

GMA 200-MGSS

Compact gas sampling system integrated in GMA 200 housing



- Efficient alternative to high-priced sampling systems
- Electronic sampling pump
- Fully automated flow control
- Internal gas distributor for one catalytic combustion sensor and two electrochemical sensors
- Condensate trap, water filter and flame arrestor



Compact, flexible, safe

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.

Complex industrial processes and plants are still challenges for safety measures. Sealed spaces, pipelines and further hardly accessible areas as well as extreme ambient conditions are special demands on gas detection for process monitoring and the safety of plants and persons.

With the GMA 200-MGSS gas sampling system, GfG masters these challenges by combining the reliable GMA 200 controller with internal sensors and a electronic gas sampling feed

pump. Samples of combustible and toxic gases can be taken from critical areas, processed and analyzed. Afterwards the gas sample can be fed back in the process or in safe areas.

Field-tested analysis

The gas sampling system is based on the GMA 200 controller and provides all of its' advantages:

Integrated Relays

GMA 200-MGSS system includes comprehensive and fully programmable relays. Each controller is equipped with eight internal relays. Six of these relays can be freely programmed for alarms and further safety measures. This offers countless possibilities.

Clear display elements

The LEDs display the state of the gas sampling system, the operation mode, errors or service needed. In addition, the GMA 200-MGSS has a LCD graphical display, which continuously shows the current measurement data. In the case of an alarm,

the red backlight of the display, the alarm LEDs as well as the relay LEDs will be activated and the active alarm will be shown in the display.

Operation via keyboard

Operation of the GMA 200-MGSS 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.

Modular structure

The GMA 200-MGSS offers a wide range of flexibility and adjusts to your requirements. Due to the modular structure additional components can be added to the base version to perform measurement tasks.



Individual customization through modular design

Flame arrestor

If the gas sample is taken from potentially explosive atmospheres, they have to be protected from flames, which can be caused by sparks of electrical origin. For this purpose a flame arrestor can be integrated into the GMA 200-MGSS as an option. In the case that the gas will be led back to the potentially explosive atmospheres a further flame arrestor can be installed on the output of the GMA 200-MGSS.

Condensate trap

Gas samples may include pollution like dust particles as well as condensate. These impurities could damage the integrated sensors. The condensate trap filters the gas samples and greatly increases the lifetime of the sensors.

Water barrier

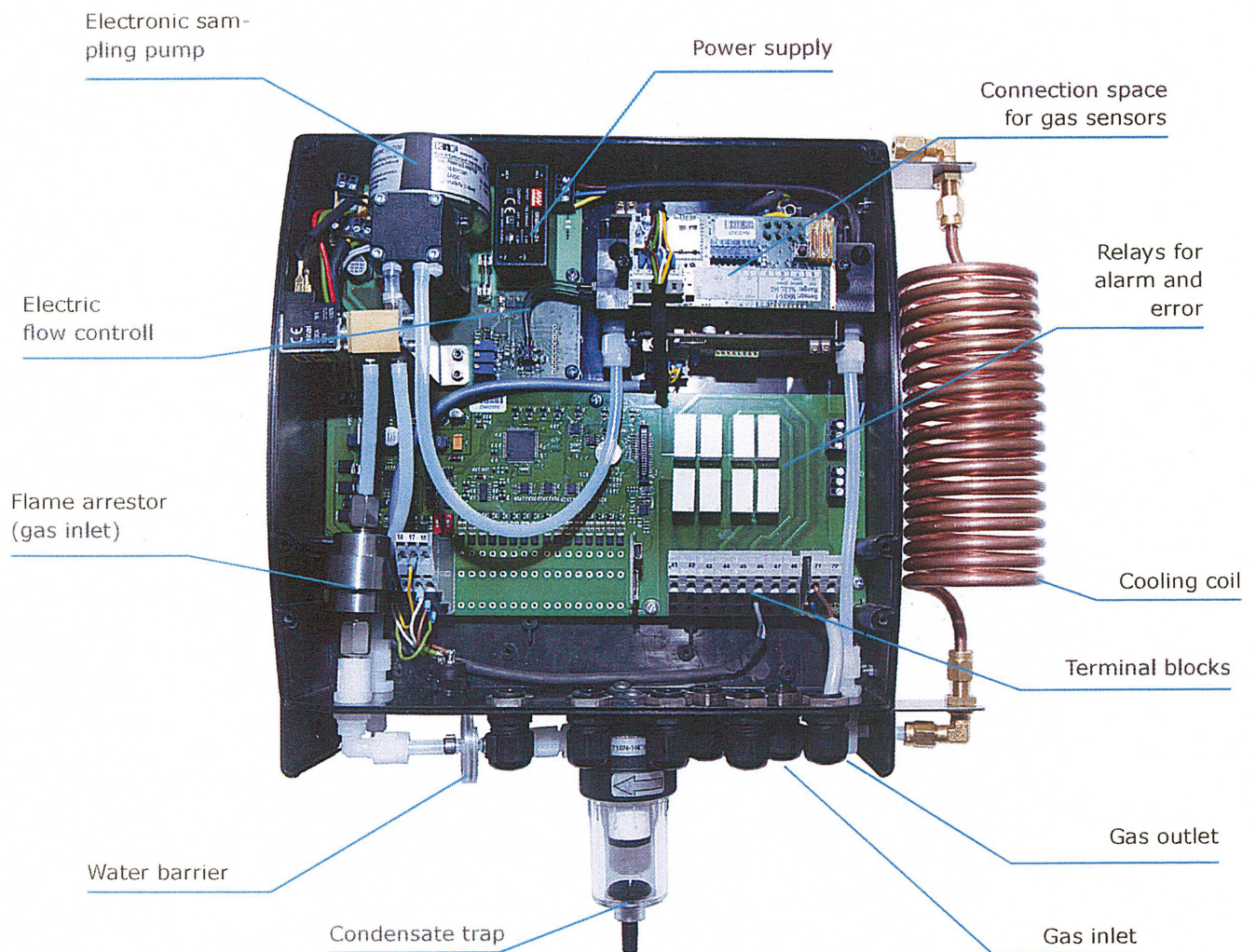
The water barrier prevents the unintentional intake of water or other liquids while taking gas samples.

