

Portable gas detector

C6



C6 is an innovative product combining the elegance and prestige of the **BEINATs.r.l** brand with the versatility of a multi-functional instrument.

Its main use is to assist technicians carry out their work, both during the installation of new systems and the inspection of the heating installations.

Explosive Gas Detection

This advanced instrument and its precision are due to use of a catalytic sensor.

In fact, the probe is managed by a micro-processor used to carry out self-calibration to ensure absolute reading reliability.

When **explosive gas** is detected, it not only emits an acoustic signal, whose frequency is regulated according to the amount of gas detected, but a display also enables direct reading of the concentration of gas in the environment.

Reading from **3% to 100% of the LEL** with **1% LEL** resolution.

The charge and discharge of the lithium polymer's battery is controlled by the microprocessor signalling on the display the percentage of charge

User guide and maintenance

Firmware Version 1.0

Conformity EMC EN50270

Functions

Explosive gas detection

Thank you for choosing the **BEINAT S.r.L.** digital tool, model **C6**.
 This manual was designed to help you obtain the best results and efficiency from the product.

Important Note

Read these instructions carefully before use and always keep them within hands reach while using the instrument.

The illustrations and texts shown on the screens in this manual may differ from those actually displayed

For your safety

Read the following safety precautions carefully to avoid damaging the product or personal or third party injuries, before using the **C6** appliance

Keep them safe so they are available for consultation by anyone before using the appliance.

Immediately turn off the appliance in the event of malfunctioning.

In the event you detect smoke or a pungent or unusual odour coming from the appliance or power supply (optional accessory):

Immediately turn off the detector; disconnect the power supply from the mains, if connected to charge the battery, and send to the nearest Service Centre.

Do not try to dismantle the appliance.

Contact with internal components of the detector can cause injury. In the event of faults, the product should only be repaired by qualified personnel.

If the device is broken due to a fall or crash, consult the Service Centre for the necessary repairs.

Observe due precautions while handling the Lithium Polymer battery.

The battery must never be exposed to high temperatures, that is, over + 45°C. To ensure an optimum service life, use it at room temperature.

If used at low temperatures, the service life could be diminished.

Never dismantle the battery and never throw it on a fire as it may explode.

Never dispose of the battery as normal waste. Comply with local regulations on its disposal.

Use the correct cables supplied.

To ensure the product complies with standards, for terminal input and output connection only use the cables supplied for this purpose or those sold separately by **BEINAT S.r.l.**

Avoid contact with liquid crystals.

In the event the display breaks, pay attention not to injure yourself with the glass fragments and avoid the liquid crystals coming in contact with your skin, eyes or mouth.

Precautions

To achieve long, satisfactory use of the **C6** digital appliance, use and store it in compliance with the following precautions.

ENSURE the detector is intact after removing it from the packaging.

Any use other than the designed use of the detector is considered improper and **BEINAT S.r.l.** declines all liability for any damage caused to people, animals or property.

Do not allow it to get wet.

The C6 is not waterproof and can be seriously damaged if immersed in water or exposed to high levels of humidity.

Do not drop it.

Heavy knocks on hard surfaces and strong vibrations can damage the machine.

Avoid strong magnetic fields.

This detector should not be used or stored near radiation or strong magnetic fields. Static electricity or magnetic fields generated by devices such as radio transmitters can cause interference during measurements.

Avoid abrupt temperature fluctuations.

