

# User manual

## Carbon monoxide alarm

### KonexXt CO One



**Ihr 100Pro Brandschutzpartner.**

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## 1. Carbon monoxide – what is it?

Carbon monoxide (CO) is a colourless and odourless respiratory poison. It arises when carbon-containing fuels such as oil, wood and gas are burned incompletely. The causes of this are diverse (e.g. technical defects, a lack of maintenance of combustion equipment or blocked chimneys due to birds' nests).

### **Why is CO so dangerous?**

CO can be neither seen, smelled or tasted. So it is breathed in completely without notice. In addition, intoxication produces no typical symptoms such as breathlessness or coughing. And since the gas can penetrate walls and ceilings, there is also a potential risk in rooms adjacent to a CO source.

### **What happens when it is breathed in?**

CO suppresses the oxygen in the blood and causes carbon monoxide intoxication. Depending on the CO concentration in the air and the length of time for which one is exposed to CO, light or severe intoxication can occur. The exact symptoms can vary depending on one's state of health. Therefore, the following table presents only examples of possible symptoms.

<b>Concentration</b>	<b>Symptoms</b>
150 ppm	Light headache after approx. 1.5 hours
200 ppm	Headache, dizziness, nausea, tiredness after approx. 2 to 3 hours
400 ppm	Strong headache in the forehead area Death after approx. 3 hours
800 ppm	Strong symptoms, loss of consciousness after 45 min. death after 2-3 hours
1600 ppm	Strong symptoms after 20 min. Death within 1 hour



In the case of very high concentrations, there is a threat of acute danger and thus rapid loss of consciousness and death.

## **Behaviour in event of alarm**

- ▶ Stay calm and promptly open all windows and doors.
- ▶ If possible, switch off all combustion equipment.
- ▶ Leave the building and leave the windows and doors open.
- ▶ Obtain medical assistance for persons with symptoms of CO intoxication and refer to CO as a possible cause.
- ▶ Contact the fire brigade, technical emergency services or specialist installer and have the cause of the CO hazard source eliminated.

## 2. Introduction



This is the English translation of the German original operating manual.

This manual applies to the carbon monoxide alarm KonexXt CO One, mostly called “CO alarm” or “device” elsewhere in the text. The manual contains all the important information and instructions for the safe and proper operation of the device.



You will find a PDF file of this manual on our website at:  
[hekatron-brandschutz.eu/en/downloads](https://hekatron-brandschutz.eu/en/downloads)

This manual uses the following symbols and signal words:

<b>Symbol/ signal word</b>	<b>Meaning</b>
<b>WARNING</b>	Warning which could lead to serious injuries or death if it is not observed
<b>CAUTION</b>	Warning which could lead to light or medium injuries if it is not observed
<b>ATTENTION</b>	Warning which could lead to material damage or functional defects if it is not observed
	Reference to additional information
	Instruction
	Result of an action
-	List

The warnings are structured as follows:

### **SIGNAL WORD**

Type and source of danger

Consequences in the event of non-compliance

▶ Measures for danger prevention

### 3. Intended use

- The CO alarm serves to detect carbon monoxide and sounds in the event of dangerous concentrations.
- The CO alarm may be installed in residential buildings, apartments and rooms with similar purposes.
- The CO alarm can be used exclusively as a standalone device.

#### **Improper use**

- The device may not be installed in outdoor areas.
- The device must not be used in leisure vehicles (e.g. mobile homes or boats).
- The device is not a replacement for proper installation, operation and maintenance of combustion equipment, including ventilation and exhaust systems.
- The device is not designed to detect smoke, fire or other gases.

If the device is not used as intended, Hekatron Vertriebs GmbH shall not assume any liability for resulting damage.

## 4. Safety information

If the safety and operating instructions are not observed, no liability and warranty claims against Hekatron Vertriebs GmbH shall be enforceable.

### General

- To ensure the proper and safe use of the CO alarm, please read the manual thoroughly and carefully and follow the instructions.
- Keep the manual for future reference.
- Operate the device only in an undamaged state.
- The device must not be opened, reconstructed or modified.
- The battery is firmly installed and cannot be replaced.
- Do not cover or overcoat the device with paint.
- Do not knock over the device or expose it to shaking.
- Install the device outside the reach of children.
- The device must not be exposed to excessive moisture.
- Do not use air fresheners, hair sprays or other aerosols in the direct vicinity of the device.

