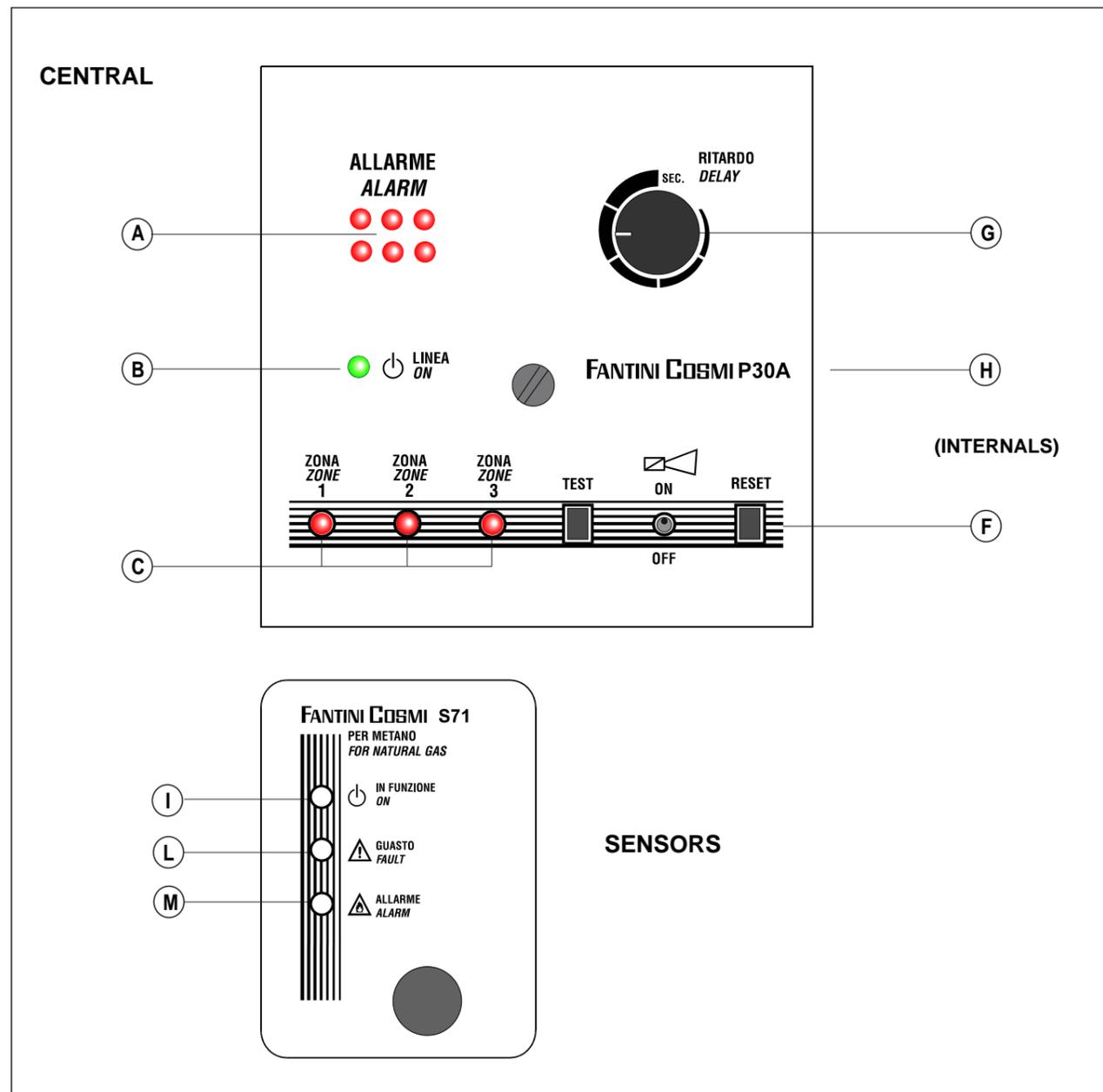


# CONTROL PANEL



## CENTRAL CONTROL CONSOLE

- (A)** Visual indicator: normally switched off, flashes in case of alarm. It can be switched off only through the reset button.
- (B)** Operating indicator: always switched on.
- (C)** Alarm sensors indicators: generally switched off they switch on when the connected sensor send an alarm signal. They switch off when the gas concentration goes back to the allowed levels.
- (D)** Test switcher to verify the device except for the sensors.
- (E)** Switch for external siren silencing: it allows to switch off the siren even during an alarm situation.
- (F)** Reset switch to stop the alarm after the cause has been removed.
- (G)** Operation delay: unique for all sensors, regulates the delay once that a warning situation has been detected by all sensors and it has activated the general alarm.
- (H)** Acoustic signaller: positioned inside the central control panel operates in case of alarm. It can be switched off only through the reset switch.

### SENSOR

- Operating indicator: always switched on.
- (I)** Fault indicator sensor
- (L)** Alarm indicator: generally switched off, it operates and remains on for all the time in which the gas concentration remains above the established level.
- (M)**

# INSTALLATION

## P30A GENERAL CONTROL PANEL INSTALLATION

Screw the fixing stay-bar and release the control panel socket. Remove the socket by pulling with a screwdriver on the latching tabs. Fix the terminal-holders of the wall detector (according to the fixing systems shown hereby) in a dry not dripping place.

