

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 | : • 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

