



# mumbi Gas detector m-GM100

User manual



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**GAS**

Claus GmbH  
Sigsfeldstr. 4  
45141 Essen

[www.mumbi.de](http://www.mumbi.de)

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DE **Bedienungsanleitung**

FR **Mode d'emploi**

IT **Istruzioni per l'uso**

ES **Manual de instrucciones**

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# User Manual

## m-GM100 - Gas detector

### Scope of supply

- Gas detector and main power supply unit
- 9V block battery
- Installation kit and instructions

### Specifications

Adapter:	12V DC / 200mA
Warning signal:	≥ 85dB at a distance of 1m
Alarm interval:	0.5 sec. signal — 0.5 sec. pause
Operating temperature:	-10°C to 50°C
Air humidity:	10 - 90 %
Replacement:	after 5 years
Energy consumption:	1.5W - 1.9W
Gas types detected:	natural gas (methane); Liquefied petroleum gas (propane, butane)

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### General

This manual contains important information regarding the installation and operation of your gas detector. Please read these instructions carefully before installing the detector and keep these instructions for future use.



- Gas detectors are no substitute for smoke, heat or carbon monoxide detectors!!!

This gas detector reacts to natural gas (methane) and liquefied petroleum gases (propane, butane). Please specify prior to installation which gas needs to be detected. Depending on its use, the detector may have to be installed at a different location. Methane gas is mostly used at home, while propane and butane are used in caravans, tents and on boats. To detect against both methane and propane/butane you will require 2 detectors! The danger thing about these gases is that they mix with air, which makes them highly flammable; even the smallest spark can cause an explosion. The gas detector comes with a main power supply unit and works with a main voltage of 230V~50Hz. This detector is a stand-alone alarm system which cannot be connected to another system.

**WARNING:** This detector will not work in the event of a power failure. Do not plug into a switched socket. If the detector is connected directly to a 12V power supply in a caravan or on a boat, make sure that the power cannot be switched off.



**IMPORTANT:** This gas detector has been designed to detect natural and liquefied petroleum gases. The detector is NOT intended for detecting smoke or fire. This gas detector only indicates the presence of gas in the immediate vicinity of the detector. It will not detect gas in other parts of the house or caravan.

### Natural gas – Methane

Natural gas is lighter than air. Leaking natural gas therefore rises and subsequently settles towards the bottom. Where methane gas is used, the detector should therefore be installed a few centimetres below the ceiling.

### Liquefied petroleum gases – Propane and butane

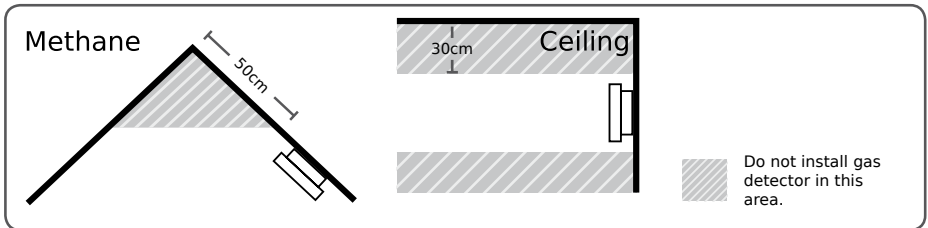
Gas detectors for propane/butane are also used in campers/caravans or in garden sheds. However, gas detectors may also be used in homes, which have gas tanks. Propane/butane is heavier than air. If it leaks, it will collect near the floor, displacing oxygen layer by layer and will then dissipate towards the top. Where propane or butane are used, the gas detector therefore needs to be installed a few centimetres above the floor.

### Positioning the gas detector

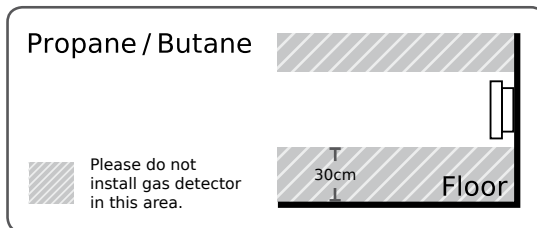


The detector has to be installed at a minimum distance of 150cm from a combustion source (e.g. stove, boiler, etc.). The level at which the detector needs to be installed depends on the gas type to be detected. Therefore the first step is to determine which type of gas is used.

- **Methane** is lighter than air and will therefore rise to the ceiling. The detector should be installed at a distance of about 30cm from the ceiling and about 50cm from the roof ridge.



