MAINTENANCE

The minimum maintenance recommended for a module consists of a visual inspection, as well as a periodic operating test.

For the operating test, follow the prev iously indicated procedure. (See the operating m anual of the corres ponding algorithmic panel).

MODULE CODING

All algorithmic equipment must be coded with a number as corresponds to its personalization. The recording of the module numbering can be carried out from:

1. AE/SA-PRG manual address programmer. See the programmer's manual for their coding.
2. Algorithmic Panel. See operating manual of the algorithmic panel for their coding.

Program a number between **1** and **125** as corresponds for their personali zation. For the algori thmic system, the module occupies a single position inside the loop, although the operation can be personalized of up to 32 outputs, according to the model.

The identification number of the unit, as well as the operation pilot, is stored in EEPROM memory.

Before connecting the module to the algorithmic loop, verify the coding is correct.

INHIBITION OF FLASHING OF THE OPERATION PILOT

The operation pilot m ode can be modified whe n carrying out the module coding. B y default, the o perating mode is activated.

TECHNICAL CHARACTERISTICS

Power supply voltage:	18 ~27 V (AE/SA-CTL Algorithmic loop card).
Consumption when idle:	Module AE/SA-2S 2.7 mA
	Module AE/SA-2SV 1.1 mA (auxiliary feed 13 mA)
	Module AE/SA-32S 1 mA
Consumption in alarm state:	Module AE/SA-2S 2.8 mA
	Module AE/SA-2SV 1.7 mA (auxiliary feed 28 mA)
	Module AE/SA-32S 22 mA
Algorithmic loop wiring	2-wire. Recommended cross-section 1.5 mm^2
	Removable jacks for all connections
Outputs:	Module AE/SA-2S Voltage-free contacts. (NA, COMMON, NC)
	Module AE/SA-2SV +24 Vdc (1 A max.)
	Module AE/SA-32S Open collector outputs (52 mA max per output)
Relay characteristics:	Maximum resistive load = 1 A / 30 Vdc - 0.5 A / 125 Vac
	Maximum switching voltage = 125 Vdc - 125 Vac
	Maximum switching power = 30 W - 125 VA
Temperature range:	0º - +50º C (ambient temperature)
Humidity range:	Relative humidity 10% - 90% without condensation.
Casing material:	ABS
Luminous indicator:	Operation pilot: red flash (can be inhibited).
	Activation: red intermittent
Size:	105 x 82 x 25 mm
Fastening:	4 holes, diam. 3.5 mm
Weight:	100 g.

ALGORITHMIC OUTPUT MODULES

TWO OUTPUT MODULE: AE/SA-2S
TWO SUPERVISED OUTPUT MODULE: AE/SA-2SV
THIRTY-TWO OUTPUT MODULE: AE/SA-32S

Units with microprocessor designed to be used with the algorithmic fire detection pane ls of AGUILERA ELECTRONICA, manage communications and monitor output signals.

Each output can be pe rsonalized in the Algori thmic Panel with the nam e of the location and the operation it perfor ms (except in the AE /SA-32S module), and program med to act w ith alarms or events in di fferent pieces of plant equipment.

Two-output module: AE/SA-2S Module that manages the control of 2 dry contact relay s, with contacts norm ally open and normally closed.

Supervised two-output module AE/SA-2SV   Module that manages the c ontrol of two rel ay outputs at a vo ltage of 24Vdc and require supervision of the connection. It requires an auxiliary power supply for output actuation.

Thirty-two-output module: AE/SA-32S: Module that manages the control of 32 open-collector outputs.

They include:

- Operation pilot: It indicates it is operating correctly, giving red-colored flashes through the status LED. The flashing frequency depends on whether the equipm ent in idl e or has an inpu t activated. If the flashing is a nuisance in particular cases, it can be inhibited individually.

- Removable jacks, to facilitate connection in the field.

- The circuit's protective case leaves the status LED of the unit visible.

- Individual identification: Each module is identified individually with a number inside the installation loop.   This number is stored in EEPROM memory whereby it is kept even though the m odule is without power for a long period.

Ae-man-822-0.0 v1.1   TECHNICAL MANUAL   Ae-man-822-0.0 v1.1   TECHNICAL MANUAL

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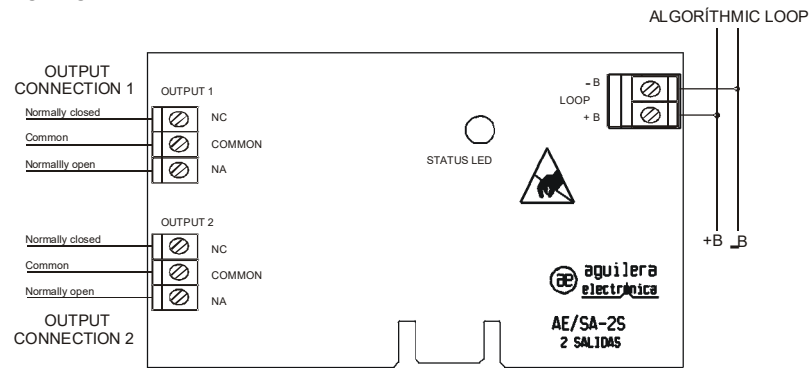
WIRING SCHEMATIC