## 5. Product description

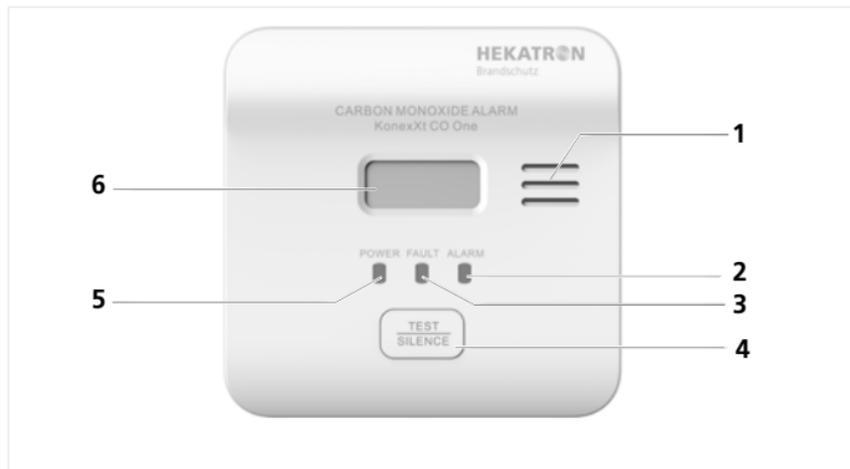


Fig. 1: Front view

1	Openings for the acoustic alarm
2	Red LED "ALARM"
3	Yellow LED "FAULT"

4	"Test / Silence" button (test button/mute button)
5	Green LED "POWER"
6	Display



Fig. 2: Rear view

7	Mounting plate
8	Inlet openings

9	Slanter for table setup
10	Elongated holes for wall assembly

## Scope of delivery

- CO alarm
- Mounting plate
- Attachment set for wall assembly (2 screws and 2 dowels)
- Operating manual

## 6. Select location

### ATTENTION

Selecting the correct location is decisive for the functioning of the CO alarm.

- ▶ Select the location so that the detection of carbon monoxide is not falsified or delayed due to draughts or obstacles.

### 6.1 Rooms

We recommend installation in the following areas:

- In all living rooms with combustion equipment (oil, gas, wood, etc.)
- In rooms in which one frequently spends time (e.g. living rooms and bedrooms)
- 1 CO alarm per floor

However, some rooms are not suitable at all, as, for example, dust or dirt block the sensor and thus could delay the detection of CO.

Room	Suitability and note
Bathroom	Only if a CO hazard source is present, however limited suitability due to high humidity and aerosols.

Room	Suitability and note
Kitchen	Only if a CO hazard source is present.  Observe the following points: <ul style="list-style-type: none"><li>- Lateral distance to a cooking appliance: at least 1 m</li><li>- Not directly over the sink or cooker</li><li>- Not near the fume cupboard</li></ul>
Boiler room	Not suitable; install directly in front of the boiler room instead.
Garage	Not suitable.

## Interfering substances

The device may react to interfering substances and trigger the alarm. Therefore, the device must not be exposed to interfering substances.

Examples of interfering substances include:

- Vapours from petrol, diesel, solvents, paints, polishing agents, oils and organic cleaning liquids
- Exhaust gas emissions that develop for a short time (e.g. when starting an engine)
- Hydrogen (e.g. when charging batteries or when concrete hardens)

## 6.2 Position in room

### General

The following conditions apply to the exact position:

- Outside the reach of children
- At usual breathing and head height (e.g. in the corridor: approx. 1.80 m above the floor; in the bedroom: at bed height)
- In hearing distance to sleeping areas
- Rooms with sloped ceilings: always install on the non-slanted wall

### Unsuitable positions

Positions that are **not suitable** as locations:

- Near doors, windows or other inlet or exhaust air openings (e.g. fume cupboard)
- Directly over a heat or steam source (e.g. radiator)
- Near ceiling fans
- Behind curtains or furniture
- On the ceiling

