

Microtector II G450

4-Gas Detector



- Extremely loud alarm, 103 dB(A) for optimal personal protection
- Innovative visual alarm system, colour change of display
- Robust watertight housing for permanent use
- Built-in flashlight option
- Reversible display

Worldwide Supplier Of Gas Detection Solutions



Microtector II G450

The compact 4-Gas detector Microtector II G450 was developed especially for personal protection against gas hazards. The robust design allows use in almost all industries, e.g. steel industry and refineries, container cleaning, as well as fire departments.

4-Gas Detector

The Microtector II G450 measures up to 4 gases:

Oxygen (O₂), hydrogen sulphide (H₂S), carbon monoxide (CO) and explosive gases (CH₄) simultaneously in ambient air for increased workplace safety.

Longlife sensors

Different detection principles are available for optimal measuring results. The gas is supplied to the sensors by diffusion. Sensors with excellent repeatability and lifetime are used to reduce cost of ownership.

Intuitive handling

A large graphic display provides clear readings of all data. With only three softkeys the detector allows intuitive and user friendly handling with a simple menu. Sensitive device configurations and functions are protected against unauthorized access.

Display

The display can be turned 180° by just pushing a button – this allows the display to be read easily even if the detector is carried at the belt. Pushing any button activates the backlight for 10 seconds before it is deactivated automatically to save energy. The zoom-function allows an easy reading of single measuring values and shows additional information on the selected gas.

Alarm threshold

The Microtector II G450 provides 3 alarm thresholds for combustible gases and oxygen and 2 alarm thresholds for toxic gases. Additionally the TLV, STEL and TWA values are monitored automatically. All thresholds are individually adjustable.



Innovative alarm system

The Microtector II G450 provides audible, visual and vibration alarms for hazardous gases.

Audible alarm

The extremely loud alarm (103 dB(A)) gives warning even in noisy environments like engine rooms. Additionally the frequency is different from normal sounds found in engine rooms.

Visual alarm

The colour change in the graphic display shows the alarm status „green = ok“, „orange = alarm1“, „red = alarm2“. The complete display changes its colour and ensures a safe warning of exceeded alarm thresholds. The bright flashing LEDs provide additional safety.

Vibration alarm (optional)

The optional vibrating function can be turned on or off as required.

Power supply

Power supply is provided by either a rechargeable NiMH battery pack or Alkaline batteries. A battery alarm is activated when the battery capacity falls below 4%.

Long operational time

Depending on alarm frequency and alarm duration the operational time is up to 24 hours. The NiMH



batteries can be fully recharged in less than 4 hours.

Robust design

The functional and watertight design (IP67) in an impact proof rubberised enclosure meets all requirements for harsh environments.

Data logger

The optional loop data logger records gas concentrations and alarms. This data can be transferred to a PC to be displayed and evaluated. The data logger has a storage capacity of 1800 measuring points per gas. Storing intervals and mode (average, peak, instantaneous values) are programmable individually.



Microtector II G450



reddot design award

ATEX-approvals:

NiMH version:

⊕II 2G Ex ia d IIC T4
-20°C ≤ Ta ≤ +55°C

Alkaline version:

⊕II 2G Ex ia d IIC T4/T3
-20°C ≤ Ta ≤ +45°C/+55°C

EC-Type Examination Certificate:

BVS 06 ATEX E 017 X

Dockingstation DS400

The dockingstation makes daily work much easier. Regular bump test and adjustment are effected automatically in a very short time. The dockingstation does not require a PC, since the documentation of the test results is done by the unit itself. All relevant data is automatically stored on an MMC card.



Options / Accessories:

Various options allow individual adaptation to personal requirements. A number of accessories make the Microtector II G450 a complete, useful instrument in everyday work with combustible and toxic gases.



Drop-in charger

Design – Red dot award

The Microtector II G450 is the first gas detector which achieved the well-known „red dot design award“. Red dot stands for high design quality as well as degree of innovation, durability, functionality and self explanatory quality of the Microtector II G450.

Status display

Readiness and battery status are displayed permanently. Additionally a confidence beep can be activated.

Pump G400-MP1

For monitoring gases before entering manholes, sewers, rooms and containers the attachable pump G400-MP1 was developed, with its own independent power supply. By closing diffusion holes the pump is activated automatically. Low-flow alarm is included as well.



Lights



Belt and crocodile clip

Microtector II G450 Technical Data

Sensors and detection range:

CH ₄ /C ₆ H ₁₂	0-100 % LEL
O ₂	0-25 % Vol.
H ₂ S	0-100 ppm
CO	0-500 ppm

Detection principle:
Electrochemical (EC):
toxic gases and oxygen

Catalytic combustion (CC):
combustible gases and vapours
(up to 100 % LEL)

Response time t₉₀:
< 20 seconds (depending on sensor)

Expected sensor life:
up to 5 years (depending on sensor)

Gas supply:
Diffusion / Pump optional

Display:
Illuminated full-graphic LCD with colour change for alarm, automatical size adjustment for optimal readout, display of battery capacity, gas concentration as instantaneous and peak value

Alarm:
3 or 2 (depending on gas)
instantaneous and 2 dosimeter alarms,
battery alarm.

Visual:
Colouring of display depending on alarm status (orange/red), bright flashing LEDs (360°)

Audible:
Buzzer 103 dB(A)
(reduceable to 90 dB(A))

Vibration:
Vibrating alarm optional

Temperature:
for operation: -20°C .. +55°C
for storage: -25°C .. +55°C
(recommended 0 .. +30°C)

Humidity:
for operation: 5 .. 95% r.h.
for storage: 5 .. 95% r.h.

Pressure:
for operation: 700 .. 1300hPa
for storage: 700 .. 1300hPa

Zeropoint / Span adjustment:
User-friendly, calibration by AutoCal runtime (pre-programmed function via service menu)
Manual adjustment via service menu (code necessary)

Operational time:
up to 24 hours

Power supply:
1. NiMH battery module
(colour: black), rechargeable

2. Alkaline battery module
(colour: grey), non-rechargeable
with 2x AA 1.5V Type: DURACELL
PROCELL MN1500 LR6 AA

Charging:
Charge and trickle charge with Smart-Charger Cap or Drop-in Charger

Enclosure:
Dimensions:
75 x 110 x 55 mm (WxHxD)

Weight:
290 g

Material:
Rubberized compound

Protection class:
IP67

Inspection date:
Displayed after activation

Data logger:
30 hours
1800 measuring values per gas,
adjustable interval (1-60s)
recording average, peak or
instantaneous values selectable

Approvals:
ⓂII 2G Ex ia d IIC T4
-20°C ≤ Ta ≤ +55°C
for NiMH (black)

ⓂII 2G Ex ia d IIC T4/T3
-20°C ≤ Ta ≤ +45°C/+55°C
for Alkaline (grey)

EC-Type Examination Certificate:
BVS 06 ATEX E 017 X
(without measuring function)

EMC Test:
DIN EN 50270:1999
Radio shielding: Type class I
Interference resistance: Type class II



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