



SPA

EL.MO.

Global Security Solutions

**Infrared passive detection sensor
with digital PIR**

mod. CENTAURO

TECHNICAL MANUAL

090000621

FOREWORD

FOR THE INSTALLER:

Please follow carefully the specifications relative to electric and security systems realization further to the manufacturer's prescriptions indicated in the manual provided.

Provide the user the necessary indication for use and system's limitations, specifying that there exist precise specifications and different safety performances levels that should be proportioned to the user needs. Have the user view the directions indicated in this document.

FOR THE USER:

Periodically check carefully the system functionality making sure all enabling and disabling operations were made correctly.

Have skilled personnel make the periodic system's maintenance. Contact the installer to verify correct system operation in case its conditions have changed (e.g.: variations in the areas to protect due to extension, change of the access modes, etc...)

 This device has been projected, assembled and tested with the maximum care, adopting control procedures in accordance with the laws in force. The full correspondence to the functional characteristics is given exclusively when it is used for the purpose it was projected for, which is as follows:

Infrared passive detection sensor with digital PIR

Any use other than the one mentioned above has not been forecasted and therefore it is not possible to guarantee its correct operativeness.

The manufacturing process is carefully controlled in order to prevent defaults and bad functioning. Nevertheless, an extremely low percentage of the components used is subjected to faults just as any other electronic or mechanic product. As this item is meant to protect both property and people, we invite the user to proportion the level of protection that the system offers to the actual risk (also taking into account the possibility that the system was operated in a degraded manner because of faults and the like), as well reminding that there are precise laws for the design and assemblage of the systems destined to these kind of applications.

The system's operator is hereby advised to see regularly to the periodic maintenance of the system, at least in accordance with the provisions of current legislation, as well as to carry out checks on the correct running of said system on as regular a basis as the risk involved requires, with particular reference to the control unit, sensors, sounders, dialler(s) and any other device connected. The user must let the installer know how well the system seems to be operating, based on the results of periodic checks, without delay.

Design, installation and servicing of systems which include this product, should be made by skilled staff with the necessary knowledge to operate in safe conditions in order to prevent accidents. These systems' installation must be made in accordance with the laws in force. Some equipment's inner parts are connected to electric main and therefore electrocution may occur if servicing was made before switching off the main and emergency power. Some products incorporate rechargeable or non rechargeable batteries as emergency power supply. Their wrong connection may damage the product, properties and the operator's safety (burst and fire).

EU DECLARATION OF CONFORMITY

The product complies with current European EMC and LVD directives. The full text of the EU declaration of conformity is available at the following Internet address: elmospa.com – registration is quick and easy.



1. GENERAL INFORMATION


CENTAURO infrared passive sensor is a state-of-the-art device capable of detecting the presence of infrared energy generated by the movement of a person in the area covered by the sensor. One of **CENTAURO** strong points is the use of a **digital PIR** to obtain an extremely high immunity to disturbances and detection precision. **CENTAURO** represents a perfect combination of electronic circuit reliability with simplicity of installation and use. The outward appearance of the unit has been designed with attention to the smallest detail and the reduced dimensions and specially shaped underside of the casing facilitate installation both to walls and in corners, even in the most elegant of surroundings.

CENTAURO is equipped with a FRESNEL lens with various detection zones designed by computer for the most effective protection possible combined with a good sensitivity/disturbance ratio.

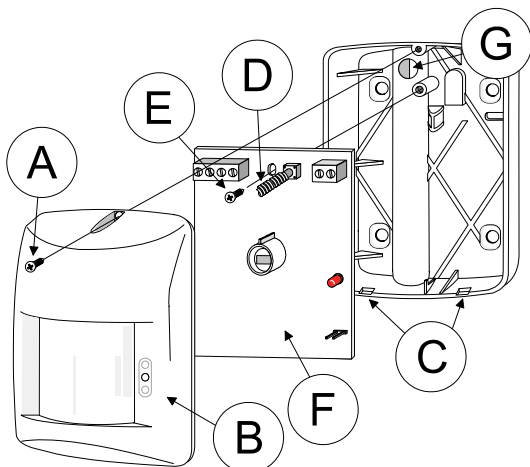
CENTAURO contains an integration circuit (2 impulses in 20 seconds) to eliminate alarms caused by the sudden appearance of points of increased temperature.

