

Detection - TECHNICAL CHARACTERISTICS

Gas detectors

Scope

Suitable for the detection in the environment of an abnormal concentration of LPG and liquefied gases (16591) or of methane gas (16592) in quantities much lower than those generally accepted as the danger threshold. It operates on a solenoid cut-off valve and switches off the gas supply. At the same time, it signals that a leak has been detected and that the gas has been switched off, by means of optical (LED) and acoustic (buzzer) warning devices.

Technical specifications

- supply voltage: 230 V~
- sensor: tin dioxide semiconductor with physical filter
- sealed calibration with thermal compensation
- “Gas Stop GPL” operating threshold:
 - alarm: 9% L.I.E.¹ (iso-butane)
- “Gas Stop Metano” operating threshold:
 - alarm: 9% L.I.E.¹ (methane)
- control on solenoid valve: electronic
- protection against short-circuits: electronic without use
- **L - N** terminals: supply voltage 230 V~ 50-60 Hz
- terminals **6 - 7**: connection VIMAR 16590 solenoid valve or manually resettable solenoid valve NO 12 V d.c. 13 W with maximum excitation of 0,4 Joule after removing the load resistor
- terminals **3-4-5**: output relay with change-over contact for connecting extra alarm signals or different types of solenoid valves from the one indicated above (terminals 3-4 if NC; terminals 4-5 if NO):
 - NO 5 A 250 V~; NO 5 A 12 V d.c.; NO 10 A 12 V~;
 - NC 2 A 250 V~; NC 3 A 12 V~; NC 1 A 12 V d.c.

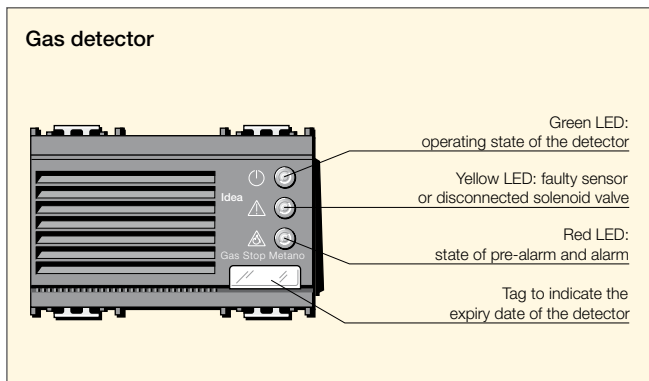
- operating signals:
 - acoustic through piezoelectric (buzzer) 85 dB at 1 m
 - optical, through frontal LEDs (green ◯, yellow △, red ▲)
- useful life of the detector to indicate on the signalling tag: 5 years from the date of installation
- degree of protection: IP40
- operating temperature: -10 °C - +40 °C
- allowed relative humidity: max 90% without condensation
- self-extinguishing, poly-carbonate enclosure
- supplied with Gas test cylinder for testing the installation and for periodical inspection

The 230 V~ power circuit, 12 V d.c. solenoid valve output and the clean contact output relay are separated from each other by double insulation. This means that the relay can be connected to either a mains- or SELV-powered solenoid valve and that the 12 V d.c. solenoid valve output provides SELV power.

