

Central mod.

GS1 4/8

Directions for Use

(enclosed to the operating workbook)



Gas Control mod. GSI 4/8 – A

The control GSI 4/8 – A has been specially planned to control gas, fumes and movement detectors (antitheft). The control guarantees still 8 separated areas and in case of sensors with exit in tension it is possible to visualize the gas percentual in the present zone.

Work programs

Thanks to a very easy programming with the dip – switch it is possible to define the program of fonctionnement of the control.

The control runs the 8 enters in a single and independent way, to adapt in every demand. In case of wrong planning out, the control goes to allarm.

It is possible to install more controls in a serial way in the range of complex systems.

The display allows simple and immediate programs.

At the switching on, the system remanes in stand-by for a minute, a sufficient time for the heating of the different models of sensor, then it is possibile to activate in normal fonctionnement. In the stand-by phase the displays visualize the pre-allarm time, time which can be regulate using a provided trimmer and, after one minute, they switch off to increase the lengh (of time) and to economize energy.

Enters

The control has 8 separated enters, every one can be depict with a dip-switch:

- **ON/OFF** Input with contact N.C., in this case it is not possible to visualize the percentage of gas (ex. Sens. GSI). It can be also use for eventual antitheft sensors.
- **POWER SUPPLY** analogic input: it reads a tension from 0 to 5 V, it is possible to use GS12 sensors.
- **CURRENT** input in current: it reads a sensor with exit in powersupply from 4 to 20 mA. It can be also use for eventual fumes detectors.

Programming

BUTTON T1: white colour: TEST function:

The test button simulates the alarm state activating the exit of the aspirator and disactivating the electricvalve. With the continuous pressare of the button you can set the prealarm time, on the zone/ mode display appares a P, while on DISP2 and DISP3 are visualized the prealarm lengh (in seconds) set using the P1 trimmer. It is possible to change the regulation between 2-50 seconds. At the release of the button all the leds are tested and the diplays of visualizing with serial sequence of start.

BUTTON T2: green colour: SET function:

The set button served to visualize the area and the gas percentage present, at every pressure it is possible to see the relative value of the next zone. If the button is not pressed for a minute, the display turn off.

BUTTON T3: blue colour: RESET function:

The button, after an alarm state, bring again the detector in the normal condition, if pressed closes the electricvalve. The reset is possible only if the sensors are not in alarm.

TRIMMER P:

It allows to set the prealarm lengh (from 2 to 50 seconds).

It is possible to set the prealarm only with the green button (SET) pressed. Every regulation of the trimmer done without the set button pressed is unknown.

GREEN LED: tension insert (detector ON)

YELLOW LEDS:

They signal the prealarm situation of every enter. A buzzer signal the zone anomaly.

RED LEDS (enters from 1 to 8):

They signal the happened alarm. The led lights up correspond to the enter number that has procated the alarm and the buzzer give the advice.

DIPLAY DISP1 (ZONE/MODE) – SET HIGH –

The single display shows:

With the P letter the TEST button pressure the possibility of setting the prealarm lengh.

With the E letter the presence of a sensor in alarm.

With the numbers from 1 to 8 the zone number of which we are examinig the percentage of gas presence.

DISPLAY DISP2 and DISP3 (%/SEC):

The two displays %/SEC abreast (read as tens/unity) show:

In test phase, the lengh of the prealarm expressed in seconds.

In normal conditions, the concentration of gases in relation to the minimum threshold of expllosion presen in the pointed area.

Detector report:

Terminal board: Electrical connections

Link the terminal board to the supplier 230V 50 – 60 Hz net, assuring of taking to the terminal of yellow – green color (set to the earth) a good earth.

Central card: electrical connections

A 4 poles M1 terminal: suppli card

Connection still given:

1: MASS (0V)

2: continues tension + 5V

3: continues tension + 12 V

4: continues tension + 24 V

A 4 poles M2 terminal: exit

1-2 = contact exit (N.C. or N.A., selecting the W3 shunt) to connect to other detector or remote warning.

Maximum tension applicable 24 VdC 1A.

3-4 = exit electricvalve EVRM-NA to 12 Volt command.

W3 shunt: select function to exit low tension

It allows to set the function of the N.C./N.A. exit of the M2 terminal:

C-NC (center-left) set as N.C. exit

C-NA (center-right) set as N.A. exit

A 2 poles M3 terminal: exit aspirator/ buzzer

1-2 = exit N.A. contact, it closes itself when at least one of the enters is in the prealarm state, it opens after one minute from the stop of the last prealarm.

A 3 poles M4 terminal: exit N.C. contact – Common- N.A. free from potential in changing to activate electricvalve to 230 Vac

1-2 = exit NA contact (2= common)

2-3 = exit NC contact (2= common)

A 6 poles M5 terminal: enter sensors

Contact sensors NC type GSI:

set the dip-switch corresponding to the contact NC enter in OFF position.

1-3 = enter 1° sensor (link to the 3-4 poles of the GSI sensor)

2-3 = enter 2° sensor (link to the 3-4 poles of the GSI sensor)

4-5 = enter 3° sensor (link to the 3-4 poles of the GSI sensor)

4-6 = enter 4° sensor (link to the 3-4 poles of the GSI sensor)

IN TENSION SENSORS TYPE GS12:

set the dip-switch corresponding to the in tension enter in ON position.

