

# GMA22-MW Controller

**Compact solutions offering remote calibration**





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The GMA22-MW Offers maximum versatility for small gas detection solutions. This applies equally to the gases to be detected, as well as to the transmitter selection and the possible safety concepts.

### Differences in relays, versatility in safety

The GMA22-MW can differ in the configuration of relays and the associated possibilities in applications.

### Relay equipped

Type	Power supply unit	Changeover (CO)	Normally Open (NO)	max. I <sub>out</sub>
MW	yes	3x	1x	250 mA*
MW	no	4x	-	600 mA*

Relays: 3x alarm, 1x fault message

\* Maximum output current (max. I<sub>out</sub>) temperature dependent

This results in maximum versatility in the implementation of alarm and security concepts.

Even more flexibility is available with the option to address not only the transmitters but also up to 4 additional relay modules from the GMA200-RT or GMA200-RTD through the digital RS-485 interface.



GMA22-MW with optional mounting plate for DIN rails

### Controller offers up to 4 measuring points

The compact units for wall mounting optionally monitor one analog (4-20 mA / ACDC®) or up to four digital transmitters (RS-485). Available with an integrated power supply and as a 24 V DC device.

ACDC (Analog Carrier for Digital Communication) is a patented technology from GfG. It allows an analog transmitter to communicate with a controller using a 4-20 mA line in the same way that a digital transmitter uses a bus connection to communicate. For example, this allows for remote calibration of an analog transmitter. However, it requires that both devices are ACDC-capable.



GMA22-MW maximum configuration

# « Offers Maximum Versatility. »



## Monitoring from a safe distance

Simple stand-alone solutions have their justification, but also two significant disadvantages:

- » In the event of an alarm, someone has to approach the hazardous area to read or operate the device
- » The alert is only given at the place of installation and the information is not forwarded

The GMA22 provides cost-effective, spatial separation of the transmitter and controller, thus increasing safety. This also applies to short distances, for example the controller would be mounted next to the door outside the room to be monitored and the remote monitoring of measuring points can be up to 3/4 of a mile away depending on the transmitters.

## Display and alarm

The 2.2 inch LCD continuously displays the measured values of all connected transmitters. The operating status is indicated by the status LEDs. In normal operation, only the green LED is lit. A yellow LED indicates malfunctions or service work. In the event of an alarm, the background color of the display changes from green to red and only the measured values of the measuring points at which the limit values were exceeded or fallen below are displayed. Red LEDs indicate the alarm level. In addition, an acoustic warning signal sounds.

## Pushbutton interface operation

The three pushbuttons below the display allow easy operation of the GMA. They allow scrolling through the different screen views, acknowledging alarms and navigating the service menu and starting remote calibration.

## Data logger

For long-term storage and documentation of the measured values, the GMA22 can be equipped with a microSD memory card. Measured values, average values, alarm events and faults are stored at individually configurable intervals and are available for evaluation.



Measured value overview in normal or alarm state

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## Feature summary

- » Safe, remote monitoring up to 3/4 of a mile away
- » Up to 4 measuring points and 4 additional relay modules
- » Easy status readings through LEDs, background colors and acoustic warning signal on the 2.2 inch LCD display
- » Data logger for storage and documentation of measured values

## Technical Data: GMA22-MW

<b>Displays and controls:</b>	
Status LEDs:	4 status LEDs for alarms and operating states
Display:	2.2 inch graphic display
Pushbuttons:	3 function keys
Alarm:	Horn max. 100 dB(A) adjustable
<b>Power supply:</b>	
Operating voltage:	<b>GMA22 without internal power supply</b> 24 V DC (20-30 V DC) by stabilized SELV or PELV power supply unit
Power consumption:	max. 6 VA (without transmitters) max. 5 W (without transmitters)
Fuses:	F1: T630 mA changeable (for TRM)
<b>Transmitter connections:</b>	
Supply output $U_{out}$ :	<b>GMA22 without internal power supply</b> 24 V DC (20-30 V DC) supplied by the external power supply unit max. 600 mA
Analog signal input $I_{in}$ :	Measuring tolerance: $\pm 0.3\%$ MR @ 4-20 mA (MR = measuring range) (Load approx. 50 to 100 $\Omega$ , $I_{max}$ = 70 mA continuous / 500 mA short-time)
Digital signals RS-485 bus:	RS-485; half-duplex; max. 38,400 baud
<b>RS-485 output:</b>	RS-485; half-duplex; max. 38,400 baud (only for GMA200 relay modules)
<b>Relay outputs</b>	
Contacts:	4 relays with one CO contact each (GMA22 without internal power supply) 3 relays with one CO contact each and 1 relay with one NO contact (without internal power supply)
Insulation distances:	Basic insulation between adjacent relays
Contact rating:	3 A/250 V AC or 3A/30 V DC
Minimum switching current:	10 mA
Minimum switching voltage:	5 V
<b>Data storage:</b>	
Data logger (optional):	Mini USB port for device configuration through PC max. 2 GB microSD card with FAT formatting (FAT16)
<b>Environmental conditions:</b>	
Mounting location:	Indoors only
Temperature for storage:	-13 to +140 °F / -25 to +60 °C   5 to 95% r.h. (recommended +32 to +86 °F / 0 to +30 °C   40 to 60% r.h.)
Temperature for operation:	-4 to +122 °F / -20 to +50 °C   5 to 95% r.h. (without internal power supply) -4 to +113 °F / -20 to +45 °C   5 to 95% r.h. (with internal power supply and max. 150 mA load at $U_{out}$ ) -4 to +104 °F / -20 to +40 °C   5 to 95% r.h. (with internal power supply and max. 250 mA load at $U_{out}$ )
<b>Housing:</b>	
Protection class:	IP64 according to IEC 60529; IK08 according to IEC 62262
Material:	Plastic
Dimensions:	3.8 x 5.5 x 2 in / 97 x 140 x 50 mm (W x H x D)
Weight:	9.7 oz / 275 g
<b>Approvals / Certifications:</b>	
Electromagnetic compatibility:	DIN EN 50270:2015 (Interference emission: Type class I, Interference immunity: Type class II)
Electrical safety:	EN 61010-1:2010 (pollution degree 2, overvoltage category II for mains supply) (pollution degree 2, overvoltage category III for relay contacts)



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