

# Installation and service instructions

for contractors

**VIESSMANN**

## CO detector

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### Safety instructions



**Please follow these safety instructions closely to prevent accidents and material losses.**

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#### Safety instructions explained



##### **Danger**

This symbol warns against the risk of injury.



##### **Please note**

This symbol warns against the risk of material losses and environmental pollution.

##### **Note**

*Details identified by the word "Note" contain additional information.*

Installation, initial start-up, inspection, maintenance and repairs must only be carried out by a competent person (heating engineer/installation contractor).

Before working on the equipment/heating system, isolate the power supply (e.g. by removing a separate mains fuse or by means of a mains isolator) and safeguard against unauthorised reconnection.

When using gas as fuel, also close the main gas shut-off valve and safeguard against unauthorised reopening.

Repairing components which fulfil a safety function can compromise the safe operation of your heating system. For replacements, use only original spare parts supplied or approved by Viessmann.

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### Exclusion of liability

No liability is accepted for loss of profits, failure to make savings or other direct or indirect consequential losses arising from use of the CO detector, or for losses arising from improper use.

## Product information

Monitoring device for safety shutdown of the boiler in the event of escaping carbon monoxide.

Alarm threshold: 50 ppm CO to EN 50 291-1

This device has been developed to provide protection from the acute effects of contact with carbon monoxide.



### **Danger**

The CO detector may not provide adequate protection for people with particular medical conditions.

If in doubt, please consult your doctor. People with relevant medical conditions should use an alarm that generates an audible or visible warning even at carbon monoxide concentrations of under 50 ppm.

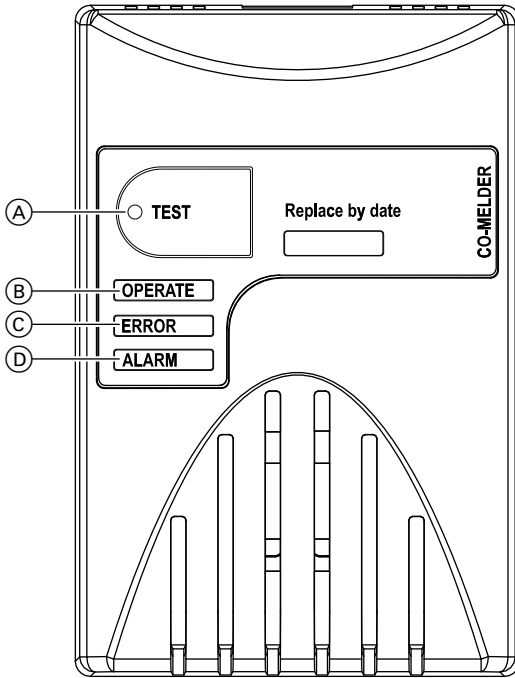


### **Danger**

The following substances can affect CO detectors and may trigger a false alarm: ethylene, ethanol, alcohol, isopropanol, petrol, toluene, ethyl acetate, hydrogen, hydrogen sulphide and sulphur dioxide.

Do not use the above substances in the room in which the CO detector is installed.

## Product information (cont.)



Indicators:

(A) Test button

(B) Operate (green LED)

(C) Error/test (yellow LED)

(D) Alarm/test (red LED)

### Acoustic signal:

When the alarm or test is triggered, an alarm tone will sound.

### Function



#### **Please note**

Fault-free function of the CO detector can be guaranteed only if it is correctly connected to the control unit.

- Connect as shown on page 7.
- Do not route the connecting cable in the immediate vicinity of power cables.

#### **Note**

*The function of the CO sensor is continuously monitored during operation. If the sensor is faulty, the yellow indicator illuminates and a fault message is displayed on the control unit.*



Boiler service instructions

The green indicator illuminates when the device is operational.

If the CO concentration exceeds the specified limit, an alarm signal is sent to the boiler control unit. This turns off the burner in the boiler. The red and green indicators illuminate and the alarm tone sounds.

If the CO concentration falls below 30 ppm, the red LED and the alarm signal to the control unit are switched off. This re-enables the burner. The alarm tone stays on to signal that an increased CO concentration was detected earlier. To switch the alarm tone off, press the test button once or turn the control unit off and back on again at the ON/OFF switch.