It is advisable in any case to follow the basic rules for the installation of infrared sensors, in other words, not to direct the sensor towards sources of light or heat which could change rapidly, such as the sun or car headlights.

2. FEATURES

Model:	CENTAURO	Timings:	60s delay upon power on, alarm integration with second pulse in 20s, alarm duration 5s, pause after an alarm 1s.
Level of performance:	I°		
EN50131 compliance:	class 2, environmental class 2.		
Protection class:	IP3X	Tamper:	NC terminal board terminations for protection against opening of housing.
Power supply:	12V  (from 6,5V to 15V).	Alarm relay:	Solid state with 10Ohm resistance in series ai to C-NC contacts and 200mA max. capacity.
Power consumptions@12V:	on idle state 7 mA, on alarm state 8 mA, on power on 10 mA.	Operating temp.:	-10 ÷ +55°C
Activity visualization:	excludable front LED indicator.	Humidity	93% HR.
LED indications:	slow blinking due to 60s inhibition wait upon power on, a blink for un lampeggio per avvio del ciclo di integrazione di allarme, accensione fissa per allarme.	Dimensions, weight:	L 64 x H 81 x P 48mm, 82g.
		Parts supplied:	screws and fixing dowels, technical manual.
Capacity and coverage area:	15 meters with SML15 standard lens, with bands arrangement as in the the manual's diagram.		

3. INSTALLATION



Warning: when handling the detector during installation pay attention not to touch PIR detector with the fleshy part of the fingertips to avoid dirtying its surface.

Opening and closing of the housing.

- 1) Unscrew the cover's fastening screw located on the top of the housing, marked A.
- 2) Separate B front lid
- 3) The above procedure must be repeated in reverse order to secure the cover back on, being extremely careful to fit the closing spring belonging to the Tamper protection microswitch, marked C, properly in place; finish off fastening by screwing the cover's self-tapping screw back on.

Procedure for releasing and reattaching the board.

- 1) Remove the fastening screw marked E, remove the board marked F by turning it gently out and up until it is free from the catch at the bottom.
- 2) The above procedure must be repeated in reverse order to attach the board back onto the rear the housing.

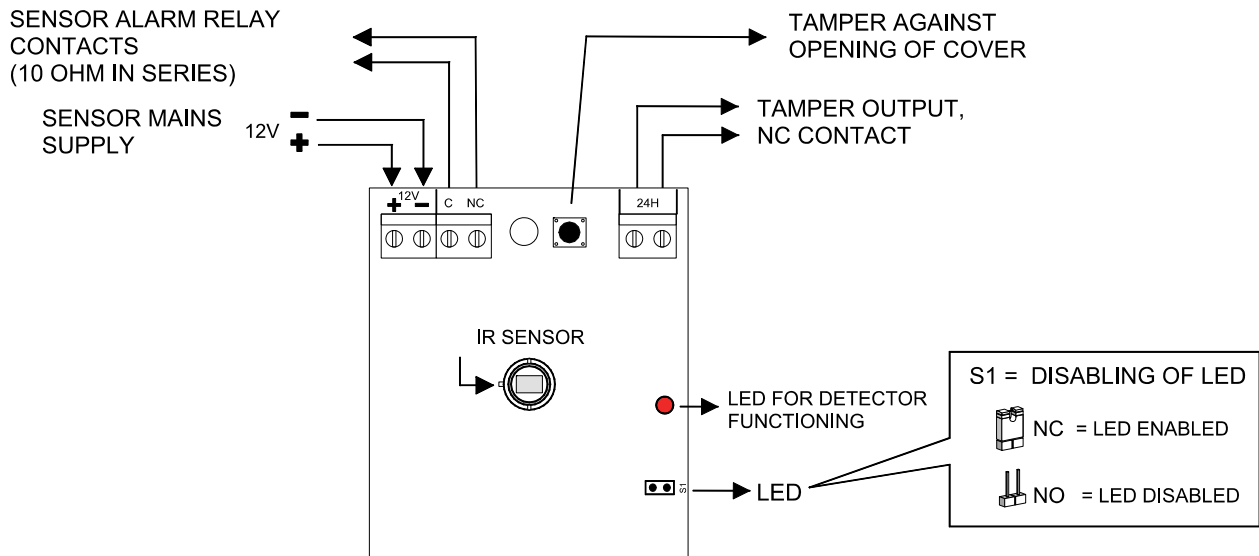
Cable feeding:

- 1) Open the preprinted hole marked G.
- 2) Unpowered cables must be fed by using the back cable race.



