GasVisor

Gas Detection Panel
User Manual

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NOTICE

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CONTENTS

1. Introduction

The GasVisor has 3 alarm levels with independent volt-free contacts, as well as a fault relay. Bus relay expansion boards can be fitted as an option.

It also has a 4.7" backlit touch screen display to show the concentration of the detectors, as well as the alarm outputs.

Measurement ranges in % of LEL, % volume and ppm of the programmed toxic gas, where these can be placed interchangeably and giving the concentration in the installed detector units.

2. Wiring

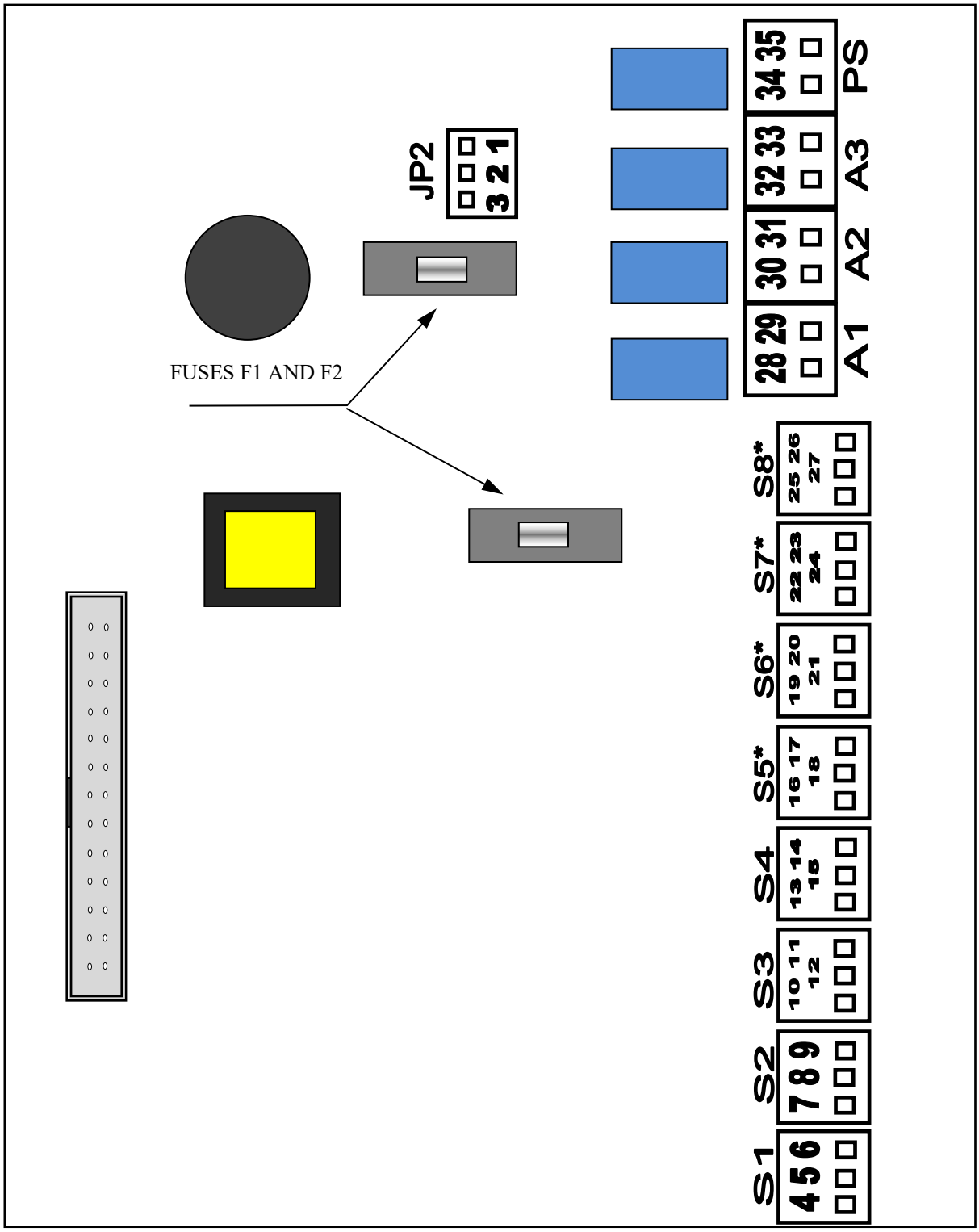
Connect the power supply, at between 85 and 280 VAC / 50 Hz, to the **JP7** connector as shown in *Figure 1*.

