



"END OF LIFE" DISPOSAL OF ELECTRIC AND ELECTRONIC APPLIANCES



This symbol on the product or on its packaging indicates that this product cannot be treated as household waste.

Conversely, it will have to be taken to a specific collection point

for the recycling of electrical and electronic equipment, such as:

- points of sale, if purchasing a new product similar to the one to be disposed of

- local collection points (waste collection centres, local recycling centres, etc.).

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

Attention: in some countries of the European Union the product does not fall within the scope of application of the national law implementing European Directive 2012/19/EU, and therefore there is no obligation for separate waste collection at the "end of life" in force in them.



BEINAT
GAS SOLUTIONS

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DESCRIPTION

Fixed carbon dioxide detector

- Detects carbon dioxide (CO₂)
- Measurement of ambient temperature
- Measurement of relative humidity
- Multi-colour liquid crystal display
- Green LED for power on
- Powerful acoustic alarm (85 db at 1m)
- Sensor self-diagnosis to always ensure correct operation
- Long life (sensor life up to 10 years)
- 1 Voltage-free SPDT relay 230 VAC 10A

SPECIFICATIONS

Appearance

Weight	350 grams
Dimensions	115.5x150x50 mm (length, width, height)
Colour	White [Chrome]

Power Supply

Power Supply	100-240 VAC 50/60 Hz
Absorption	100 mA
Absorption in Alarm	200 mA
Relay	1 Relay 240 VAC 7 A
Bluetooth connection	Optional
BEINAT Application	Optional

Display

Display type	Liquid Crystal Display (LCD)
View direction	6 O'CLOCK
Backlight	Yes

Reports

Sound alarm	Yes, 85 db at 1 m
Visual alarm	Yes, colours on Display
Sensor failure	Yes
Sensor end of life	Yes
Low concentration of carbon dioxide (CO ₂)	Yes
High concentration of carbon dioxide (CO ₂)	Yes
Warm up	450s (7.5min)

Carbon dioxide (CO) measurement)

Sensor type	NDIR
User replaceable sensor	No
Typical sensor life	10 years
Sensor self-diagnosis	Yes
Display indication	Yes, on rotation or fixed in case of CO presence.
Unit of measurement	Parts per million (ppm)
Measuring range	360 ÷ 5000 ppm

Visual and audible signalling sequences

Mode	Green LED (power)	Yellow display	Red display (alarm)	Acoustic signal	Display
Active detection	Fixed	-	-	-	Numeric value
Warning	Fixed	Fixed	-	-	Numeric value
Alarm	Fixed	-	Fixed	Alternating, 25 beeps/min	Numeric value
Sensor failure	Fixed	2 flashes in quick succession/-min	-	2 beeps in quick succession/min	FAU
Sensor end of life	Fixed	3 flashes in quick succession/-min	-	3 beeps in quick succession/min	EoL

Temperature Measurement

Sensor type	Semiconductor
User replaceable sensor	No
Typical sensor life	> 10 years
Sensor self-diagnosis	Yes
Display indication	Yes, rotational
Unit of measurement	Degrees Celsius (°C)
Measuring range	-40 ÷ 100 °C

Humidity Measurement

Sensor type	Capacitive
User replaceable sensor	No
Typical sensor life	> 10 years
Sensor self-diagnosis	Yes
Display indication	Yes, rotational
Unit of measurement	Relative humidity percentage (%RH)
Measuring range	0 ÷ 100 %RH

Warning thresholds

Low concentration carbon dioxide (CO ₂)	600 ppm
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Alarm thresholds

High concentration carbon dioxide (CO ₂)	2000 ppm
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Operational features of use

Whole device test function	Yes, by holding down the test button
Warning silence function	No
Alarm silence function	No
Failure silence function	No
Temperature range	5 ÷ 45 °C
Humidity range	10 ÷ 90 %RH



WARNINGS!



• Read the instruction booklet carefully before using the product as it provides important information regarding safety, use and maintenance. Keep the instruction booklet carefully for future reference.

• An essential element for optimal operation of the alarm is ensured by its correct positioning: carefully following the instructions reported in this booklet will result in high precision combined with the absence of false alarms.

• The appliance is only suitable for applications in domestic or similar environments.

For applications in particular environments, consult the specific environmental regulations. Any use other than that for which the detector was designed is to be considered improper; therefore the manufacturer declines all responsibility for any damage caused to persons, animals or property.

• Make sure the product is intact after removing it from the packaging box.

• To enjoy your detector for a long time and with satisfaction, use it keeping in mind the following precautions:

o Keep it dry. The detector is not waterproof. If immersed in water or exposed to high humidity levels it can cause serious damage.

o Do not drop it. Violent impacts or drops during transportation or installation could damage the appliance.

o Avoid sudden changes in temperature. Sudden temperature changes may cause condensation to form and the detector may not work correctly.

• Never clean the appliance with chemicals. If necessary, wash with a damp cloth. Always avoid placing cloths soaked in thinners, alcohol or chemical detergents near the surface.