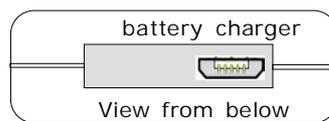
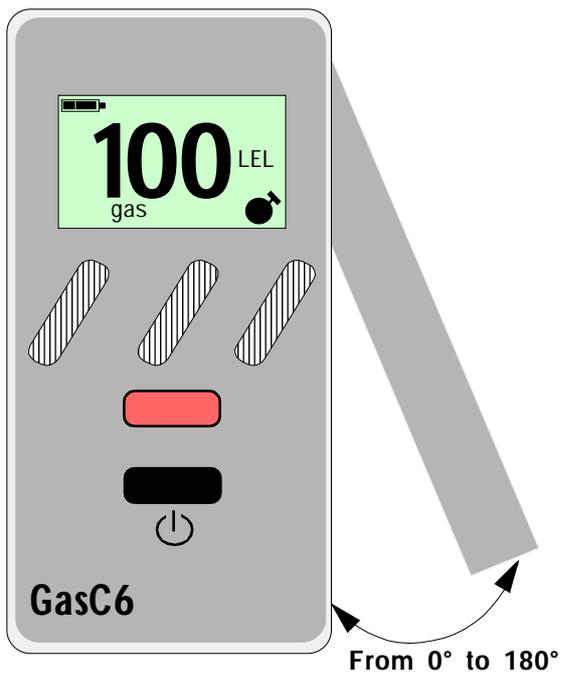
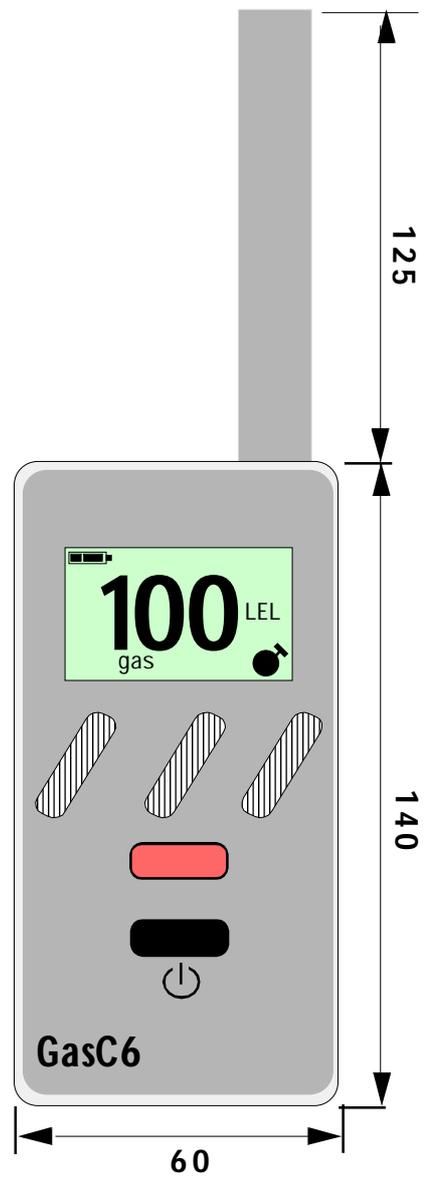
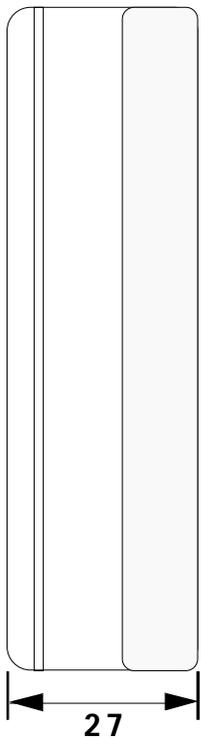
Sudden temperature variations can cause condensation and the batteries could supply lower voltage.

Over a certain temperature (circa + 45°C) the monitor becomes black. To restore visibility place it in a fridge for a few minutes to allow it to cool.

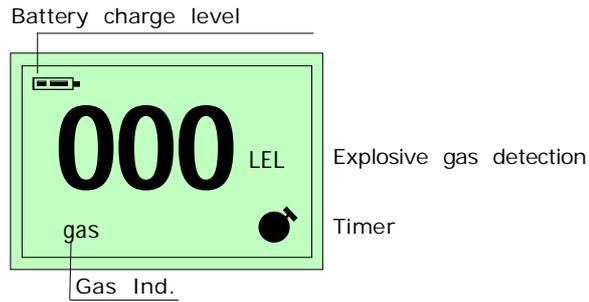
Cleaning

Never clean the appliance using chemical products. If necessary, wipe with a damp cloth.

Dimensions



Display



Concepts and Battery Charging



Recharge from PC



Recharge from AC 230V

Rechargeable Battery

This device is equipped with a **3.7V** rechargeable LITHIUM POLYMER battery.

