

## 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.<sup>1</sup> (iso-butane)
- “Gas Stop Metano” operating threshold:
  - alarm: 9% L.I.E.<sup>1</sup> (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.

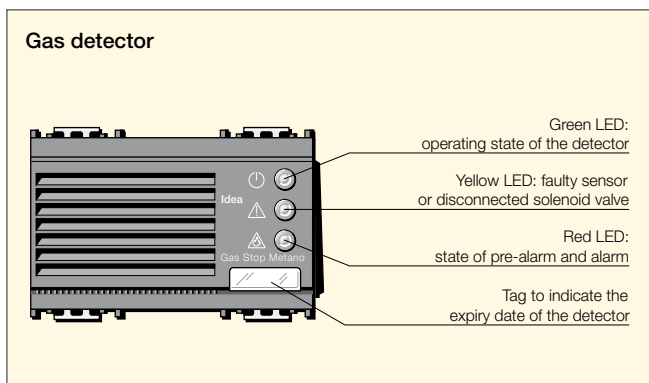
- operating signals:
  - acoustic through piezoelectric (buzzer) 85 dB at 1 m
  - optical, through frontal LEDs (green ◯, yellow △, red ▲)
- useful life of the detector to indicate on the signalling tag: 5 years from the date of installation
- degree of protection: IP40
- operating temperature: -10 °C - +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.

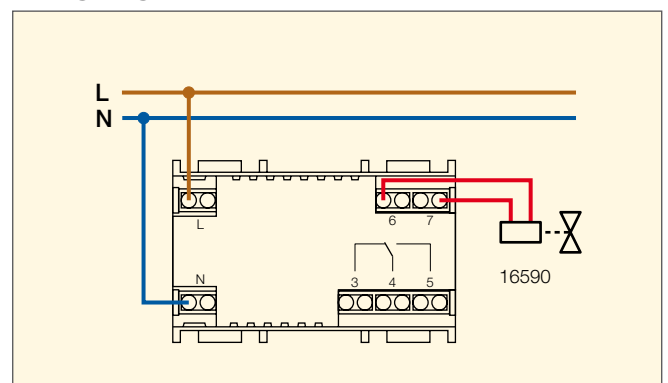
#### Conformity to Standards

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

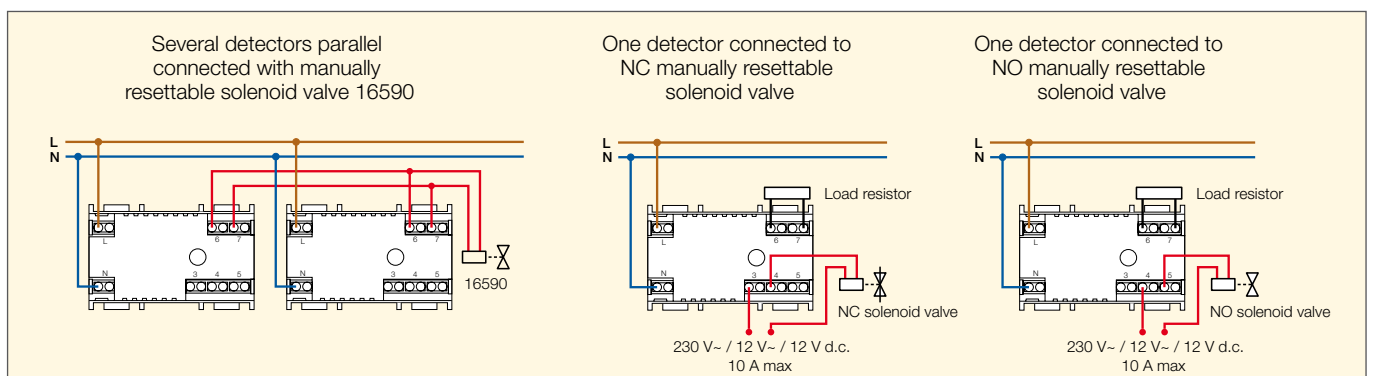
<sup>1</sup>: Lower Explosive Limit



#### Wiring diagram with 16590 solenoid valve



#### Diagrams of possible wirings



## Gas detector

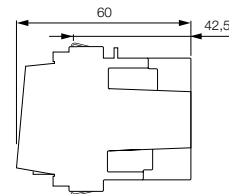
<b>16591</b>	<b>.B</b>	Gas Stop GPL, electronic LPG gas detector, with acoustic and optical signalling and control on a solenoid valve, supply voltage 230 V~ 50-60 Hz - 3 modules. Supplied with 01899 cylinder for testing the installation
<b>16592</b>	<b>.B</b>	Gas Stop Metano, electronic methane gas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



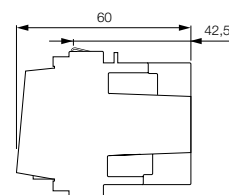
**16591.B**  
white



**16592**  
grey



**16592.B**  
white



## Accessories for gas detectors

<b>16590</b>	NO manually resettable solenoid valve 3/4", brass body, supply voltage 12 V d.c., absorption 13 W
<b>01899</b>	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**

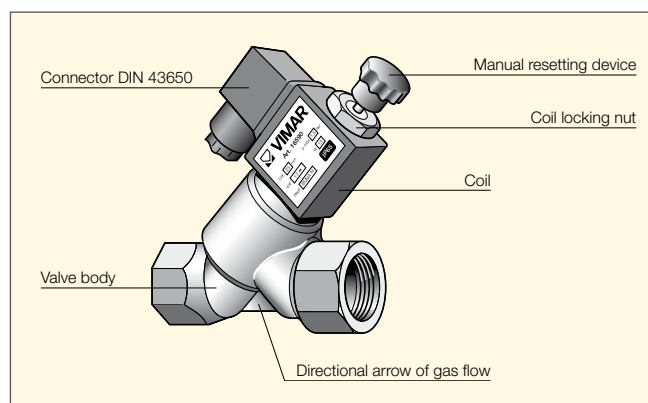


**01899**

## 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



## Switches

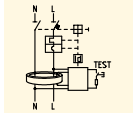
### Residual current breaker with overcurrent protection (RCBO)

**08081.16** 1P+N C 16 residual current breaker with overcurrent protection, supply voltage 120-230 V~ 50-60 Hz,  $I_{\Delta n}$  10 mA, breaking capacity 3000 A - 2 modules

**08081.16.6** 1P+N C 16 residual current breaker with overcurrent protection, supply voltage 120-230 V~ 50-60 Hz,  $I_{\Delta n}$  6 mA, breaking capacity 3000 A - 2 modules

Suitable only for: - flush mounting boxes for masonry with 3-, 4-, 5-, 3+3-module cover plates - flush mounting boxes for hollow walls with 3-, 4-module cover plates - IP40 and IP55 enclosures and covers - 09974 surface mounting box with 3-module cover plate

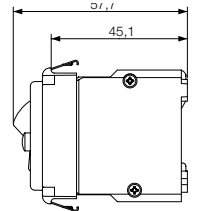
Technical specifications: see page 196



08081.16



08081.16.6



### Gas detector

**08496** 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 special modules. Supplied with 01899 cylinder for testing the installation

**08497** 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 special modules. Supplied with 01899 cylinder for testing the installation

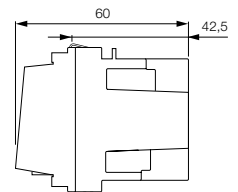
Technical specifications: see page 199



08496



08497



### 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

Technical specifications: see page 199



01899



16590