• The user must periodically (every six months) perform a test (TEST) using the appropriate button to ensure that the detector is functioning properly over time. At least once a year it is advisable to have a more thorough check performed by a specialised technician.

INSTALLATION AND POSITION

For the correct detection of carbon dioxide (CO₂) in the environment it is advisable to:

- 1) install the device approximately 1.5 m from the floor and
- 2) away from heat sources and air currents that could distort the data reading, causing false alarms;
- 4) Before making any connections, make sure the power supply is disconnected.

Attention: Do not install the carbon dioxide detector behind barriers that could hinder the prompt detection of gas or near: sinks, air vents, heating and air conditioning devices, windows and ventilation devices.

INSTALLATION OF THE GAS WARNING DEVICE DOES NOT EXEMPT FROM THE NEED TO COMPLY WITH ALL THE LAWS AND REGULATIONS IN FORCE IN THE COUNTRY OF INSTALLATION REGARDING THE CHARACTERISTICS, INSTALLATION AND USE OF GAS APPLIANCES AND THE VENTILATION OF ROOMS.



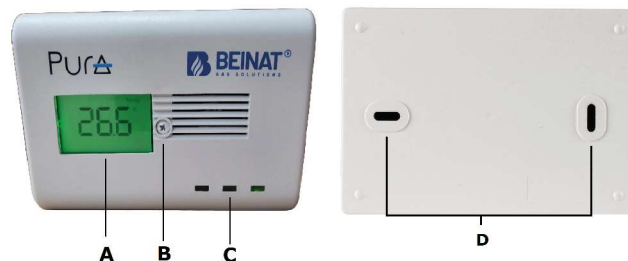
COMPONENTS AND CONTROLS

A: LCD display - during normal operation it displays carbon dioxide, temperature and relative humidity in sequence;

B: Case removal screw - once the screw is removed, the cover part can be removed to access the PCB;

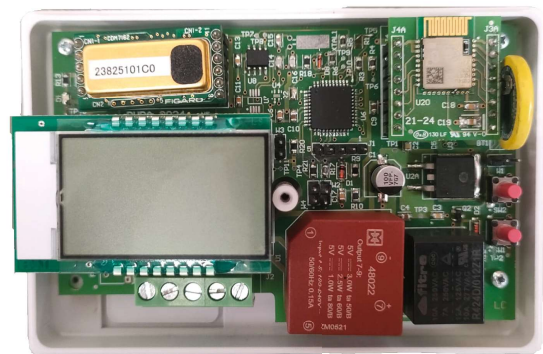
C: Indicator LEDs - See the meaning of the LEDs in the table below;

D: Positions for wall fixing screws. - insert the screws for wall installation from the inside.



A B C

D



CONNECTIONS AND MODES

1-2: Power connections 110-230 VAC 50/60Hz (Phase and Neutral);

3-4-5: Connections for the 240 VAC 7 A voltage-free relay

3 – Normally closed;

4 – Common;

5 – Normally open.

To silence the Buzzer:

Remove the Jumper located in J3.

EFFECTS OF CARBON DIOXIDE ON THE HUMAN BODY

ppm	Symptoms
<1000	No or limited health effects
1000-2500	Fatigue, loss of attention and concentration, sensation of "choking" air. Headache, drowsiness, tiredness
2500-5000	Breaches the OSHA requirements, severe headaches, mild intoxication, depending on exposure time.
5000-40000	



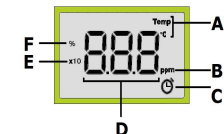
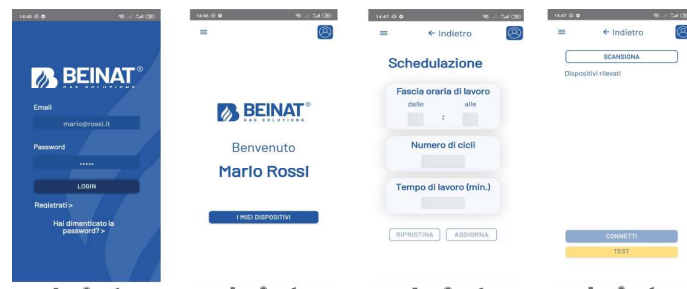
This equipment is designed to protect individuals from the acute effects of exposure to carbon dioxide. This equipment will not fully protect individuals.

with specific medical conditions. If in doubt, consult a doctor.

Bluetooth connection (only available in the DOPRA version. For further information contact Beinat SRL.)

If you purchased the version with built-in Bluetooth, follow the steps below to connect the device to your mobile phone.

You can download data, change thresholds, view current sensor status, etc.



G

H

I



L

M

DISPLAY READING KEYS

A: Temperature (Celsius)

B: Parts per million

C: Warm-up

D: Numeric value

E: x10 Value greater than 999ppm.

F: Humidity percentage.

G: CO₂ indication..

H: Temperature indication

I: relative humidity indication.

L: Fault condition

M: End of Life (replace sensor)

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