European manufacturer

olympia electronics SAFETY & SECURITY SYSTEMS

for a safer world!

BS-694 Autonomous LPG detector
BS-695 Autonomous natural gas-methane detector

CE

TECHNICAL CHARACTERISTICS	BS-694	BS-695
OPERATION VOLTAGE	220-240V AC/50-60Hz	
AVERAGE POWER CONSUMPTION	4VA	
SENSITIVITY	5-15 % L.E.L. Propane	5-15 % L.E.L. Methane
INDICATIONS	Power LED , alarm LED , fault LED	
OUTPUTS	Relay (230V AC, 5A)	
ELECTRO VALVE OUTPUT	Yes	Yes
EXTERNAL BUZZER OUTPUT	No	No
SENSOR LIFETIME	5 years	
DEGREES OF COVER PROTECTION	IP40	
PRODUCED IN ACCORDANCE WITH	EN 50194, EN 61000-3-2, EN 61000-3-3	
OPERATION TEMPERATURE RANGE	0 to 60 °C	
RELATIVE HUMIDITY	Up to 95%	
CONSTRUCTION MATERIALS	ABS/PC	
EXTERNAL DIMENSIONS	145 x 85 x 45 mm	
TYPICAL WEIGHT	270gr.	
GUARANTEE	2 years	

Thank you for your trust in our products.
Olympia Electronics - European manufacturer.

GENERAL

BS-695 and BS-694 detectors are used to give us a quick warning in case there is a natural gas or LPG gas leak, as well as a power failure.
The installation must be done by a qualified personnel. The instructions must be read first before the installation.

Emergency actions

It is recommended that the following advice should be given in the event of an alarm sounding or the smell of gas even without an alarm:
Keep calm, and carry out the following actions, not necessarily in the order given:
- extinguish all naked flames, including smoking material.
- turn off all gas appliances.
- do not switch on or off any electrical equipment, including the gas detection apparatus.
- turn off the gas supply at the gas main control and/or (with a LPG supply) the storage tank.
- open doors and windows to increase ventilation;
- do not use a telephone in the building where the presence of a gas is suspected.

If the alarm continues to operate, even after an alarm resetting action where appropriate, and the cause of the leak in not apparent and/or cannot be corrected, vacate the premises and IMMEDIATELY NOTIFY the gas supplier in order that the installation may be tested and made safe, and any necessary repair carried out.

Placement

Depending on the monitored gas, the unit must be placed 30cm from the ceiling (for methane, natural gas) or 30cm from the floor (for propane, butane, LPG). The horizontal distance should not be more than 4 meters from the probable gas leak point and the detectors must not be placed in humid or drafty areas.
It is suggested that the detector is tested for good operation every 6 months or if it is changed position.
The unit must should not be sited:
- directly above cooking appliances.
- directly above sink.
- adjacent to extractor fans.
- in any outside location.
- where the environmental conditions are outside the manufacturers operational specification.

Installation

For the installation of the device first you must remove the red plastic with a screwdriver as shown in figure 1 and unscrew the screw in the middle. Then with the help of figure 2 you can connect the external devices.

Sensitivity

The BS-694 detectors are activated when the

content of gas (propane or butane), in the monitored area, exceeds 5 - 15% of the lower explosive level (L.E.L).
The BS-695 detectors are activated when the content of gas (methane), in the monitored area, exceeds 5 - 15% of the lower explosive level (L.E.L). The same detectors can also be used as an alcohol vapor detector.
They are connected and operate with the mains power supply voltage of 230V AC, as shown in figure 2.
When the detector is activated, an internal sounder(buzzer) is sounded and the internal relay is activated. The activation stops when you push the test button or the gas content drops below 5-15% of the L.E.L.
The electro-valve resets manually.

