Fixed Gas Monitoring System
GMA 100 II

Flexible, customizable, and economical

Microprocessor controlled for all monitoring tasks

Easy to operate

Worldwide manufacturer of gas detection solutions **GfG Instrumentation**

Stationary Gas Monitor
GMA 100 II

Stationary gas monitoring systems

In many industrial operations, toxic or combustible gases and vapors or oxygen deficiency can be hazardous to personnel and disruptive to production. Even small amounts of some materials can cause dangerous situations. Both legal regulations and your responsibility to your workers demand continuous, responsive and reliable monitoring for such dangerous gases. Only a fixed gas warning system like the GMA 100 II provides the security of round-the-clock gas monitoring without the expense of manual measurement by your staff.

Control module GMA 100 II

The GMA 100 II stationary gas warning system is comprised of a control module and a remote sensor (MWG). The sensor continuously monitors the gas concentration and sends a signal via cable to the GMA 100 II control module for evaluation. The GMA 100 II constantly monitors its own operational status and powers the remote sensor.

Immediate recognition and warning of gas hazards

The GMA 100 II provides three alarm levels that can be used to initiate appropriate responses to gas hazards. The pre-

alarm, for example, warns of low gas concentrations, indicating leaks, before dangerous situations occur. The other two main alarm thresholds indicate direct danger requiring immediate action. Alarm levels can be variably adjusted within the detection range and adapted to changing requirements. Every threshold can be set to latching/non-latching and resettable/non-resettable alarm points.

Quick reaction means increased safety

Every control module provides optional voltage-free relays for the three alarms and for fault warning. The relays may be used for controlling external alarm devices like beacons or buzzers, or they can activate specific counter-measures (closing valves or turning on a fan) to eliminate the danger from gases or vapors.

The GMA 100 II is flexible enough to accommodate your individual requirements. Every relay can be either a normally closed (NC) or normally open (NO) contact, and works in either closed or open circuit operation.

Everything at a glance

A three-digit LED display indicates the present gas concentration. Depending on the measurement task, the readout is presented in ppm, mg/m^3, percent LEL or percent volume. Additional LEDs indicate operational status, alarm or failure. You can easily see all measurement values at a glance for complete control of the whole hazardous area.

Easy handling

A keypad controls the display of detection range, gas and units. Relays can be controlled and checked individually. No special tools or instruments are

required. Alarm levels and calibration are set with pushbutton menu control—mechanical fine tuning with potentiometers is a thing of the past.

Single or collective alarm

The GMA RB relay module and the GMA SW key-operated switch allow you to group several control modules. The key-operated switch suppresses alarms during servicing.

In addition to the collective alarm, each controller can have four relays which can activate or deactivate electrical devices such as exhaust fans, valves, alarm horns or lights.

Protected against power failure

In case of a power failure, the optional battery back-up NAV takes over automatically and without delay to preserve safety. The NAV slides directly into the rack; no additional wiring is required.

More than 100 GfG sensors—safety for all gas hazards

GfG Instrumentation's array of powerful and dependable remote sensors (MWG) provide a safe and reliable solution for individual detection tasks.

Combustible gases

Where combustible gases may build up to explosive concentrations, GfG Instrumentation offers a variety of monitoring techniques.

Toxic gases

Specially selected GfG sensors provide reliable monitoring of areas where toxic gases and vapors may be present.
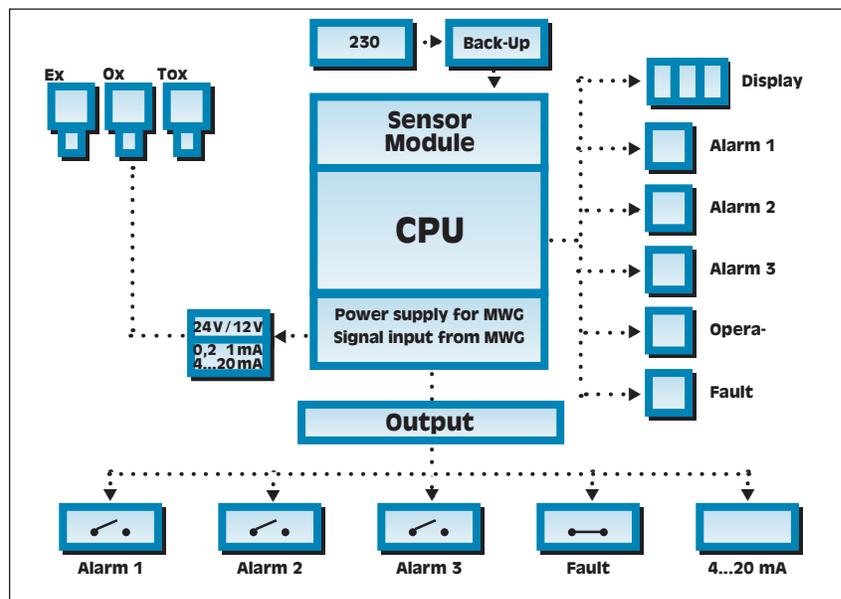
Oxygen

Electrochemical sensors ensure reliable protection from hazards caused by oxygen deficiency or surplus.

GfG's remote sensors are available for more than 100 gases. Every remote sensor can be connected to the GMA 100 II. A simple calibration with a laptop rapidly configures the GMA 100 II to almost all requirements.

Monitoring four detection points simultaneously: GMA 100/4

The model GMA 100/4 has all the features of the GMA 100 II, and can operate four remote sensors simultaneously on one control module. This allows the configuration of a low-cost and

GMA 100 II

Gas
depending on remote sensor: combustible and toxic gases and vapors, oxygen

Detection range
depending on requirements:
% LEL, % Volume, ppm, mg/m³

Ambient temperature
+14 to +131 °F (-10 to +55 °C)

Humidity
30 to 96 % r.h.

Power supply
230/115 V, 50/60 Hz
24 V DC
battery back-up

Power consumption
Max. 10 VA

Input signal
0.2 to 1 mA
4 to 20 mA

Display
3 digit LED display for measurement values and service menu
1 LED green - op. status
1 LED yellow - fault
3 LEDs red - alarm 1, 2, 3

Output signal
4 to 20 mA (standardized signal),
4 voltage-free relays for alarm and fault

Contact load
1000 VA, 5A, voltage-free relays

Function keys
4 keys for all settings, e.g. alarm levels, calibration

Dimensions
1.4 x 5 x 6.8 inches (35 x 128 x 172 mm)
(WxHxD).

Weight
21.7 oz. (620 g)

Ordering information for GMA 100 II
GMA 100/II Controller
2121001   Controller 24 V
2121202   230 V Extension
2130220   GMA R 4 Relays

Relay module
2105003   GMA 100-RB

Key-operated switch module
2105004   GMA 100-SW

Casings
Wall mount casings for 2, 4, 7, 12, 24 or 36 controllers
Panel mount casings for 2, 4 or 7 controllers
19-inch Racks for 12 controllers
Cabinets for large systems

Accessories
2000246   Alarm horn
2000252   Small siren
2000249   Alarm horn EEx de T6 / EExde IIC T6
2000226   Flashlight
2000230   Beacon
2000234   EEx-Flashlight

Battery back-up
2000220   GMA-NAV 1 21 TE
2000218   GMA-NAV 2 84 TE

We reserve the right to change specifications without notice.

GfG equipment is manufactured according to the latest standards of environmental protection. Both GfG-Instrumentation and our suppliers adhere strictly to the regulations for the disposal of hazardous materials.

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