- **Propane** and **butane** are heavier than air and will therefore flow towards the floor. The detector should be installed at a distance of about 30cm from the floor.



The gas detector is intended for use in homes, caravans or garages. The detector has a heat-up time of about 4 minutes. Once it has been plugged into a mains socket, the red LED will flash for about 4 minutes, after that

the LED should switch to a permanent green light. If the alarm signal sounds every 4 seconds, the sensor is defective.

### **Installation of gas detector**

Attach the mounting ring in the right place using 2 screws. Place detector onto the ring and turn. Ensure that the 2 indentations of the adapter ring are aligned. Connect the mains power supply unit to the detector: this can only be done in one particular way. Next, plug the 230V power supply into a mains socket. The detector will now go through a heat-up time of 4 minutes and is then ready for use. Once the red LED has turned green, you can press the "Test" button.

### **The gas detector is NOT suited for the following places of installation:**

- Do not install the gas detector in rooms subjected to major temperature variations (above 50°C or below -10°C) or where the sensor can get plugged up by dust or dirt. ⇒ In these areas, you may want to use a heat detector.
- Do not install the gas detector in a ventilated environment, e.g. in the vicinity of air-conditioning units or ceiling fans. Do not install in places where paints, varnishes, paint thinners or cleaning agents are being kept.
- Do not install the gas detector outdoors.
- Do not install the gas detector directly above stoves/cookers; make sure to observe a minimum distance of 100cm.

### **Note**

For your own safety the gas detector cannot be installed without a battery in the battery compartment. Mount the detector onto the mounting ring. Press the "Test" button on the front side of the detector to check that the gas detector is working properly. Keep the "Test" button pressed until there is a loud signal and the red LED flashes. The alarm will switch itself off automatically.

### **What to do in the event of an alarm?**

- When the alarm sounds, evacuate the building immediately.
- Keep doors and windows open.
- Do NOT switch on any electrical appliances!
- Call the fire service. They can detect the leak.
- Do not re-enter the building until the problem has been solved and the gas has been removed.

When the alarm sounds, the unit is stopped by pressing the "Test" button for about 5 minutes. The red LED will flash constantly. Pressing the "Test" button once again in the silent mode will delete the silent mode, and the unit will again monitor the gas concentration.

## Basic principles of an escape plan

Draw up a floor plan which includes all doors and windows and the escape routes from each room. Hold a family meeting to discuss the escape plan and tell everyone what they need to do in the event of an alarm. Specify a location outside of your house as a meeting point in the event of an alarm. Familiarise everyone in your household with the noise of the alarm system and ask that they all leave the house if they hear this noise. Practice your alarm drill every 6 months as a minimum. Such drills help you test your escape plan before you need to use it in an emergency. It is therefore important that your children know what to do.

**IMPORTANT:** Do NOT press the "Test" button immediately! The sensor first has to heat up for 4 minutes.

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## Test your gas detector



We recommend that you test your gas detector once a month to ensure proper operation. Keep the "Test" button pressed for several seconds until the alarm sounds. The gas detector must activate the alarm while the button is pressed. The "alarm" LED (red) will come on. This indicates that the gas detector is working properly.

## Alarm signal



When the gas detector detects a certain gas quantity, the red LED and the alarm will come on automatically. The detector responds to a concentration of  $\leq 10\%$  of an explosive gas mixture. The higher the gas concentration, the quicker the alarm response. The alarm is a pulsating alarm during which the red and green lamp will light up.

## Natural gas – Methane

- Explosion risk at a concentration of 3.8%
- The gas detector reacts at 5~20%, the concentration will then be 0.19~0.76%
- The alarm is a pulsating alarm, the red and green LEDs will be on

## Liquefied petroleum gases – Propane and butane

- Explosion risk at a concentration of 2.1%
- The gas detector reacts at 5~20%, the concentration will then be 0.11~0.42%
- The alarm is a pulsating alarm, the red and green LEDs will be on

## Maintenance and cleaning



The green LED must always be on. This LED indicates that the detector is switched on and everything is working properly. When the green LED goes off, check first whether the plug is still plugged into the mains socket and whether the mains socket has power. If that is not the problem, the gas detector has an internal defect and must be repaired or replaced.

The device is maintenance-free, so please do not open up the gas detector. You will invalidate your warranty if you open up the device. Clean the outside of the gas detector with a soft, dry cloth or a brush.

Do not use any cleaning products that contain carbonic acid, benzene, alcohol or similar substances. Such substances attack the surface of the device and their vapours are also hazardous to health and explosive. Do not use any sharp-edged tools, screwdrivers, wire brushes or similar to clean the device.

