5000 Series

High Performance Control Panels

smart
GasDetection
Technologies

Decisive safety advantage

GfG Instrumentation

GfG Instrumentation is a global leader in the design and manufacture of gas detection products used to protect people, facilities and the environment. For over 50 years we have provided gas detection solutions for life critical health and safety applications. Our innovative and reliable gas warning and measurement systems provide the industry benchmark for accuracy, dependability, and cost-effective ownership.

The 5000 Series Control Panel

The 5000 Series can control up to six individual gas transmitters (sensors) and it is possible to extend the GMA 200 controller with up to four relay modules resulting in up to 64 additional freely configurable relays.

The clearly structured layout with graphical display enables the quick detection of hazardous situations. Currently measured values are displayed on the LCD graphical display.

GMA 200-MT Controller

The GMA 200-MT is at the heart of the 5000 Series and is the most flexible and advanced gas detection system controller. The design of the GMA 200-MT ensures simple and clearly structured operation in industrial and commercial applications. The system can be configured for control of any combination of GfG gas transmitters for the measurement of an extremely wide range of toxic and combustible gases and vapors.

Integrated relays

GMA 200-MT systems include comprehensive and fully programmable relays. Each controller is equipped with 8 internal relays. Menu-driven software allows easy assignment of measuring points to relays, single or multiple alarms per point, alarm thresholds, configuration of collective or group alarms, zoning, fault messages and voting functions.

Flexible modular design

Each GMA 200-MT module can control up to 6 individual gas transmitters (sensors). The compact DIN rail mounted design facilitates cost-effective and space-saving installation in existing or custom control cabinets. GMA 200-MT systems are scalable, and easy to expand by adding additional controller and relay modules. Optional gateway modules allow control via remote or touch-screen computer interface.

Easy to configure

Easy-to-use, menu driven GMA 200-MT software allows configuration of sensor type, gas type, measuring point designations, units of measurement, calibration curves, and function of the comprehensive and fully programmable relays. Up to three individual or specified alarm thresholds can be programmed for each measuring point. The GMA 200-MT continuously evaluates the analog input signals of the connected detectors.
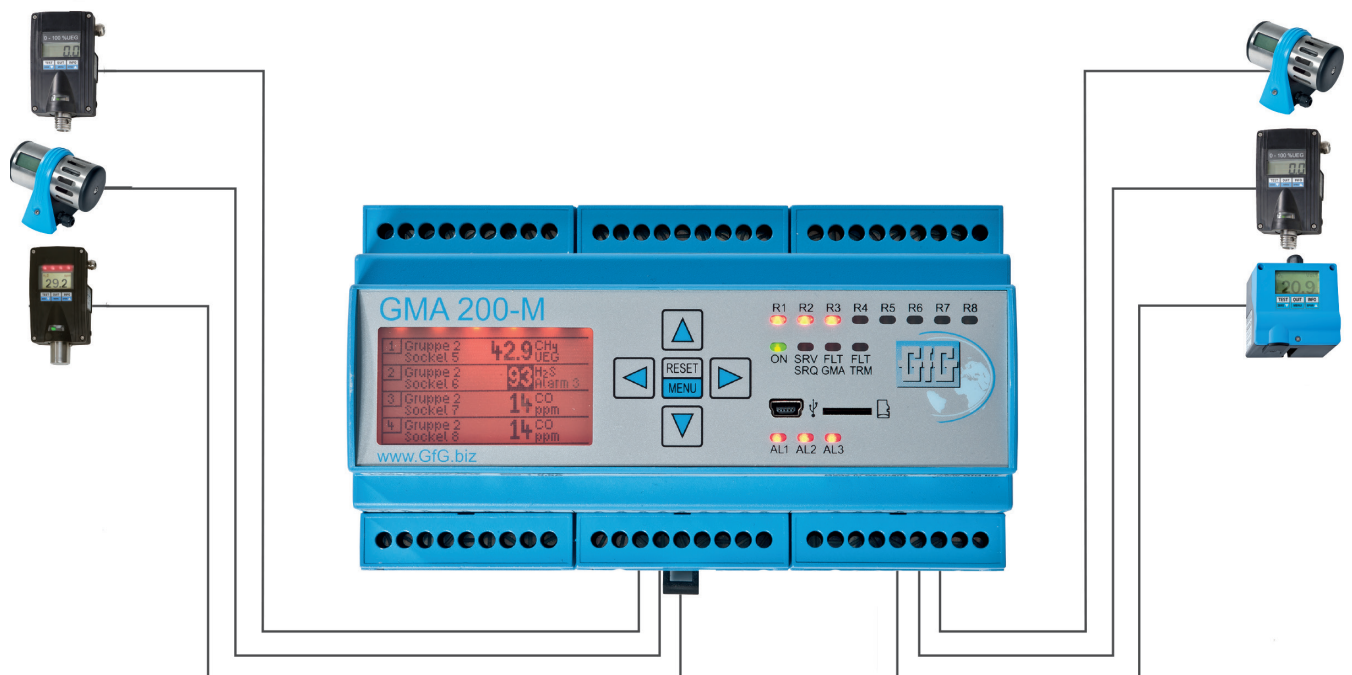
Up to 6 transmitters for combustible, O_2 and toxic gas measurement can be connected to the GMA 200-MT

Universal: control all available gas transmitters

Relay modules

Each GMA 200-RT relay module provides an additional 16 freely configurable relays. A total of four additional relay modules (for 64 additional relays) can be managed by the same GMA 200-MT system. Digital connection with the GMA 200-MT controller allows remote positioning of the relay module wherever it makes the most sense, substantially reducing cabling and installation costs. Relay modules are available with or without an integral display for readings and system information, making it easy to add a remote terminal wherever needed.

