

PLEASE READ

Welcome to the world of GfG Gas Detection.

Having expressed an interest in our products we don't want to inundate you with a batch of brochures to plough through but would appreciate you taking a few minutes to overview this information on our Fixed and Portable Gas Detection equipment and the benefits that it may bring to your organisation.

We have tried to lay out the information here in an informative way so you can easily see the features you need and the accessories and add-on's available for our instrumentation as follows....

Overview of Fixed Gas Detection, the GfG Product Range plus NEW PRODUCTS available in 2020

Overview of GfG Portable Instruments Range, their features and benefits plus NEW PRODUCTS available in 2020

GfG TotalCare Service Packages for both Fixed and Portable instrumentation

Please note where we have some unique features that no other gas detection manufacturers can offer you will see the following symbol against these items.....



GfG History



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 2020

GfG Gas Detection are based in Coggeshall in Essex

Our full details can be found at www.gfggasdetection.co.uk



GfG Gas Detection

World-wide manufacturer of integrated gas detection solutions



FIXED

and

PORTABLE

Solutions





Fixed Gas Detection system elements

Control Panel



Transmitter with Sensor fitted



Stand-alone systems





Fixed System Gas Measurement Transmitters & Sensors

**Combustible gases
(LEL)**

**Lower
Explosive
Limit**



Toxic gases E.G.

**H₂S,
CO,
Ammonia,**



See website for full list

**Oxygen – Enrichment
(Medical) or normally
Depletion**





Sensor Types

Electrochemical (Toxics, O₂)

Catalytic Bead (LEL)

Infrared (IR) (LEL & CO₂)

PID (Photo Ionisation Detector) for VOCs (Volatile Organic Compounds)

These are most common – there are others such as CCI (Charge Carrier Injection) and Zirconia.....more later

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's CI-21 Ammonia Transmitter using **Charge Carrier Injection** technology allows a wide measuring range (30- 10000 ppm)

and ZD-21 Oxygen transmitter with **Zirconia** technology allowing **5+ Years Sensor Life**

provide spectacular performance based on this unique, proprietary long-life sensor technology



ATEX Approved Intrinsically Safe Zone 1 & 2

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 - Available with or without display and push-button interface



ATEX Approved Intrinsically Safe Zone 1 & 2



CC-28 Catalytic LEL Transmitters

Combustible gases - available with or without display and push-button interface

ATEX Approved Intrinsically Safe Zone 0, 1 & 2



IR-29 transmitters for CO2 & LEL gas detection

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 not harmed by sensor poisons*

Able to measure CO2 plus a wide variety of combustible gases (LELs) 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, **simple, low cost** control units for **one to four transmitter systems***

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



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

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 to draw sample from a distance

Up to 3 sensors for LEL, O₂ and toxic gas measurement

Optional condensate (water) trap, hydrophobic barrier filter, flame arrestor and sample cooling coil



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GM200-MW4 CONTROL PANEL

Compact 1 – 4 gas measurement system in compact wall mounting enclosure

Advanced and flexible controller for combustible, O₂ and toxic gas

Control up to 4 gas measurement transmittersin any combination!

Easy-to-use push-button control interface

4 fully programmable relays for alarms, plus 2 additional relays for fault and maintenance

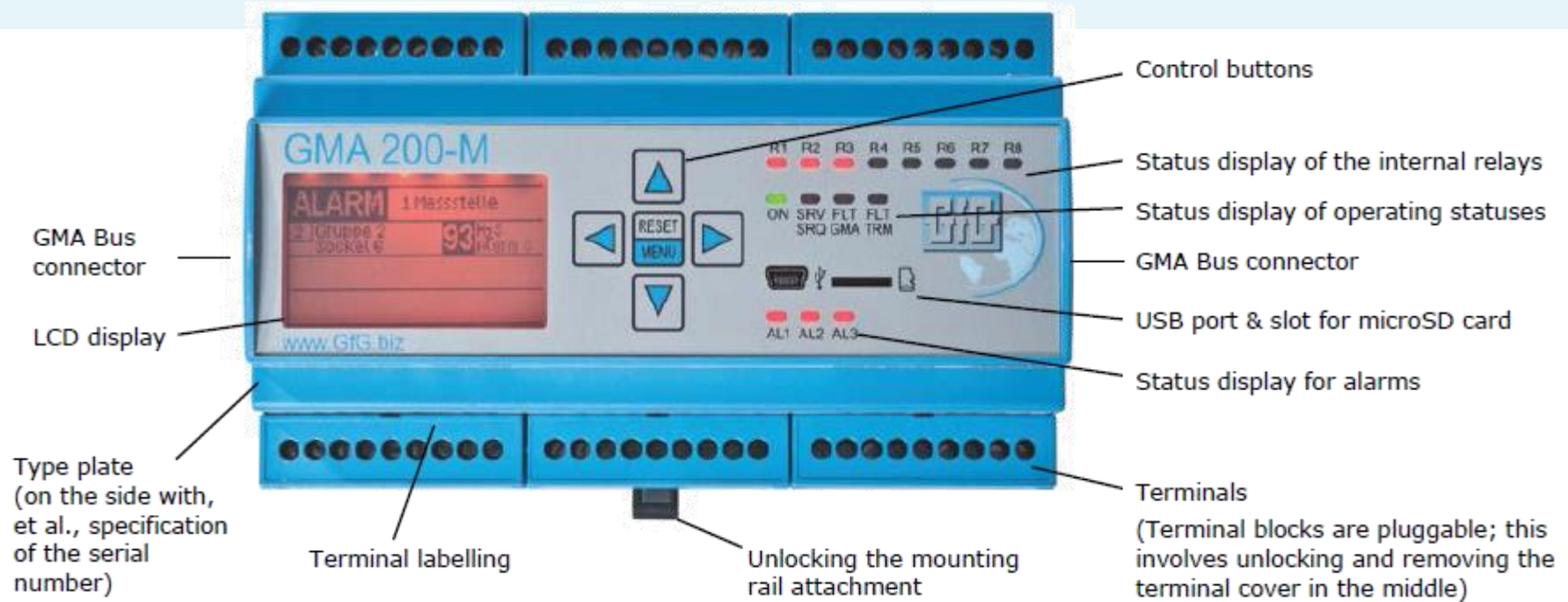
Built in high intensity horn (105 dB) and LED alarms

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 centre (BMS) or remote terminal



