

# Carbon Monoxide Alarm

Lithium Battery Powered



Wireless Interconnection

## Model Ei208WRF

- Wireless interconnection to RadioLINK Smoke, Heat and Carbon Monoxide (CO) alarms and accessories
- Proven Electrochemical sensor (7 year life)
- Lithium battery (sealed in)
- Easy to use large Test/Hush button
- Pre alarm LED gives early warning of CO
- Memory feature records if Carbon Monoxide (CO) has been detected
- End of life indicator
- Loud distinctive alarm sound (85db (A) at 3 metres)
- Power, alarm and fault indicator lights
- Kitemarked to BS EN50291-1:2010 BS EN50291-2:2010
- 5 Year Guarantee



## Product Description

The Ei208WRF is a RadioLINK Carbon Monoxide (CO) Alarm that is powered by a sealed-in Lithium battery.

The alarm has a high performance, proven electrochemical sensor to sense CO presence. The sensor is individually calibrated and tested in CO gas on assembly to ensure accuracy.

The alarm has RadioLINK interconnectivity which enables wireless transmission of a CO alarm condition to other RadioLINK alarms and accessories.

The alarm has a twist on mounting base which has multiple fixing points so it can easily be secured to a ceiling or wall.

The memory feature records the last CO level sensed and can be useful to check if CO has been present if the home owner or tenant has been absent from the property.

An easy to use Test/Hush button allows the user to test the alarm. This checks all aspects of the alarm (sensor, electronics and sounder).

The alarm has an 'End of life' indicator which will notify the user when the alarm needs replacing at the end of its seven year life.

## Operation

- When dangerous levels of CO are detected, the alarm will sound and the red alarm light will flash as detailed below:

CO Level	Red Light	Alarm
<43ppm	Off	Off
43-80ppm	1 flash every 2 sec	Sounds after 60-90 mins
80-150ppm	1 flash every sec	Sounds after 10-40 mins
>150ppm	2 flashes every sec	Sounds within 2 mins

- When in alarm state the unit will send a RadioLINK alarm signal to trigger other RadioLINK Smoke, Heat and CO alarms and accessories.
- The amber fault light will flash twice every minute with two beeps to indicate a fault with the sensor.
- The amber fault light will flash three times every minute with three beeps to indicate the unit is at the end of its life.
- The 'Test/Hush' button will either silence false alarms (if briefly pressed) or perform a unit self test (if pressed and held). Note that the alarm cannot be silenced when sensing a CO level of 150ppm or above.



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## Technical Specification

1. The CO Alarm carries the BSI Kitemark to indicate type testing to BS EN 50291-1:2010 and BS EN 50291-2:2010. It is CE marked to indicate conformance to BS EN 60335-1:1994, BS EN 50270:1999 Safety and Electromagnetic Compatibility Directives.
2. New generation electrochemical cell type Carbon Monoxide sensor checks CO concentration every 4 seconds. Each unit is calibrated and tested in CO gas in order to ensure accuracy.
3. Battery powered. Sealed in Lithium battery that will power the unit for its entire life (7 years). The amber fault light will flash three times every minute with three beeps to indicate that the unit needs replacing.
4. Start up sequence – the red, amber and green LEDs will flash once. Rapid warm up time – once this very short sequence has elapsed, the alarm is in full operation.
5. Low and high CO level indicators as follows:

CO Level	Red Light	Alarm
<43ppm	Off	Off
43-80ppm	1 flash every 2 sec	Sounds after 60-90 mins
80-150ppm	1 flash every sec	Sounds after 10-40 mins
>150ppm	2 flashes every sec	Sounds within 2 mins

6. Fault indicator – amber LED flashes twice and the alarm beeps twice every minute if a fault is detected.
7. Manual Test/Hush button – press and hold the Test/Hush button to test circuitry, sensor and sounder. LEDs will flash as below:  
Normal mode – Green LED flash with normal alarm sound  
Fault condition – Amber LED flash. Alarm will not sound  
End of life – Amber LED flash with beep
10. Pressing and releasing the Test/Hush button when the unit is sensing CO will silence the alarm for 4 minutes. It will only silence once until the gas clears. At CO levels of 150ppm and above the unit cannot be silenced due to the increased danger.
11. Memory feature which records the last CO level sensed. If the unit has been in alarm and then ceased, the red LED will continue to flash for a 24 hour period to indicate the level of CO sensed. Pressing the test button will also show the last CO level sensed, via the rate of flash of the red LED. As follows:

For 24 hours after the alarm has ceased	
CO Level Sensed	Red Light
43-80ppm	2 flashes every 50 sec
80-150ppm	4 flashes every 50 sec
>150ppm	8 flashes every 50 sec

When the test button is pressed	
CO Level Sensed	Red Light
43-80ppm	1 flash every 2 sec
80-150ppm	1 flash every sec
>150ppm	2 flashes every sec

12. Built in sounder to give a minimum output of 85dB(A) at 3 metres. Modulated sound output – 3 rapid pulses followed by a 1½ second pause, repeated until reset. This easily differentiates it from a typical smoke alarm.
13. Automatic reset of alarm test function and after an alarm state when CO gas clears.
14. Radio frequency (wireless) interconnection: 868 MHz band in accordance with R&TTE Directive 1999/5/EC – this band has been designated for use with security products and only allows a 1% duty cycle, so continuous transmission and interference from external sources is extremely remote, and would be illegal.
15. RF Range: the type of building will be the major limiting factor i.e. the number and type of walls/ceilings that the radio signal has to pass through. As a guide, 30m should be the maximum distance between any alarms in the system.
16. Up to 12 units can be installed on one system. For larger systems contact our Technical Service Department for guidance.
17. Units are in Factory Code when received (they will all communicate with each other). They must be 'House-Coded' to eliminate the risk of adjacent properties communicating with each other. After 'House-Coding' they will only communicate with other units coded at the same time.
14. Supplied with integral mounting base and fixing screws. The mounting base has multiple fixing holes and the alarm is suitable for ceiling or wall mounting.
15. Operating temperature range: -10°C to +40°C. 15% to 95% relative humidity (non-condensing).
16. Dimensions: 120mm x 105mm x 45mm. Weight: 180g.
17. 5 year guarantee.
18. Manufactured in Ireland.



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