

BS-685 Waterproof LPG detector for conventional panels

BS-686 Waterproof natural gas-methane detector for conventional panels



TECHNICAL CHARACTERISTICS

	BS-685	BS-686
Operation voltage	10-30V AC- DC (Powered by panel)	
Average consumption	0,5W (12VDC 40mADC, 24VDC 20mADC)	
Sensitivity	5-15 % L.E.L. Propane	5-15 % L.E.L. Methane
Indicators	alarm LED	
Degrees of cover protection	IP 65	
Produced in accordance with	EN 50194-1, EN 50270	
Operation temperature range	0 to 60 °C	
Humidity	Up to 95% relative humidity	
Dimensions	155 x 80 x 43 mm	
Sensor life time	5 years	
Weight	150 gr	
Guarantee	2 years	

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OPERATION - USE

BS-685 and BS-686 detectors are used in combination with gas panels to give us a warning in case there is a natural gas or LPG gas leak. The installation must be done by a qualified personnel. Instructions must be read 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 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 is 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 with the sensor downwards, 30cm from the ceiling (for methane, natural gas) or 30cm from the floor (for propane, 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

In order to install the device you must first remove the four screws (figure 1). Then with the assistance of figures 2 and 3 you can connect it to the panel.

Connection with fire panel of Olympia Electronics.

Terminals ZONE are used to connect to zone of the gas panel, as shown in figure 2. A terminal resistor (5,6KU) should be installed on the end of

the line(see figure 2).

Connection with others fire panel.

Terminals NO, C are used to connect to the zone of the gas panel, as shown in figure 2. A terminal resistor should be installed on the end of the line (see figure 3).

Programming Alarm latch mode

When the device is in alarm mode, it keeps its condition even if the contents drop below 5-15%

of the L.E.L. This is an alarm latch mode. This mode is helpful to the technician, to locate the device which is in alarm condition.

When you connect the device to a conventional gas panel, the device must have alarm latch mode. If we want to de-activate the alarm latch mode, the LD1 jumper must be linked. The link or the removal should be done when the unit is not operating. The device is shipped with activated the alarm latch.

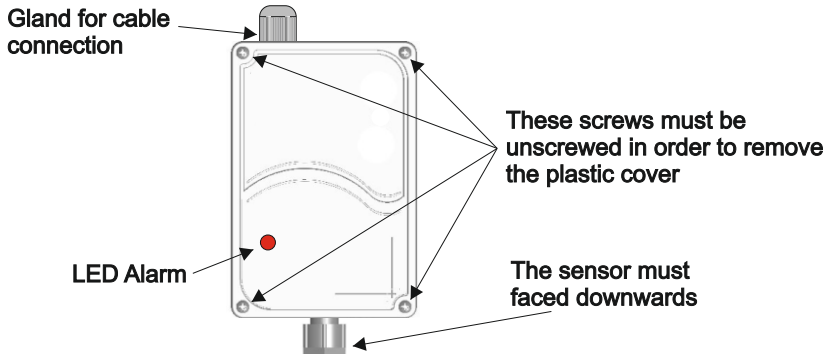


Figure 1. Diagram of removing the plastic cover

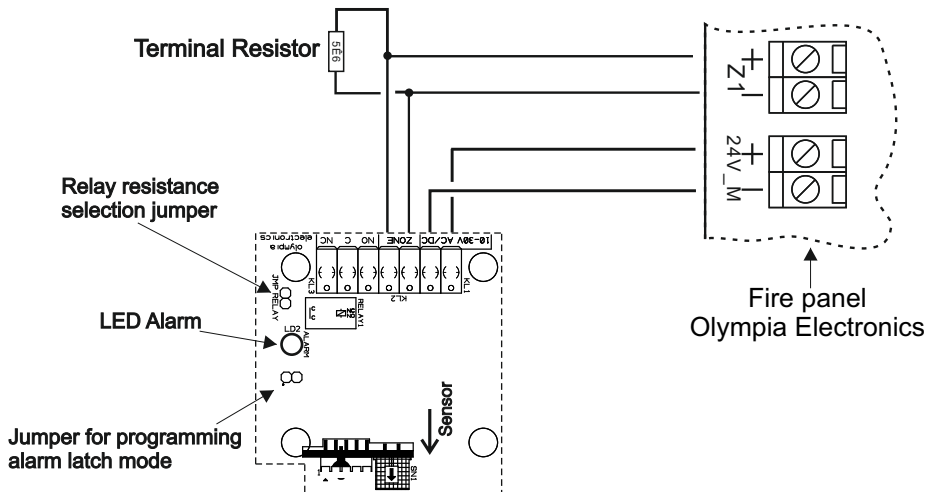


Figure 2. Connection diagram of a detector with a fire panel of Olympia Electronics

