One of the World's Leading Manufacturers of Gas Detection Products

GfG Instrumentation, mbH
Worldwide headquarters in Dortmund, Germany
An industry leader in development and production of gas measurement technology for over 54 years
Founded in 1961
Over 300 employees worldwide in 2016

GfG Instrumentation, Inc.
Headquarters in Ann Arbor, Michigan, USA
Responsible for manufacturing, design, and sales support for North America and South America
Originally founded in 1963 as Dynamation, Inc.
GfG Instrumentation
Exceptional designs with best cost of ownership in the gas detection industry

GfG Instrumentation
Technological leadership

GfG Instrumentation
Certified quality
Fixed gas detection systems
Comprehensive line of fixed transmitters and controllers able to detect over 500 gases

Fixed System
Gas Measurement
Transmitters
Combustible gases
Toxic gases
Oxygen

Able to detect over 500 gases
Transmitters for toxic gases
- Electrochemical (EC)
- Charge Carrier Injection (CI)
- Chemosorption (CS)
- Infrared (IR)

GfG “Smart Sensors”
Flexible “smart sensor” approach allows use of widest range of available sensors from multiple sensor manufacturers
GfG proprietary combustible (pellistor) sensors offer unrivalled accuracy, stability and longevity

EC-22 Series for O₂ and toxic gas measurement
Cost effective solution for non-hazardous location applications
Available for use with wide range of O₂ and substance-specific electrochemical toxic gas sensors
Available with or without display and push-button interface
Connect with controller via 4-20mA or RS-485 / MODBUS
**CC-22 LEL combustible gas transmitter**
Cost effective solution for non-hazardous location applications

- GfG proprietary combustible (pellistor) sensors offer unrivalled accuracy, stability and longevity
- GfG LEL sensors available in optimized versions for specific combustible gases
- Optional backlit easy-to-read display changes color to indicate alarm

**EC-22 and CC-22 Series for LEL, O₂, and toxic gas measurement**
Cost effective solution for non-hazardous location applications

- EC-22 and CC-22 transmitters available with or without display and control interface
- Optional display and push-button interface at transmitter simplifies calibration
- Optional LED status lights indicate power-on (green) and alarm (amber / red) alarm conditions

**Proprietary sensor technology**
GfG CI-21 Ammonia and ZD-21 Oxygen transmitters provide spectacular performance based on unique, proprietary long-lived sensor technology
**EC-30 Series**
O₂ and electrochemical toxic gas transmitters

- Backlit easy-to-read display
- Non-intrusive “AutoCal” automatic calibration
- Linear 4-20mA output signal
- Available with optional relay for activation of local alarms and peripheral devices
- NEMA 4X, heavy duty, corrosion resistant, explosion proof aluminum housing
- Available for wide range of toxic gases

**EC-28 Toxic gas transmitters (TOX)**
EC-28 Series of highly configurable toxic gas transmitters can be equipped with exactly the right sensors, displays, relays and local alarms needed for the application

**CC-28 Catalytic LEL Transmitters**
Combustible gases
IR-29 transmitters for LEL gases
Proprietary infrared technology provides readings based on up to four different wavelengths at the same time

Intrinsically safe IR-29 infrared sensors are extremely sensitive, stable, and cannot be harmed by sensor poisons

Able to measure wide variety of combustible gases including aromatic VOCs, alcohols and acetylene as well as saturated gases such as methane, butane and hexane

Intrinsically safe IR-29 transmitters can measure heavy LEL range vapors such as diesel and jet fuel that are not measurable by any other technology

DIN rail mounted controllers
GMA 40 Series controllers are flexible, cost-effective control units for one to four transmitter systems

GMA 40 Series can be mounted directly onto standard DIN rails in switchgear cabinets.

Series 25 Integrated Control Panels
Complete 1-4 gas measuring point control system in NEMA 4X weatherproof enclosure

Includes GMA-40 Series controller, power supply, integral high intensity horn (105 dB), and strobe
Stand-alone systems

GfG Dynaguard systems include the transmitter and controller in a single integrated easy to install, cost-effective wall-mounted unit.

19" Rack mount controller cabinets

GMA100 II Series controllers are rack-mounted microprocessor-based control and monitoring systems for all measurement tasks.

- Single channel (GMA101) and four-channel (GMA104) cards available.
- Each GMA104 controller card can handle the input from four gas measurement points.

Wall-mount controllers

Complete control systems for wall mounting.

