

SCMAS5

Optical-acoustic device
output control module
for AS protocol loop

090070671





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:

Optical-acoustic device output control module.

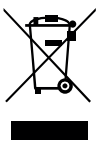
Any use other than the one mentioned above has not been forecasted and therefore it is not possible to guarantee the correct functioning of the device. Similarly, any other use of this technical manual other than the one it has been compiled for — that is: to illustrate the devices technical features and operating mode - is expressly prohibited.

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, dialer(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).

DISPOSAL INSTRUCTIONS



According to Directive 2012/19/EU on the Waste of Electric and Electronic Equipment (WEEE), it is here specified that this Electrical-Electromechanic Device started to be commercialized after 13th August 2005, and it shall be disposed of separately from ordinary waste products.



1. GENERAL

EL.MO.'s SCMAS5 is the new optical-acoustic device output control module for AS protocol analogic loop systems.

Born from the experience and from the studies of our R&D team, it can boast several strengths:

- **Easy to install.** Easier wiring thanks to the removable terminal board;
- **Compact.** Compatible with optional 503 flush mount box;
- **Suitable for power group monitoring.** Where there is no dedicated serial line for monitoring power supply units directly from a control unit, SCMAS5 can monitor the fault status of the PSU through a LED and by bouncing the alarm to the control unit. If the fault is signalled by lack of power on the fault line, any line interruption is treated as a fault as well.

2. TECHNICAL SPECIFICATIONS

Model:	SCMAS5
Protection class:	IP3X
Power supply:	24 V _{DC}
Operating voltage:	20.5 V _{DC} to 27.5 V _{DC}
Power consumption:	3.3 mA idle mode; 4.5 mA max alarm mode
Connections:	terminals for relay outputs, power supply unit monitoring, local silencing, signals communications and serial loop connection.
LED indicators:	power supply unit fault LED two-colour LED indicator for alarm, fault and silencing events
Controls:	rotary dip switches to set ID address 6-pin dip switch to set operating functions
Relay contacts carrying capacity:	0.5 A @ 125 V _{AC} - 2 A @ 30 V _{DC} .
Operating temperature:	-10 to +55°C — 93% r.h.
Weight:	58 g
Dimensions:	W 91.6 × H 54.7 × D 19 mm
Distance between centers:	W 84 mm
Parts supplied:	technical manual, balancing resistor (1 × 5K6 Ω)

3. PRODUCT COMPLIANCE

Install the optical-acoustic device output control module SCMAS5 as an accessory of compatible and CE compliant control units only.

Also see the Declaration of Conformity at the end of this manual, or download it from the www.elmospa.com website.

4. INSTALLATION

Install SCMAS5 on AS protocol loops only.



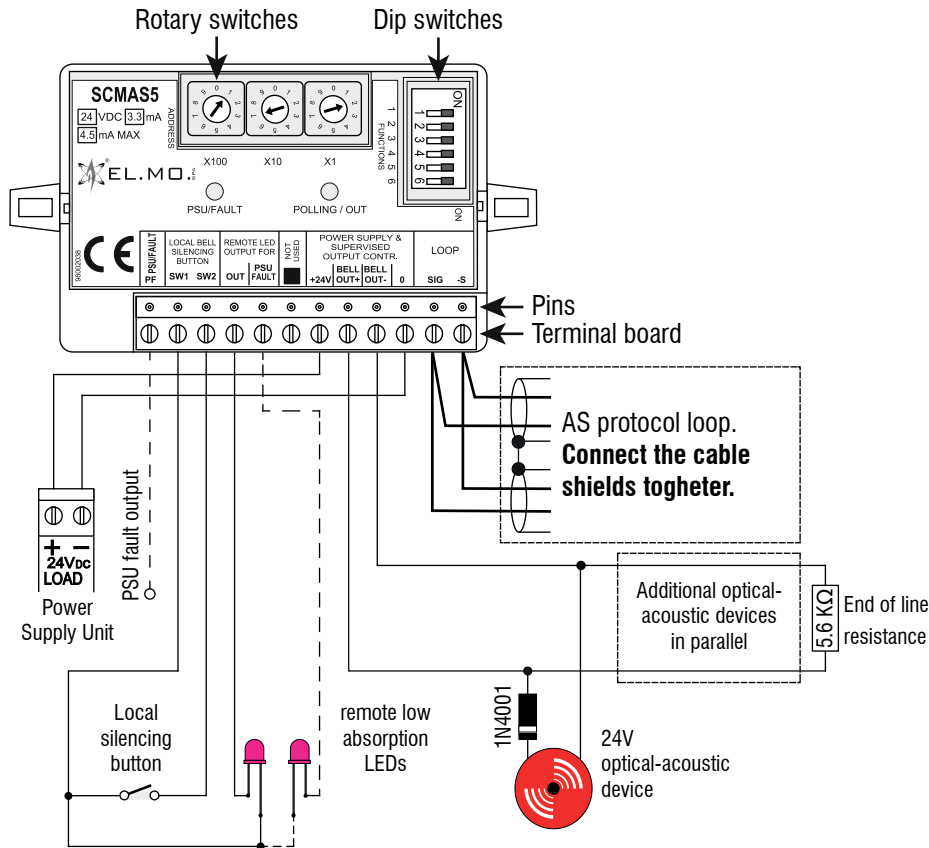
WARNING: in order to avoid false alarms or electronic components damage, make sure panel and loop are disconnected from power during wiring, installation and maintenance operations.

