a dynamic adaptation to the alarm thresholds.

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- OPERATING LOGICS: Two operating modes are possible: AND1: the alarm is triggered only if both IR and MW sections are energized; AND2: the alarm is triggered only if both IR and MW sections are energized, or if the MW section is energized for some seconds.

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- STAND-BY "S" CONTROL: Through this input the detector is informed on the system state (on or off). Therefore, it is possible to program the detector so that this information can control the alarm relay and LED activation/deactivation.

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- ALARM RELAY INHIBITION: Possibility of programming the alarm output so that it is inhibited when the detector is in "stand-by" mode.

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- AUTOMATIC TEMPERATURE COMPENSATION: The detector is provided with two-direction automatic compensation, i.e., when environment temperature increases and approaches human body temperature, actuation threshold is decreased, while, when environment temperature becomes higher than human body temperature, the threshold rises back.

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- MICROWAVE EMISSION INHIBITION: The detector is in stand-by mode (system off) inhibits the emission generated by the microwave section

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- FAULT MEMORY: The detector can detect fault situations and display the type of fault through the LED flashing. The detected fault conditions are the following: power supply voltage fault; microwave section fault; infrared section fault.

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- Min - max operation voltage: 9 – 15 Vcc

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- Supply nominal voltage: 12 Vcc

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- Absorption 12V— : 14 mA nom. ; 35 mA max

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- Infrared section pulse counter: X1/X2.

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- Alarm relay : solid state relay - NC 0.1A@24V— / R max = 35 ohm

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- Anti-tamper device: 50 mA @ 24 Vcc

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- Operating temperature: -10 °C / +55 °C (declared by the manufacturer) +5°C ÷ +40°C (certified according to CEI 79.2)

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- Dimensions (H x L x D) : 124 x 70 x 50 mm.

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- Weight: 124 g.



IMA 12

MODEL	Quality Certification
IMA12	  





# VOLUMETRIC PROTECTIONS

## IMA SERIES DOUBLE TECHNOLOGY DETECTORS

### Double Technology detector with interchangeable Fresnel® lens

IMA13 cod. IM3100211 IMQ Frequency 10.525 Ghz

IMA13 cod. IM3100311 NFA2P Frequency 9.9 Ghz

**Double technology detector equipped with interchangeable flat (cylindrical) Fresnel lens.**

- **INCLINATION OF SENSITIVE RAYS:** For installations at heights different from 2.1 metres it is possible to adjust the pyroelectric detector position by translating the printed circuit board up or down.
- **INTERCHANGEABLE LENS:** The Fresnel ® volumetric lens manufactured in the factory can be replaced with a curtain or long-range lens, optional.
- **Range:**
  - 15 m nominal (volumetric lens)
  - 15 m nominal (curtain lens)
  - 15 m nominal (long range lens)
- **IR coverage:** 108° (volumetric lens)
- **MW coverage:** 90° horizontal - 36° vertical
- **Sensitive zones:**
  - 31 on 4 levels (volumetric lens)
  - 1 on 1 level (curtain lens)
  - 7 on 4 levels (long range lens)
- **PROTECTED P.I.R. :** The PIR sensitive element is completely protected against disturbances due to insects and/or air draughts which might generate false alarms.
- **HALOGEN LIGHT PROTECTION:** The lens colouring prevents false alarms should the sensitive element be hit by white light rays
- The detector MW section is provided with AUTOEQUALIZER function for a dynamic adaptation to the alarm thresholds.
- **OPERATING LOGICS:** Two operating modes are possible: AND1: the alarm is triggered only if both IR and MW sections are energized; AND2: the alarm is triggered only if both IR and MW sections are energized, or if the MW section is energized for some seconds.
- **STAND-BY "S" CONTROL:** Through this input the detector is informed on the system state (on or off). Therefore, it is possible to program the detector so that this information can control the alarm relay and LED activation/deactivation.
- **ALARM RELAY INHIBITION:** Possibility of programming the alarm output so that it is inhibited when the detector is in "stand-by" mode.
- **AUTOMATIC TEMPERATURE COMPENSATION:** The detector is provided with two-direction automatic compensation, i.e., when environment temperature increases and approaches human body temperature, actuation threshold is decreased, while, when environment temperature becomes higher than human body temperature, the threshold rises back.
- **MICROWAVE EMISSION INHIBITION:** The detector is in stand-by mode (system off) inhibits the emission generated by the microwave section
- **FAULT MEMORY:** The detector can detect fault situations and display the type of fault through the LED flashing. The detected fault conditions are the following: power supply voltage fault; microwave section fault; infrared section fault.
- **Min - max operation voltage:** 9 – 15 Vcc
- **Supply nominal voltage:** 12 Vcc
- **Absorption 12V— :** 14 mA nom. ; 35 mA max
- **Infrared section pulse counter:** X1/X2.
- **Alarm relay :** solid state relay - NC 0.1A@24V— / R max = 35 ohm
- **Anti-tamper device:** 50 mA @ 24 Vcc
- **Operating temperature:** -10 °C / +55 °C (declared by the manufacturer) +5°C ÷ +40°C (certified according to CEI 79.2)
- **Dimensions (H x L x D)** 124 x 70 x 54 mm.
- **Weight:** 124 g.



