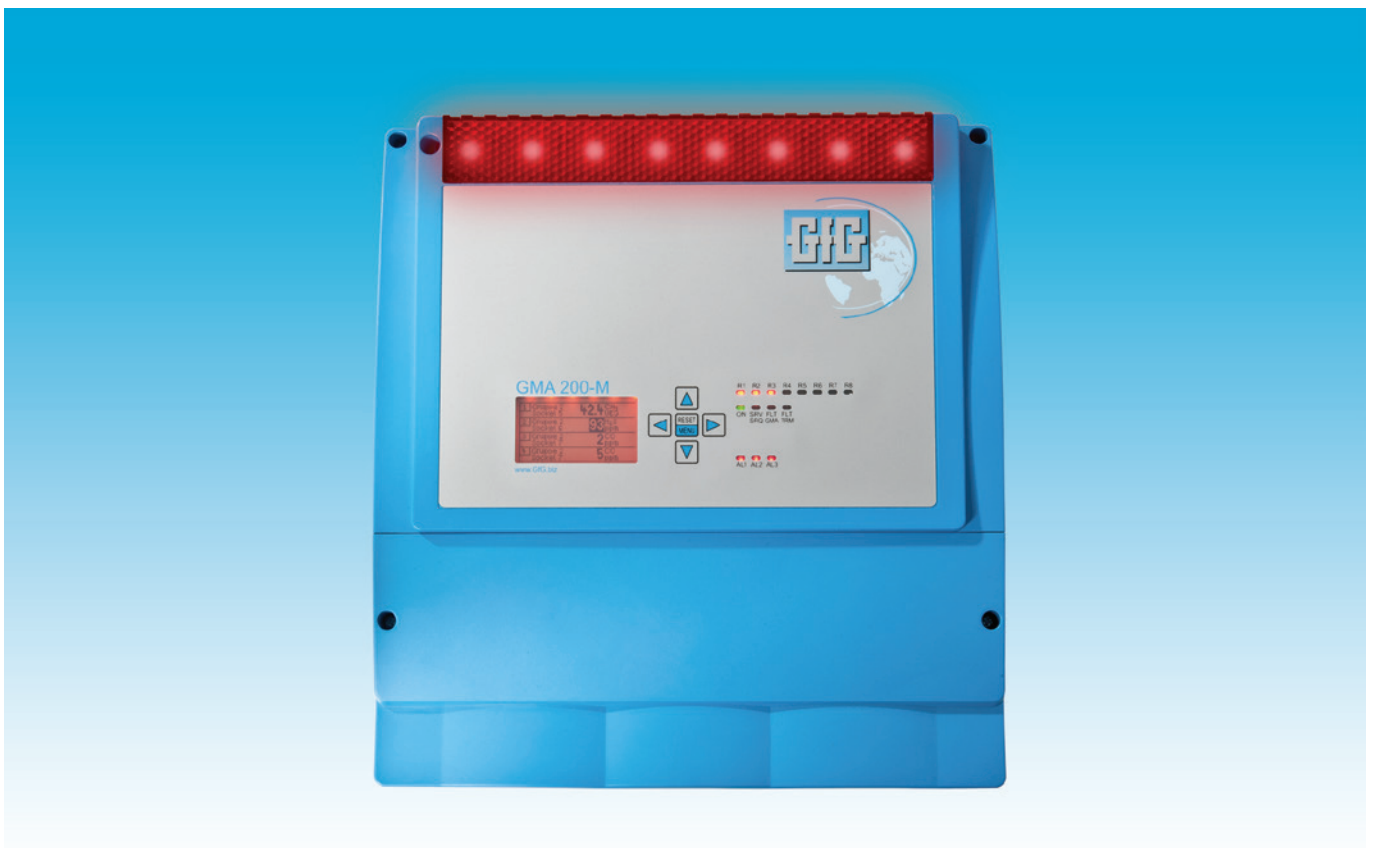


GMA200-MW Controller

Gas detection PLC



- Connect 16 analog or 16 digital transmitters
- Detect combustibile, oxygen and toxic gases
- 6 programmable relays
- PLC functionality
- Built-in audible and visual alarms
- IP65 wall mounting
- Connect any 4-20mA measuring device

Decisive Safety Advantage

Conception

The GMA200 control systems are designed for commercial and industrial applications for the detection of oxygen, combustible and toxic gases.