Optional Fieldbus-Gateways

Optional gateway modules allow integration of the GMA 200-MT system into existing company networks based on TCP/IP, Process Field Bus or Process Field Network protocols. Monitoring and system performance data are easily exported for viewing or analysis. A wifi interface can be added to the gateway to allow wireless connection with a touch screen Windows® computer or smart phone to display or access system information.

LED indicator lights

The status of the GMA 200-MT system (including operation, fault, service, alarm and relay status) is shown via LEDs. Individual LED indicators identify the type and severity of the alarm condition, (FLT, AL1, AL2, AL3), and any relays activated by the condition, (R1 through R8).

Graphical display

Currently measured values are displayed on a backlit, graphical LCD. In the event of an alarm the display changes color from green to red, and highlights the affected channels.

Operation via keypad

Operation of the GMA 200-MT is through easy-to-use menus, and a simple 5 button interface for alarm acknowledgement, and viewing information on the status of the gas warning system, detectors and relays. The intuitive push-button controls make it easy to navigate through additional screens of information. The integrated display enables the reading of alarm levels through the controller LCD for easy hazard assessment.
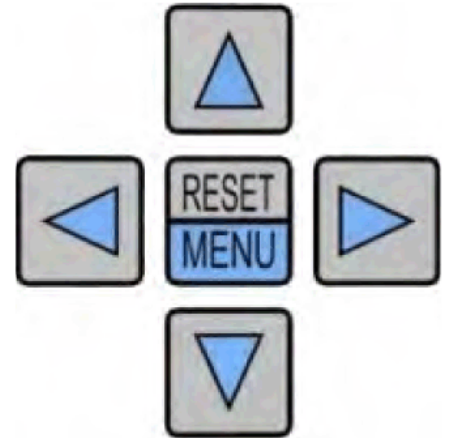
Datalogging standard

Measured values, mean values, alarm events and faults are stored on a microSD memory card.
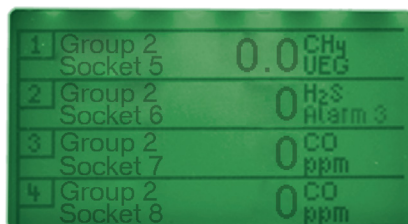
Configuration

A built-in USB port in the GMA 200-MT is used for connection to the configuration software.
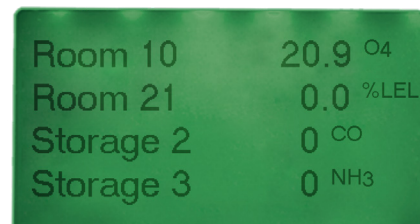
Easy and convenient service

GfG offers full after-the-sale commissioning and field service support.

Full control with only five buttons: GMA 200-MT keypad

GMA 200-RTD with display for remote measured value display

Display for quick and safe evaluation

Feature Summary

5000 Series

- Complete controller package available in 1-6 channel configurations

- Up to 6 analog inputs or 6 digital inputs

- Scalable system with fully programmable menu driven relays

- Rugged metal housing, steel enclosure with key lock

- Local display, with horn and strobe

- 2 amp power supply

TECHNICAL DATA: 5000 SERIES

Gases and sensors:
GfG transmitters for combustible, oxygen and toxic gases and vapors

Display and control elements:
Backlit LCD graphical display
1.3 x 2.1 in (33 x 53 mm with 132 x 65 pixels)

5 buttons (left, right, up, down, OK)

LED indicators: 8 status and alarm (4x red, 1x green, 3x yellow); 8 relay (8x red)

Connection options:
Gas warning system GMA200–MT6:
Up to 6 analog or digital detectors

Inputs:
6 analog inputs (4-20 mA or
0.2-1 mA); max. 50 Ohm input resistance

2 digital inputs: Acknowledgement of alarms can be freely configured

2x RS485 BUS (for connection of external relay modules or digital transmitters in BUS wiring)

1x RS485 BUS (for digital transfer of measured and output data to a higher-level control center

Outputs:
6 relays (normally open contact), freely configurable for single alarms per measuring point and alarm threshold, configuration of collective or group alarms, fault messages and voting functions

1 relay for maintenance and 1 for fault messages

2 analog outputs: 4-20mA / 600 Ohm max. resistance, freely configurable

External relay module:
16 relays per module; up to 4 relay modules per GMA 200-MT system (for up to 64 additional relays); freely configurable for single alarms per measuring point and alarm threshold, configuration of collective or group alarms, fault messages and voting functions

Alarms:
3 independent threshold alarms per measuring point (AL1, AL2, AL3)

Gas alarms can be freely set in the measuring range

Alarm activation logic:
Ascending, descending, exceeding, not achieved acknowledgeable (additional horn only), non-acknowledgeable
non-self-locking / self-locking

Ambient temperature:
Operation: -4 °F to +122 °F /
-20 °C to +50 ºC
Storage: -22 °F to +140 °F /
-30 °C to +60 °C

Dimensions:
12.5 x 12.5 x 6 inches

Data storage:
Measured values stored on microSD card

Intervals can be set (5 sec.-60 min.)

Records instantaneous and mean values, minimum/maximum concentration

Protection classes/Approvals:
Housing:
IP-20

Electromagnetic compatibility:
EN 50270:2006
Emitted interference type class I
Interference resistance type class II

Warranty:
Three years from date of service.

Specifications subject to change without notification