GM200-MT/16 CONTROL PANEL

DIN Rail / Rack Mounted 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

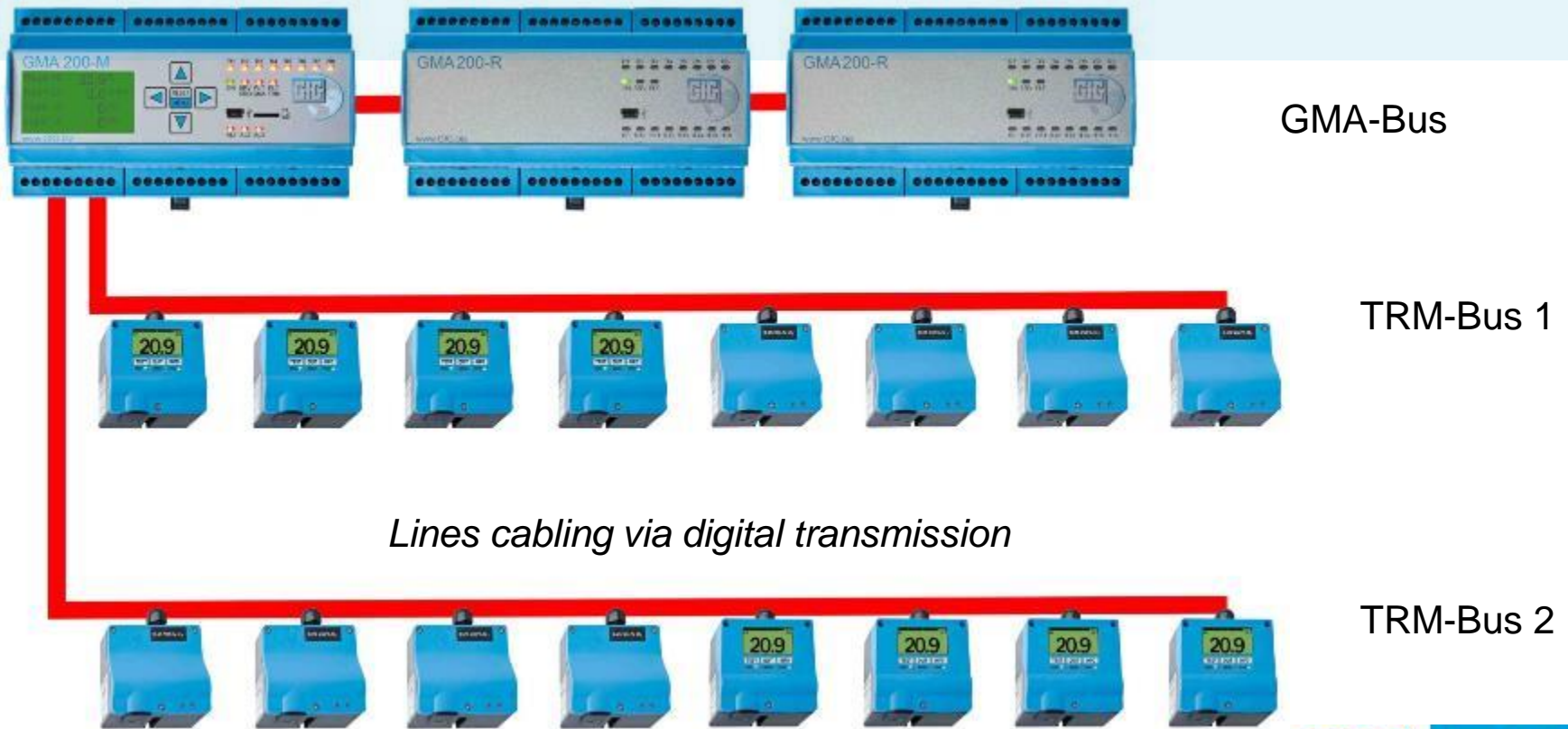


RS-485 GMA-Bus can be used to connect GMA-200 controller with additional control or relay modules, or with a remote terminal display

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

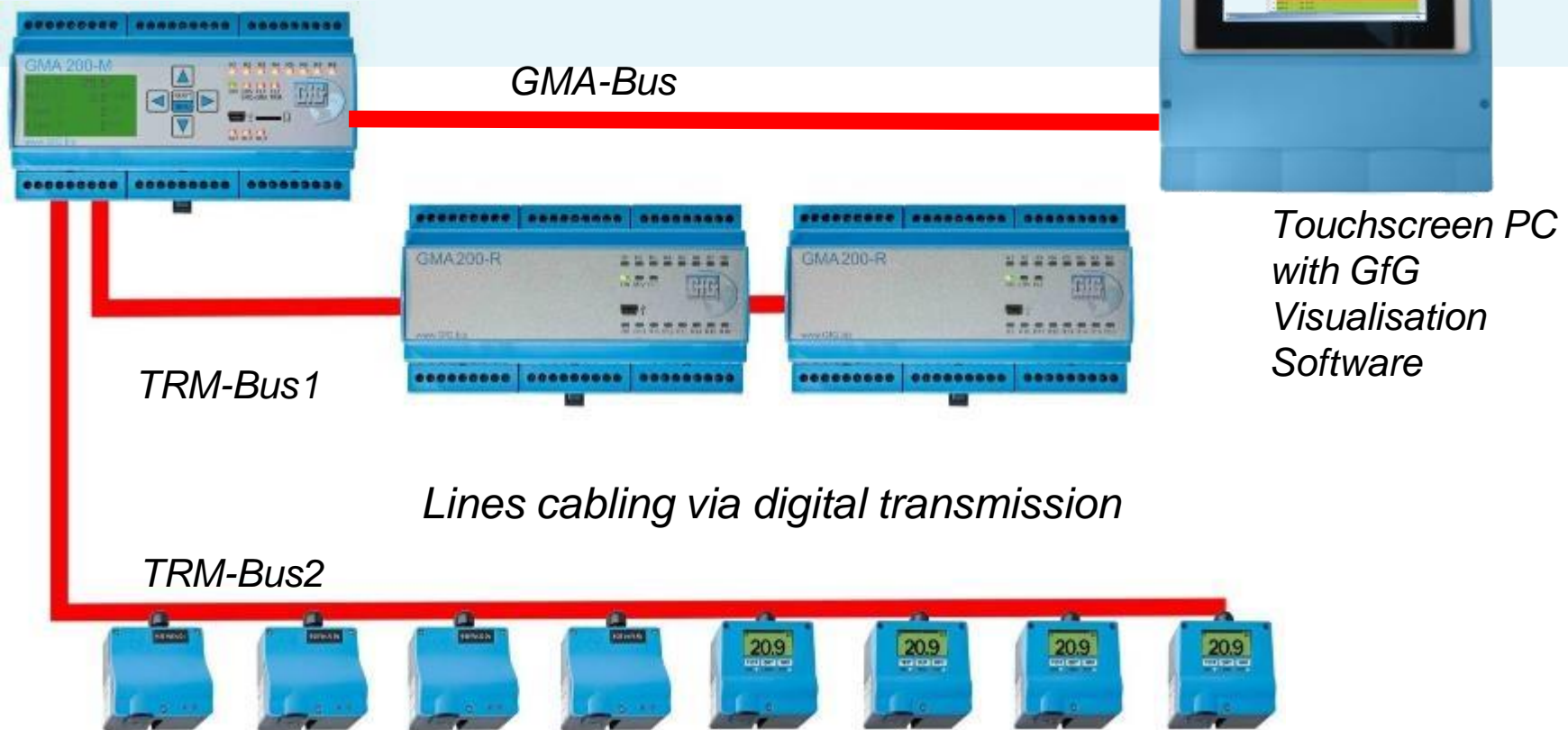
GMA200-MT/16 DIN Rail Mounted Controller