## Rooms with combustion equipment

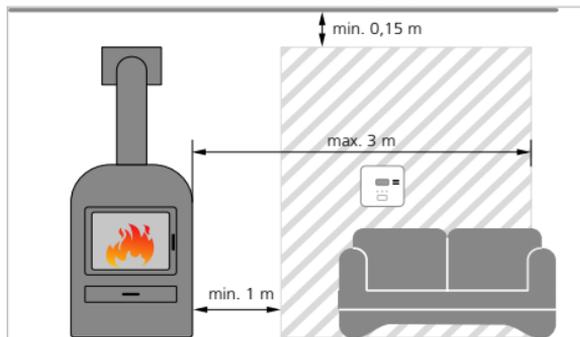


Fig. 3: Position in rooms with combustion equipment

In rooms with combustion equipment, the following applies in addition to the general conditions:

- As near as possible to the CO hazard source but **at least 1 m and a maximum of 3 m** away
- Minimum distance to ceiling: 15 cm

## 7. Installation

**WARNING:** The intended functioning of the device is only guaranteed if the device has been installed correctly. Therefore, the device should be installed by an expert.

### 7.1 Wall assembly

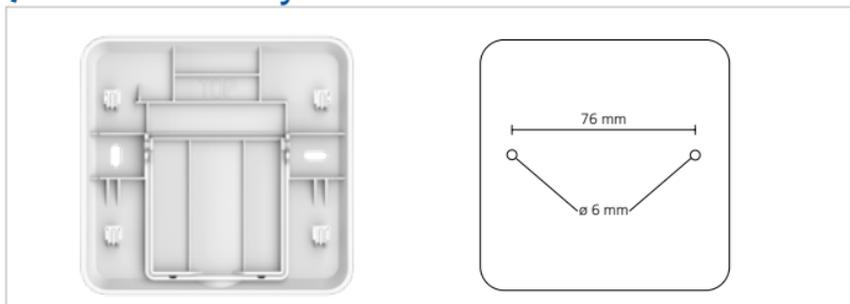


Fig. 4: Dimensions for wall assembly

- ▶ Mark the holes on the wall using the mounting plate.

#### **CAUTION**

Risk of injury due to electric shock or hot water.  
Electric cables and water lines could become damaged.

- ▶ Select the position in a way that it can be ensured that no electric or other supply lines can be damaged during drilling.

- ▶ Drill 2 holes (ø 6 mm, gap: 76 mm).
- ▶ Insert the dowels into the holes.
- ▶ Attach the mounting plate to the wall using the screws.

## 7.2 Table installation

For table installation, the device must previously be commissioned (see chapter „8. Commissioning the device“).



- ▶ Fold out the slanter on the back of the device and lock it in place.
- ▶ Place the device on a flat surface and check to ensure it is stable.

## 8. Commissioning the device

- ▶ Slide the device onto the mounting plate until it locks in.
  - ⇒ All 3 LEDs light up briefly.
  - ⇒ For test purposes, the display briefly shows all segments:



- ⇒ A countdown starts at “55” and the “POWER” LED flashes 1x per second. During that time, the device carries out a self-check. Once the countdown has finished, the device goes into normal mode and is ready to use.

**i** Upon commissioning, the time span of the typical service life of 10 years begins.

## 9. Normal operation

In normal mode, the CO alarm continuously measures the CO concentration in the air and shows the current value in the display.

## Signalling



🔊 : off

LED "POWER": flashes approx. every 40 s

LED "FAULT": off

LED "ALARM": off



In the event of values under 30 ppm, "0 PPM" is displayed; in the event of values over 999 ppm, "999 PPM" is displayed.

If the CO concentration rises above 50 ppm, the alarm is triggered (for details, see section „10.1 Alarm“). The device thus protects from acute CO intoxication.



The device does not prevent chronic effects of carbon monoxide exposure and does not offer full protection to persons with special risks.