## SENSORS DETECTORS

They should be fixed on a wall at an approximate distance of 2 meters from the gas device in such a position as to allow natural air circulation:

- S71** for specific light gases (natural gas, city gas) has to be fixed at a high level approximately 30/40 cm from the ceiling.
- S72** for heavy gases (cylinder liquid gas LGP) has to be fixed to a low level approximately 30/40 cm above the floor.

Avoid installing sensors:

- behind barriers that can prevent the natural air circulation in the area
- close to air conditioning units (minimum distance 2 meters)
- close to fumes, steams or other exhalation sources

Remove the cover four front retaining screws, fix the base to the wall, using for the cables entrance the special press-cables.

## GAS DETECTOR VALVE

Choose the gas interception valve among one of the serie Z-EV, generally closed with quick on and off release switch, class A with approval (or corresponding models) according to diameter and gas pipe type.

Install the valve in the most suitable part of the plant downstream the counter or at the exit of the accumulation tanks.

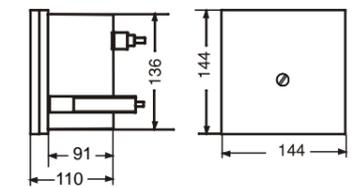
## ACOUSTIC/VISUAL EXTERNAL SIGNALLER

Use the self-fed type most suitable with your kind of plant, place it in an easily visible place.

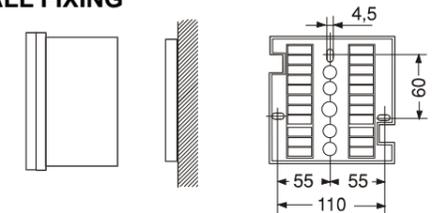
## CONNECTIONS WITH POSSIBLE FIRE ALARM CONTROL SYSTEM AND/OR ANTI-INTRUSION DEVICE.

The voltage free terminal exchange contact available for the external acoustic/visual signaller can alternatively be used for connections with already existing central alarm panels.

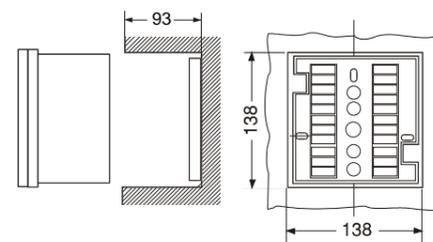
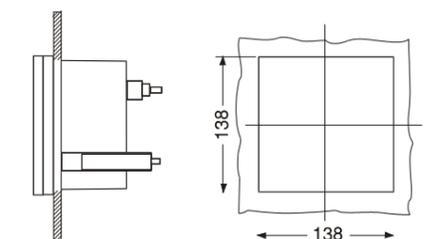
## P30A CENTRAL CONTROL PANEL: OVERALL DIMENSIONS