The sensors must be connected to **S1**, **S2**, **S3**, **S4**, **S5**, **S6**, **S7** and **S8**, where S1 is channel 1, S2 is channel 2, S3 is channel 3, S4 is channel 4, S5 is channel 5, S6 is channel 6, S7 is channel 7 and S8 is channel 8. Channels S4, S5, S6, S7 and S8 are optional.

The alarm relay outputs are to be connected to **RL1** for Alarm 1, **RL2** Alarm 2, **RL3** Alarm 3 and **RL4** for the Fault relay.

1	Earth connection	19	Analog sensor 6 (+)
2	Mains power supply (80-280 V, 50 Hz)	20	Analog sensor 6 (-)
3	Mains power supply (80-280 V, 50 Hz)	21	Analog sensor 6 (4-20 mA)
4	Analog sensor 1 (+)	22	Analog sensor 7 (+)
5	Analog sensor 1 (-)	23	Analog sensor 7 (-)
6	Analog sensor 1 (4-20 mA)	24	Analog sensor 7 (4-20 mA)
7	Analog sensor 2 (+)	25	Analog sensor 8 (+)
8	Analog sensor 2 (-)	26	Analog sensor 8 (-)
9	Analog sensor 2 (4-20 mA)	27	Analog sensor 8 (4-20 mA)
10	Analog sensor 3 (+)	28	Alarm relay contact 1 (NO)
11	Analog sensor 3 (-)	29	Alarm relay contact 1 (NO)
12	Analog sensor 3 (4-20 mA)	30	Alarm relay contact 2 (NO)
13	Analog sensor 4 (+)	31	Alarm relay contact 2 (NO)
14	Analog sensor 4 (-)	32	Alarm relay contact 3 (NO)
15	Analog sensor 4 (4-20 mA)	33	Alarm relay contact 4 (NO)
16	Analog sensor 5 (+)	34	Fault relay contact (NO)
17	Analog sensor 5 (-)	35	Fault relay contact (NO)
18	Analog sensor 5 (4-20 mA)		

Fig. 1



* Channels S5, S6, S7 and S8 are optional.

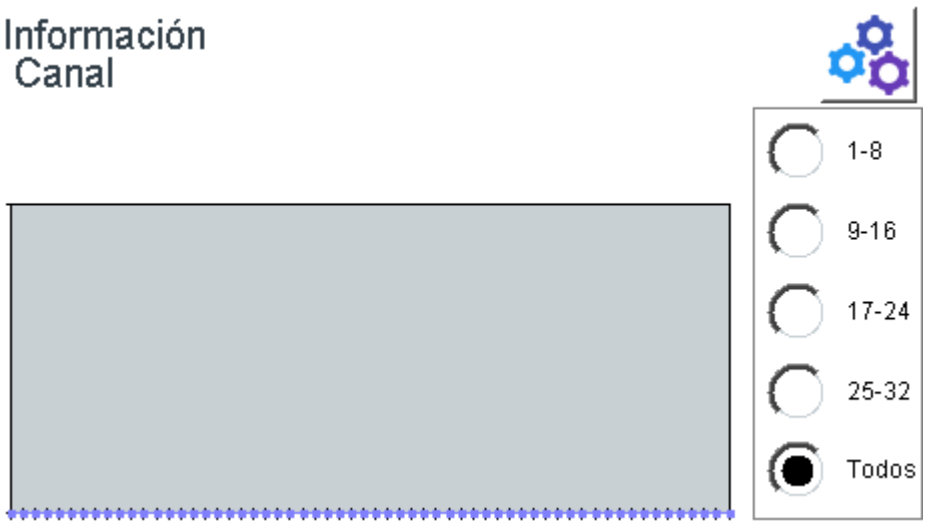
3. General operation

When the GasVisor alarm panel is started up, the system takes approximately one minute to load all the parameters. It goes into operation once this time has passed.