4.1 Overview and wiring diagram

Only connect the wires drawn with a dotted line on pic. 1 if the module is used to monitor a power supply unit. Leave the terminal labeled with a black square empty.



WARNING: don't install any local alarm silencing switch if you need the system to be compliant with the EN54 standards (the button is intended to deactivate the optical-acoustic devices controlled by the output module, till the control unit forwards a new activation command).



Pic. 1 — Overview and wirings

4.2 Unplugging and plugging back the terminal board

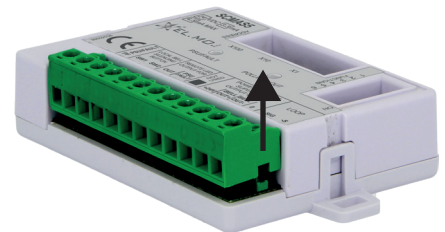
In order to clip the wires without holding the whole box in your hand, the terminal board can be detached.

To unplug the terminal board:

- Insert the point of a small screwdriver between the green plastic block of the terminal board and the white plastic of the bottom side of the box;
- Gently lever over the whole length of the board to make it raise in the arrow's direction (pic. 2);
- Pull the board out in the arrow's direction.

To plug the terminal board back:

- Align the holes on the terminal board's back with the pins;
- Slide back the board, pushing it as far as possible towards the box.



Pic. 2 — Detachable terminal board

4.3 Serial address programming

Every module on the loop has a unique ID **between 1 and 254**.

- Set the address by maneuvering the rotary switches labeled $\times 100$ (hundreds), $\times 10$ (tens), and $\times 1$ (units) on the front of the box.

Pic. 1 shows the example ID $172 = 1 \times 100 + 7 \times 10 + 2 \times 1$

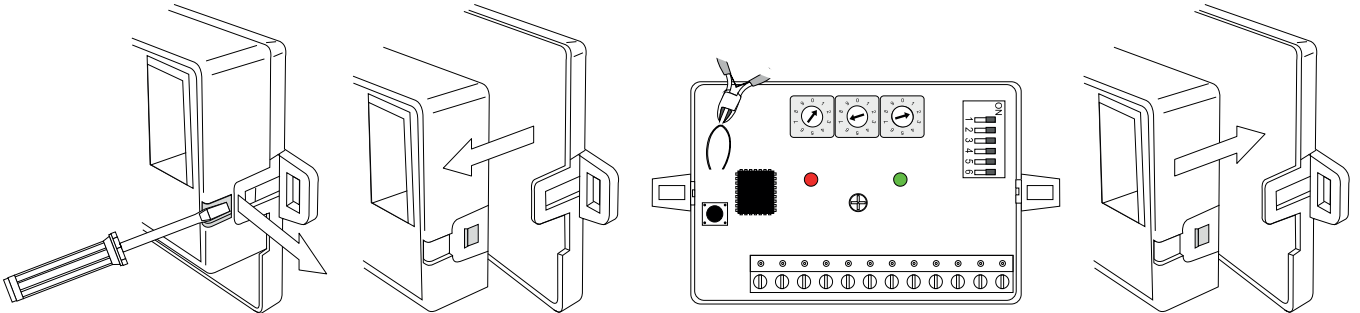


4.4 Activating the connected devices in case of lack of power supply

SCMAS5 can be set to automatically activate its connected self-powered optical-acoustic devices when the power supply line is no longer working.

To activate this function:

- Using a screwdriver, gently force a side clip and slightly move the cover towards you to prevent the clip from trapping it again;
- Gently force the opposite clip, allowing you to completely remove the cover;
- Cut the colored bridge shown in pic. 3;
- Close the cover and hook the clips again, paying attention as not to break them.