1: enter 1° sensor (link to the 3 poles of the GS12 sensor)

2: enter 2° sensor (link to the 3 poles of the GS12 sensor)

3: empty

4: empty

5: enter 3° sensor (link to the 3 poles of the GS12 sensor)

6: enter 4° sensor (link to the 3 poles of the GS12 sensor)

NOT LINKED SENSOR: if you do not link any sensor to an enter:

set the dip-switch corresponding to the enter not linked in OFF position.

1-3 shunted: 1° sensor absent

2-3 shunted: 2° sensor absent

4-5 shunted: 3° sensor absent

4-6 shunted: 4° sensor absent

A 6 poles M6 terminal: enter sensors

CONTACT SENSORS NC TYPE GSI:

set the dip-switch corresponding to the contact enter NC in OFF position.

1-3 = enter 5°

2-3 = enter 6°

4-5 = enter 7°

4-6 = enter 8°

IN TENSION SENSORS TYPE GS12:

set the dip-switch corresponding to the intension enter in ON position.

1: enter 5° sensor (link to the 3 pole of the GS12 sensor)

2: enter 6° sensor (link to the 3 pole of the GS12 sensor)

3: empty

4: empty

5: enter 7° sensor (link to the 3 pole of the GS12 sensor)

6: enter 8° sensor (link to the 3 pole of the GS12 sensor)

NOT LINKED SENSOR: if you do not link any sensor to an enter:

set the dip-switch corresponding to the not linked enter in OFF position.

1-3 shunted: 5° sensor absent

2-3 shunted: 6° sensor absent

4-5 shunted: 7° sensor absent

4-6 shunted: 8° sensor absent

A 2 poles M7 terminal: enter electric key

1-2 = contact that allows of disabling the 5, 6, 7, 8 zones.

o NA = 5, 6, 7, 8 ZONES ACTIVE

o NC = 5, 6, 7, 8 ZONE NOT ACTIVE

A 2 poles M8 terminal:enter remote alarm.

1-2 = NC contact to signal the alarm from remote control. In case of opening the detector goes to alarm state and appears E on the MODE/ZONE display.

A 2 poles M9 terminal: enter smoke detector ARITECH DP721T type.

If the smoke detector is not present:

Leave free the M9 terminal

Do not shunt W2

If the smoke detectors are installed:

Shunt W2

Leave free the enter number 1 of the M5 terminal

Set on ON the dip number 1(set the enter 1 as digital)

Link the smoke sensor in this way:

In case of a single smoke sensor:

- Exit 1 sensor: supply + 12 V on the M2 terminal, of the ALIM4/8-A supplier.
- Exit 3 sensor: link to the 2 terminal of the M9 terminal.
- Link the 2 and 3 exits of the sensor to a 22 kOhm resistance.

In case of installing 2 or more smoke detectors, link them in cascade connections as shown in these instructions:

- Exit 1 of the sensor 1: supply + 12V, on the M2 terminal, of the ALIM4/8-A supplier.
- Exit 2 of the sensor 1: link to the exit 1 of the sensor 2.
- Exit 3 of the sensor 1: link to the pin 2 of the M9 terminal and to the 3 of the sensor 2.
- Exit 1 of the sensor 2 : link to the exit 2 of the sensor 1.
- Exit 3 of the sensor 2 : link to the exit 3 of the sensor 1.
- Link the 2 and 3 exits of the sensor 2 to a 22 kOhm resistance.

WARNING: the cascade connection of the sensors must be always finished with a 22 kOhm resistance, linked between the 2 and 3 exits of the last (or the only) sensor.

SUPPLIER: electrical connection

A 3 poles M1 terminal: alternate tension from one transformer (connection still given)

1: 0 V

2: 10 VAC

3: 15 VAC

A 4 poles M2 terminal: continues tension to the central (connection still given)

1: + 24V

2: + 12V (supply the smoka sensor when installed, it must be not use to supply gas sensor)

3: + 5V

4: 0V

A 3 poles M3 terminal: key

1-2 = contact NC to supply the detector

A 2 poles M4 terminal: buffer battery external

1 = negative battery (0V)

2 = positive battery (+B)

For internal battery use the two wires still connected: (red wire to the positive, dark wire to the negative)

A 2 poles M5 terminal: supply for gas sensor

1: 0V

2: + 12V (max 2A)

GENERAL RULES FOR A RIGHT INSTALLATION

The installation of the gas detector require to observ all the rules about the installation and the use of the equipment supplied by gas, the ventilation of the areas and the unload of the combustion products as re-gled by the UNI reglement and the law indications.

The central GSI 4/8 enters can be configured in many ways as the users require, so it is necessary to con-figure the enter setting dip-switch with a great attention.

We remember that, if you connect the smoke sensor, you **MUST NOT** connect any sensor on the enter number 1, because it can cause malfunctions.

If, after the wiring of the sensors and the configuration of the detector, the equipment goes to alarm, re-move supply and check the wiring and the configuration. The detector signals with the alarm when a sensor is damaged or disconnected or wrongly connected.

The enters which are not linked to any sensor must be shunt to the mass, and set with the dip-switch on off.

Warning!

The KEY switch give up the supply from the detector and not from the sensors.