Connection via digital interfaces



GMA200-MT/16 DIN Rail Mounted Controller

Connection via digital interfaces

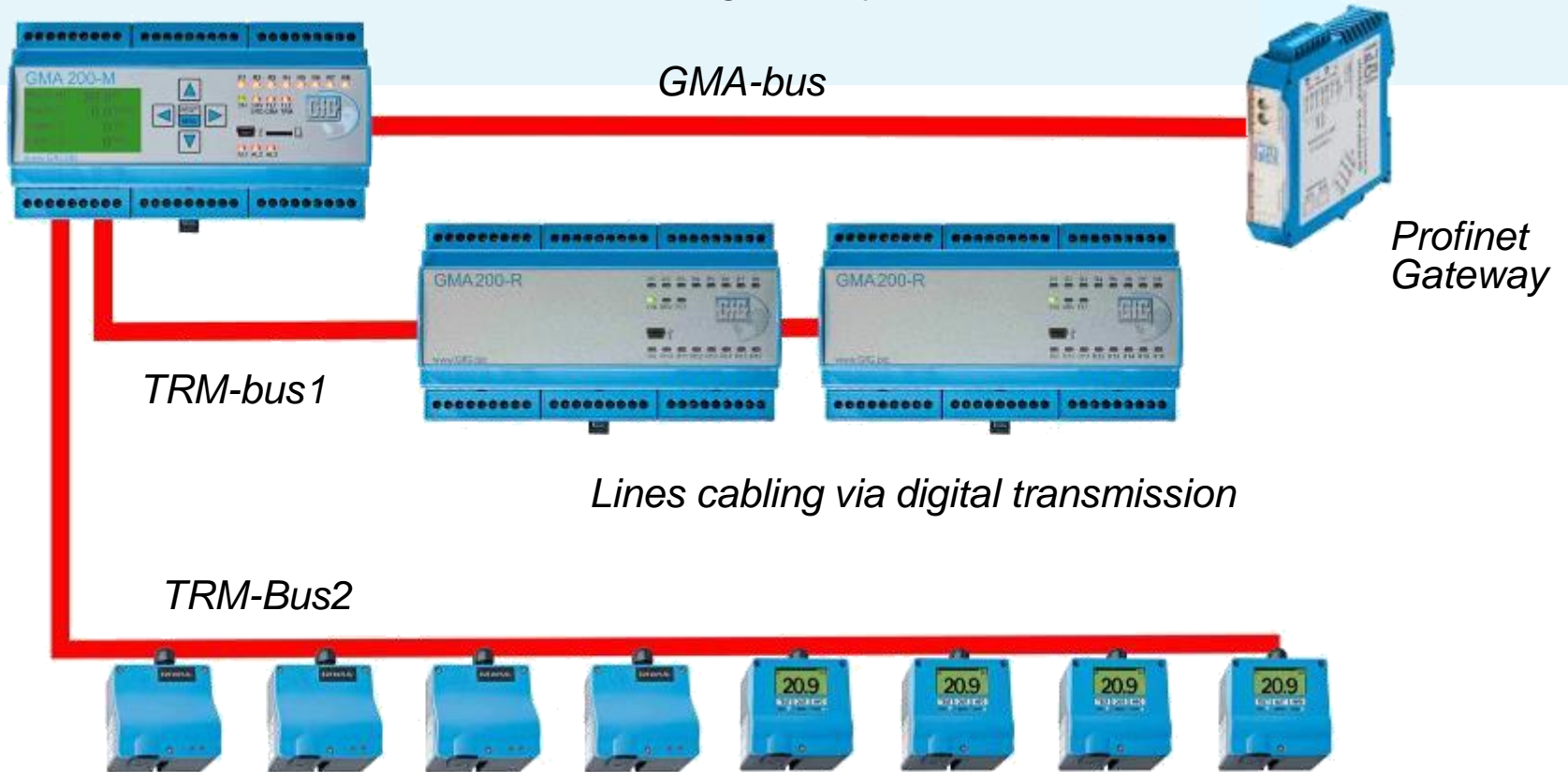


Touchscreen PC
with GfG
Visualisation
Software



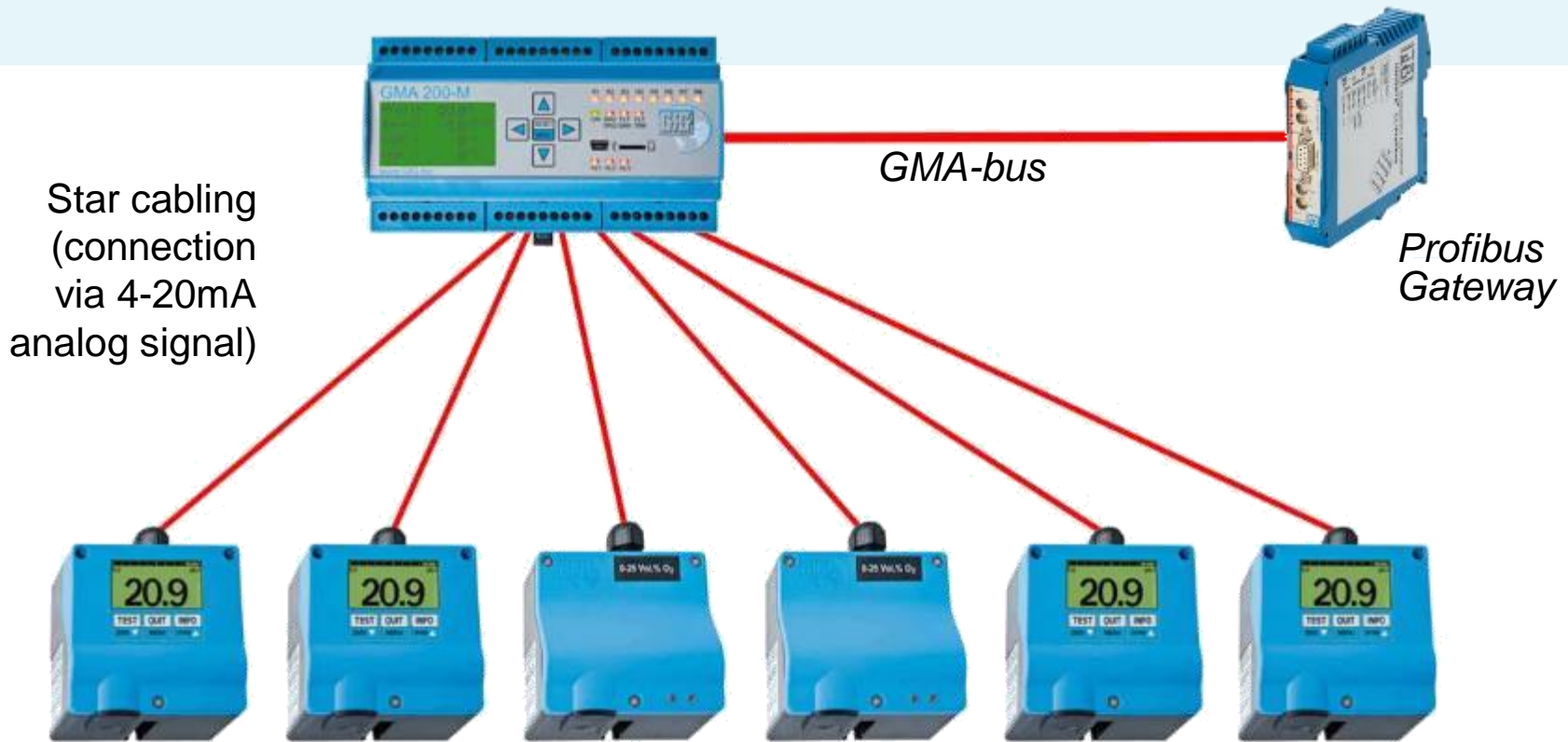
GMA200-MT/16 DIN Rail Mounted Controller

Connection via GMA-bus to Ethernet gateway



GMA200-MT/16 DIN Rail Mounted Controller

Connection via GMA-bus to Profinet (Ethernet) or Profibus 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 GMA200 Config-software*

Technical system support for GfG customers from anywhere in the world!



The ultimate Web Based Remote Monitoring System for your Gas Detection System with Nano Ultra

Managing your gas detection system has never been easier ! With the flexibility of 16 inputs and Outputs, ultra low power consumption, on board intelligence for real time local monitoring, intergrated SD Card, communication via the mobile networks and high resolution data transfered seamlessly and securely from multiple locations to the GfG SmartHub. From the SmartHub you can configure and manage your system, set and continuously monitor alarms, integrate and export data, view trends etc OR, for a small fee, WE CAN DO ALL THIS FOR YOU !!.



External Audible & Visual Alarms can be connected to the Gas Detection Systems



Connection to remote terminal via GfG Visualisation Software



GMA200 Visualisation Software

Comprehensive system information via digital gateway – Overall system view

The screenshot displays the GMA200 Visualisation Software interface. The main window is titled "Overall view" and contains several data tables for different gateways. A navigation pane on the left shows a tree structure with "Gateway 1" expanded, containing "Tradeshow (Bus-Addr.1)", "GWZ 1.2 (Bus-Addr.2)", "GWZ 1.1 (Bus-Addr.3)", and "Gateway 2" with "GMA Nr.1 (Bus-Addr.1)".