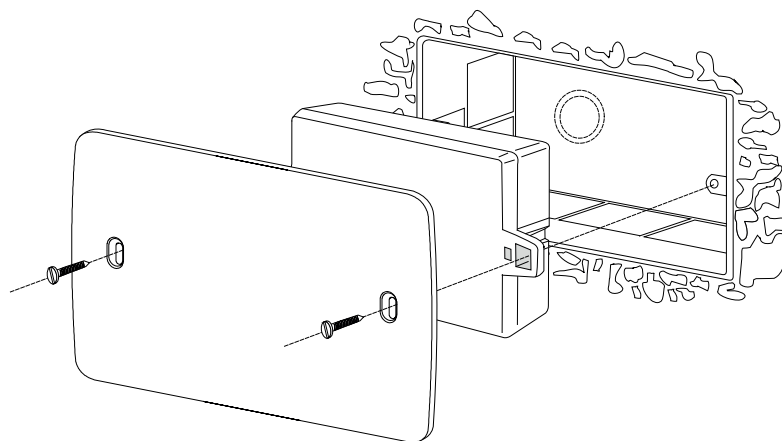
Pic. 3 — Opening the box and bridge location

4.5 Dip switch setting

DIP SWITCH	SETTINGS
1, 2 and 3	Not used.
4	Set to ON if the PSU/FAULT clip is free or if it's connected to the fault line of a PSU that sends a 24 V line voltage during fault events (no current otherwise). Set to OFF if the PSU/FAULT is connected to the fault line of a PSU that sends no current during fault events (24 V voltage otherwise). Live wire interruption is recognized and treated as a PSU fault event.
5 and 6	Always set to ON.

4.6 Flush-mount installation

Use a 503 box with blank cover.



Pic. 4 — Flush mounting



5. PROGRAMMING

To program the module's activities see the compatible AS protocol control unit manual.

6. LED MEANING

LED	LIGHT	MEANING
PSU/FAULT and REMOTE LED OUTPUT FOR PSU FAULT	Off	Regular functioning
	Red blinking light	Power supply unit fault
POLLING/OUT	Green blinking light	Regular functioning (loop polling)
	Red blinking light	Controlled devices line fault (open / shorted / not supplied line) or lack of end of line resistor
	Red steady light	Alarm (linked devices activated)
	Red double blinking light	Alarm (linked devices muted by silencing button)
REMOTE LED OUTPUT FOR OUT	Off	Regular functioning (loop polling)
	Red blinking light	Controlled devices line fault (open / shorted / not supplied line) or lack of end of line resistor
	Red steady light	Alarm (linked devices activated)
	Red double blinking light	Alarm (linked devices muted by silencing button)

7. ANOMALIES

An erroneous dip switch setting can cause the module's fault signaling to malfunction. The following table describes the effects caused by erroneous settings, allowing to find and correct them before the system is actually used.

EFFECT	POSSIBLE REASON
The PSU/FAULT LED and its remote equivalent blink, but nothing is linked to the PSU/FAULT clip	Dip switch 4 is set to OFF
The PSU/FAULT LED and its remote equivalent blink, but the power supply unit is correctly functioning and the live wire to the PSU/FAULT clip is fine	Dip switch 4 is in the wrong position (chapt. 4.5). Try switching it to the other position and simulating a fault for test purposes.
The POLLING/OUT LED and its remote equivalent flash red, but the linked devices line is supplied and has no faults	Dip switches 5 and/or 6 are set to OFF



8. CERTIFICATIONS

DICHIARAZIONE
DI CONFORMITÀDECLARATION OF
CONFORMITY

EL.MO. spa

dichiara sotto la propria responsabilità che il prodotto / declares that the product:

SCMAS5

Interfaccia / interface

al quale questa dichiarazione si riferisce, è conforme alle seguenti norme:
to which this declaration is referred to is in conformity with the following:

EN 50130-4 2011-06	Sistemi d'allarme Parte 4: Compatibilità elettromagnetica Norma per famiglia di prodotto: Requisiti di immunità per componenti di sistemi antincendio, antintrusione e di allarme personale. <i>Alarm systems Part 4: Electromagnetic compatibility Product family standard: Immunity requirements for components of fire, intruder and social alarm system</i>
EN61000-6-3 2007-01 + A1 2011-03	Compatibilità elettromagnetica(EMC). Parte 6-3: Norme generiche – Emissione per gli ambienti residenziali, commerciali e dell'industria leggera. <i>Electromagnetic compatibility (EMC). Part 6-3: Generic standards – Emission standard for residential, commercial and light-industrial environments.</i>

e quindi rispondente ai requisiti essenziali delle direttive:

and then in accordance with the following directives:

<input checked="" type="checkbox"/> 2004/108/CE Compatibilità elettromagnetica <i>Electromagnetic compatibility</i>	<input type="checkbox"/> 2006/95/CE Sicurezza di bassa tensione <i>Low voltage security</i>
<input type="checkbox"/> 1999/5/CE (R&TTE)	Direttiva Europea apparati radio e apparecchiature terminali di telecomunicazione. <i>European Directive wireless equipment and telecommunication apparatus.</i>
<input checked="" type="checkbox"/> 2002/95/CE (RoHS)	Direttiva Europea sulla restrizione dell'uso di determinate sostanze pericolose nelle apparecchiature elettriche ed elettroniche <i>European Directive Reduction of Hazardous Substances</i>

Campodarsego 13/10/2014

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