The panel is not configured by default, i.e. the channels are disabled and the alarm values are not set.

The panel has several display modes. It can be modified by touching on any channel to access the information screen and then tapping on the display mode as follows: Selecting 1-8 shows channels 1 to 8, selecting 9-16 shows channels 9 to 16, selecting 17-24 shows channels 17 to 24, selecting 25-32 shows channels 25 to 32 and selecting all shows all the channels.

Note: Selecting all the channels only shows the status of the detector as Ok, Alarm 1, Alarm 2, Alarm 3 or Fault.



Once the panel has been configured in normal status, the alarms are operative and the display shows the instantaneous sensor readings, the channel number, and the measurement units.

The information shown on the display is divided into three screens:

1. Channel readings display.
2. Password entry for access to the configuration menu.
3. Configuration menu.

The statuses of the various configured sensors appear next to the channel number and can be:

Status - Ok (Normal operation) Blue background color.
Status - A1 (Alarm 1) Light orange background color.
Status - A2 (Alarm 2) Bright orange background color.
Status - A3 (Alarm 3) Red background color.
Status - FA (Sensor fault) Yellow background color.

4. System menu

4.1 Menu access

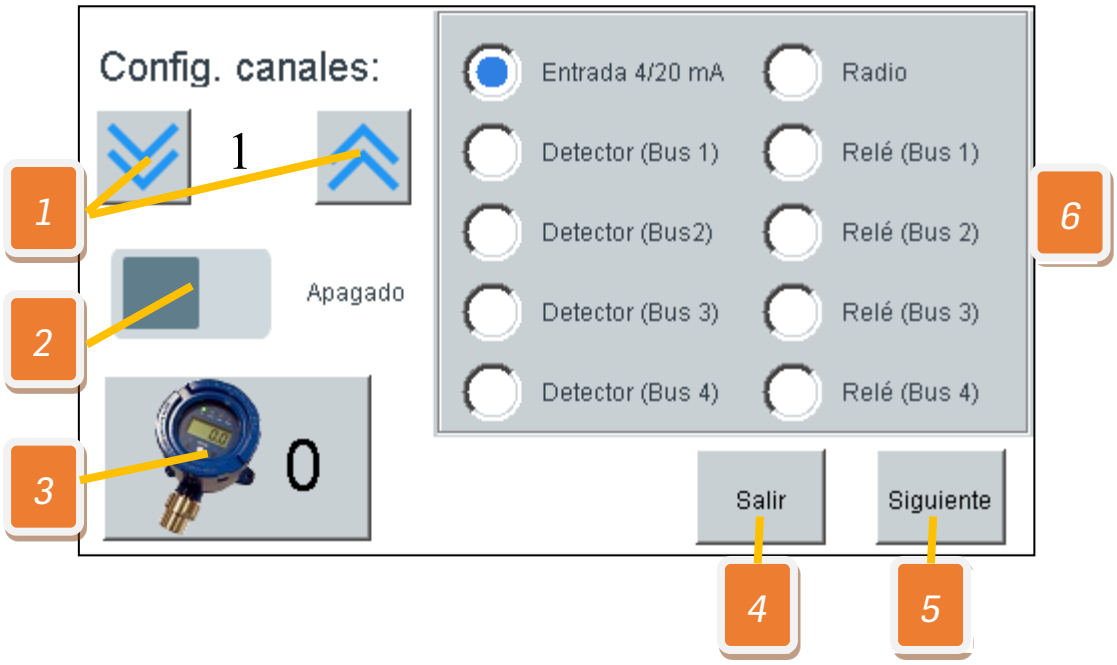
To enter the menu, press on any channel and then the key: 

You then need to enter the access code **1250** and press the **OK** button.

If the code entered is correct, the menu will open. If it is incorrect, it will go back into normal operating mode.