4. ELECTRICAL CONNECTIONS

Connection of the detector.



5. COVERAGE DIAGRAMS

WARNING: the user has to check that the visual field of the detector is not partially or totally darkened.

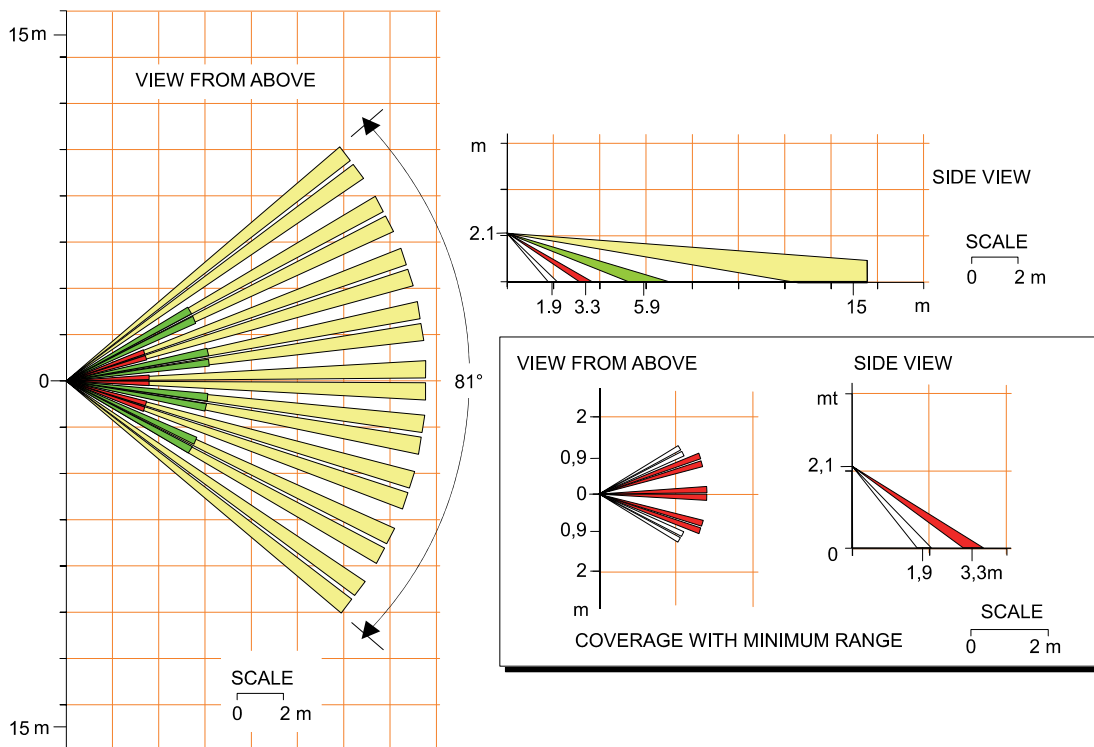
Coverage diagram with mod. SML/15 standard lens.

Capacity: 15 meters

Arrangement of bands: 18 sensitive zones played on 4 levels.

Coverage: volumetric with 81° opening

Lens characteristics: protection from white light.



Note: Note that diagrams refer to a standard installation at a height of 2.1 metres.



6. CHANGING THE LENS

To customise the coverage area of the sensor, it is possible to substitute the Fresnel lens with another which has the desired characteristics. These alternative lenses are described in the following section.

