

GAS ALARM DEVICES

GA Series (GA10, GA12, GA14, GA15, GA20, GA22)

Technical Features

Detected Gases	: Natural Gas (methan), LPG (Liquefied Petroleum Gas)
Device Type	: A Type (Visual (Led), Audible Alarm and Output Signal)
Visual Warning	: Green Led (device active), Red Led (alarm), Yellow Led (Fault)
Sensor Type	: Semiconductor (5V± 0,1)
Body Material	: ABS
Calibration Time	: ±1.5 dk.
Response Time	: <10 sn.
Audible Warning	: Piezoelectric Buzzer
Alarm severity (Sound)	: 85 dB
Workin Voltage	: 230VAC 2,5VA + -% 10, 50/60Hz
Power Consumption	: 3W
Gas Detection Range	: 3-20 %LEL (APS)
Protection Class	: IPX2D
Working Temperature	: -10°C ... +50°C
Relative Humidity	: 0-95%
Applicaition	: House and similar places (GA20, GA22: Potentially explosive areas such as industrial kitchen and boiler room)
Body Sizes	: 60 mm x 100 mm x 45 mm
Output Signal Relay Contact	: <ul style="list-style-type: none"> • GA10 - 230V AC 5A (NC), normally open contact • GA12 -230V AC 5A, 28VDC 5A, Dry Contact AC/DCV (NO), normally open contact • GA14 - 230V AC 5A (NC), normally closed contact • GA15 - 230V AC 5A, 28VDC 5A, Dry Contact (NC), normally closed contact • GA20 - 230V AC 5A (NO), normally open contact (ATEX Plastic Body Gas Alarm Device) • GA22 - 230V AC 5A, 28VDC 5A, Dr Contact (NO), normally open contact (ATEX Plastic Body Gas Alarm Device)
Reference Standards	: EN 50194-1, EN 60335-1, EN 60079-29-1, EN 50244



BASIC KNOWLEDGE

Gas alarm device is a device that detects explosive gases in the environment. 1.5 minutes after the supply voltage is applied, the sensor warms up and the device reaches its normal detection level. It is not recommended to test with any gas before this period expires. If the gas leakage level is above the limit value, the device gives an alarm and the device continues to alarm as long as it is above the limit level. When it falls below the limit level, the device automatically turns off the alarm. If the gas valve is to be closed or the gas to be evacuated from the environment under alarm conditions, the desired valves or systems can be controlled by using the output relays of the gas alarm device.

The concentration limit of flammable gases that will not cause explosion or flashing is called the Lower Explosion Limit (APS). The APS value of natural gas is 0.5% and LPG is 2%, and the gas alarm device starts to give an audible and illuminated alarm before the gas leak reaches one of these values. For natural gas, the alarm level of the device is 0.5% (five per thousand) or 5000ppm (five thousand per million). The alarm level of the device for LPG is 0.3% (three per thousand) or 3000 ppm (three thousand per million).

In devices with dry contact relay output, the user can control the valve or its connected systems by giving the required voltage (AC Volt or DC Volt). The devices we call live contacts take the voltage from their own supply voltage.

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GA 10 - GA 12 - GA 14 - GA 15 - GA 20 - GA 22 SERIES GAS ALARM DEVICES SELECTION TABLE

Device Model	Supply Voltage	Output Relay Contact Type and Output	Detected Gases	Weight	Protection Class	Technical Sizes		
				(gr)	IP	Height (mm)	Width (mm)	Depth (mm)
GA10	230VAC 50/60 Hz	NO (normally open) In Alarm: 230VAC 50/60 Hz No Alarm: 0V	Natural Gas (methan), LPG (Liquified Oil Gas)	220	IPX2D	100	60	45
GA12		NO (normally closed) Dry Contact						
GA14		NK (normally closed) In Alarm: 0V In Alarm: 230VAC 50/60 Hz						
GA15		NK (normally closed) Dry Contact		515	IPX2D (Sensor ATEX)			
GA20		NO (normally open) In Alarm: 230VAC 50/60 Hz No Alarm: 0V						
GA22		NO (normally open) Dry Contact						

Connection Diagram