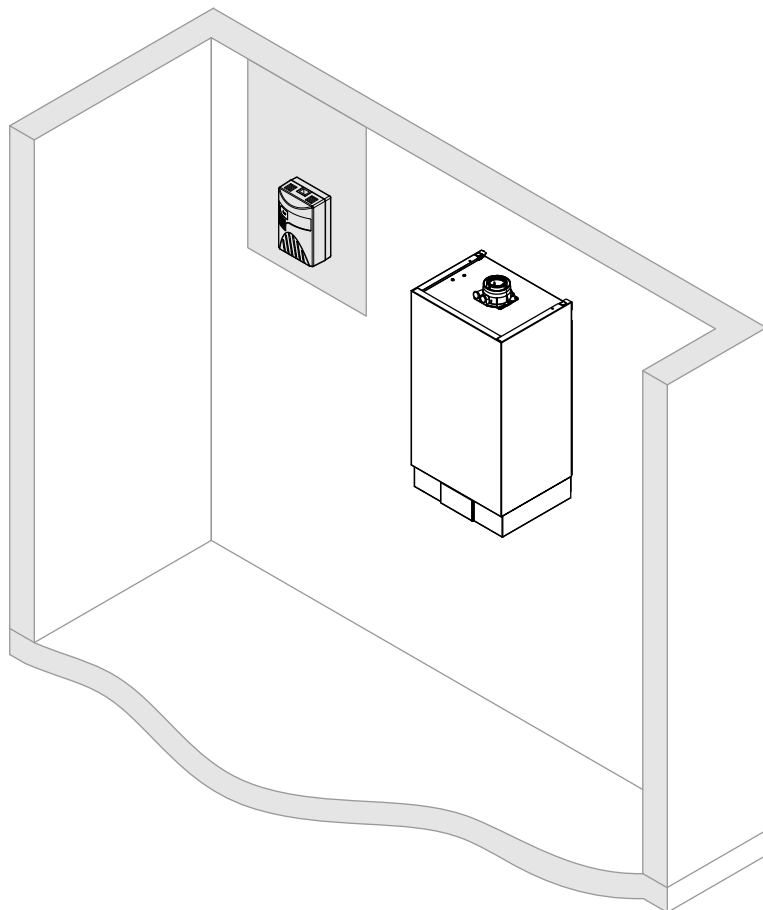
### Service life

Replace the CO detector after 10 years in operation.

For the replacement date, see "Replace by date" on the CO detector.

## Installation location

- In the vicinity of the appliance being monitored
- Close to the ceiling; carbon monoxide is lighter than air and therefore rises

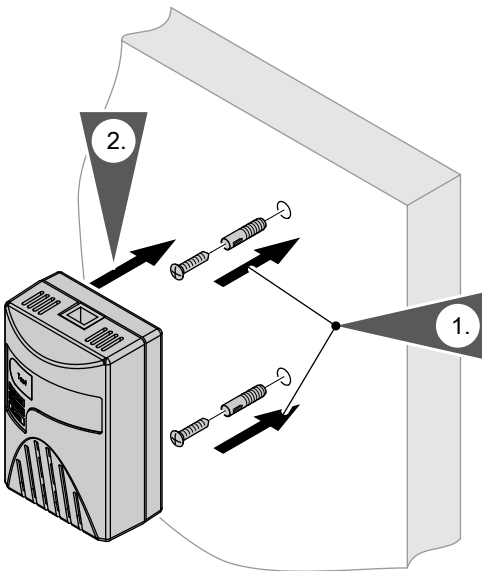


## Installation location (cont.)

Do **not** install the CO detector in the following areas:

- Places where an escape of gas could fail to trigger the alarm, e.g. behind curtains or in cupboards
- Places where water could be splashed or sprayed, e.g. above a washbasin
- Places of high humidity, e.g. next to a cooker
- In draughts caused by open windows, doors or air vents (ventilation or air conditioning)
- Areas where dust or dirt could cause the sensor to stop working
- In rooms where there is a risk of explosion