To recharge the battery it should be connected to the PC using a USB cable or you can purchase a 230/240VAC recharging cable separately.

When first turned on

On purchase the batteries are not fully charged.

Before using the instrument we recommend you charge the batteries for a **maximum of 10 hours**.

Charging.

- 1) Connect the battery charger connector to the micro USB socket on the lower part of the instrument, and connect this to the USB port of any PC.
- 2) Connect the battery charger connector with the power supply unit to the micro USB socket on the lower part of the instrument, and then connect the battery charger to a power socket.
- 3) **Do not recharge the battery in an ATEX zone.**

Use

Batteries should never be exposed to high temperatures, or rather exceed working temperatures of -20°C to $+45^{\circ}\text{C}$.

To ensure an optimal service life, use at room temperature.

If used at both low and high temperatures its service life may be diminished.

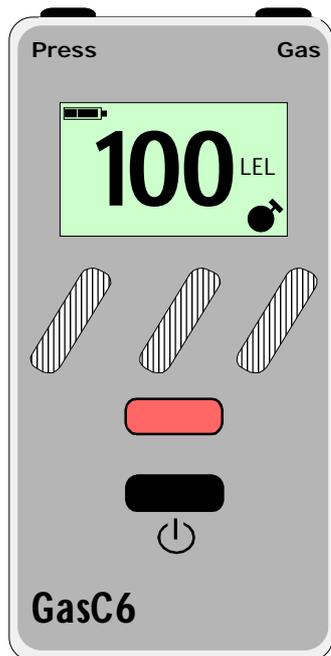
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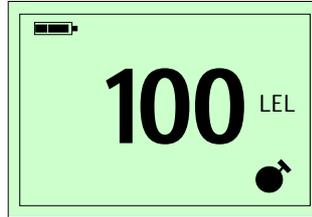
Voltage of charged battery **3.7V**.

Working time **Approximately 30 hours**





Gas Detection Display



Measurement display:
from 3% to 100% of LEL

Battery charger status display

The display depicts a battery.
When the battery is **charged** the figure is completely **black** and as it is used it **becomes white**.
It flashes when it needs to be recharged.

GAS detection function

● Press the  button to turn on and turn off

Explosive GAS detection

When you turn on the appliance you will see a  **COUNT DOWN** starts on the display lasting about 45 seconds (pre-heating). When complete, the instrument is ready for use.

Hold the detector in your hand at an average height from the ground to detect any gas dispersed in air or bring the tip of the antenna rotating near the probable sources of leak which:

- Pipes
- Couplings
- Joints
- Electro valves
- Nicches

If the instrument detects a leak, the percentage of **LEL GAS** appears on the display, along with an intermittent sound that is more or less frequent depending on the amount detected.

Note: The equipment has auto off that has a duration of 60 minutes

If the appliance does not turn on.

Check the battery is charged. If not, recharge it.

The battery is not recharging.

Check voltage is arriving from the power supply.

Gas is not being detected.

Check that the capsule is working. If burnt, **"FAU"** appears on the display.

In the event other problems arise, directly contact a specialist and/or authorised **technician** or your **BEINAT S.r.l. dealer**.

Technical specifications

Powered by Lithium Polymer battery	3.7 V.cc built-in
Consumption during explosive gas detection.....	80 mA
Consumption during other detection.....	30 mA
Consumption in standby	150uA
Battery autonomy according to functions	12 hours approx
Battery charging	Via USB port from PC
Battery charging 230V <i>Optional</i>	External from 5 V. cc 350mA
Recharge control	Controlled by micro-processor
Time to recharge exhausted batteries	7 hours
Battery charging and consumption control.....	On Display

Explosive Gas Detector for Methane

Catalytic detection probe	Built-in
Built-in explosion safety device	Sensor protected with flameproof mesh
Measurement range	From 5% to 100% of LEL
Resolution.....	1% of LEL
Detector precision.....	1% FS
Response time	0,5"
Calibration	Automatic according to detection requirements

Display	LCD 3 digit
Operating temperature	-20° C ÷ + 45° C
Automatic switch off, based on explosive gas detection	After 60 minutes
Electromagnetic compatibility-EC reference standard	EN 50270
Dimensions and weight	60 * 140 *24mm 70g

Readings and Measurements

These operations must be carried out in compliance with the methods described in this manual.