To change the lens it is necessary to follow these instructions:

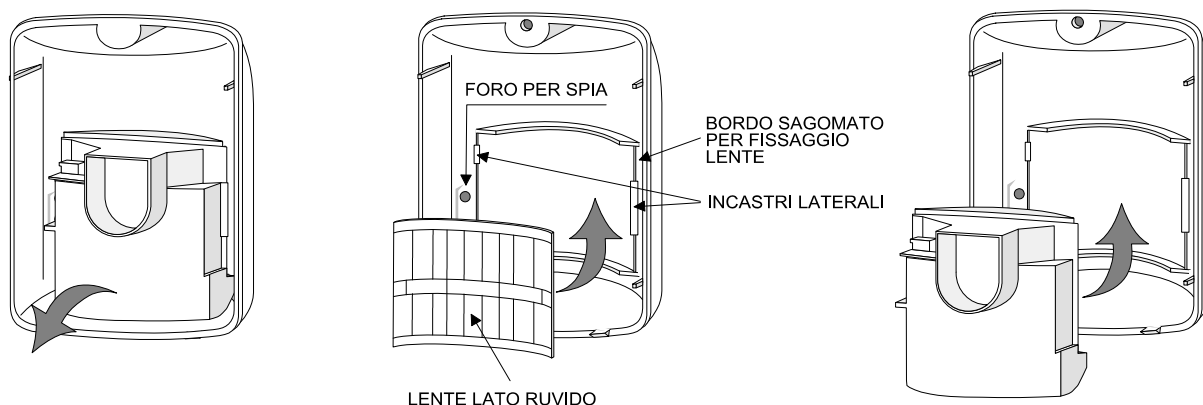
To change a lens operate as follows:

To remove a lens:

- 1) Hold the cover of the sensor with the inside towards you.
- 2) Unhook the side tabs and extract the moulded frame.
- 3) Remove the lens to be substituted

To fit a new lens:

- 1) Hold the cover of the sensor with the inside towards you.
- 2) Position the lens with the rough side towards the inside of the cover and with the greater number of sectors on the lens towards the top.
- 3) Fit the moulded frame to hold the lens in place, taking care that it sits under the side tabs.



7. OPTIONAL LENSES, CHARACTERISTICS AND COVERAGE DIAGRAMS

Note: optional lenses are not IMQ certified.

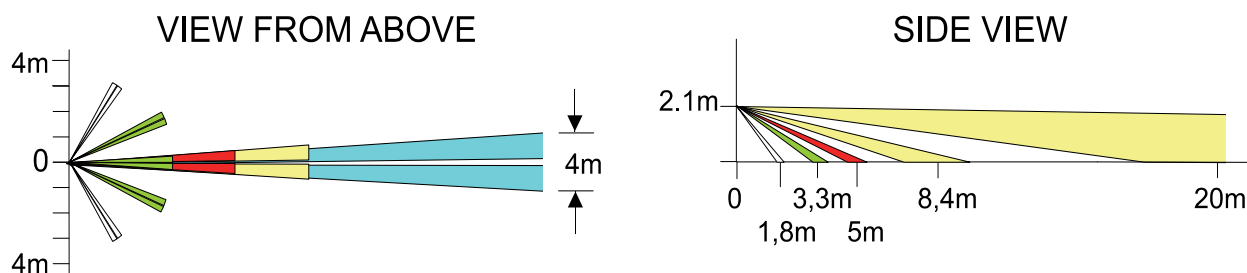
Coverage diagram with mod. **SML/20**. standard lens.

Capacity: 20 meters

Arrangement of bands: 10 sensitive zones places on 5 levels

Coverage: long distance

Lens characteristics: protection against white light.



Note: Note that diagrams refer to a standard installation at a height of 2.1 metres.

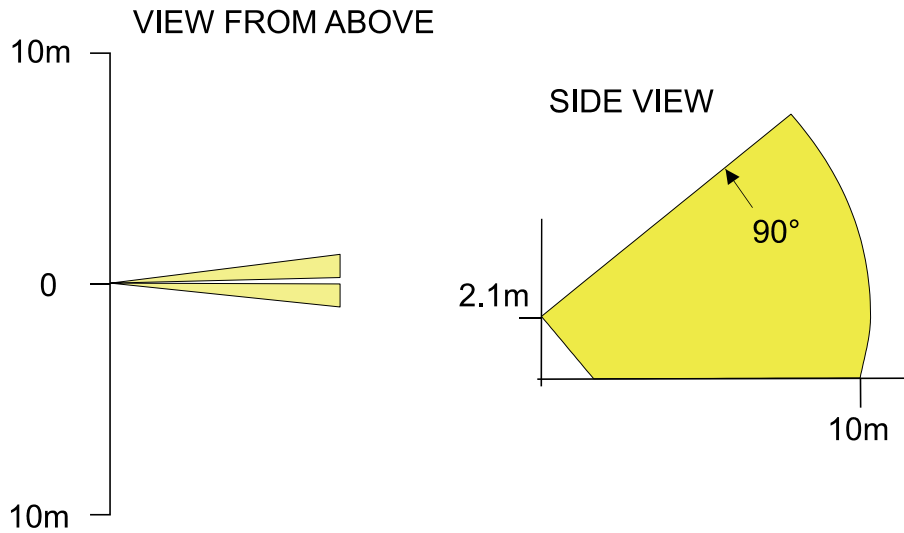
Coverage diagram with mod. **SML/PP** lens.