IMA 13

MODEL	Quality Certification
IMA13	  



# VOLUMETRIC PROTECTIONS

## IMA SERIES DOUBLE TECHNOLOGY DETECTORS

### Double technology detector with antimasking

IMA15 AM cod. IM3200211 IMQ Frequency 10.525 Ghz

IMA15 AM cod. IM3200311 NFA2P Frequency 9.9 Ghz

- **INCLINATION OF SENSITIVE RAYS:** For installations at heights different from 2.1 metres it is possible to adjust the pyroelectric detector position by translating the printed circuit board up or down.
- **INTERCHANGEABLE LENS:** The Fresnel ® volumetric lens manufactured in the factory can be replaced with a curtain or long-range lens, optional.
- **Range:**
  - 15 m nominal (volumetric lens)
  - 15 m nominal (curtain lens)
  - 30 m nominal (IR section, OR operation - long range lens)
- **IR coverage:** 108° (volumetric lens)
- **MW coverage:** 90° horizontal - 36° vertical
- **Sensitive zones:**
  - 31 on 4 levels (volumetric lens)
  - 1 on 1 level (curtain lens)
  - 7 on 4 levels (long range lens)
- **PROTECTED P.I.R. :** The PIR sensitive element is completely protected against disturbances due to insects and/or air draughts which might generate false alarms.
- **HALOGEN LIGHT PROTECTION:** The lens colouring prevents false alarms should the sensitive element be hit by white light rays.
- **ANTI-MASKING FUNCTION:** The detector identifies the masking function both on the microwave section and, as a deduction, also on the infrared section.
- The detector MW section is provided with AUTOEQUALIZER function for a dynamic adaptation to the alarm thresholds.
- **OPERATING LOGICS:** Two operating modes are possible: AND1: the alarm is triggered only if both IR and MW sections are energized; AND2: the alarm is triggered only if both IR and MW sections are energized, or if the MW section is energized for some seconds.
- **STAND-BY "S" CONTROL:** Through this input the detector is informed on the system state (on or off). Therefore, it is possible to program the detector so that this information can control the alarm relay and LED activation/deactivation.
- **SYNCHRONISM FUNCTION:** this function makes it possible to install up to max 4 detectors in one single environment preventing microwave section mutual interference.
- **ALARM RELAY INHIBITION:** Possibility of programming the alarm output so that it is inhibited when the detector is in "stand-by" mode.
- **AUTOMATIC TEMPERATURE COMPENSATION:** The detector is provided with two-direction automatic compensation, i.e., when environment temperature increases and approaches human body temperature, actuation threshold is decreased, while, when environment temperature becomes higher than human body temperature, the threshold rises back.
- **FAULT MEMORY:** The detector can detect fault situations and display the type of fault through the LED flashing. The detected fault conditions are the following: power supply voltage fault; microwave section fault; infrared section fault.
- **Min - max operation voltage:** 9 – 15 Vcc
- **Supply nominal voltage:** 12 Vcc
- **Absorption 12V— :** 18 mA nom. ; 38,5 mA max
- **Infrared section pulse counter:** X1/X2.
- **Alarm relay :** solid state relay - NC 0.1A@24V— / R max = 35 ohm
- **Anti-tamper device:** 50 mA @ 24 Vcc
- **Operating temperature:** -10 °C / +55 °C (declared by the manufacturer) +5°C ÷ +40°C (certified according to CEI 79.2)
- **Dimensions (H x L x D):** 124 x 70 x 54 mm.
- **Weight:** 124 g.



