G450

Quick Reference Guide

Measurement method
Sensor-dependent

Environmental conditions (operation)
Temperature: -4 to +122 °F / -20 to +50 °C
Humidity: 5 to 95 % RH
Air pressure: 70 to 130 kPa

Power supply (version dependent)
» NiMH battery module (black housing; rechargeable)
» Alkaline battery module (gray housing, not rechargeable) for 2x Batteries 1.5 V
  (Type designation according to operating instructions)

Operating time
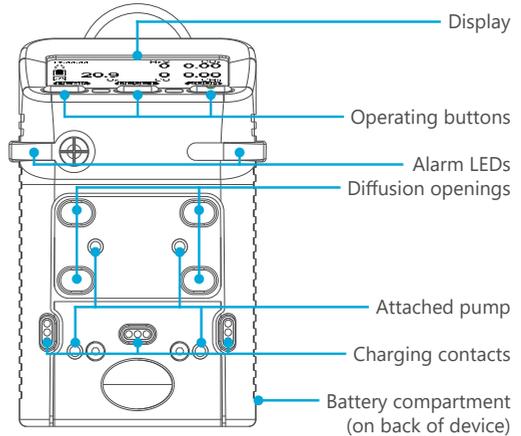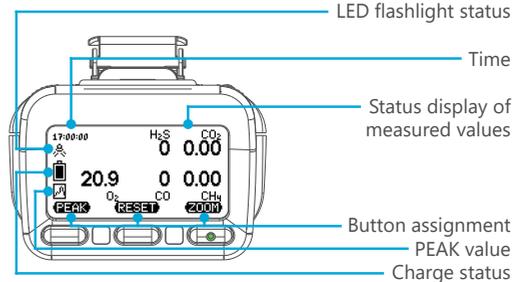Max. 30 hours

Housing
Material: Rubberized plastic
Dimensions: 3 x 4.3 x 6 in /
                   75 x 110 x 55 mm (W x H x D)
Weight: max. 10 oz / 290 g
Protection class: IP67

! **The device must not be charged or opened in potentially explosive areas!**

! **Charging contacts must always be kept clean!**
Dirt can be removed with a damp cloth (clear water).

Do not use solvents or cleaning agents!

LED flashlight status

Time

Status display of measured values

Button assignment
PEAK value
Charge status

Display

Operating buttons

Alarm LEDs
Diffusion openings

Attached pump

Charging contacts

Battery compartment (on back of device)

CSA certification	Intrinsic safety:	Standards:	EMI/RFI Resistance:		
Microtector II G450	c-CSA-us Class I, Division 1, Groups A, B, C, and D T3 Ex ia IIC T3 Class I, Zone 0 AEx ia IIC T3 Ex da ia IIC T3 Ga -20 ≤ Ta ≤ +50 °C T3 07.1934905	IEC 60079-0:2011 (Ed.6) IEC 60079-1:2014 (Ed.7) IEC 60079-11:2011 (Ed.6) CSA C22.2 No. 152-M 1984 UL 913 ANSI / ISA-12.13.01-2000	−EMC Directive 89 / 336 / EEC		
			INMETRO:		
			Ex da ia IIC T3 Ga (-20 °C ≤ Tamb ≤ +50 °C)		
			MSHA:		
			Available		

Self-test	The device will perform a self-test after being switched on. It will display information about the software version, the sensors (incl. measurement ranges), alarm thresholds and the next inspection date. It will also check adjustment data and the bump test and adjustments intervals.
Switching off the device	Press the right button ▬ for approx. 5 seconds.
Fresh air adjustment	Pressing the middle and right buttons simultaneously will open the AutoCal menu. Briefly pressing the left button **AIR** will activate the automatic fresh air adjustment for all sensors (except the CO₂ sensor). With built-in oxygen sensors, the sensitivity is adjusted to the oxygen volume of 20.9 % present in fresh air.

Alarm type	Sensors	Alarm levels	Description
Current value (CV)	» Oxygen » flammable gases » toxic gases	3 3 2	Are triggered immediately when the current gas concentration exceeds or falls below (O_2) a specified value. The current value alarms can be set individually.
Short-term exposure value (STEL)	» toxic gases	1	The short-term exposure value (STEL) shows the average value of the last 15 minutes.
Long-term exposure value (TWA)	» toxic gases	1	The long-term exposure value (TWA) monitors exposure over 8 hours.

Rotating the display by 180°	Briefly press the left and right buttons simultaneously to rotate the display by 180°. This makes it easier to read the display when the device is worn on the body.
Zoom display of current value, TWA and maximum value	To view individual values in zoom display mode, press the right button **ZOOM**. Briefly pressing the right button **ZOOM** will display an enlarged version of a value. Pressing it repeatedly will display enlarged measurement values of all sensors and the battery charge status in succession. Press and hold the **ZOOM** button in zoom display mode to switch to the detailed view, which will display the current, short-term and long-term values.
Display of PEAK value	
» activate	In PEAK mode (activated by pressing the left button **PEAK**), maximum values can be monitored and displayed. An animated symbol will appear in the lower left corner of the display. In zoom display mode, the PEAK value is then shown in the upper right corner instead of the current gas concentration.
» reset	If **RESET** is pressed in PEAK mode, the Peak memory is reset to the current gas concentration. If **RESET** is pressed in zoom display mode, the Peak memory and maximum value memory are reset to the current gas concentration.
» deactivate	Pressing **PEAK** again deactivates PEAK mode.
Flashlight	If the device has a battery with integrated flashlight, the flashlight can be activated by holding down (approx. 3 seconds) the left button. The display **PEAK** will switch to **LIGHT**. Briefly pressing the button again will turn the flashlight back off.
Main menu	Pressing and holding the middle button **RESET** opens the main menu. Here, program parameters can be set. There are various submenus to choose from in the main menu: » Loc (= Selection of the operation location) » User (= Selection of employee) » Data log (= Data log settings) » Alarm bell (= Timed alarm bell settings) » Service (= Parameter settings) » AutoCal (= Zero point adjustment with ambient air or test gas) » Options (= Anti-lazy-batt, Alarm volume control, contrast settings, signal) » Pump (= Information on the connected pump) Further information on the functions of the buttons are shown on the display directly above them.
Access code	Some menu items are only accessible using an access code. This prevents important functions from being changed accidentally or by unauthorized people. There is no alarm in service mode. For further information on the setting options, please refer to the operations manual.