## Function of the "Test / Silence" button

In normal operation the "Test / Silence" button has 2 different functions:

- Short press (< 2 s): Calling up the alarm memory, see section 10.2
- Long press (> 2 s): Testing the alarm, see section 11.1

## 10. Status signals

### 10.1 Alarm

If the CO concentration rises above 50 ppm, the alarm is triggered. How quickly it is triggered depends on the CO concentration:

<b>CO concentration</b>	<b>Alarm triggering</b>
as of 50 ppm	within 60-90 min
as of 100 ppm	within 10-40 min
as of 300 ppm	within 3 min

#### Behaviour in event of alarm

- ▶ Stay calm and promptly open all windows and doors.
- ▶ If possible, switch off all combustion equipment.
- ▶ Leave the building and leave the windows and doors open.
- ▶ Obtain medical assistance for persons with symptoms of CO intoxication and refer to CO as a possible cause.
- ▶ Contact the fire brigade, technical emergency services or specialist installer and have the cause of the CO hazard source eliminated.

## Signalling



 : 4x alarm sound and 5 s break, on an alternating basis

LED "POWER": flashes approx. every 40 s

LED "FAULT": off

LED "ALARM": 4x flashing and 5 s break, on an alternating basis

## Muting an alarm

In the event of a CO concentration < 150 ppm, the alarm can be muted for a short time.

- ▶ Press the "Test / Silence" button.
  - ⇒ The alarm goes on mute for 10 minutes; the following appears in the display: 
  - ⇒ The "ALARM" LED continues to flash.
- ▶ Observe behaviour in event of alarm.



If the concentration remains above 35 ppm after 10 minutes, the alarm sounds again. It is then not possible to mute the alarm again.

## 10.2 Alarm memory active

If an alarm has been triggered within the last 48 h, the alarm memory is active. After 48 h the signalling stops, however, the entry remains in the alarm memory until it is deleted.

### Signalling



🔊 : off

LED "POWER": flashes approx. every 40 s

LED "FAULT": off

LED "ALARM": flashes approx. every 40 s

### Calling up the alarm memory

- ▶ Press the "Test / Silence" button **briefly (< 2 seconds)**.
  - ⇒ A short acoustic signal sounds.
  - ⇒ The saved value is briefly displayed; the device then returns to normal mode.

### Clearing the alarm memory

- ▶ Press the "Test / Silence" button for **longer than 2 seconds**.
  - ⇒ A short acoustic signal sounds.
  - ⇒ A rising acoustic signal sounds 4x (=test alarm).
  - ⇒ The saved maximum value is briefly displayed and is then deleted.

## 10.3 Message “Battery low”

The battery is low; the device will continue to work for at least 30 days or 1 alarm lasting 4 minutes.

- ▶ Replace the device as soon as possible.

### Signalling



- 🔊 : Acoustic signal approx. every 40 s
- LED “POWER”: flashes approx. every 40 s
- LED “FAULT”: flashes approx. every 40 s
- LED “ALARM”: off

### Muting

The message can be muted **temporarily**.

- ▶ Press the “Test / Silence” button.
  - ⇒ The message is muted for 18 h; the current CO concentration and this symbol appear in the display: 🔇
  - ⇒ The “FAULT” LED continues to flash.



Once the approx. 30 days have ended, the battery is discharged and the device goes out of commission.

## 10.4 Message “device error”

The device no longer works and carbon monoxide is no longer detected.

- ▶ Replace the device promptly.

### Signalling



- 🔊 : 2x acoustic signal approx. every 40 s
- LED “POWER”: flashes approx. every 40 s
- LED “FAULT”: flashes 2x approx. every 40 s
- LED “ALARM”: off

### Muting

The message can be muted **once**.

- ▶ Press the “Test / Silence” button.
  - ⇒ The message is muted for 18 h; the following symbol appears in the display: 🔇
  - ⇒ The “FAULT” LED continues to flash.

## 10.5 Message “End of lifespan”

The end of the service life of the device has nearly been reached; the device will continue to work for 30 days

- ▶ Replace the device as soon as possible.

### Signalling



🔔: 3x acoustic signal approx. every 40 s  
LED “POWER”: flashes approx. every 40 s  
LED “FAULT”: flashes 3x approx. every 40 s  
LED “ALARM”: off

### Muting

The message can be muted **temporarily**.

