

RGD "Segugio" Gas Leak Detectors

CTX CO detector is designed especially for car parks. The detector has fast response times, and is pre-calibrated for use.

The sensor operating range is 0..500 ppm of CO. The output signal is 4..20mA. Typically CO detectors are used with BMS to control the fan speed of car parks reducing significantly the energy costs.



Features

- Methane Version
- Semiconductor sensor
- 230Vac Power Supply
- Buzzer in case of alarm
- Alarm test / silencing button

Model Type	Model	Description
	RGD-MET-MP1	Segugio Natural Gas Leak Detector
	RGD-GPL-MP1	Segugion LPG Gas Detector
Technical Data	Power Supply	230V~ -15% / +10% 50Hz
	Power Consumption	6VA
	Sensor Type	Semiconductor SnO ₂
	Detected Gas	RGD-MET-MP1: Natural Gas RGD-GPL-MP1: LPG Gas
	Sensitivity	5% .. 20% L.E.L.
	Contact Ratings	6(2)A 250Vac SPDT
	Indications	Operation: Green LED Alarm: Red LED, Buzzer (after ~ 15 secs) Fail: Yellow LED
	Activation Delay	~ 40 seconds
	Relay Activation Delay	~ 15 seconds
	Sensor Lifetime	5 years
	Ambient Temperature	0..+40°C
	Humidity Range	20..80%rH non-condensing
	Protection Class	IP40
	Case	ABS V0 Self-extinguishing, signal white (RAL9003)
	Weight	0.3 kg
	Dimensions	W148 x H84 x D40mm

Operation

The RGD (SEGUGIO) is a flammable gases leakage domestic detector. When it is in presence of gas at a concentration much lower than the dangerous threshold, it turns on a red indicator and, consequently, after a 15 seconds delay, it turns on both a buzzer and a relay which, in turn, closes the gas pipe electro-valve.

The RGD (SEGUGIO) features a button for the double purpose of 'silencing' and 'test'. Pressing it once the 'silencing' is activated. The green led flashes and both the relay and the buzzer become disabled for 10 minutes. On the contrary, by keeping it pressed for at least 5 seconds, the 'test' state is entered. In this state both the green led and the red one turn on and both the relay and the buzzer are activated for 2 seconds.

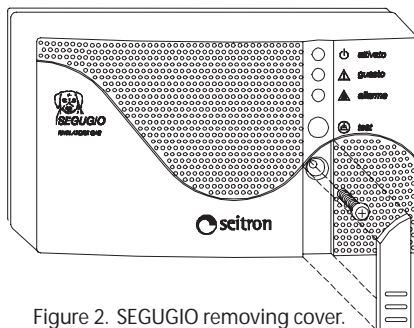


Figure 2. SEGUGIO removing cover.

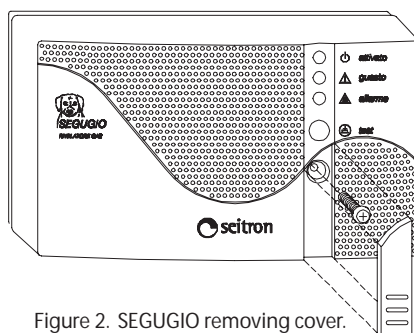


Figure 2. SEGUGIO removing cover.

The SEGUGIO is equipped with a delay line which avoids the intervention of the alarm system (in order for the gas sensor to heat up) whenever the device is turned on or even after a mains black-out, when the power comes back. After such a time delay (about 30 seconds), a green indicator turns on in order to indicate the 'active' state for the detector itself.

The SEGUGIO also features an auto-diagnostic system for checking the sensor good conditions. When the yellow indicator is turned on (sensor fail) the possible causes must be searched among the following:

- sensor fail
- sensor disconnected
- detector malfunctioning

The SEGUGIO can be wired to a remote sensor (cod.: SGA ---) so that a further room can be controlled (Fig. 4 and 5). In case the alarm comes from the remote sensor, it is directly indicated on the SEGUGIO together with a red flashing light; moreover, should the alarm last more than 15 seconds, even the relay is activated.

User Instructions

In order to reach the wiring zone, remove the plastic plate on the cover as indicated in Fig. 2 and remove the screw beneath.

Make electrical wirings as indicated in Fig. 6, 7, 8, or 9. Please note that the intervention delay is strictly dependant both on a correct positioning of the detector in the room and to the type of gas to be detected.