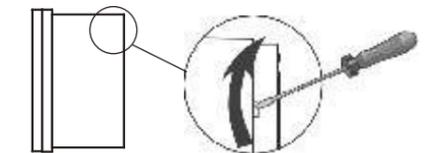
## WALL FIXING



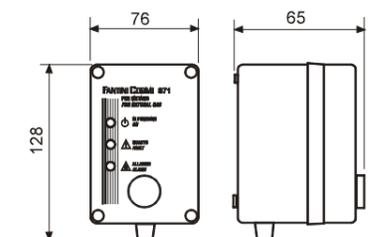
## BACK-CONTROL CONSOLE FIXING



## EXTRACTION SOCKET



## SENSORS: OVERALL DIMENSIONS



## CONNECTION

### ELECTRICAL CONNECTIONS

Install a small switch with 1A fusible valves on the power supply of the central console in order to protect the valve and to disconnect the voltage when removing the central console from the socket.

The electrical connections among probes and the central console should be operated with bifilar wires with a maximum section of 1mm<sup>2</sup> for a maximum length of 200 meters; for bigger distances the section of the wire has to be increased proportionally in order that the overall resistance of the wire remains unchanged.

Avoid to pass the probes connections close to high voltage supply cables.

Connect the various devices according to the scheme on the side figure.

Make sure that the connections are well kept and not oxidized.

Plug in the Faston central console connections in the socket special terminal-holders by pressing till complete bedding.

Tightly screw the fixing stay-bar.

### OPERATION TEST

Connect to 230 V.c.a. and/or 12Vcc).

On first switing on and after a long period of lack of power supply on both votages the central control panel and the sensors get into the alarm situation. When all three Led **C** turn off (after a maximum of 20 sec.), push the reset button **F** - Bring the operation delay switch **G** to the minimum, the switch **E** on position "ON" and press the "TEST" button **D** for a few seconds;

Verify:

- fastening of the valves
- operation of the siren and the possibility of its silencing through switch **E**
- Correct functioning of local visual signaller **A** and acoustic signaller **H**.

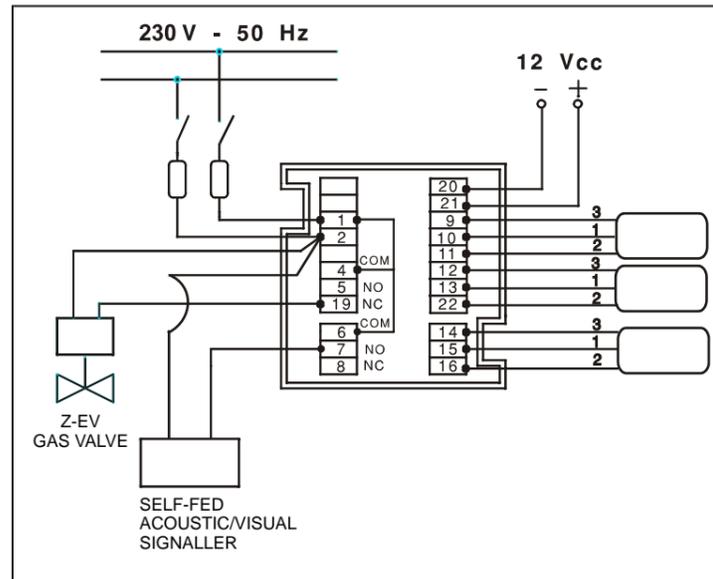
At the end of the test press button **F** to reestablish non-alarm conditions.

To verify sensors correct funtioning:

- switch the delay switch **G** to the maximum level
- Bring a lighter near the sensor and let the gas flow out from it. The local red led and the corresponding one on the central panel **C** should turn on.

Repeat the operation for each of the installed sensors.

It is advisable to repeat this operation approximately every month to verify the constant regular functioning of the sensors.