The "Overall view" section contains four tables:

- Gateway 1: Tradeshow (Bus-Addr.1)**: A table with 18 rows of sensor data. Columns include MSP, Description, Measuring val., Unit, Gas, Details, and Advice. Some rows are highlighted in yellow.
- Gateway 1: GWZ 1.2 (Bus-Addr.2)**: A table with 15 rows of sensor data. Columns include MSP, Description, Measuring val., Unit, Gas, Details, and Advice.
- Gateway 1: GWZ 1.1 (Bus-Addr.3)**: A table with 6 rows of sensor data. Columns include MSP, Description, Measuring val., Unit, Gas, Details, and Advice.
- Gateway 2: GMA Nr.1 (Bus-Addr.1)**: A table with 5 rows of sensor data. Columns include MSP, Description, Measuring val., Unit, Gas, Details, and Advice. Some rows are highlighted in yellow.

At the bottom, there is a "Log" section showing a message: "17.02.2015 17:40:14 GWZ 1.1 connected." and a "Configuration" button.

GMA200 Visualisation Software

Overall system view with high alarm (alarm 2) condition

The screenshot displays the GMA200 Visualisation Software (V 1.0.3) interface. The top right corner shows the website 'www.GfG.biz', the date '17.02.2015 17:59:14', and the status 'online'. The navigation pane on the left shows a tree view with 'Overall view' selected, containing 'Gateway 1' (with sub-items 'Tradeshow (Bus-Addr.1)', 'GWZ 1.2 (Bus-Addr.2)', and 'GWZ 1.1 (Bus-Addr.3)') and 'Gateway 2' (with sub-item 'GMA Nr.1 (Bus-Addr.1)').

The main display area shows an 'Overall view' with four gateway data tables:

- Gateway 1: Tradeshow (Bus-Addr.1)**: Contains 16 rows of sensor data. Row 14 is highlighted in red, indicating a high alarm (Alarm 2) for 'Profst.22 O2' with a measuring value of 15.7 Vol% O2.
- Gateway 1: GWZ 1.2 (Bus-Addr.2)**: Contains 15 rows of sensor data.
- Gateway 1: GWZ 1.1 (Bus-Addr.3)**: Contains 6 rows of sensor data.
- Gateway 2: GMA Nr.1 (Bus-Addr.1)**: Contains 5 rows of sensor data.

The log window at the bottom shows a message: '17.02.2015 17:56:58 Alarm 2 at Gateway 1, GMA Tradeshow, Transmitter Profst.22 O2'.

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 Visualisation 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 Visualisation Software
allows splitting information
for convenience between
two PC terminal displays*



Simple Single Point Stand-Alone System

*System includes display,
sensor, audible and visual
alarms, mains powered with
battery backup system*





NEW FOR 2020

CC33

**EX Rated Combustible Fixed Transmitter
with a large range of sensor configurations**

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Transmitter CC33

- **Measurement method**
 - Catalytic combustion
 - Measurement ranges like CC28
 - 0-100 %LEL combustible gases and vapours
- **Application area**
 - Explosion-endangered areas
 - Ex-protection „d“
 - Ambient temperature -25...+55°C
 - Ambient pressure 80...120kPa
- **Construction of device**
 - solid metal housing (Ex d)
 - Cable entries 1/2"NPT (Ex d)
 - Graphic display (132x65 Pixel)
 - Alarm and status LEDs
 - 3 buttons (magnetic switch)



Transmitter CC33

- **Supply voltage**
 - 12...30V DC for operation
or
 - 5...12V DC for configuration
by service bushing
- **Linear output signal**
 - analog 4-20mA (load max.550Ω) or
 - digital RS485 (Modbus-RTU)
- **Binary output signal optional**
 - Buzzer or
 - 3 Relays with one change-over contact
each
- **Cable connection**
 - 3-wired for 4-20mA output
 - 4-wired for RS485 bus output



Sensor



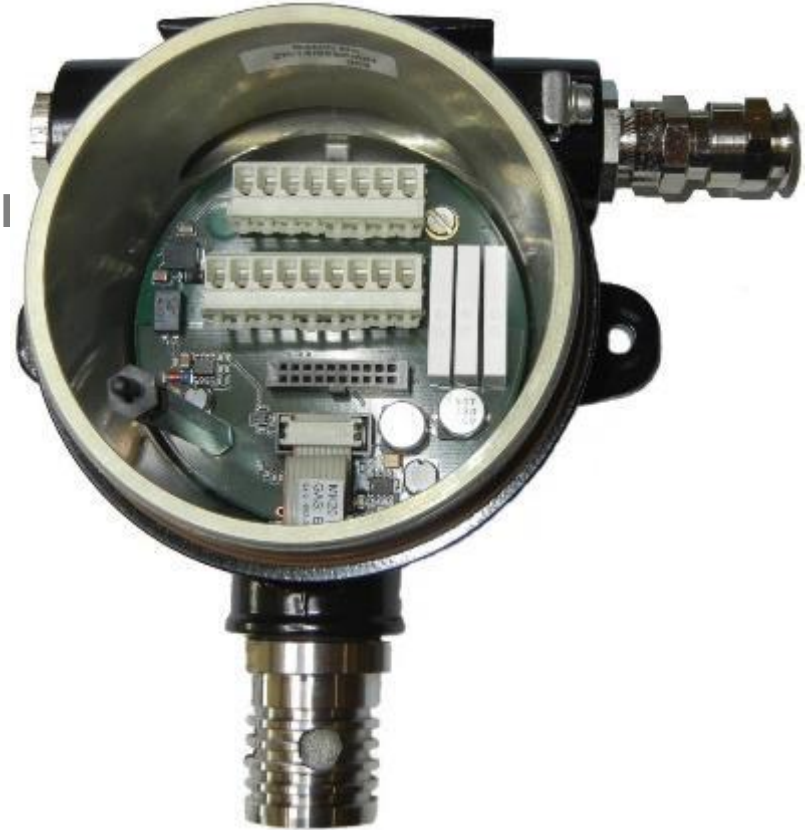
Buzzer

CC33 connection compartment

- **Connection terminals**
 - 2x4 terminals for RS485 bus connection or for supply and 4-20mA signal
 - 3x3 terminals for 3 relay contacts (change-over)

- **Connectors**
 - 20pole connection to main/display module
 - 10pole connection to sensor

- **Mechanical connection**
 - one bolt for display locking



CC33 housing variants

**Stainless Steel housing
for special applications
(food processing industry
and mining industry)**



GfG Gas Detection

World-wide manufacturer of **integrated** gas detection solutions –
both



FIXED
and

PORTABLE

Solutions



All GfG Multi-Gas Portable Instruments are

PERFORMANCE TEST APPROVED



- Applies to both portable and fixed gas detectors
- Means that the instrumentation has been tested for efficacy by an Independent Testing House (DEKRA / TUV) – **that they actually do what it says on the tin !**
- Goes further than **ATEX** safety approval which is only an electrical safety test for hazardous areas – doesn't check that the instrument is actually detecting gas
- **Full details on our website – www.gfggasdetection.co.uk**

Overview of G450 / G460 Features



G450 Confined Space Gas Detector

- One to four sensors
- Full 3-year warranty on all sensors
- O2 sensor rated for continuous use in – 30°C temperatures
- Interchangeable rechargeable (NiMH) or alkaline battery packs
- **Durable IP-67 water resistant design**



G460 Multi-gas Monitor

- Up to SEVEN channels of detection
- Comprehensive range of interchangeable smart sensors:
 - LEL, O₂, CO, H₂S: 3-year warranty
 - Infrared combustible gas: 3-year warranty
 - Infrared CO₂: 3-year warranty
 - Most other substance-specific EC toxic: 2-year warranty
 - PID lamp: 1-year warranty



G450 / G460 - Easy to use!