4.2 Configuring channels

Various parameters affecting the operation of each channel can be configured from the menu:



1. Selects the channel to configure.
2. Turns the channel on or off.
3. Automatic configuration of parameters based on the Sensotox installed.
4. Exits the menu.
5. Advances to the next menu.
6. Selects device on the selected channel.

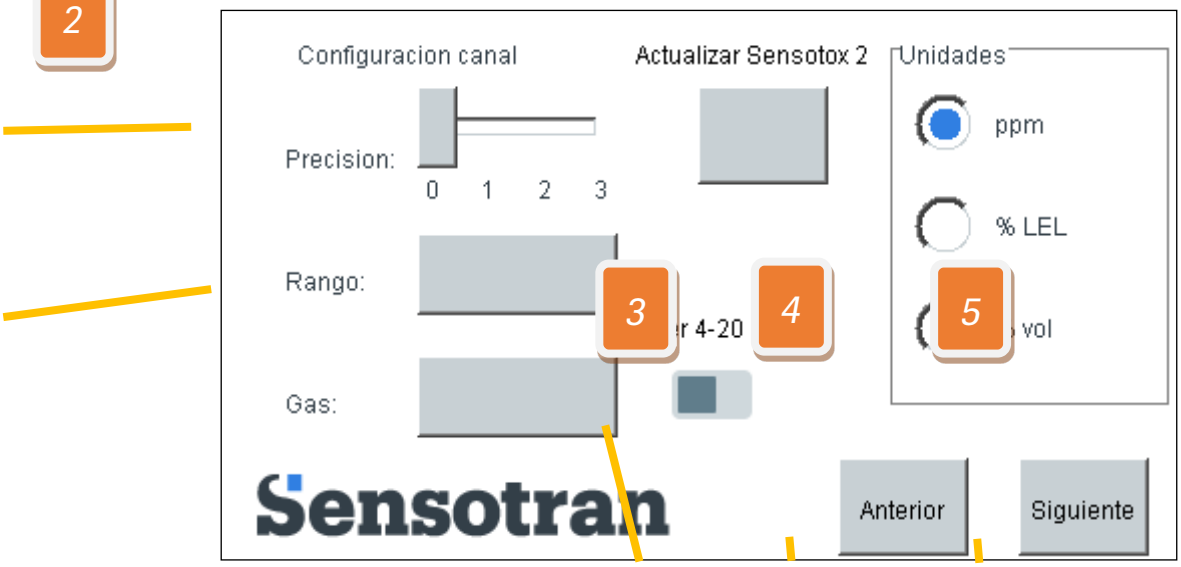
Note: When a parameter is modified, an icon appears to save the changes with a floppy disk symbol.

1

4.3 Configuring 4-20 mA input parameters

6

2

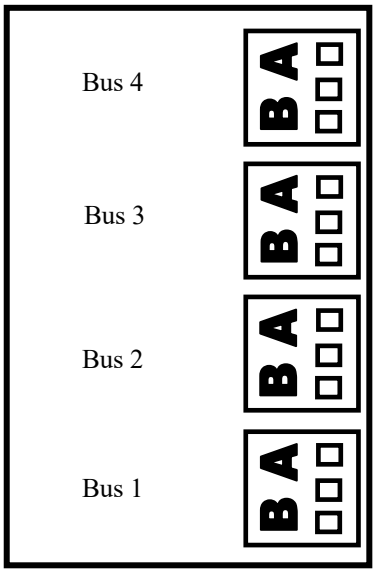


1. Selects the decimal point position.
2. Selects the measurement range.
3. Shows the 4-20 mA input current for the selected channel.
4. Shows the previous menu.
5. Advances to the next menu.
6. Selects units.

Note: When a parameter is modified, an icon appears to save the changes with a floppy disk symbol.

4.4 RS-485 bus operation

Up to 32 detectors can be connected over RS-485 bus.
A different ID must be assigned to each detector first.



An external power supply must be provided to connect the detectors on an RS-485 bus.
Wiring must be by means of a 4-wire cable with 2 wires for power supply and 2 for the communications bus (A and B).