### **TIP**

It is recommended to carry out a test and maintenance at least once a month. Do not connect the device to a switched mains socket. If the detector is connected directly to a 12 V source in a caravan or on a boat, ensure that the supply cannot be switched off. The gas detector must be replaced after 5 years of operation; after that time proper functioning is no longer guaranteed.

### **CAUTION**

- The gas detector is only intended for indoor use. Please do not subject the device to rain or humidity.
- For your own safety, please always use the mains power supply unit provided and the 9 V block battery included in the scope of supply. If you do not use both power supplies (mains unit + battery), you are not protected. In the event of power failure the detector will automatically switch to the 9V battery and will indicate by the flashing green light (every 3 seconds) that the gas detector is not connected to the mains power and is therefore not working.
- Do not open or manipulate the detector as this can lead to malfunctioning.

### **Installation and mounting**

- Having determined the best position, first ensure that there are no electric cables or pipes located in this area.

If possible, use a locating device (cable detector) to check the installation location before drilling any fastening holes for the mounting device. If you do not have such a device available, ensure that the boreholes are not drilled within the so-called installation zones specified in German standard DIN 18015.

1. Mark the two fastening holes.
2. Drill the two fastening holes in the marked positions.
3. Insert the dowels into the boreholes.
4. Screw the bracket into place. – DO NOT SCREW IN THE SCREWS TOO TIGHTLY.
5. Insert a 9V battery securely into the battery compartment on the reverse side of the detector.

## Protecting the environment



At the end of its service life, this product must not be disposed of with the normal domestic waste. It must be taken to an assembly point for the recycling of electrical and electronic devices. This is indicated by the symbol on the product, the instruction manual and packaging. The materials and substances can be recycled according to their marking.

The reutilisation of recycled substances or other forms or recycling of old devices significantly helps the environment. Please contact your local authority for information regarding the relevant disposal points.

## Safety and maintenance advice

- Make sure that all electrical connections and cable connections to other devices comply with the relevant guidelines and their operating manuals.
- Make sure not to overload sockets and extension cables, as this can cause fire and electric shock.
- Should you have any doubts as to the operation, safety or connection of the devices, please consult a specialist.
- Keep all parts in a safe place away from children.
- Please do not keep the detector in a very cold or very hot environment as this may damage the electronic circuits.
- Avoid bumps and shocks as this may damage the electronic circuits.
- The device should only be opened and repaired by authorised specialists.
- Wireless systems are subjected to interference by wireless telephones, micro-waves and other electronic equipment working in the 433 MHz range. Make sure you keep a MINIMUM DISTANCE OF AT LEAST 3 METRES during installation and operation.

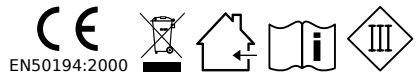
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EU DECLARATION OF CONFORMITY	
Company:	Smartwares Safety & Lighting B.V.
Address, City:	Jules Vermeeweg 87.5015 BH Tilburg
Country:	The Netherlands
	
This declaration of conformity is issued under the sole responsibility of the manufacturer.	
Object of the declaration:	
Description:	Gas detector for natural gas
Product name:	m-GM100 
Trademark:	MUMBI
The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:	
Electro Magnetic Compatibility Directive	(2004/108/EC)
Low Voltage Directive	(2006/95/EC)
RoHS Directive	(2011/65/EU)
References to the relevant harmonised standards used or references to the other technical specifications in relation to which conformity is declared:	
EN 61000-6-3; 2007/ A1: 2011	
EN 50270: 2005	
EN 61000-3-2; 2006/ A1: 2009/ A2: 2009	
EN 61000-3-3: 2008	
EN 60335-1: 2012	
EN 50194-1: 2009	
EN 50581: 2012	
Authorized representative:	José Maas, Quality Manager
	
Place and date of issue: Tilburg, 15-04-2016	
	

**mumbi**<sup>®</sup>

**Claus GmbH  
Sigsfeldstr. 4  
45141 Essen**

[www.mumbi.de](http://www.mumbi.de)



**Manufactured for** Smartwares Safety & Lighting BV  
Broekakkerweg 15, 5126BD Gilze The Netherlands  
+49(0)1805010762, [www.smartwares.eu](http://www.smartwares.eu)

**Imported for** Claus GmbH, Sigsfeldstraße 4  
45141 Essen, Deutschland, [www.mumbi.de](http://www.mumbi.de)







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Claus GmbH  
Sigsfeldstr. 4  
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