- ▶ Press the “Test / Silence” button.
  - ⇒ A short acoustic signal sounds.
  - ⇒ The message is muted for 18 h; the current CO concentration and this symbol appear in the display: 🔇
  - ⇒ The “FAULT” LED continues to flash.



Once the 30 days have ended, it is no longer possible to mute the device; the device no longer works and “End” appears permanently in the display.

## 11. Servicing and care

### 11.1 Testing the alarm

In normal operation, the alarm can be tested at any time. We recommend performing the test 1x per month.

- ▶ Press the “Test / Silence” button for **longer than 2 seconds**.
  - ⇒ A short acoustic signal sounds.
  - ⇒ A rising acoustic signal sounds 4x.
  - ⇒ The red LED flashes in parallel to the acoustic signal.
  - ⇒ The saved value (alarm memory) appears in the display.

### 11.2 Cleaning

- ▶ Wipe the device with a dry cloth. Do not use detergents.

## 12. Decommissioning the device

If the device is to be decommissioned for a short time (e.g. for a move), proceed as follows:

- ▶ Remove the device upwardly from the mounting plate.
  - ⇒ The device is out of commission; the alarm memory is cleared.
- ▶ If necessary, dismount the mounting plate.

## 13. Technical data

Typical service life	10 years
Certification according to	EN 50291-1:2018 (type B)
Sound pressure level at a distance of 3 m	> 85 dB
Voltage supply	3V lithium manganese battery
Ambient temperature	
Operation	-10 °C to +40 °C
Storage	-20 °C to +50 °C
Air humidity (non-condensing)	
Operation	15 to 95% rH
Storage	10 to 95% rH
Sensor type	electrochemical
Degree of protection	IP42
Weight	186 g
Dimensions (L x W x H)	112 x 110 x 31.5 mm
Colour	similar to RAL 9003
Housing	PC-ABS

## 14. Conformity

Hekatron Vertriebs GmbH hereby declares that the CO alarm KonexXt CO One is compliant with the following regulations:

- 2014/30/EU (EMC)
- 2011/65/EU (RoHS)

The complete declaration of conformity can be found on our website at: [www.hekatron-brandschutz.eu/en/downloads](http://www.hekatron-brandschutz.eu/en/downloads).

## 15. Disposal



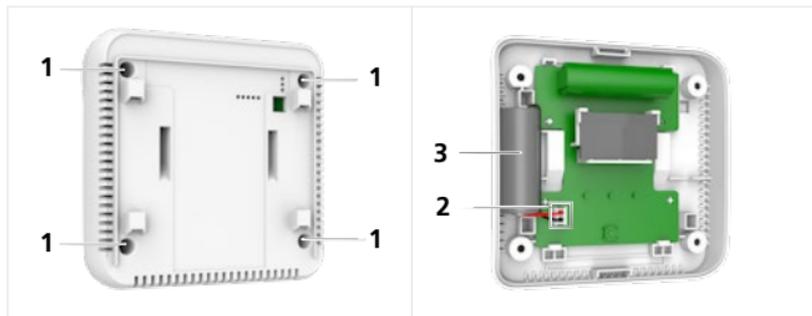
**Disposing of the device with the domestic waste is prohibited.**

Every consumer is legally obliged to return all electrical and electronic equipment and used batteries via the municipal collection points. By disposing of your device properly, you make a significant contribution to environmental protection.

Separate collection of waste equipment and batteries is required for disposal of hazardous substances in compliance with environmental protection regulations, recycling of material and possible reuse.

## Removing the battery

Before disposal, remove the battery as follows:



- ▶ Remove the device upwardly from the mounting plate.
- ▶ Loosen the screws (1) with a Phillips screwdriver.
- ▶ Remove the cover on the back.
- ▶ Pull out the battery plug (2).
- ▶ Remove the battery (3).



## **Hekatron Brandschutz**

Hekatron Vertriebs GmbH

Brühlmatten 9

79295 Sulzburg

Germany

[hekatron-brandschutz.eu](http://hekatron-brandschutz.eu)

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