



ADDRESSABLE GAS DETECTORS type PSG-6000

Destiny

Addressable gas detectors type PSG-6000 are designed to detect and continuously control the presence of flammable and toxic gases in rooms at risk of their emission, especially in garages and boiler rooms. After detecting alarm concentrations, the detectors transmit information to the cooperating CDG 6000 control panel. The control panel activates acoustic and optical alarm signals, enables ventilation to remove excess harmful gases from the room, and can provide a signal controlling the gas supply cut-off valve.

PSG-6000 detectors operate only on the detection lines of the CDG 6000 addressable gas detection panels. They require additional power supply from a 9-30 V DC source (except PSG-6103).

Addressable PSG-6000 detectors are available in the following versions:

Detector	Gas detected	Power supply additional
PSG-6001	CNG (natural gas-methane)	9-30V DC
PSG-6002	LPG (propane-butane)	9-30V DC
PSG-6003	CO (carbon monoxide)	9-30V DC
PSG-6103	CO (carbon monoxide)	only from the line supervision

PSG-6000 detectors are not intended for use in potentially explosive atmospheres.

Principle of operation

The microprocessor measuring systems of the detectors continuously analyze the gas concentration in the room and compare it with the values of the appropriate alarm thresholds. Each detector has three alarm thresholds set, related to a precisely defined gas concentration in the air. Once they are exceeded, information is transferred to the cooperating CDG 6000 gas detection center. Conditions related to sensor damage or the need to calibrate the sensor are also transmitted to the control panel.

The detectors have built-in replaceable sensor modules for appropriate gases (MSG-6001 - CNG module, MSG-6002 module

- LPG, MSG-6003 module - CO), which allows to reduce their operating costs. They are equipped with double-sided short circuit isolators.

Construction

PSG-6000 detectors are made in the form of a printed circuit board with electronic components and connector assemblies, as well as replaceable MSG-6000 gas sensor modules, placed in a plastic housing. The ventilation element installed in the housing allows the detected gas to reach the sensor. The housings have holes in the corners for mounting on the wall and appropriate gland entries for power, control and detection line cables. The housings guarantee a high degree of tightness, enabling the installation of detectors in more difficult environmental conditions.

Technical data

Power supply:	external 9 – 30 V
PSG-6001, PSG-6002, PSG-6003	external 9 – 30 V
PSG-6103	from the surveillance line
Current consumption from an external source:	
PSG-6001, PSG-6002, PSG-6003 Supply voltage	30mA/12V, 15mA/24V
of the detection line Current consumption	16.5V ÷ 24.6V
from the detection line:	
PSG-6001, PSG-6002, PSG-6003	<150 µA
PSG-6103	<250 µA
Detected gases:	
PSG-6001	CNG (natural gas-methane)
PSG-6002	LPG (propane-butane)
PSG-6003/6103	CO (carbon monoxide)
Sensor type:	
PSG-6001, PSG-6002	semiconductor
PSG-6003/PSG-6103	electrochemical
Sensor durability	approx. 10 years
Number of alarm thresholds	3
Operating temperature range	from -20 oC to +50 oC
Housing tightness	IP 54
Dimensions:	
PSG-600x	124 x 160 x 68 mm
PSG-6103	124 x 120 x 68 mm
Cable entry in housings Weight:	M12 glands
PSG-600x	0.25 kg
PSG-6103	0.2kg