Flexibility

1-16 analog and/or 1-16 digital transmitters can be connected to the GMA200-MW and monitored simultaneously. The detection range, transmitter location, transmitter type along with 3 alarm set points per transmitter can be configured with PLC functions.

Easy to configure

Easy-to-use, menu driven GMA200-MW 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 GMA200-MW continuously evaluates the analog input signals of the connected detectors.

Integrated relays

Dedicated "Fault" and "Service" relays. 4 programmable relays ensure system safety requirements can be achieved.

Relay modules

The GMA200-RT or GMA200-RTD have a further 16 programmable relays. A maximum of 4 relay modules can be connected via the digital interface RS485 and allows a decentralized installation of the relay modules, offering greater flexibility and reducing installation costs.

Remote terminal displays

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 GMA200-MW 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 Wi-Fi interface can be added to the gateway to allow wireless connection with a touch screen Windows® computer or smartphone to display or access system information.

Integral alarms

The GMA200-MW includes a built-in LED strobe light and audible alarms.

System functions

LED status of the controller, healthy, fault, service due and relays activated.

Data logger

Storage of system data can be made via a Micro SD memory card. Measurement values, averages, alarm

Connect & Control

events and errors can be saved and evaluated if required.

Graphic display

Real-time values are shown continuously. Red backlight on alarm indication.

Alarm 1,
Alarm 2 and
Alarm 3

The integrated storage allows the display of the alarm stages along with the minimum and maximum concentrations on the LCD-display for the first alarm.

Keypad

5 button operation of the controller. Main functions are the acknowledgement of alarms and the operation menu. The status of the controller, transmitters and relays can also be accessed via password protection.

Configuration

The GMA200 configuration software is connected via USB interface to a PC.

Additional modules available in IP-65 wall-mounting housings

- External relay module: GMA200-RW
- Independent power supply: GMA200-UPS
- Fieldbus gateway: GMA200-G

Digital Interface TRM BUS

The TRM BUS allows the connection of 1-16 GfG digital transmitters. Connected in loops or lines. In addition each TRM BUS can also support the GMA200-RT or GMA200-RTD.

