

MICRO III series

Single-gas detector for toxic gases and oxygen

Edition 4
2005





Extremely lightweight and small

Ultra bright alarm lights and loud audible alarm

Smart sensor technology

User replaceable battery with up to 9 months of operation time

ATEX  II 2G EEx ib IIC T4/T3 $-20^{\circ}\text{C} \leq T_a \leq +45^{\circ}\text{C} / +55^{\circ}\text{C}$,  0158

U.L. approved



Worldwide Supplier of Gas Detection Solutions

The flexible 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 housing is extremely shock and scratch resistant. The protection type IP 54 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. With a single battery or accumulator, the MICRO III can measure and monitor up to nine months without interruption. The battery can simply be replaced. After a battery change, the MICRO III is immediately functional without any maintenance. 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 beep, 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 values memory, 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 electric high-performance pump (ATEX) 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. Machine noise does not interfere with the horn signal, like in the case of a monotone alarm horn. Simultaneously, two very bright, alternating 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.

MICRO III - Technical Data

Detection principles

Electrochemical Sensor

Gas supply

Diffusion / pump (optional)

Temperature range

-20 .. +50 °C

Humidity

5 .. 95% r.h.

Ambient pressure

800 .. 1200 hPa

Dimensions

47 x 88 x 25 mm (WxHxD)

Weight

61 – 85 g

Power supply

Dry cell battery (AA 1,5 V)
Type DURACELL PROCELL MN1500 LR6 AA

Operational Time

6 to 9 months with one battery

Casing

High impact ABS, titanium coated
Protection: IP 54

Alarms

3 Alarm thresholds
Battery alarm
Visual – 2 LED's, 360° visible
Audible – Horn, 95 dB at 30 cm

Approvals

ATEX II 2G EEx ib II C T4/T3
-20°C ≤ Ta ≤ +45°C / +55°C, CE 0158
U.L. approved



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

Gases and Detection Ranges

For G201, G 202 and G 203

O ₂	Oxygen	25 Vol.-%
H ₂ S	Hydrogen sulphide	100 ppm
CO	Carbon monoxide	300 ppm

For G202 and G203

CO	Carbon monoxide	1000 ppm
CO	Carbon monoxide	2000 ppm
SO ₂	Sulphur dioxide	10 ppm
NO	Nitrogen monoxide	100 ppm
ClO ₂	Chlorine dioxide	2 ppm
HCN	Hydrogen chloride	30 ppm
HCN	Hydrogen cyanide	100 ppm
NH ₃	Ammonia	200 ppm
C ₂ H ₄ O	Ethylene oxide	20 ppm
PH ₃	Phosphine	10 ppm
SiH ₄	Silan	20 ppm
COCl ₂	Phosgene	1 ppm
THT	Tetrahydrothiophen	100 mg/m ³
H ₂	Hydrogen	2000 ppm

For G212s and G213s

Cl ₂	Chlorine	10 ppm
NO ₂	Nitrogen dioxide	30 ppm
O ₃	Ozone	1ppm



GfG Gesellschaft für Gerätebau mbH
P.O. Box 440164 · D-44390 Dortmund
Phone: +49-231-5 64 00-0
Fax: +49-231-51 63 13
E-mail: info@gfg.biz
Internet: www.gfg.biz