Indication LEDs and operation
The green LED shows the presence of the mains power supply. When first installed, the green LED blinks for 20 seconds until the sensor compensates to its surroundings.
When the red LED is lit then the unit is in alarm mode.
When the yellow LED is lit the unit has an fault.
A blinking red LED means that there was an alarm condition but it has now passed. The same applies for a blinking yellow LED and the fault condition.
When the test button is pressed, the system is tested and restarted. During the test the internal circuits are checked, the relay is activated, and the internal buzzer sounds. Also, during the test all alarm and fault indications are reset.
After the test and if an electro-valve was connected to the unit, a manual reset of the electro-valve must be done.

Electro valve connections
The gas supply is automatically turn OFF in the event of an alarm, fault condition or a power failure. The electro-valve can only be reset manually by the user, by pressing on point “A” as show in figure 1. Depending on the type of electro-valve used, the corresponding connection diagram is shown in figure 5. Care must be taken to position the link of JMP1 in the correct position. It is suggested that this unit is used in cooperation with Olympia Electronics Electro-valves type BS-684 (12V N.O.) Or BS-682 (230V AC N.O.). The connection cable, when you use BS-684, must be at least 2x2.5mm diameter and no more than 4m length.

Figure 4 shows the connection of multiple detectors in a network connection, for covering a larger area and using one 12V DC NO electro-valve.

Attention!! The position link of JMP1 set the relay status.
If a link is set on A (figure 4) the relay is energized (NO) in normal condition and on alarm or fault condition the relay is not energized.
The opposite occurs if a link is set on B.

ATTENTION!! The devices must not be tested using gas filled lighters because the sensor will be destroyed.

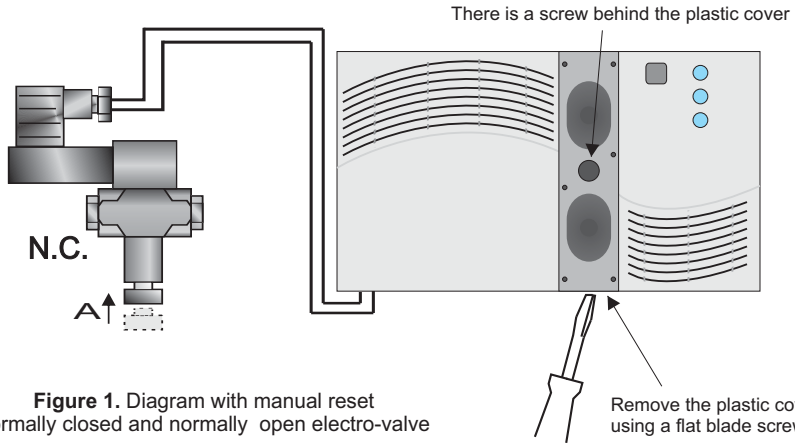


Figure 1. Diagram with manual reset
normally closed and normally open electro-valve