- Switchgear cabinets or additional housings are not necessary.
- GMA 200 controllers provide complete fixed system solution for a wide range of flammable and toxic gases, and oxygen.
- Up to 16 measuring points can be monitored at the same time.
- All GfG transmitter types supported.
GMA200-MGSS
Compact gas sampling system integrated in GMA200 housing

- Efficient, single-inlet alternative to high-priced sampling systems and individually wired fixed point gas transmitters
- Built-in, motorized sampling pump with fully automated flow control
- Up to 3 sensors for LEL, O\textsubscript{2}, and toxic gas measurement
- Optional condensate (water) trap, hydrophobic barrier filter, flame arrester and sample cooling coil

GMA200-MGSS
Modular approach lets you choose the features you need

- Motorized sampling pump
- Electronic bypass valve switch
- Flame arrester (gas inlet)
- Bypass inlet (calibration)
- Gas outlet
- Condensate (water) trap
- Terminal blocks
- 8 fully programmable relays for alarm and error
- 8 fully programmable sensors

GMA200-MGSS
Available in 1 - 6 gas inlet versions

- Multiple sampling inlets allow the same sensors to be used to sample the atmosphere in multiple locations
- Each gas inlet samples from a different location
- Programmable electronic switching solenoid allows assignable sampling times per inlet
- Optional bypass inlet with electronic valve allows for simple, easy AutoCal calibration
GM200-MW4
Compact 1 – 4 gas measurement system in compact wall mounting enclosure

- Advanced and flexible controller for combustible, O_2 and toxic gas
- Control up to 4 gas measurement transmitters — in any combination!
- Easy-to-use push-button control interface
- 4 fully programmable relays for alarms, plus 2 additional relays for fault and maintenance
- Built in high intensity horn (105 dB) and LED alarms
- Two RS-485 inputs for connection of RT modules or digital transmitters in bus wiring, plus RS-485 bus for digital transfer of measurement and system data to a higher order control center or remote terminal

Fixed gas detection systems
GMA 200 Programmable Logic Controller

GMA200-MT/16 DIN Rail Mounted Controller
Connection of up to 16 transmitters with analog interfaces

- Star cabling from transmitter to controller via analog 4-20mA connection
- GMA200-MT available in versions to control up to 16 gas measurement transmitters
GMA200 - MT/16 DIN Rail Mounted Controller
Connect controller via 4-20mA or RS-485 BUS with additional modules

RS-485 GMA-Bus can be used to connect GMA-200 controller with additional control or relay modules, or with a remote terminal display.

GMA200 - RTI relay module can be used to add 16 additional programmable relays to system.

GMA200-MT/16 DIN Rail Mounted Controller
Connection via digital interfaces

Loop cabling at digital transmission

GMA200-MT/16 DIN Rail Mounted Controller
Connection via digital interfaces

Lines cabling via digital transmission
Lines cabling via digital transmission

TRM-Bus1

TRM-Bus2

GMA200-MT/16 DIN Rail Mounted Controller
Connection via digital interfaces

Touchscreen PC with GfG Visualization Software

GMA200-MT/16 DIN Rail Mounted Controller
Connection via digital interfaces

Loop cabling via digital transmission

TRM-Bus1

TRM-Bus2

GMA200-MT/16 DIN Rail Mounted Controller
Connection via GMA-bus to Ethernet gateway

Profinet Gateway

GMA-bus

TRM-Bus1

TRM-Bus2

Lines cabling via digital transmission
GMA200-MT/16 DIN Rail Mounted Controller
Connection via GMA-bus to Profinet (Ethernet) or Profibus gateway

Star cabling (connection via 4-20mA analog signal)
GMA-bus

GMA-bus Gateway

GMA200 Gateway with Profinet Ethernet-Interface
Remote data communication via digital gateway

Polling of measuring values and status information (every second)
Reading of measuring points' and transmitter configuration (MR, AL)
Reset of alarms (optional)
GMA200 configuration with GMA200Config-software
Technical system support for GfG customers from anywhere in the world!

Connection to remote terminal via GfG Visualization Software
GMA200 Visualization Software

Single view – GMA with high alarm (alarm 2) condition

System includes 2 GMA200-MT/16 control modules, and 2 GMA200-RT relay modules

GfG Visualization Software allows touch screen PC or laptop to be used as remote terminal for display of comprehensive system information

32 point GMA200 system in cabinet with touch screen terminal display

System includes 2 GMA200-MT/16 control modules, and 2 GMA200-RT relay modules

GfG Visualization Software allows touch screen PC or laptop to be used as remote terminal for display of comprehensive system information

50 point GMA200 system in cabinet with 2 touch screen terminal displays

System includes 4 GMA200-MT control modules, and 5 GMA200-RT relay modules

GfG Visualization Software allows splitting information for convenience between two PC terminal displays
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All of the tools you need!

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February 26, 2016
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Slide 53

Enhanced customer support choices

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Slide 54
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Thank you!