- Basic operation is extremely simple
- Single on-off button all that is needed for most day to day use
- Every instrument shipped complete with operations manual



G460

Multi-gas Detector

Operations Manual



GfG Instrumentation

1194 Oak Valley Dr, Ste 20, Ann Arbor MI 48106 USA
(800) 959-0529 • (734) 769-0575 • www.gfg-inc.com

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G450/ G460

- **Back lit TRAFFIC LIGHT three-color full graphics LCD**



- **Top mounted display with wrap around (360°) LED alarm indicator – only a few instruments have top mounting – easier to see when worn**



- **LCD includes flip screen and zoom functions**



G450 / G460 - Rugged design

- Rugged, double shot molded housing includes integral rubberized boot
- Durable high tension steel alligator belt clip
- **Durable IP-67 water resistant design**



G450 / G460 battery packs

- Interchangeable rechargeable (NiMH) and ATEX approved **alkaline battery packs – Alkaline means if the customer is an infrequent user (keep in vehicle / toolbox) can put in batteries at any time from a local source and have the instrument up and running immediately.**
- NiMH batteries provide excellent cycle life and low temperature performance
- NiMH battery packs warranted for 2-years
- Typical run-time after two years for properly maintained NiMH battery packs is usually around 16 hours



Rechargeable battery pack



- Batteries available with optional built-in flashlight LEDs – means another less item to carry when entering a confined space



G450 / G460 Data Logging as Standard

- Mode:

- Average
- Peak
- Instantaneous

- Interval:

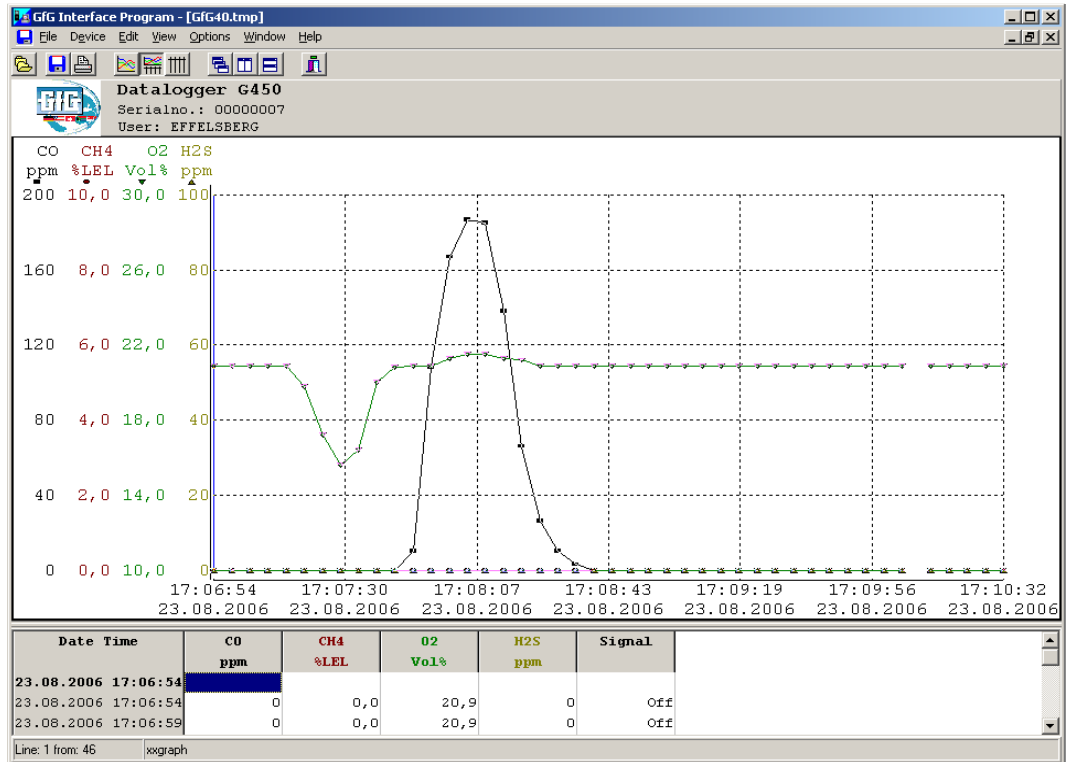
- 1 sec. – 60 min.

- Internal capacity:

- 1,890 intervals
- 63 hours continuous at 2 min. Interval

- G460:

- Built-in expansion slot for 2GB additional data storage capacity



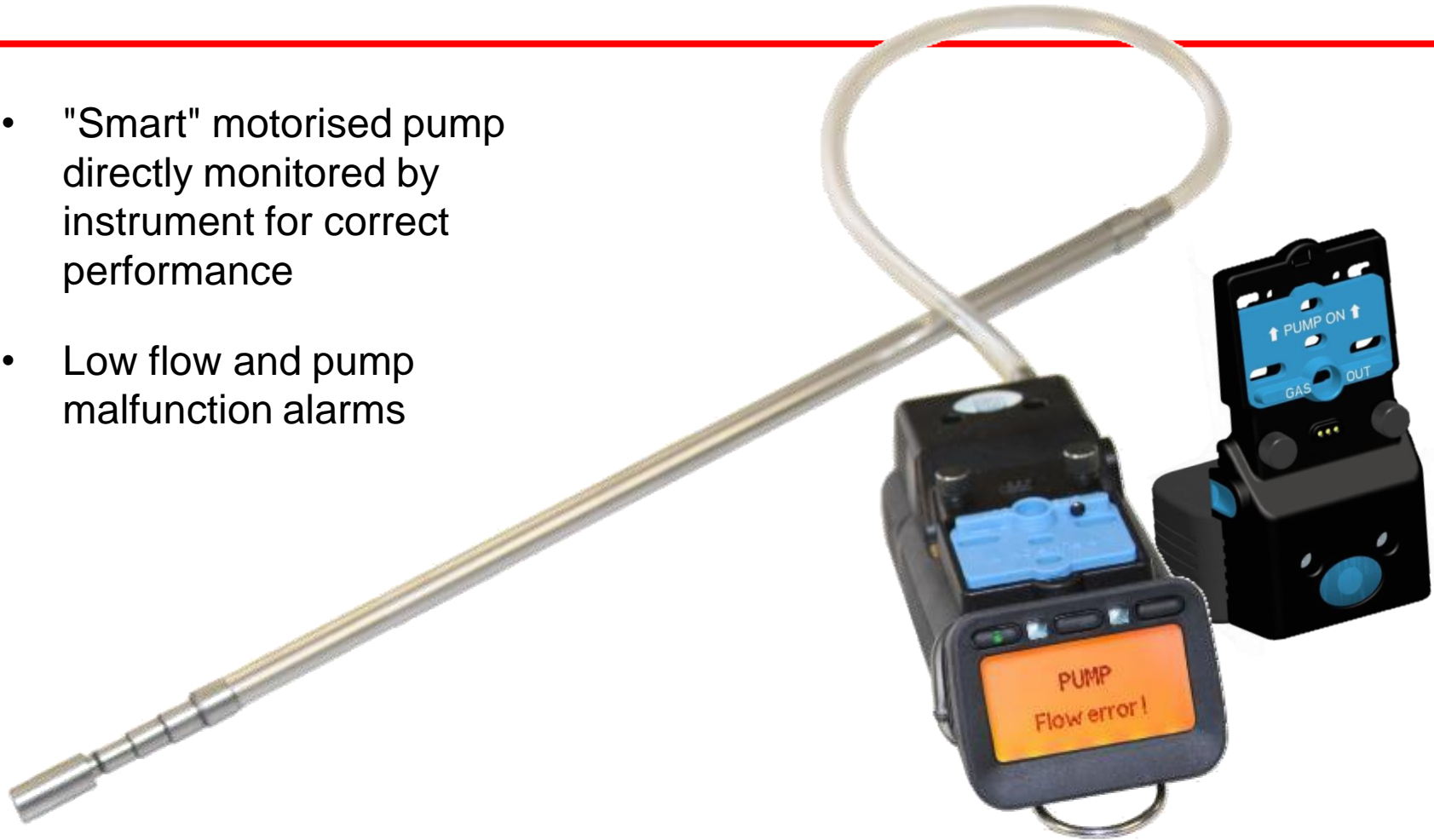
G450 / G460 Motorized Pump

- Powerful motorised "smart pump" with its own battery pack – **doesn't detract from battery life of the instrument**
- Sliding up the shutter turns on the pump and covers the diffusion ports
- **Powerful Pump can draw from up to 30M away meeting and exceeding all Worldwide Standards (Marine)**
- Used to monitor Confined Spaces for Pre-Entry checks - Motorised pump can be attached or removed from instrument as needed
- Supplied with the correct tubing / fittings relevant for your particular application