Capacity: 10 meters

Arrangement of bands: vertical curtain

Coverage: 90° opening

Lens characteristics: protection against white light.



Note: Note that diagrams refer to a standard installation at a height of 2.1 metres.

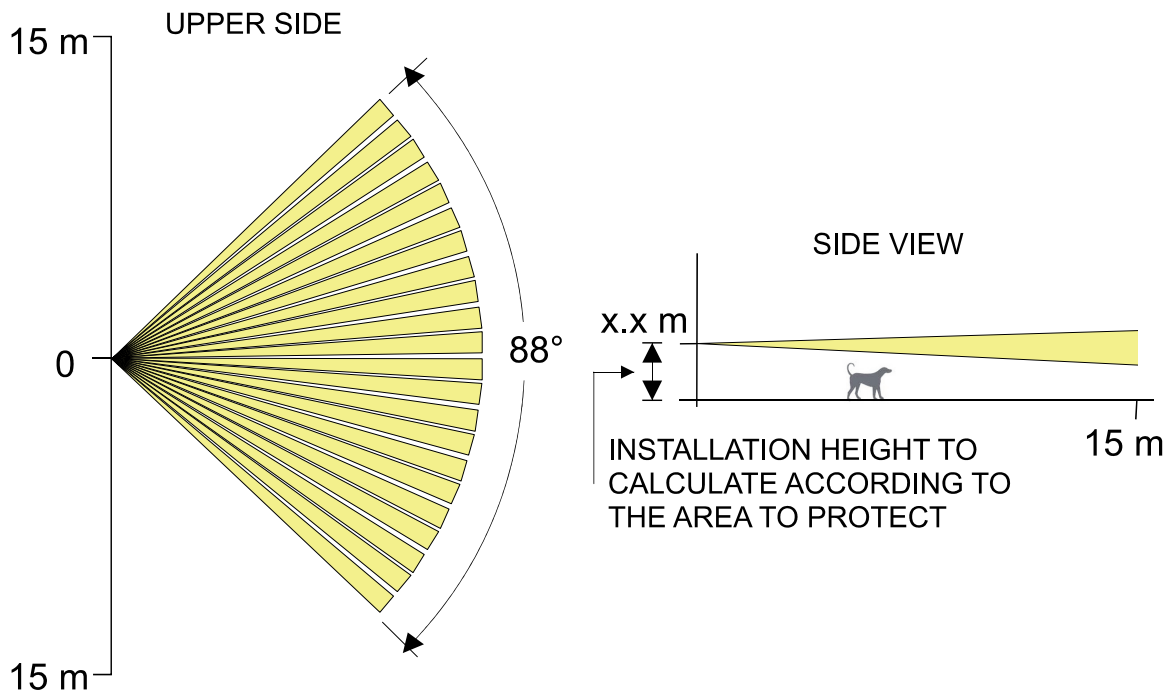
Coverage diagram with mod. **SML/TO** lens.

Capacity: 10 meters.

Arrangement of bands: horizontal curtain.

Coverage: 88° opening

Lens characteristics: protection against white light.



8. DISPOSAL INSTRUCTIONS

Dispose of CENTAURO detector in compliance with current city regulations and by leaving the device in a dumping ground which is authorized for the disposal of electronic products; if required, please contact the appropriate city office for additional information.

The material used for this product is very harmful and polluting if dispersed in the environment.

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Product specifications as described above do not bind the manufacturer and may be altered without any prior notice.

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