#### NB.

- The socket is supplied with two resistences connected between terminals 12-22 and 14-16 which should be removed in case they are connected with probes 2 and 3.
- The 12 voltage supply is optional.

### PLANT LAYING

It is advisable after having ended all testing operation to keep initially under control the sensivity of each single sensor **M** setting them on a central position and the setting the delay operation **G** almost at the minimum level.

Adaptations to the controlled areas specific charateristics will be made accordingly with the presence of specific alarm situations or by reproducing them in real operating conditions.

**NB.** The detector P30A is provided with semiconductor sensitive probes. After long non-operating periods (storage, not-power supplied device) a stabilisation period is required; the manufacturer setting keeps that into account therefore the ideal functioning will be reached after an initial period of 10 days not-interrupted power supply.



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P30A



## ELECTRONIC CONTROL UNIT FOR GAS LEAK DETECTION FOR INDUSTRIAL ENVIRONMENTS

### GENERAL FEATURES

The industrial environment electronic central gas leak detector P30A equipped with specific sensors (S71 for natural gas and S72 for LPG) is ideal for controlling and signalling dangerous gas concentration in the air specifically for detecting natural gas, city gas and LPG (Cylinder Gas) excesses.

When in the controlled area there is a gas concentration that exceeds the established level the device triggers on the electrovalve to stop the gas inflow. At the same time a an simultaneously visually and acoustically signaling the danger. In addition to the internal alarm system an external siren can also be controlled . It is evident that the established level control is much more inferior to the danger threshold to allow the necessary time to operate before the exhalation of a gas-air explosive or toxic mix becomes dangerous for a human being.

Even three sensors, of different kind, can be connected to the same detector to control different areas or to control different kind of gases..In case of gas leaks a luminous led on the control panel will indicate the interested area.

The alarm can be delayed on the central panel up to approximately one minute to avoid fortuitously operating and the gas interception valve

### TECHNICAL FEATURES

- Box and socket of insulated material, transparent cover. Protection degree IP 40 .
- Installation possibilities: embedded, projected or behind the control console.
- Overall dimensions according to DIN 43700; 144x144mm.
- Voltage 230 V c.a. - 50 Hz or 12 Vcc.
- Consumption 5VA
- Outlet through electromagnetic relays on volt free terminals radio noises protected with RC group (according to D.M. 9/10/1980).
- Contacts Carrying Capacity: 5A - 250 VAC-1.
- Alarm delay regulation up to one minute.
- Working environment temperature: -10• to +50•.

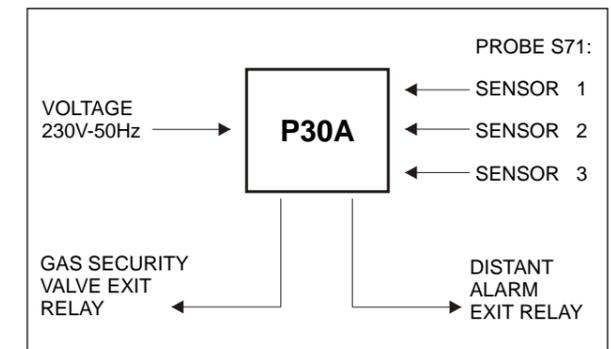
### INTERNAL ALARMS

- Instantaneuos: visual with area indication (Red Led)
- Delayed: acoustic and visual.

### EXTERNAL ALARMS

Two relays with changeover volt free contacts are available:

- one to operate interception valves
- one to operate an external electric horn (disconnectable).



### DETECTORS SENSORS

The operation sensors threshold is set by the manufacturer at such a level to warn a gas concentration much lower than the danger limit.

For special applications it is possible to change the sensivity of the sensor operatating on a specific way of regulation which, for security reasons, can not be externally reached.

The detectors sensors are equipped with a lumious led to signal the need for intevention and the central panel connections are with positive security (their interruption causes the detector operation).

- Anti shock insulating box, protection degree IP65.

- Green led diode marks the functioning of the device

- Red led diode marks need for intervention.

- Detector positive security connections.