Assembly

For the installation of the modules, open the module cover by pressing on its central part. Secure the module with 4 screws using the fastening holes foreseen for this purpose.
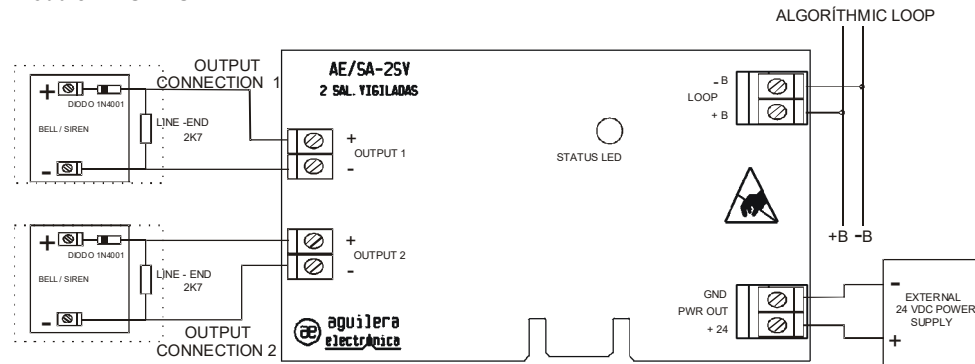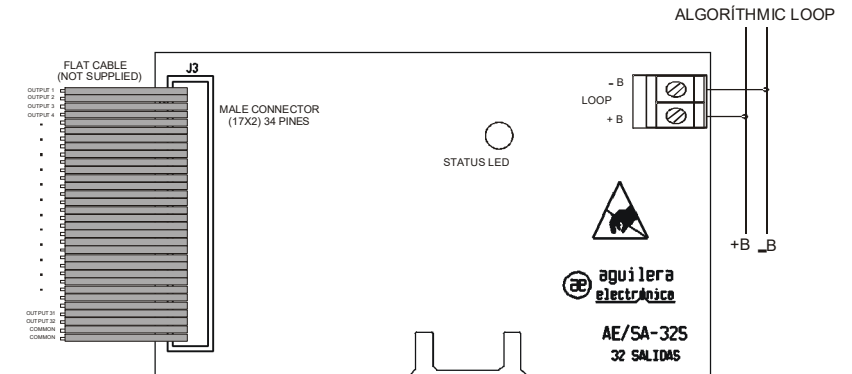
Wiring

Disconnect the supply voltage of the detection loop before installing the module.

§ Connect the positive input of the detection loop to the + B terminal.
§ Connect the negative input of the detection loop to the - B terminal.

Module AE/SA-2S

ALGORÍTHMIC LOOP

OUTPUT CONNECTION 1
OUTPUT 1
Normally closed — NC
Common — COMMON
Normally open — NA

- B LOOP + B

STATUS LED

OUTPUT 2
Normally closed — NC
Common — COMMON
Normally open — NA
OUTPUT CONNECTION 2

+B -B

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AE/SA-2S
2 SALIDAS

Module AE/SA-2SV

AE/SA-2SV
2 SAL. VIGILADAS

ALGORÍTHMIC LOOP

OUTPUT CONNECTION 1
DIDDO 1N4001
BELL / SIREN
LINE -END 2K7
+ OUTPUT 1 -

- B LOOP + B

STATUS LED

DIDDO 1N4001
BELL / SIREN
LINE - END 2K7
+ OUTPUT 2 -
OUTPUT CONNECTION 2

+B -B

GND PWR OUT + 24

EXTERNAL 24 VDC POWER SUPPLY

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This module requires an auxiliary power supply of 24 Vdc for output actuation.

NA: Normally open   NC: Normally closed

Module AE/SA-32S

ALGORÍTHMIC LOOP

FLAT CABLE (NOT SUPPLIED)
J3
OUTPUT 1
OUTPUT 2
OUTPUT 3
OUTPUT 4

MALE CONNECTOR (17X2) 34 PINES

- B LOOP + B

STATUS LED

OUTPUT 31
OUTPUT 32
COMMON
COMMON

+B -B

aguilera electrónica
AE/SA-32S
32 SALIDAS

The AE/SA-32S module has a flat male ribbon connector with 17X2 pins for connection of the outputs. Pins number 33 and 34 are useful to do a global output test if you connect them to negative.

WARNING:
Connection of the rel ay output of m odules with inductive loads like for example door retainers or air conditioning gates, should be protected by means of a 1N4001 di ode or similar. The connection of this diode should be carried out on the actual c oil terminals. If the retainers have an unblocking pushbutton, the diode should be situated after the pushbutton, on the coil terminal posts.

RETAINER
1N4001
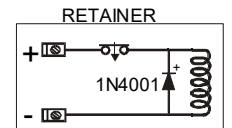
Once the connections have been made, close the module, taking care that the status LED remains visible.

VERIFICATION OF OPERATION

The modules must be tested after installation and undergo periodic maintenance.

Before carrying out the operating tests, notify to the competent authority that maintenance tasks are being carried out in the fire detection system, and make sure that the automatic extinguishing tripping functions are disabled.

§ When removing the module connection plug, the area should be put in the fault state. If this is not done, check it is correctly programmed in the Algorithmic Panel.

§ Check that the m odule is working, by o bserving that it emits red colored f lashes every 10 s, provided this function has not been i nhibited individually. If the flashing is not i nhibited and the module does not emi t them, this means it has failed or the wiring is faulty.

§ Activate the module outputs by activating the corresponding operations from the Algorithmic Panel. Check their activation in the module. The frequency at which the luminous indicator flashes will also increase.

§ Restore the outputs to the idle state. To reset the system, press the RESET key on the Panel.

The modules that have not passed the operating tests should be replaced and repaired.

When the tests have been completed, reconnect the functions previously disabled, and notify the competent authority that the fire detection system is again in service.