IMA 15AM

MODEL	Quality Certification
IMA15AM	  



# VOLUMETRIC PROTECTIONS

## DOUBLE TECHNOLOGY DETECTORS

### Double Technology detector with trifunctional EXTRAVISION® Lens

IM915 VDS cod. IM2502211

**Double technology detector equipped with three-function Extravision® hemispherical Fresnel lens.**

- Infrared Range: 12 m nom. ( wide angle lens ), 12 m nom. (curtain lens ), 12 m nom. (long range lens )
- Infrared Field of View: 90 ° ( wide angle lens )
- Infrared Coverage: 3 selectable fields of coverage
- Infrared Sensitive zones: 20 at 3 levels (wide angle lens) + 2 creep-zones, 1 at 1 level ( curtain lens ) + 1 creep-zone, 7 at 5 levels ( long range lens ) + 1 creep-zone
- Microwave Range Reg. with trimmer from 20 % to 100 % (12 m)
- Microwave technology: DRSO oscillator with Planar Antennas
- Microwave Frequency: 9,35 GHz
- Microwave Emission: Pulsed
- Microwave Coverage: 90° horizontal – 36° vertical
- Pulse count : x1, x2 ( programmable )
- Infrared sensor: PIR DUAL
- Walk Test LED; Red Led: Alarm, Alarm Memory, Fault. Green Led: Infrared Section. Orange Led: Microwave Section
- Operation: AND
- Anti tamper (SPST ) : NC, 50 mA – 24 V—
- Rated supply voltage: 12 Vdc
- Operating voltage: 9 -:-15 Vdc
- Absorption at 12 Vdc : 19 mA typ ( Normal operation ), 36 mA max ( Alarm with leds on)
- Operating temperature : from -10°C to + 55°C – VdS Environmental class II
- Degree of protection of cover: IP 30 IK02
- Size ( h x l x w ) : 138 x 74 x 53 mm
- Weight : 160 gr.
- VdS approvalV: VdS Class B – Nr. G 101501
- This equipment may be operated in: DE



IM 915 VDS

IM915AM VDS cod. IM2602211

**Antimasking Double technology detector equipped with three-function Extravision® hemispherical Fresnel lens.**

- As IM915 but with the following additional functions:
- Infrared Range: 15 m nom. ( wide angle lens ), 15 m nom. (curtain lens ), 15 m nom. (AND - long range lens), 25 m nom. (OR - long range lens)
- Anti-masking function (PATENTED): the P.I.R. sensor is provided with 2 anti-blinding, anti-masking systems which are active simultaneously
- Walk Test LED; Red Led: Alarm, Alarm Memory, Fault. Yellow Led (FAULT: Masking/Fault)
- VdS registration: VdS Class C – Nr. G 106076



IM 915AM VDS

MODEL	Quality Certification
IM915VDS	VdS
IM915AMVDS	VdS



# VOLUMETRIC PROTECTIONS

## DOUBLE TECHNOLOGY AND MICROWAVE DETECTORS

### Double Technology detector with trifunctional EXTRAVISION® Lens

IM915AM cod. IM2600211

**Double technology detector equipped with three-function Extravision® hemispherical Fresnel lens.**

- Range: 15 m (volumetric lens), 15 m (curtain lens), 25 m (long range lens)
- Coverage: 90° horizontal plan
- Coverage zones : 20 on 3 levels + 2 creep zones (volumetric lens)
- Creep zone detection
- QUAD PIR sensor, double antimasking function (Patented)
- PIR range adjustable
- AND/OR operation
- Autoequalizer function
- Pulse count
- Automatic temperature compensation
- Double digital filter
- Rated voltage : 12 Vdc
- Consumption: 10mA at rest
- Dimensions (H x L x D): 138 x 74 x 53 mm.
- Weight: 124 g.



IM 915AM

### Double Technology detector with Fresnel® lens

IM29CPU cod. IM1800111

**Double technology detector equipped with Fresnel lens.**

- Global range: 15 / 25 m programmable
- Microwave coverage: 70° horizontal, 70° vertical
- Sensitive zones: 18 zones on 3 levels
- Main frequency: in accordance with national frequencies
- Autoequalizer® Function: variable thresholds in relation to the environmental noise (for MW and IR)
- Microwave section sensitivity: adjustable
- Infrared section sensitivity: adjustable
- Alarm memory: adjustable
- Operation: AND
- Passive infrared: Fresnel lens
- Warning leds: one for each section
- Rated voltage: 10,5 ÷ 14 Vdc
- Consumption: 30 mA under quiescent conditions
- Dimensions without support: 100X95X60 mm



IM29CPU

### Microwave Detector





MW21PD cod. MW1100211

**Microwave detector with antimasking.**

- Range: 30 m with anti-masking device
- Coverage: 70° horizontal, 70° vertical
- Main frequency: in accordance with national frequencies
- Rated voltage: 10,5 ÷ 14 Vdc
- Consumption: 18 mA rated
- Dimensions without bracket: 100x80x60 mm
- Orientable, equipped with anti-tamper device
- Certified NF-A2P Type 3 (ID Version)



MW21PD

MODEL	Quality Certification	
IM915AM	 3° liv.	
MW21PD	 3° liv.	