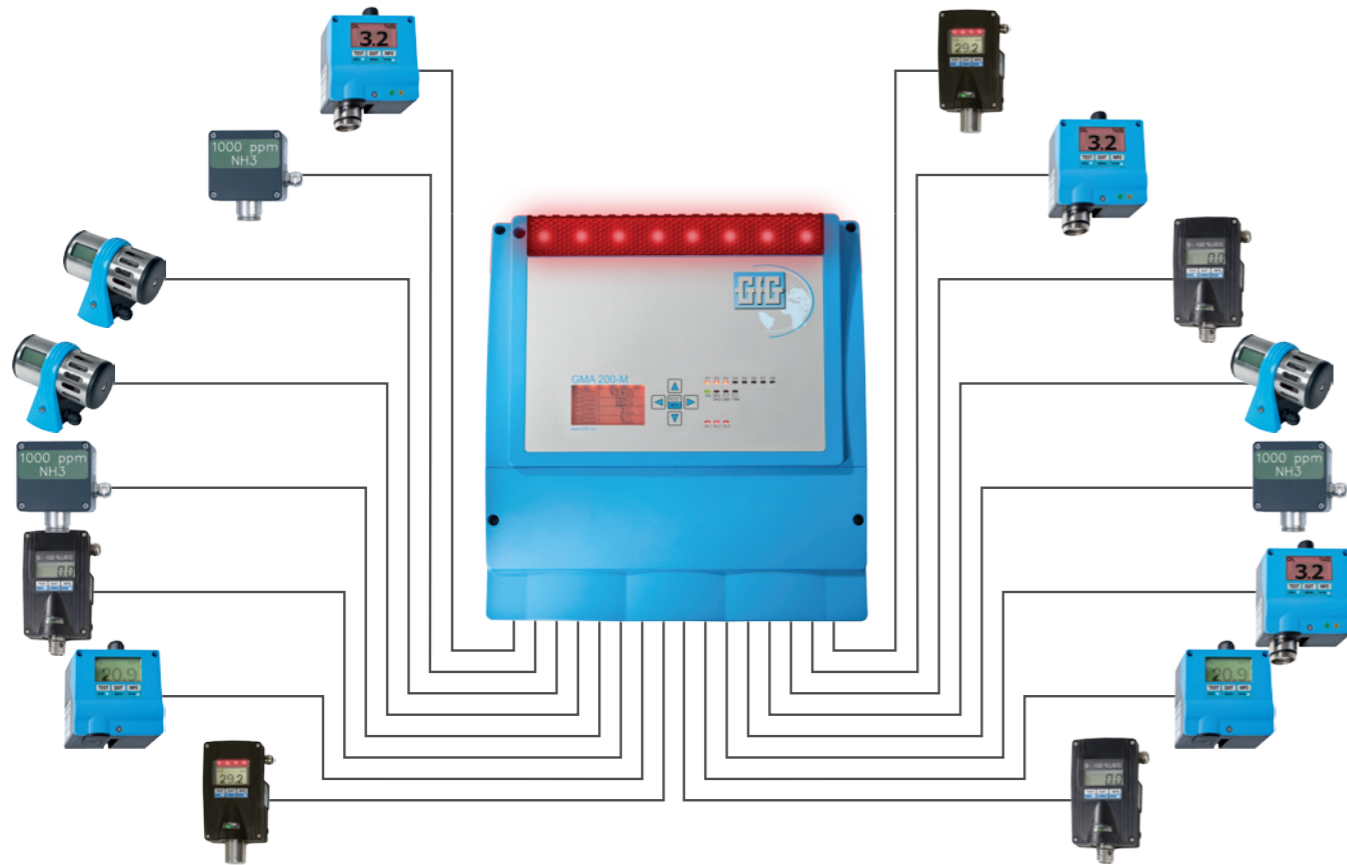
Digital Interface GMA BUS

Besides the option to use this BUS for the connection of the GMA200-RT or GMA200-RTD, this interface offers the possibility to integrate the GMA200-MW into a network. A Modbus protocol