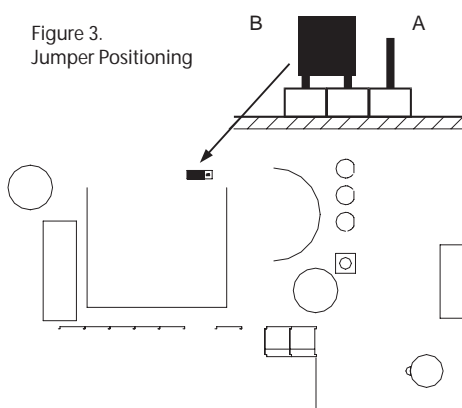


Figure 3. Jumper Positioning

In case of 'heavy' gases as for LPG an installation in low places is advisable (roughly 30 cm from floor), instead for 'light' gases as for methane in high places (roughly 30 cm from ceiling).

Please avoid installation in such a position that it can be directly in the stream of smokes or vapours containing compounds which are dangerous for the sensor health (as an example: do not position the detector in the stream of fat smokes produced by cooking).

A periodic functional check is also highly advisable (through the use of a cotton flock drenched with alcohol, for example). In order to grant a real safety, a gas detector must be coupled to an electro-valve capable of blocking

the gas flow in the event of an alarm.

These electro-valves can be coupled to SEGUGIO: 230V~ normally open electro-valve 230V~ normally closed electro-valve 12V= normally open electro-valve, low absorption 12V= normally closed electro-valve, low absorption.

The output SEGUGIO can drive a 6V, 0.5W electrovalve. An internal black jumper (Fig. 3) selects between the electro-valve type: normally open (A) or normally closed (B).

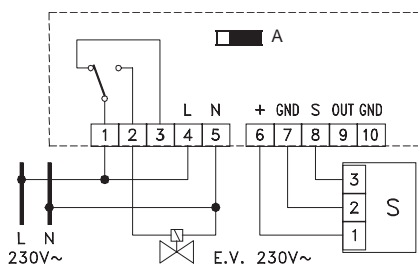


Figure 4. Wiring diagram with a manual reset normally open gas valve and remote sensor.

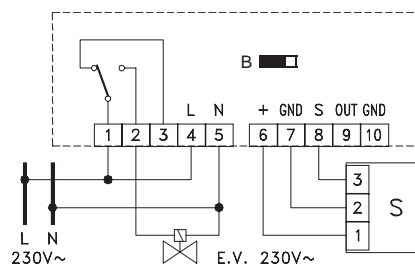


Figure 5. Wiring diagram with a manual reset normally closed gas valve and remote sensor.

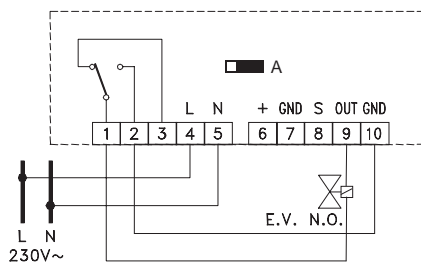


Figure 6. Wiring diagram with a manual reset normally open 12V= gas valve and 230V- power supply. Use only low absorption gas valves.

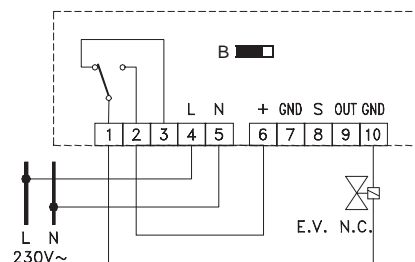


Figure 7. Wiring diagram with a manual reset normally closed 12V= gas valve and 230V- power supply. Use only low absorption gas valves.

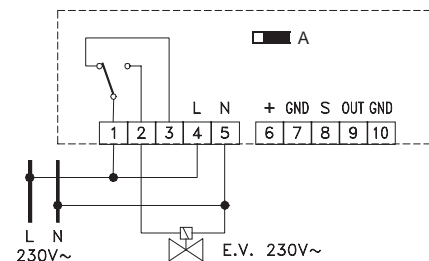


Figure 8. Wiring Diagram with a manual reset normally open 230V- gas valve and 230V- power supply.

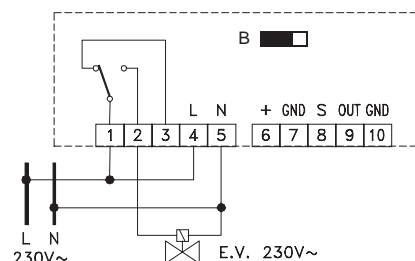


Figure 9. Wiring Diagram with a manual reset normally closed 230V- gas valve and 230V- power supply.

WARNING

In case of an alarm:

- 1) Extinguish all fire sources.
- 2) Close main gas valve (either methane or LPG).
- 3) Do not turn on or off any electrical light; do not turn on or off any electrical device.
- 4) Open doors and windows to increase ventilation. If the alarm stops it is necessary to search the possible cause and consequently provide. In case the alarm persists and the cause of the leak cannot be found, vacate the premises and, from external, immediately notify the gas emergency service.