G450 / G460 Motorized Pump

- "Smart" motorised pump directly monitored by instrument for correct performance
- Low flow and pump malfunction alarms



G450 / G460 Drop-in Charger



- Smart charger includes trickle charge mode to prevent damage to battery pack due to overcharging
- Available in single and double* versions (*simultaneously charges both pump AND instrument)
- Available for use with 12 VDC vehicle charging system



Five instrument multi-charger



- Can be substituted in place of standard cradle chargers with orders of 5 or more instruments





**NEW FOR
2020**

**Multi-Gas
detectors
G888 / G999
with
wireless
connectivity**



Gas Detector Variants

- G888C
 - Electrochemical sensors EC1[0], EC2, EC3
 - CATalytic sensors CC
 - Dual Infrared sensor IR1, IR2
- G999C
 - Electrochemical sensors EC1[0], EC2, EC3
 - CATalytic sensors CC, CC/TC
 - Dual Infrared sensors IR1, IR2/IR3
- G999P
 - Electrochemical sensors EC1[0], EC2, EC3
 - Photoionization sensor PID
 - Dual Infrared sensors IR1, IR2/IR3
- G999E
 - Electrochemical sensors EC1[0], EC2, EC3, EC4
 - Dual Infrared sensors IR1, IR2/IR3



The Advantages of the G888 / G999

General information about the G888 and G999

- Small / Lightweight / Long Battery Life
- Option of remote radio communication up to 700m open field
- Local supervisor can monitor up to 10 operators in his vicinity with special Link instrument
- Two way communication between instrument and PC with text instructions
- Motion alert (man-down) facility with remote monitoring



➤ Information specific to G999 instrument

- Integrated pump with the G999
- Common battery for G999 and pump (long life)
- EX protection for the G999P and G999E for Zone 0

The Advantages of the G888 / G999

➤ **Datalogger**

- Datalogger is now part of the basic equipment
- up to 12 measured values can be recorded simultaneously
- 30,000 measured data values

➤ **Communication**

- Sub-1GHz wireless modules optional
- Wired PC communication up to 3 times faster
- IrDA interface is now part of the basic equipment

New Menu Features in the G888 / G999

➤ **Man-Down-Alerting (motionless)**

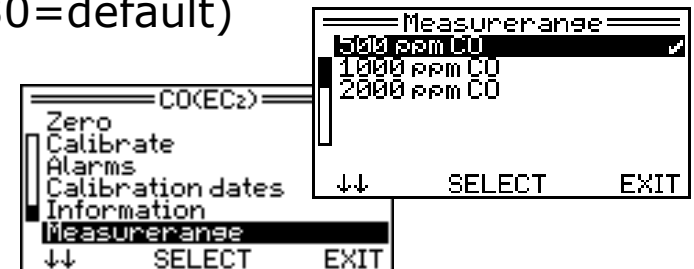
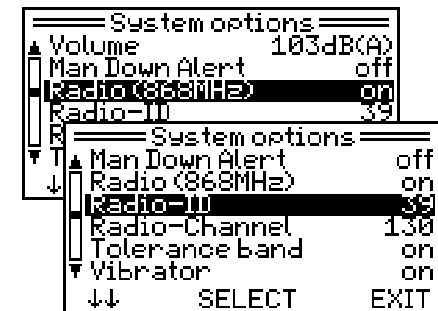
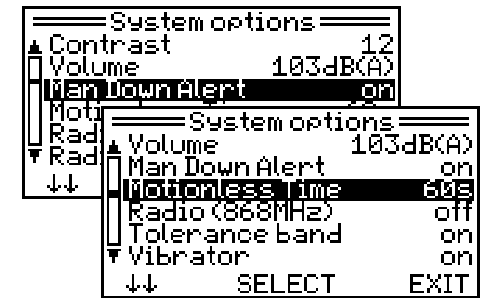
- Activation of the motion alarm
- Time to warning 20...300s (default 60s)
- Another 30s until the alarm

➤ **Wireless settings**

- Activation of the wireless module
- Wireless address 0..254 or zz(auto)=SNxxxxxxzz
- Radio channel 101...111 or 129...132 (130=default)

➤ **Measuring ranges for some EC sensors**

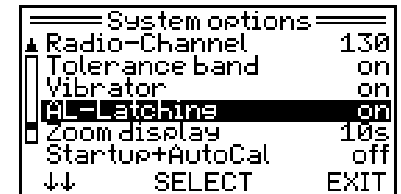
- adaptable to the measuring task
- for CO, H2S, SO2, Cl2, NO, NO2 etc.



New in the Service Menu

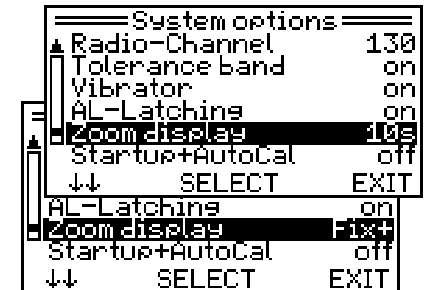
➤ Alarm-Latching

- Alarm 1 is always non-latching
- Alarms 2+3 are latching (default)
- „off“ → Alarm 2+3 are non-latching



➤ Zoom display

- „10s“ → after 10s automatically switching back to the multi gas screen (default)
- „Fix“ → automatically switching back to the multi gas screen only at gas alarm
- „Fix+“ → the green display backlight is ON and automatically switching back to the multi gas screen only at gas alarm



New Extended Battery Operating Times in the G888 / G999

➤ **G888 examples**

- approx. 9h EC+CC+IR
- approx. 10h EC+CC+868MHz wireless
- approx. 13h EC+CC
- approx. 21h EC+CC with Power-Save
- approx. 23h EC+IR
- approx. 26h EC+868MHz wireless
- approx. 65h EC

➤ **G999 examples**

- approx. 15h EC+CC+IR+868MHz wireless
- approx. 18h EC+CC+IR
- approx. 22h EC+Pump
- approx. 22h EC+PID+IR+868MHz wireless
- approx. 25h EC+WT
- approx. 52h EC+868MHz wireless
- approx. 130h EC

G888 / G999 PC Visualisation Software

The screenshot displays the G888G999Visual (V 1.1.9) software interface. The top bar shows the website www.GfG.biz, the date and time 6/29/2018 4:44:59 PM, and a status indicator 'Online'. The navigation menu on the left includes 'Overview', '868MHz-Stick', 'Martin (RF-ID 39)', 'Stephan (RF-ID 45)', 'Peter (RF-ID 83)', and 'Michael (RF-ID 86)'. The main display area shows the device ID 'G999C SN:17091383' and the name 'Peter (RF-ID 83)'. A table displays the following data:

Sen	Measuring value	Unit, Gas	Details
EC1	0.0	ppm H2S (Hydrogen sulfide)	OK
EC2	0	ppm CO (Carbon monoxide)	OK
EC3	18.8	Vol.% O2 (Oxygene)	AL1
CC	0.0	%LEL CH4 (Methane)	OK
IR1	1.56	Vol.% CO2 (Carbone dioxide)	AL1, AL2

Below the table, it indicates '00:00 Minutes since last movement' and a signal strength indicator. The bottom section is labeled 'Log' and contains a table with columns 'Time' and 'Message'.