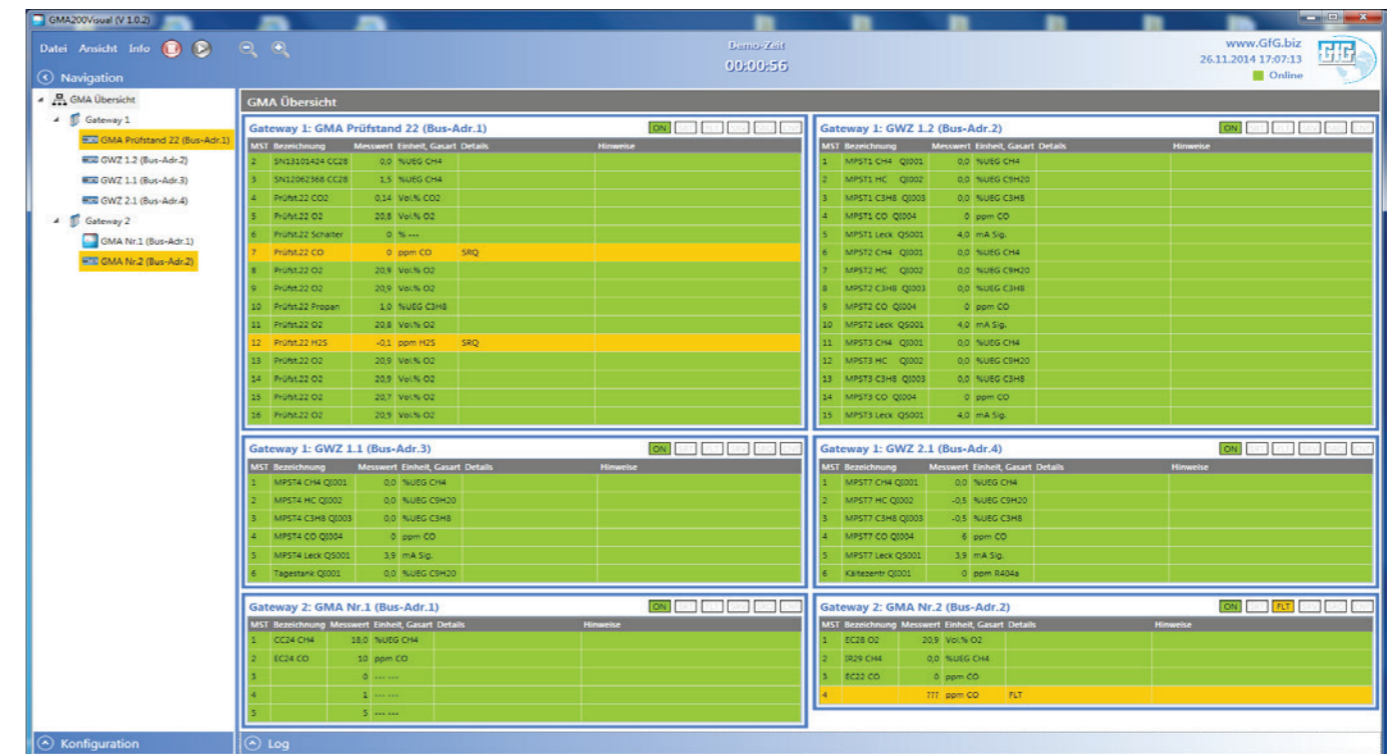
transmitted via the GMA BUS allows the system status transmission to a PC. Additional gateways (Profibus, ProFinet) can be supplied by GfG to enable the digital status monitoring and data processing via further external modules (e.g. PLC)

GMA200-Visual

Complex gas detection systems with multiple controllers and numerous transmitters need a central overview point call to ensure complete safety and control. GfG's PC based visualization Software, "GMA200-Visual" evaluates the status of the complete gas detection system, displaying realtime values clearly, in case any alarm is activated. Concentration values and the gas type are immediately visible, ensuring appropriate measures can be taken promptly.



Up to 16 transmitters for the measurement of combustible, oxygen and toxic gases can be connected to the GMA200-MW



GMA200-Visual

Technical data

GMA200-MW

Transmitters:

Combustible, oxygen and toxic gases

GMA200-MW dimensions:

270 x 290 x 98 mm (W x H x D)

Power supply:

2 x 24 V DC, 20-30 V
(1 x redundant voltage supply)

Power consumption:

GMA200-MW6 - 30W
(with transmitters)
GMA200-MW16 - 5W
(no transmitters)
GMA200-RT/GMA200-RTD - 6W

Display:

LCD (33 x 53 mm/132 x 65 pixels)
5 button keypad
LED system status indication

Inputs:

16 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)

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 (closed-circuit principle)
2 analog outputs: 4-20mA / 600 Ohm
max. resistance, freely configurable

Alarms:

3 independent threshold alarms per
measuring point (AL1, AL2, AL3)
Gas alarms can be freely set in the
measuring range

Alarm logic:

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

Data logger (optional):

2GB microSD memory with
FAT (FAT16) formatting

Ambient temperature:

Operation: -4 °F to +125 °F/
-20 °C to +50 °C
Storage: -22 °F to +140 °F/
-30 °C to +60 °C

External relay module:

16 relays per module; up to 4 relay
modules per GMA200-MW 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

Housing:

IP65 - plastic

ATEX approval

Applied for in accordance with ATEX
94/9/EC

Electrical safety:

EN 61010:2010
Degree of soiling 2
Surge voltage category III
for relay contacts

Electromagnetic compatibility

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

Metrological suitability testing:

Applied for according to
DIN-EN 60079-29-1

Functional Safety:

SIL 2/3 requested



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