

**ALGORITHMIC INPUT MODULES**  
**TWO INPUT MODULE: AE/SA-2E**  
**EIGHT INPUT MODULE: AE/SA-8E**
**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 previously indicated procedure. To facilitate the resetting of the Algorithmic Panel, it can work in zone test mode. (See the operating manual of the corresponding 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 programming. See the programmer's manual for its coding.
2. Algorithmic Panel. See operations manual of the algorithmic panel for its coding.

Program a number between **1** and **125** as corresponds for their personalization. For the algorithmic System, the module occupies a single position inside the loop, although the text and operation can be personalized of up to 8 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 mode can be altered by the AE/SA-PRG programmer. By default, the operating mode is activated.

**TECHNICAL CHARACTERISTICS**

Power supply voltage:	18 ~27 V (AE/SA-CTL Algorithmic loop card).
Consumption when idle:	1.1 mA
Consumption in alarm state:	Module AE/SA-2E: 1.2 (2 inputs activated)
Module	AE/SA-8E: 1.3 (8 inputs activated)
Algorithmic loop wiring	2-wire. Recommended cross-section 1.5 mm <sup>2</sup>
	Removable jacks for all connections
Inputs:	free contacts.
Programmable	for open or closed contact
Temperature range:	0° - +50° C (ambient temperature)
Humidity range:	Relative humidity 10% - 90% without condensation.
Casing material:	ABS
Luminous indicator:	Operation pilot: red flashing (can be inhibited).
	Activation: red intermittent
Size:	105 x 82 x 25 mm
Fastening:	4 holes, diam. 3.5 mm
Weight:	100 g.

Microprocessor-based units designed to be used with the algorithmic fire detection panels of AGUILERA ELECTRONICA to manage communications and monitor voltage-free input signals.

The operation of each input (NO or NC) can be selected by open contact or closed contact in idle mode, by programming in the personalization of the installation.

It is also possible to personalize each input individually, with the type of signal it controls, the location and the state change (garage extractor activated, emergency exit open, etc.)



The module sends a signal to the Algorithmic Panel indicating the change of state of each input.

Fabricated according to the standard prEN 54-18:2005.

It includes:

- Operation pilot: It indicates it is operating correctly, giving red-colored flashes through the status LED. The flashing frequency depends on whether the equipment is in idle or has an input activated. If the flashing is annoying 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 module is without power for a long period.

## WIRING SCHEMATIC

### Assembly

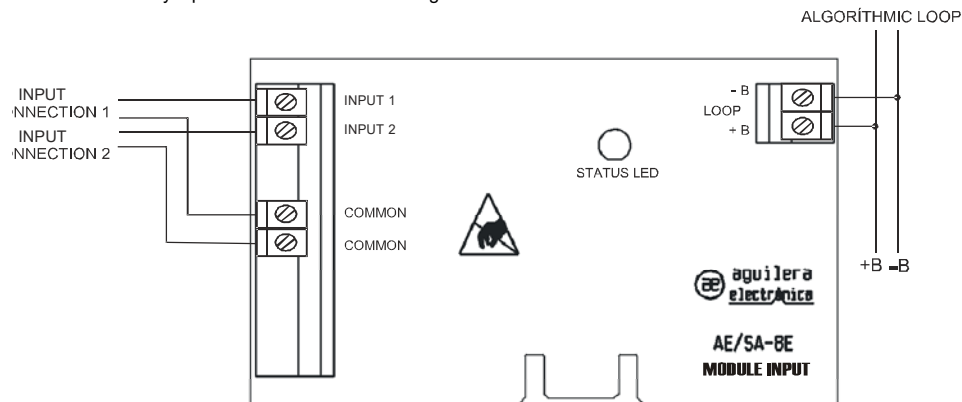
For the installation of the module, open the module cover by pressing on its central part. Secure the module with 4 screws using the fastening holes foreseen for this purpose.

### Wiring

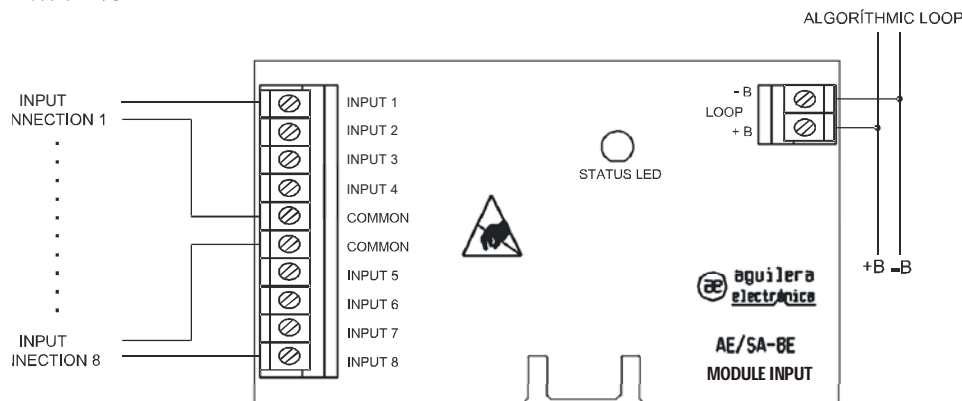
Disconnect the supply voltage of the detection loop before installing the module.

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

Wire the necessary inputs as shown in the following schematics.



Module AE/SA-2E



Module AE/SA-8E

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 all the evacuation, operation and tripping functions for automatic extinguishing 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 module is working, by observing that it emits red colored flashes every 10 s, provided this function has not been inhibited individually. If the flashing is not inhibited and the module does not emit them, this means it has failed or the wiring is faulty.
- Activate the module outputs and check the Algorithmic Panel receives the state change. 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 Algorithmic Panel.

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

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

## Approvals