G999L Data Link Instrument for supervisory control

Wireless data link for 4 and 10 remote gas detectors

- Measured value query and data forwarding
- Display for gas alarm, measured value and man-down
- LED panel for a quick overview



Uses the G999 housing technology

- Same size and weight as G999
- EX-approved
- Can be used with existing charging technology

Accessories – Calibration Cap & Charging technology

➤ **G888/G999 SMART CAP**

- Optionally with USB cable
- Optionally with USB plug-in power supply (G888)



➤ **Drop in Charger DIC888/999-B**

- Optionally with a plug-in power supply
- Optionally with car charger for 12-24V



➤ **DIC888/999-USB interface cable**



ACCESSORIES FOR ALL PORTABLE MULTI-GAS INSTRUMENTS

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Other accessories

- Calibration adapters
- Sampling probes
- Leather holsters
- Calibration kits



Low Cost TS-400 Test Station for daily BUMP TEST

- No computer required!
- Results logged to Micro SD Card
- 15 Seconds for full test



**TEST YOUR
INSTRUMENTS
EVERY TIME
YOU USE THEM !**

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G450 / G460 - DS400 Docking Station for daily bump check and calibration



**TEST YOUR
INSTRUMENTS
EVERY TIME
YOU USE THEM !**

DS-400 Docking Station for daily bump check and / or periodic calibration



- No computer required!
- Docking station controlled by instrument's control buttons:
 - Push "Test" for Bump Test
 - Push "Cal" for Auto Cal
 - Push "Cancel" to charge only

DS-404 Multi-inlet Docking Station for bump check and periodic calibration



- Inlets for 4 cylinders of gas
- Automatic Bump and Cal for 5, 6 and 7 channel instruments
- Supports:
 - Quad mix (O₂, LEL, CO, H₂S)
 - 5-mix with SO₂
 - 5-mix with CO₂
 - Isobutylene
 - HCN
 - NO₂
 - And other individual gases

Comprehensive Test Reports

- Easy to generate custom test reports



DS400 Instrument Service Report

Date/Time	Identification	Details	Test	Sensor	Test	Zero	Gas
2009-04-29 14:01	Instrument Dock User	G450 S/N09034524 version 3.23 DS400 S/N09023101 version 2.14 DON W	Bump	H2S	25PPM	PASS	PASS
			Bump	CO	100PPM	PASS	PASS
			Bump	O2	19VOL	PASS	PASS
			Bump	LEL	50LEL	PASS	PASS
			Bump	Audible Alarm	PASS	PASS	
2009-04-29 14:07	Instrument Dock User	G450 S/N09034539 version 3.23 DS400 S/N09023101 version 2.14 TREVOR L	CAL	H2S	25PPM	PASS	PASS
			CAL	CO	100PPM	PASS	PASS
			CAL	O2	19VOL	PASS	N/A
			CAL	LEL	50LEL	PASS	PASS
			CAL	Audible Alarm	PASS	PASS	
2009-04-29 14:09	Instrument Dock User	G450 S/N09034539 version 3.23 DS400 S/N09023101 version 2.14 TREVOR L	Bump	H2S	25PPM	PASS	PASS
			Bump	CO	100PPM	PASS	PASS
			Bump	O2	19VOL	PASS	PASS
			Bump	LEL	50LEL	PASS	PASS
			Bump	Audible Alarm	PASS	PASS	
2009-04-29 14:13	Instrument Dock User	G450 S/N09034536 version 3.23 DS400 S/N09023101 version 2.14 TERRY B	CAL	H2S	25PPM	PASS	PASS
			CAL	CO	100PPM	PASS	PASS
			CAL	O2	19VOL	PASS	N/A
			CAL	LEL	50LEL	PASS	PASS
			CAL	Audible Alarm	PASS	PASS	
2009-04-29 14:15	Instrument Dock User	G450 S/N09034536 version 3.23 DS400 S/N09023101 version 2.14 TERRY B	Bump	H2S	25PPM	PASS	PASS
			Bump	CO	100PPM	PASS	PASS
			Bump	O2	19VOL	PASS	PASS
			Bump	LEL	50LEL	PASS	PASS
			Bump	Audible Alarm	PASS	PASS	
2009-04-29 14:19	Instrument Dock User	G450 S/N09034445 version 3.23 DS400 S/N09023101 version 2.14 JORDAN M	CAL	H2S	25PPM	PASS	PASS
			CAL	CO	100PPM	PASS	PASS
			CAL	O2	19VOL	PASS	N/A
			CAL	LEL	50LEL	PASS	PASS
			CAL	Audible Alarm	PASS	PASS	
2009-04-29 14:20	Instrument Dock User	G450 S/N09034445 version 3.23 DS400 S/N09023101 version 2.14 JORDAN M	Bump	H2S	25PPM	PASS	PASS
			Bump	CO	100PPM	PASS	PASS
			Bump	O2	19VOL	PASS	PASS
			Bump	LEL	50LEL	PASS	PASS
			Bump	Audible Alarm	PASS	PASS	
2009-04-29 14:24	Instrument Dock User	G450 S/N09034449 version 3.23 DS400 S/N09023101 version 2.14 RANDY H	CAL	H2S	25PPM	PASS	PASS
			CAL	CO	100PPM	PASS	PASS
			CAL	O2	19VOL	PASS	N/A
			CAL	LEL	50LEL	PASS	PASS
			CAL	Audible Alarm	PASS	PASS	
2009-04-29 14:47	Instrument Dock User	G450 S/N09034463 version 3.23 DS400 S/N09023101 version 2.14 DAVE G	Bump	H2S	25PPM	PASS	PASS
			Bump	CO	100PPM	PASS	PASS
			Bump	O2	19VOL	PASS	PASS
			Bump	LEL	50LEL	PASS	PASS
			Bump	Audible Alarm	PASS	PASS	