Remember measurements taken with **batteries in need of recharge** can give **false measurements**.



CERTIFICATE OF CALIBRATION of the gas detector C6

Instrument: Portable gas detector C6
 Software version: V. 1.0 year: 52/2015

Test of GAS

we self-certify that the equipment mentioned above is manufactured according rules UNI - CEI - CIG - EN 50194 and comply with all CE EN 50270.

For Explosive Gas.

Power Supply: 3,7V cc within 2% of rating
Volume ratio of gas liters: input up to 20% of LEL +/- 3%
Temperature: 23°C for the entire duration of the test +/- 2% of rating
Relative Humidity: 45% for the entire duration of the test +/- 10%
Barometric Pressure: constant air for the entire duration of the test +/- 1 kPa
Gas Speed: 0.35 m/s
Calibration: at 20% of L.E.L. +/- 3% tolerance

	Methane	Propane	Isobutane(LPG)
	LEL=5.0%=	LEL=2.1%	LEL=1.8%
LEL %	ppm	ppm	ppm
0	0	0	0
1	500	210	180
2	1.000	420	360
5	2.500	1.050	900
10	5.000	2.100	1.800
15	7.500	3.150	2.700
20	10.000	4.200	3.600
25	12.500	5.250	4.500
30	15.000	6.300	5.400
35	17.500	7.350	6.300
40	20.000	8.400	7.200
50	25.000	10.500	9.000
—			
100	50.00 0	21.000	18.000

The device C6 has passed all functioning tests, performed at our laboratories, in agreement with the predefined values and and the relative tolerances of detection

These parameters correspond to the characteristics outlined in the instruction booklet supplied with each product.

This certificate is valid for one year and may not be reproduced without our permission, in any case, may not be reproduced in part..

The laboratory manager.

Alessandro Bivi

INSURANCE.This device is insured by the SOCIETÀ REALE MUTUA for the PRODUCT'S GENERAL LIABILITY up to a maximum of 1.500.000,00 EURO against damages caused by the device in case of failures in functioning.

WARRANTY.The warranty term is 3 years from manufacturing date, in agreement with the following conditions. The components acknowledged as faulty will be replaced free of charge, **excluding** the replacement of plastic or aluminium cases, bags, packing, batteries and technical reports.

The device must arrive free of shipment charges to **BEINAT S.r.L.**. Defects caused by unauthorized personnel tampering, incorrect installation and negligence resulting from phenomena outside normal functioning shall be excluded from the warranty.

The **BEINAT S.r.L.** company is not liable for possible damage, direct or indirect, to people, animals, or things; from product faults and from its enforced suspension of use.



DISPOSAL OF OLD ELECTRICAL & ELECTRONIC EQUIPMENT.

This symbol on the product or its packaging to indicates that this product shall not be treated as household waste. Instead, it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment, such as for example:

- sales points, in case you buy a new and similar product
- local collection points (waste collection center, local recycling center, etc...).

By ensuring this product is disposed of correctly, you will help prevent potential negative consequence for the environment and human health, which could otherwise be caused by inappropriate waste handing of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

Attention: in some countries of the European Union, the product is not included in the field of application of the National Law that applies the European Directive 2002/96/EC and therefore these countries have no obligation to carry out a separate collection at the "end of life" of the product.



Portable gas detector **gasC6**

Lo styling è della b & b design

Purchase Date	Stamp of the Dealer
Registration Number	

In agreement with our continuous development policy, we reserve the right to modify its products without notice.

BEINAT S.r.l. Via Fatebenefratelli 122/C
10077, S. Maurizio C/se (TO) - ITALY
Tel. 011.921.04.84 - Fax 011.921.14.77
[http:// www.beinat.com](http://www.beinat.com)



Business - info@beinat.com
Help Desk - laboratorio@beinat.com