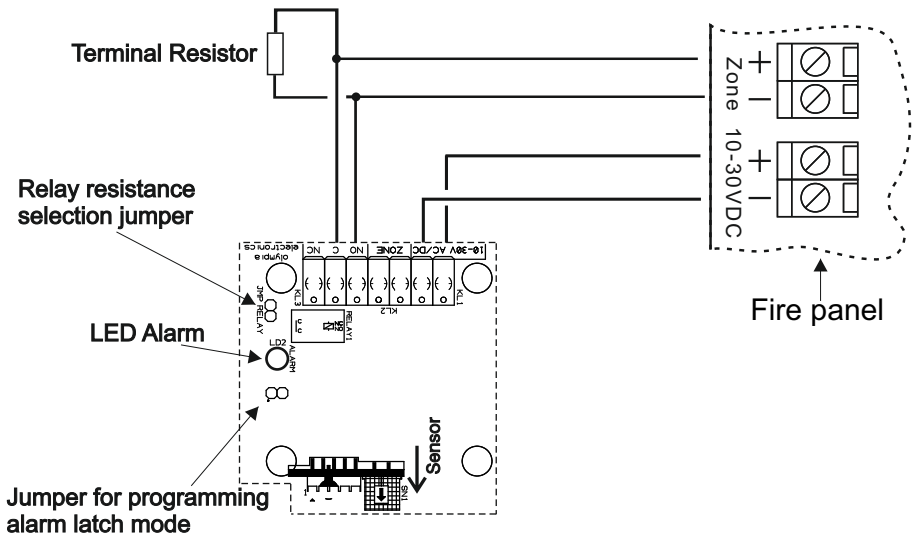


Figure 3.

Connection diagram of a detector with a fire panel of other company.

Sensitivity

The BS-685 detectors are activated when the content of gas (propane), in the monitored area, exceeds 5 - 15% of the lower explosive level (L.E.L).

The BS-686 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 devices are connected to 24_M, of a gas panel, as shown in figure 2. When a detector is activated, it gives an alarm signal to the gas panel. The activation stops when:

- A) You push the test button or when you cycle the power of the detector (Alarm latch mode) (figure 4).
- B) You push the test button or the gas content drops below 5-15% of the L.E.L. (No alarm latch mode) (figure 5).

Indication LEDs and Operation

When first installed, you must wait 20 seconds until the sensor compensates to its surroundings. When the red LED is lit then the unit is in alarm mode. Alarm mode can be triggered from the sensor of the unit. Figure 4 shows a connection diagram between 4 BS-685 or BS-686 and a gas panel.

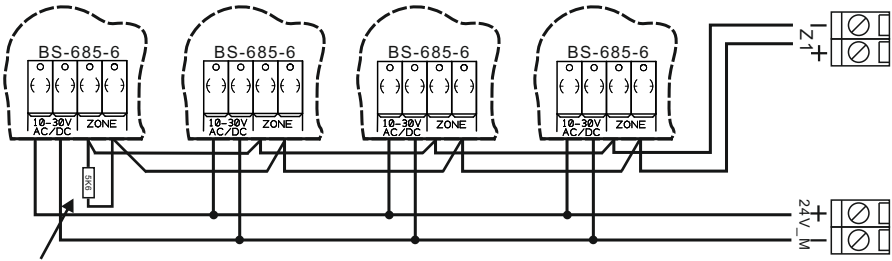
Waterproofing of the device

The package contains a sealing gasket which is installed on the rim of the front cover in order to water-proof the unit.

Relay resistance Selection (JMP RELAY)

There is the capability to select the alarm relays resistance, with the use of the resistance selection Jumper. When a link is used on the jumper, then the used resistance is zero, and an external resistance may be used. If there is no link, then the on board resistance of 440 Ohm is used.

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



Terminal
Resistance

Figure 4. Connection of 4 gas detector BS-685 or BS-686 to a Olympia Electronics panel. The number of the devices connecting to a gas panel is depending only to the panel specifications.

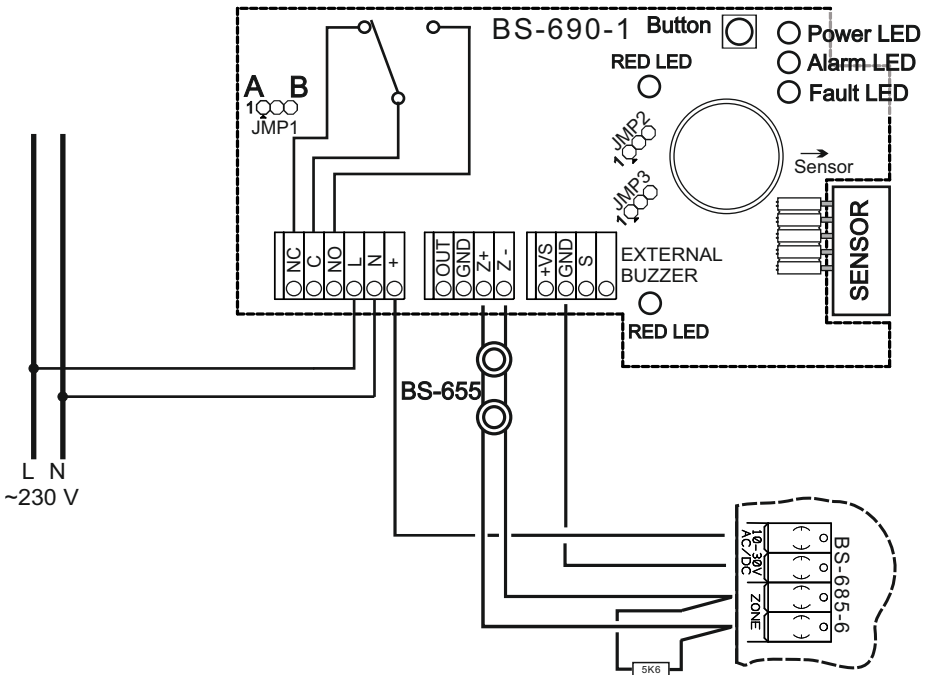


Figure 5. Connection diagram with BS-690 (no alarm latch mode)

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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