Automatically generate calibration and bump test certificates



GfG Instrumentation

Functional Bump Test Certificate

G460

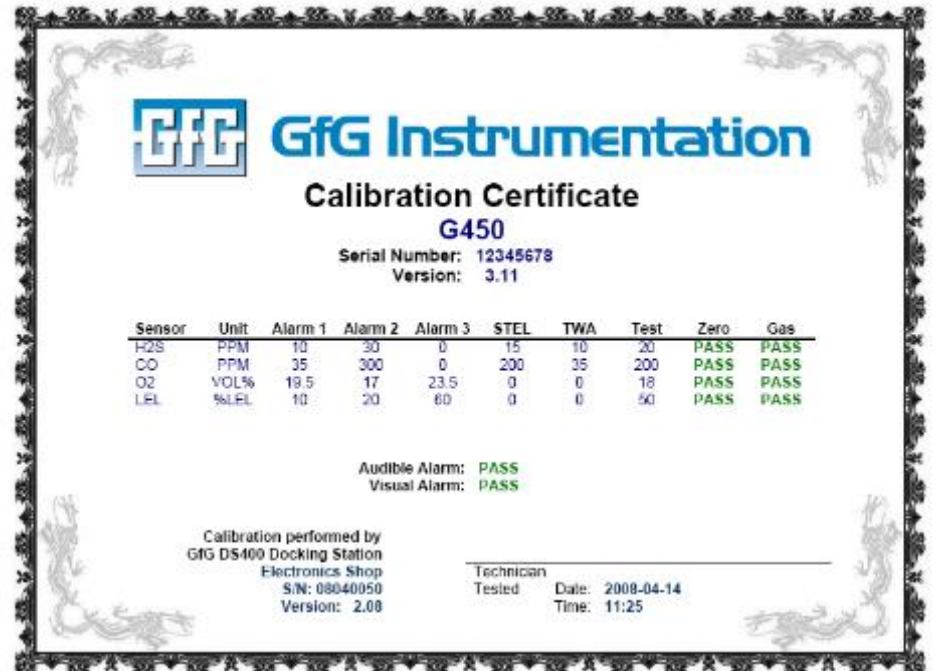
Serial Number: 12345678
Version: 3.14

Sensor	Unit	Alarm 1	Alarm 2	Alarm 3	STEL	TWA	Test	Zero
CO	PPM	35	300	0	200	35	200	PASS F
H2S	PPM	10	30	0	15	10	20	PASS F
O2	VOL%	19.5	17	23.5	0	0	18	PASS F
LEL	%LEL	10	20	60	0	0	50	PASS F

Audible Alarm: **PASS**
Visual Alarm: **PASS**

Calibration performed by
GfG DS400 Docking Station
Electronics Shop
S/N: 08040050
Version: 2.08

Technician
Tested Date: 2008-04-14
Time: 16:22



GfG Instrumentation

Calibration Certificate

G450

Serial Number: 12345678
Version: 3.11

Sensor	Unit	Alarm 1	Alarm 2	Alarm 3	STEL	TWA	Test	Zero	Gas
H2S	PPM	10	30	0	15	10	20	PASS	PASS
CO	PPM	35	300	0	200	35	200	PASS	PASS
O2	VOL%	19.5	17	23.5	0	0	18	PASS	PASS
LEL	%LEL	10	20	60	0	0	50	PASS	PASS

Audible Alarm: **PASS**
Visual Alarm: **PASS**

Calibration performed by
GfG DS400 Docking Station
Electronics Shop
S/N: 08040050
Version: 2.08

Technician
Tested Date: 2008-04-14
Time: 11:25

**REMEMBER GfG MULTI-GAS PORTABLES ARE THE INSTRUMENT
OF CHOICE FOR THE UK FIRE & RESCUE SERVICES**



TRUSTED GAS DETECTION




MICRO IV

The powerful Single-Gas Detector

smart
GasDetection
Technologies



Single-gas Detector MICRO IV

- Small and lightweight
- Extreme robust
- Very loud buzzer 95 dB(A)
- Bright alarm
- Confidence Beep
- Display alternates between gas type and gas concentration
- Easy and fast sensor replacement
- Up to 9 months continuous operation with one battery
- 3 alarm thresholds per gas
- 27 different sensors available
- **ATEX** labelling:  II 2G EEx ib IIC T4/T3



The MOST Sensors available for a Single Gas Monitor



MICRO IV The sensors

27 different sensors with Smart-Sensor technology

Intelligent Smart technology: flexible adaptation and extension

Calibration curves, alarm thresholds integrated in the sensor

Plug-in sensor and detect (Plug and Play)

Sensor lifetime depending on gas



Single-gas Detector MICRO IV

- Records all event data
 - Date and time of alarm
 - Type of alarm
 - Gas concentration which triggered alarm
- Infrared interface for data transfer to docking station or data interface





MICRO IV Protective Rubber Bumpers (always supplied)

- Allows easy bump test and fast adjustment with docking station (option)
- Shock resistant for use under harsh conditions

The ONLY Single Gas Monitor available with a Pump Option



MICRO Pump
With separate power supply



MICRO Pump

The high performance pump takes samples over distances up to 30 m safety distance.

The pump can be fitted easily, is suitable for many applications. It has a separate power supply. A pair of AA Alkaline batteries provide a continuous operation of up to 8 hours.

ATEX labelling

Ⓜ II 2G EEx ib IIC T4/T3
20°C ≤ Ta ≤ +45°C / +55°C





MICRO IV Data Interface DI 220

- Device management for fast easy configuration
- USB adapter for every PC
- Read-out and storage of data via IR interface
- Marginal space required
- Adjustment simplified
- Bump test manually
- Quick operational readiness of the device



MICRO IV Docking station

- Complete device management system
- Costs and time for bump test, adjustment and documentation are reduced considerably
- 6 detectors can be tested and adjusted simultaneously
- No PC required
- Automatic storage of data on MMC Card
- Easy handling by traffic light signals

GfG TotalCare
SERVICE PACKAGES
for Fixed &/Or
Portable Gas Detection
Instruments



Maintaining our customers investment



GfG TotalCare Servicing – Please see our website for full details

- We offer a 3, 5 year or time tailored Service Package to maintain your instrumentation in first class condition
- We think the best time to take up a Service Contract is at the time of initial purchase as a comprehensive all up cost for instruments and service – TotalCare !. We can even offer you finance on the whole package.
- We can also offer service for non-GfG products as well as our own, as our time served Service Engineers are also experienced in maintaining much of our competitors equipment – if you are using non-GfG product and are not happy with your existing servicing arrangements – maybe we can help !!



GAS DETECTION smart GasDetection Technologies **GfG**

We've got it covered for you!
WITH OVER 500 DIFFERENT GASES DETECTED

ON FIXED OR PORTABLE INSTRUMENTS BACKED UP BY **GfG TotalCare**[®]

COMPREHENSIVE SERVICE CONTRACTS
3 Year, 5 Year or Tailor Made
ON-SITE or IN-HOUSE NO HIDDEN EXTRAS
TRUE FIXED COST OF OWNERSHIP

UNIT 8 GRIGGS BUSINESS CENTRE WEST STREET COGGESHALL ESSEX CO6 1NT
sales@gfggas.co.uk GAS CONFIGURATOR AT www.gfggas.co.uk

The advertisement features several images of gas detection equipment, including a large blue and white fixed instrument, several smaller blue and black portable instruments, and a handheld black and red gas detector with a digital display showing '20.9'.

GfG TotalCare – Please see our website for full details

Authorised Service Centre

We are proud to be one of the worldwide official service providers for GfG GmbH for their full range of equipment and have full Service & Calibration facilities at our works manned by factory trained personnel. We also have Field Service Engineers who can give the same first class service On-Site. We do not sub-contract or authorise any third parties to service our equipment as we know it's vitally important to maintain the accuracy of the precision instrument you have purchased.

Portable Instrument Standard Annual Servicing

When you buy an instrument from us we set up a reminder system to prompt you when your annual service is due. For a small fee we can arrange a carrier to pick the unit up from you or from a designated collection point near where you live or work. A simple and effective system to make life easy for you. If you don't want to be without an instrument when yours is away for service and calibration we can offer a special 'Duration of Service' hire instrument for a fixed price so it doesn't matter if your instrument is with us for 5 - 7 working days (our usual turn around time) or 150 days (it'll never be that long !!) it costs you the same. See the Service Contract details on our website for more information about how this works.

Service Contracts tailored to suit you

We know that, especially with Gas Detection Equipment, low cost servicing usually means that there will be extra charges piled onto you during the course of the life of your instrument. How many times has the 'I'm sorry but the instrument / system needs an extra (fill in sensor or part here) at this service' email been received for items not covered by the existing service agreement.

At GfG Gas Detection we offer you a genuine 3 Year, 5 Year or Time Tailored Total Service Plan which we put our name to and GUARANTEE that there will be NO HIDDEN EXTRAS. The only time we would ever make any additional charges is in the case of accidental damage. However you can also cover this in a service contract if you want to - it costs more but can give you complete peace of mind that whatever happens to your instrument its fully covered.