Cooling coil

When analyzing gases from areas with extreme temperature, the sample must be cooled to prevent sensor damage.

Valve switching

The additional gas inlet for calibration gas or purge gas makes cleaning the gas channel and calibration of the device easy.



Technical data

GMA 200-MGSS Sample Draw System

Gases and sensors:

Catalytic Combustion sensor:
1 sensor for combustible gases and vapors
2 Electrochemical sensors

Gas measurement feed:

Gas processing:
Cooling coil (optional)
Condensation trap with water barrier
Flame arrestor (optional)

Dimensions (HxWxD):

10.6x11.4x4 in / 270x290x98 mm

Ambient conditions:

Operation: -4 °F to +131 °F / -20 °C to +55 °C and 0 to 99% r.h.

Storage: -13 °F to +140 °F / -25 °C to +60 °C and 0 to 99% r.h.

Installation location: in interior space only, up to a height of 6,561 ft / 2000m above sea level

Display and control elements:

2.2" graphical display and 5 buttons,
15 LEDs for alarms, operating status and state of relays

Connection cable:

7 Cable entry points: M16x1.5 ANSI (for cable cross section 4.5-10mm)

Terminal blocks: 28-13 AWG cross section

Shielded cable: 3-wire ≥ 18 AWG (for GMA 200 power supply)

2-wire 17x14x24 AWG BUS-LD (for GMA Bus with a length > 33 ft / 10m)

Relay outputs:

Contacts: 8 relays each with a change-over

6 relays (normally open contact)
Contact load: 3 Amp / 250 V AC or 3 Amp / 30 V DC

Insulation spacing: Basic insulation between the relays: 1&2, 3&4, 5&6, 7&8

RS485 outputs:

TRM-Bus1: RS485, Half-duplex, max. 38,400 baud (for GMA 200 relay module, central, PC, PLC or Gateway)

Power supply:

Operating voltage: 100-240 V AC 50-60 Hz or 24 V DC (20-30 V DC permitted) optional

Power consumption: max. 42 VA

Fuses:

F1=T 500 mA (for GMA 200)
F2=T 500 mA (for gas sensors)
F3=T 315 mA (for flow controller)

Data storage (optional):

2 GB microSD card with FAT (FAT16) formatting

USB connection:

Mini USB connector for device configuration with PC

Housing:

Protection class: IP44

Material: Plastics

Weight: 4 lb 10 oz / 2.1 kg

Specifications subject to change without notification



USA and Canada info@gfg-inc.com
Latin America info@gfg-inc.com
Germany info@gfg-mbh.com
South Africa gfgsa@icon.co.za
Asia Pacific info@gasdetection.asia
Europe info@gfg-europe.com
Switzerland info@gfg.ch



GfG Instrumentation

1194 Oak Valley Drive, Suite 20, Ann Arbor, MI 48108 USA
Phone: (734) 769-0573 • Toll Free (USA / Canada): (800) 959-0329
Website: www.goodforgas.com • info@gfg-inc.com

Worldwide Manufacturer of Gas Detection Solutions

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