



AUTONOMOUS GAS DETECTOR

ASG-2000

Overview

Addressable PSG-6000 gas detectors are designed to detect and continuously monitor the presence of flammable and toxic gases in potentially hazardous areas, especially in garages and boiler rooms. Each detector has a set of three alarm thresholds, related to a strictly defined concentration of gas in the air. When the particular threshold is exceeded, the detector's optical indicator is activated and appropriate outputs for controlling the external sounder beacon are activated. Detectors are powered with an external 12 V DC (24 V DC) power supply or with a 230 V AC.

Autonomous detectors range ASG-2000 are available in the following variants:

Detector	Detected gas	External DC power
ASG-2001	CNG (natural gas)	9 to 30 V DC
ASG-2001HV	CNG (natural gas)	~230 V AC
ASG-2002	LPG (propane-butane)	9 to 30 V DC
ASG-2002HV	LPG (propane-butane)	~230 V AC
ASG-2003	CO (carbon monoxide)	9 to 30 V DC
ASG-2003HV	CO (carbon monoxide)	~230 V AC

ASG - 2000 type detectors are not intended for use in potentially explosive atmospheres.

Principle of operation

Microprocessor detector measurement systems continuously analyze the gas concentration in the room and compare it with the values of the relevant alarm thresholds. Each detector has got three alarm thresholds, strictly related to a defined gas concentration in the air. When the particular threshold is exceeded, the detector's optical indicator is activated and appropriate outputs for controlling the external sounder beacon are activated. A failure states (detector's failure, sensor's failure, power failure, no sensor module) are signalled by a separate LED and a programmable relay output.

Design

The ASG-2000 type detectors are made in the form of a printed circuit board with electronic components and connectors and replaceable MSG-6000 gas sensor modules located in a plastic enclosure. The ventilation element installed in the housing allows the detected gas to reach the sensor. Enclosures have holes for mounting on the wall in the corners and cable glands inputs for the connection of power and control wires. Enclosure guarantee a high level of ingress protection IP level, enabling installation of detectors in a difficult environmental conditions.

Technical data

Power supply:	
ASG-200x	from 9 to 30 V DC
ASG-200xHV	230 V ± 10% AC / 3 W
Max current consumption	120 mA / 12 V 60 mA / 24 V
Detected gas:	
ASG-2001/2001HV	CNG (natural gas - methane)
ASG-2002/2002HV	LPG (propane-butane)
ASG-2003/2003HV	CO (carbon monoxide)
Type of the sensor:	
ASG-2001, ASG-2002	solid-state
ASG-2003	electromechanical
Sensor's lifetime	max 10 years
Number of alarm thresholds	3
Alarm relays' current load	3 A / 30 V DC, 3 A / 250 V AC
Operating temperature range	from -20°C to +50°C
Enclosure IP rate	IP 54
Dimensions	80 x 216 x 68 mm
Cable connectors (cable diameter)	M16 gland (5÷10 mm)
Weight:	
ASG-200x	0,3 kg
ASG-200xHV	0,35 kg