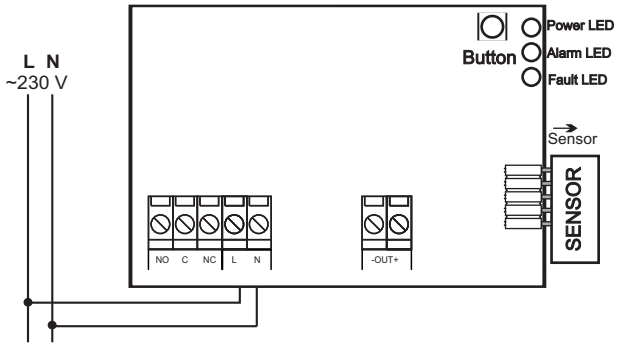


Figure 2. Connection diagram of a detector

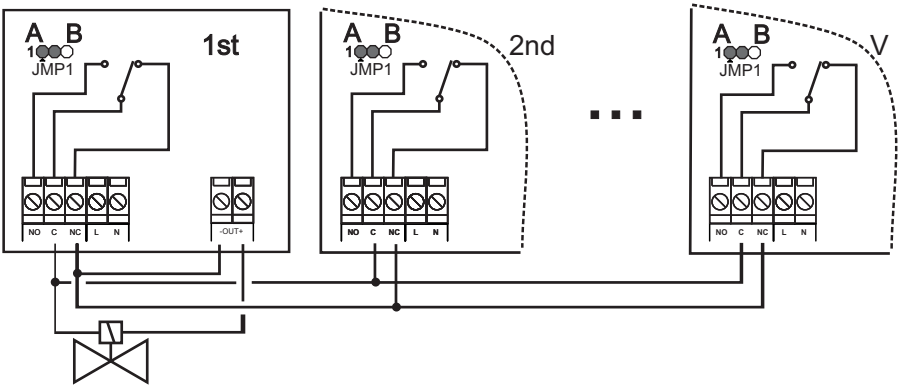
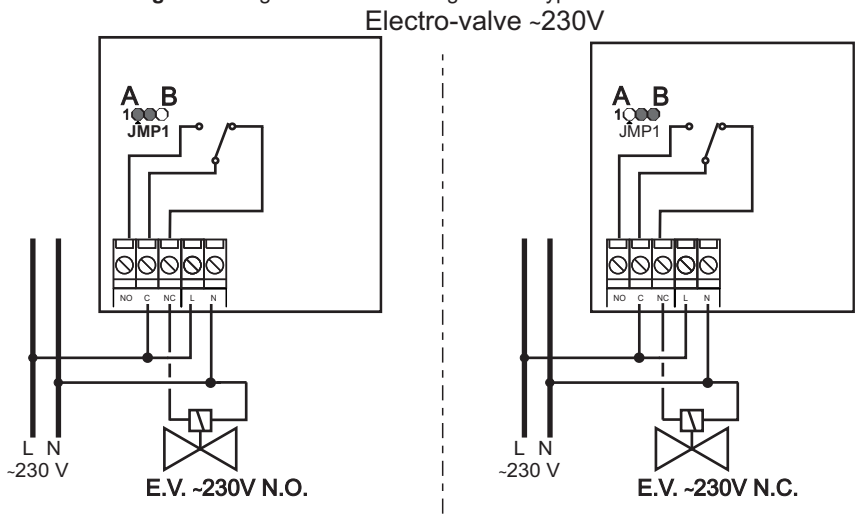


Figure 3. Connecting multiple detectors in a network and using one electro-valve 12VDC N.O.

Figure 5. Diagrams for connecting various types of electro-valves



Electro-valve 12V DC

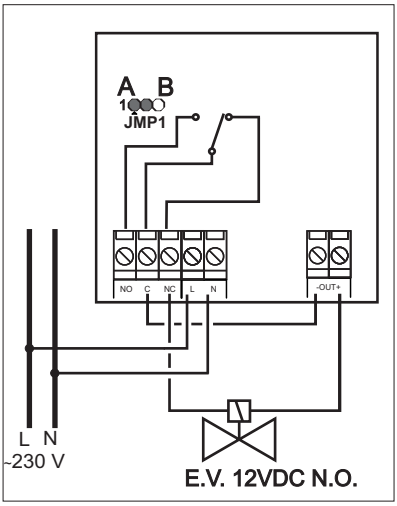


Diagram with manual reset and normally open electro-valve

WARRANTY

Olympia Electronics guarantees the quality, condition and operation of the goods. The period of warranty is specified in the official catalogue of Olympia Electronics and also in the technical leaflet, which accompanies each product. This warranty ceases to exist if the buyer does not follow the technical instructions included in official documents given by Olympia Electronics or if the buyer modifies the goods provided or has any repairs or re-setting done by a third party, unless Olympia Electronics has fully agreed to them in writing. Products that have been damaged can be returned to the premises of our company for repair or replacement, as long as the warranty period is valid. Olympia Electronics reserves the right to repair or to replace the returned goods and to or not charge the buyer depending on the reason of defection. Olympia Electronics reserves the right to charge or not the buyer the transportation cost.

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