

# MICRO III series

Single-gas detector for toxic gases and oxygen

Edition 2  
2002



Extremely lightweight and small

Ultra bright alarm lights and loud audible alarm

Smart sensor technology

User replaceable battery with up to nine months  
of operation time

EEx ib IIC T6/T5

**Worldwide Supplier of Safety Solutions**



# The smallest single-gas detector

## Small, light and robust

The MICRO III is an extremely small instrument compared to other detectors. With its dimensions of only 47 x 88 x 25 mm (WxHxD), it weighs only 61 grams and can comfortably fit into a shirt pocket. A built-in clip secures the MICRO III safely to a belt or pocket. The casing is extremely shock and scratch resistant. The protection type IP 56 indicates that the instrument is sealed against dust and water. The MICRO III uses the AQUA-SHIELD (accessory sensor inlet) which ensures that the monitor will provide excellent performance in harsh conditions.

## More protection through easier operation

The G 201 and the G 202 is produced without buttons or switches. Therefore an operating error is completely eliminated and time consuming training is reduced.

The plug-in smart sensor can be easily replaced. The MICRO III recognizes the new sensor type, another measuring gas, detection range, calibration curve, as well as alarm threshold values.

## Numerous features

The MICRO III comes standard with many features including automatic zeroing, Auto-Cal

calibration, confidence bleep, battery check, and three factory set alarm points.

The following models are available:

**G201** with loud alarm horn and bright alarm lamp

**G202/G212** as G 201, additional: display for gas concentration, battery capacity and service control

**G203/G213** as G 202, additional: Peak/ minimum calibration, TWA/STEL, control keys for display light and service functions.

All MICRO III devices feature audible or a visible confidence signal. Zero point adjustments can be carried out quickly and easily in fresh air.

## Attachable pump

An electrical high-performance pump will take samples of gases from mines or tanks. The pump replaces the battery cover and is a fixed part of the instrument with its own power supply. The operation of the pump will have no influence on the operation time of the MICRO III.

## Loud audible alarm

The audible alarm of the MICRO III has a changing frequency. Machinery noises do not interfere with the horn signal, like in the case



of a monotone alarm horn. Simultaneously, two very bright, alternately flashing LED's indicate a gas alarm. The LED's are visible at 360°. The three alarm levels and the battery alarm are clearly distinguishable.

## Up to 9 months operation

One single AA battery powers the MICRO III for up to 9 months permanent operation. The battery can be replaced easily. Once the battery has been changed, the MICRO III is ready for another 9 months after a short warm-up time. This reduces the cost of ownership.

## MICRO III - Technical Data

### Detection principles

electrochemical sensor

### Gas supply

diffusion / pump (accessory)

### Temperature range

-20 .. +50 °C

### Humidity

5 .. 99% r.h.

### Ambient pressure

700 .. 1300 hPa

### Dimensions

47 x 88 x 25 mm (WxHxD)

### Weight

61 – 85 g

### Power supply

dry cell battery (AA 1,5 V)

### Operational time

up to 9 months

### Casing

high impact ABS, titanium coated, protection: IP 56

### Alarms

3 Alarm thresholds  
battery alarm  
visual – 2 LED's, 360° visible  
audible – Horn, 95 dB at 30 cm

### Approvals

EEx ib IIC T5 up to 50 °C  
EEx ib IIC T6 up to 40 °C  
Pump. U.L. pending



MICRO III models	Display	Control-Keys	Peak
G201	no	no	no
G202	yes	no	no
G203	yes	yes	yes

### Gases and Detection Ranges

#### G201, G 202 und G 203

CO	Carbon monoxide	300 ppm
H <sub>2</sub> S	Hydrogen sulphide	100 ppm
O <sub>2</sub>	Oxygen	25 Vol%

#### G202 und G203

CO	Carbon monoxide	500 ppm
CO	Carbon monoxide	1000 ppm
CO	Carbon monoxide	2000 ppm
SO <sub>2</sub>	Sulphur dioxide	10.0 ppm
NO	Nitrogen monoxide	100 ppm
HCL	Hydrogen chloride	30.0 ppm
HCN	Hydrogen cyanide	50.0 ppm
NH <sub>3</sub>	Ammonia	200 ppm
C <sub>2</sub> H <sub>4</sub> O	Ethylene oxide	20.0 ppm
H <sub>2</sub>	Wasserstoff	2000 ppm
HCN	Hydrogen chloride	50.0 ppm
PH <sub>3</sub>	Phosphin	10.0 ppm
SiH <sub>4</sub>	Silan	20.0 ppm
COCl <sub>2</sub>	Phosgene	1.00 ppm
H <sub>2</sub>	Hydrogen	2000 ppm
H <sub>2</sub>	Hydrogen	1.00 Vol. %
H <sub>2</sub>	Hydrogen	4.00 Vol. %
H <sub>2</sub> S	Hydrogen sulfide	500 ppm

#### G212 und G213

CL <sub>2</sub>	Chlorin	10.0 ppm
NO <sub>2</sub>	Nitrogen dioxide	30.0 ppm
CLO <sub>3</sub>	Chlorine dioxide	2.0 ppm
O <sub>3</sub>	Ozone	1.00 ppm



GfG Gesellschaft für Gerätebau mbH

P. O. Box 440164, D-44390 Dortmund

Phone: +49-2 31-56 40 00

Fax: +49-2 31-51 63 13

E-mail: [info@gfg-mbh.com](mailto:info@gfg-mbh.com)

Internet: [www.gfg-mbh.com](http://www.gfg-mbh.com)

We reserve the right of modification