# VOLUMETRIC DETECTORS WITH CAMERA

## VOLUMETRIC DETECTORS WITH CAMERA

TI14-EXT014-CHR cod. TC4FO0131

### Infrared detector with integrated high resolution micro camera

- Detector: 1/3" Sony SUPERHAD II Low Lux CCD
- Sensitive elements: 752(H) x 582(V) pixels
- Minimum illumination: 0.2 Lux / F = 1.2
- Horizontal resolution 550TVL
- Scanning system: 625 lines / 2:1 interlaced
- S/N > 50dB (AGC OFF)
- Internal synchronization
- Electronic shutter: AUTO
- Functions AGC/AWB/BLC: AUTO
- Objective pinhole f=3.7mm
- Video output: 1.0 Vp-p, 75  $\Omega$  Composite, BNC x 1
- Gamma Ratio: 0.45
- Power supply: 12Vdc  $\pm$ 10%
- Absorption: 80mA
- Operation temperature: -10°C ~ +50°C
- Dimensions (L x D x H): 31 x 31 x 18 mm
- Weight: 120 g



### Detector characteristics

- Passive infrared detector with signal digital processing equipped with three-function hemispherical Fresnel lens Extravision®
- Range: 12/15 m nominal (volumetric lens), 12/15 m nominal (curtain lens), 18/25 m nominal (long range lens)
- Protected P.I.R.
- Halogen light protection
- Alarm memory
- Failure status display
- Stand-by command
- Alarm relay inhibition
- Sensitivity regulation
- Walk test
- Pre-alarm function
- Absorption at 12 Vdc: 10.5 mA
- Pulse count: X1/X2
- Alarm relay: solid state relay NC 100 mA @ 24 Vdc/Rmax=35  $\Omega$
- Dimensions (L x D x H): 70 x 50 x 50 mm
- Weight: 115 g

# OUTDOOR DETECTORS

### OUTDOOR VOLUMETRIC DETECTOR

In front of the house, on the balcony, on the terrace, everywhere there is a small space to be kept under control, an external detector may be required, like the brand new Elkron model IMA20EX.

Its range is 10 metres and it is based on a triple technology: dual passive infrared and double microwave.

This technology combination allows an accurate analysis of the alarm signal, thus ensuring a high reliability in distinguishing false alarms.

#### High capacity to distinguish false alarms

- The digital processing of the detected signals makes it possible to distinguish the signals caused by movements from those generated by environmental disturbances. (MRD system – Motion Rate Detect).
- The capacity to analyse a body interfering in the area covered by the microwave section allows the distinction between the movement of a person and other movements (e.g. leaves carried by the wind).

#### Pet Immunity

The detector digital processing can distinguish between the signals generated by a person and those generated by animals up to 35 kg.

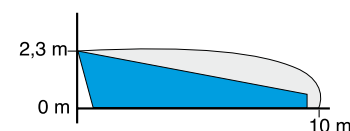
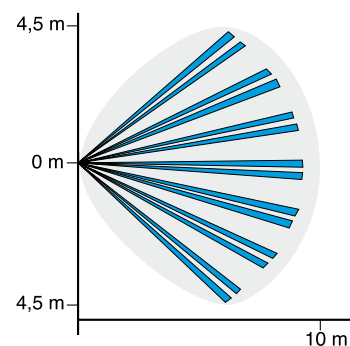
#### Night function

The detector can be programmed in order to generate alarm only when there is no sunlight, this way it can be used as "courtesy light".

IMA20EX cod. IM3300113

**Outdoor detector with triple technology, dual passive infrared, double lobe microwave.**

- Supply nominal voltage: 12V—
- Min - max operation voltage: 9 ÷ 15V—
- Absorption 12V— : 9mA nom.
- Technology: double-channel microwave and mirror passive infrared
- Detection range: 10m
- Microwave sensitivity: adjustable with trimmer
- Frequency: 10.525 GHz
- Infrared sensitive areas: seven curtain beams
- Temperature adjustment: present (digital adjustment)
- Alarm duration: 3 seconds
- Alarm output: NC in idle posit. max 35V— / 150 mA
- Anti-tamper device: NC max. 24V— / 500 mA
- Pet immunity: up to 35 Kg
- Operating temperature: 25°C +55°C
- Humidity: 5 ~ 95%
- Case protection level: IP43
- Dimensions (l x h x p): 152 x 75 x 55 mm
- Joint provided



IMA20EX