## Mounting the CO detector



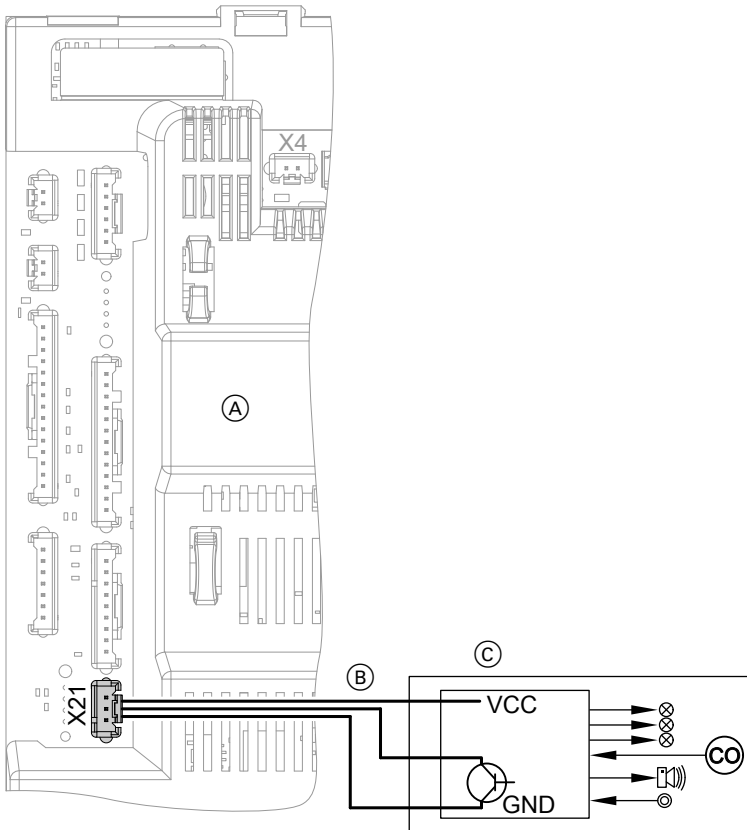
## Connecting the CO detector to the control unit



### Danger

Incorrect wiring can lead to serious injury from electrical current and result in appliance damage. Take the following measures to prevent wires drifting into the adjacent voltage area:

Route LV leads < 42 V separately from cables > 42 V/230 V~/400 V~ and secure with cable ties.



- (A) Vitotronic control unit main PCB
- (B) Connecting cable with plug (standard delivery)
- (C) CO detector



## Connecting the CO detector to the control unit (cont.)

1. Open the control unit enclosure.
2. Insert the CO detector plug into slot X21 on the main PCB.



Boiler installation and service instructions

## Starting the CO detector

Switch ON the power supply via the control unit.

All 3 LEDs will flash several times as the self-test is carried out. After it has been successfully completed, the green LED stays on constantly. The CO detector is ready for operation.

## Maintenance and function check

The CO detector is maintenance-free. Its function should be checked once a year by a contractor (see following chapter).

### Function test

1. Start the burner. Create a heat demand (emissions test mode).
2. Press and hold the Test button on the CO detector until the burner shuts down (max. 10 s).  
The yellow and red LEDs illuminate constantly whilst the test button is being held down. The acoustic warning signal sounds.  
When the Test button is being held down, the burner should shut down within 10 s.

#### **Note**

*The burner generally shuts down after approx. 3 s.*



## Maintenance and function check (cont.)

3. The function test can end once the burner shuts down. The CO detector is working correctly and is ready for operation.

### Note

*After the function test, the boiler restarts automatically. No fault message is shown.*

If the burner does not shut down within 10 s, check the connection to the control unit and replace the CO detector if necessary.

## Heating system maintenance

Regardless of whether a CO detector is fitted, service the heating system components in accordance with the installation and service instructions and check them for correct function.

## Specification

Rated voltage	24 V– from control unit
Alarm threshold	50 ppm CO to EN 50 291-1
Signal	PWM signal
Protection class	II
IP rating	IP 20 to EN 60 529
Service life	Approx. 10 years
Permissible ambient temperature	0 to +40 °C
Air humidity	Max. 90 % non-condensing
Acoustic alarm	85 dBA/1 m
Sensor	Electrochemical

## Declaration of Conformity

### CO detector


We, Viessmann Werke GmbH & Co. KG, D-35107 Allendorf, declare as sole responsible body that the named product complies with the provisions of the following directives and regulations:

## Declaration of Conformity (cont.)

2014/30/EU                      EMC Directive  
2014/35/EC                    Low Voltage Directive

### Applied standards:

EN 50270: 2015  
EN 50271: 2010  
EN 50291-1: 2010 + A1: 2012  
EN 60335-1: 2012 + AC: 2014  
EN 60730-1: 2011  
EN 61000-4-2: 2009  
EN 61000-4-3: 2006 + A1: 2008 + A2: 2010  
EN 61000-4-4: 2012  
EN 61000-4-6: 2014  
EN 61000-6-3: 2007 + A1: 2011 + AC: 2012  
EN 61508-2: 2010  
EN 61508-3: 2010

In accordance with the listed directives, this product is designated with 

Allendorf, 20 April 2016

Viessmann Werke GmbH & Co. KG



Authorised signatory Manfred Sommer



## Applicability

**Serial No.:**

7549937

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