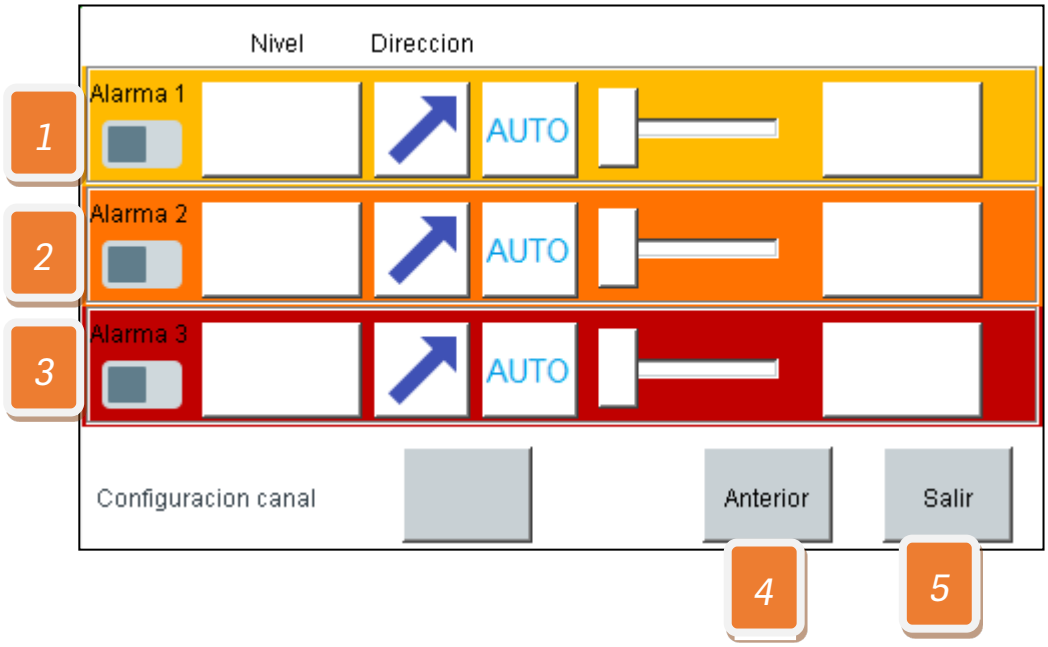
4.5 General alarm operation

The GasVisor panel has 4 relays to activate 4 different alarms. The first three are used as normal alarms and the fourth a fault alarm.
If the alarm is activated for any channel, it will be displayed in a different colour, depending on the alarm tripped, and a bell symbol will appear in the box corresponding to the channel. The value reading will continue to be displayed.

Oxygen sensor alarms must be configured as descending for sub-oxygenation levels (below 20.9%) and ascending for over-oxygenation levels (above 20.9%).

If connection to the sensor is lost for any reason, the fault alarm will be activated and the text “FA” will be displayed. If this happens, the alarms on

this channel cannot be activated. When the connection is restored, the alarm will disappear automatically and normal operation will be restored.



1. Configures alarm 1.
2. Configures alarm 2.
3. Configures alarm 3.
4. Shows the previous menu.
5. Exits the menu.

Note: When a parameter is modified, an icon appears to save the changes with a floppy disk symbol.

5. Specifications

Supported sensors		Catalytic, electrochemical, PID, IR
Detectable gases and vapours		Flammable, toxic, oxygen deficiency, VOCs
Measuring ranges		From 0-1 to 0-10,000 ppm, 0-100 % LEL, 0-25% O_2
Ambient temperature		-10 to +60 °C
Ambient humidity		0-95 RH % RH (non-condensing)
Atmospheric pressure		15%
Output signals		2 mA sensor or cable fault
		3 Alarm relays (NO)
		1 Fault relay
		Acoustic alarm buzzer
		Status LED
Precision		0.5% of reading
Display		4.7" TFT touch screen
Rated voltage		220 VAC
Standards		EN 50270 (EMC)
Materials	Housing	Polystyrene
	Cable inlets	Chromed brass
Warranty		Two years (against manufacturing defects).