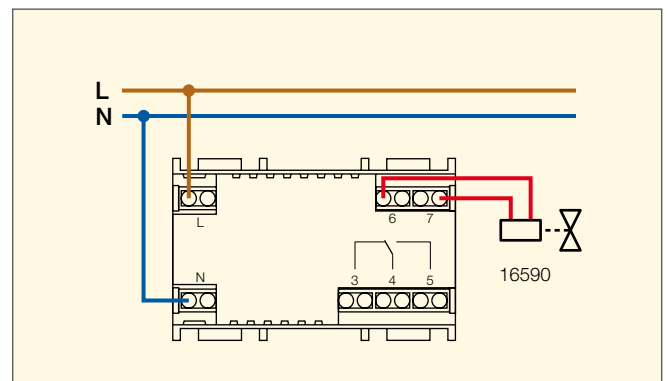
Conformity to Standards

- LV Directive
- CEI 216-8 Standard
- EMC Directive
- EN 50270 Standard

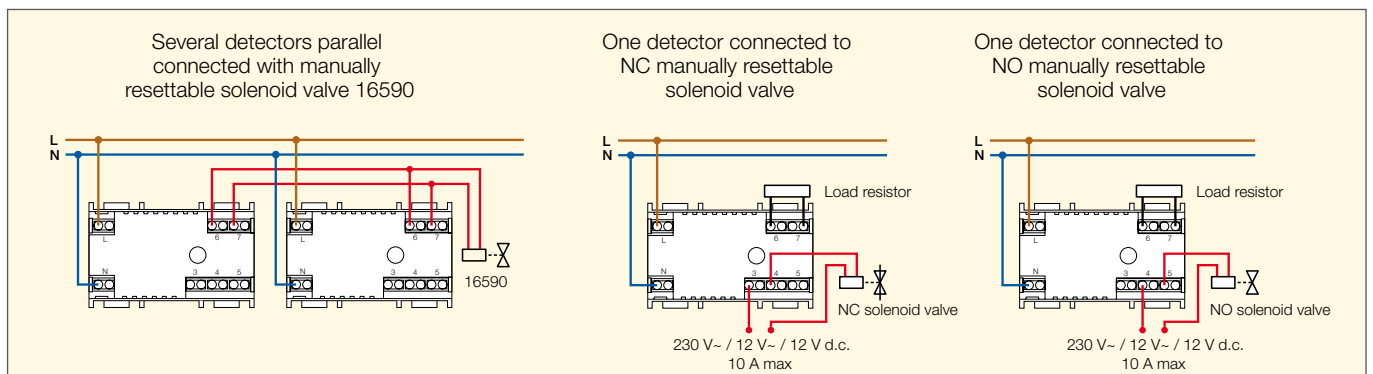
¹: Lower Explosive Limit



Wiring diagram with 16590 solenoid valve



Diagrams of possible wirings



Gas detector

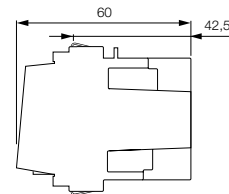
16591	.B	Gas Stop GPL, electronic LPG gas detector, with acoustic and optical signalling and control on a solenoid valve, supply voltage 230 V~ 50-60 Hz - 3 modules. Supplied with 01899 cylinder for testing the installation
16592	.B	Gas Stop Metano, electronic methane gas detector, with acoustic and optical signalling and control on a solenoid valve, supply voltage 230 V~ 50-60 Hz - 3 modules. Supplied with 01899 cylinder for testing the installation



16591
grey



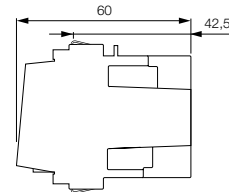
16591.B
white



16592
grey



16592.B
white



Accessories for gas detectors

16590	NO manually resettable solenoid valve 3/4", brass body, supply voltage 12 V d.c., absorption 13 W
01899	Gas test, cylinder for testing the installation and for periodical inspection of the correct operation of the gas detectors. It contains 4 g of test gas, releasing about 400 calibrated single doses 10 mg each



16590



01899

Solenoid valve

Technical specifications

- max rated pressure: 10 bar
- max differential pressure: 1,5 bar
- flow diameter: 23 mm
- operating temperature: -10 °C - +55 °C
- fluid temperature: -10 °C - +70 °C (BUNA N)
- supply voltage: 12 V d.c. ±15% or through capacitive-discharge with minimum voltage and energy ≥0,4 Joule
- rated power: 13 W (500 ms minimum excitation time)
- degree of protection: IP65
- orientation of the coil unit: 0°- 360°
- brass valve body, INOX steel internal parts
- suitable for use as a gas shut-off solenoid valve with manual override

