

Optical Smoke Alarm

**Mains Powered 230V~ with
Battery Back-up**

Model Ei146RC

- Large volume Optical chamber sensor
- 9V Alkaline Battery back-up
- Easi-fit base
- Built in Test/Hush button
- Advanced suppression and calibration technology
- Interconnectable to other Ei mains powered alarms
- Memory Feature indicates if an alarm has been previously activated
- One person Test feature
- Low power cell warning
- Kitemarked to BS EN14604:2005
- 5 Year Guarantee



Product Description

The Ei146RC is an Optical Smoke Alarm that runs on 230V AC mains power, and has a 9V PP3 Alkaline Battery back-up capable of lasting up to 4 years in standby mode and capable of powering the alarm for up to 2 years without mains power.

The alarm gives a fire warning when adequate smoke enters the alarm.

The alarm is supplied with the Easi-fit base that allows very quick and simple installation of the smoke alarm, combined with simple alarm head removal and replacement. The Easi-fit base automatically connects both mains power and battery as the detector slides on.

The alarm can be controlled remotely by either a "Test, Silence and Locate" Switch (Ei1529RC) or a Manual Call Point (MCP401RC). If the alarm is connected to other Ei 'RC' mains powered alarms then the whole system can be controlled remotely. Up to 20 alarms can be interconnected.

The alarm has other advanced features such as built in circuitry to aid suppression of voltage transients and RF interference to further reduce the chances of false alarms under such conditions.

The alarm has a one person test feature which allows a person to test if the alarms are interconnecting. When releasing the test button, the other alarms in the system will continue to sound for a further 3 seconds so you can hear if they are linking.

The alarm has a memory feature which will indicate if an alarm has been previously activated within a 24 hour period by flashing twice every 40 seconds.

Operation

- The green indicator will illuminate to show mains power is present
- The red indicator will flash every 40 seconds to show that the alarm has performed an automatic self test
- The red indicator will flash rapidly to show an alarm condition for the alarm that has triggered
- The "Test/Hush" button will either silence false alarms (if briefly pressed) or to perform a self test (if pressed and held)
- In "Test" mode the alarm will perform a self test and sound the horn
- In "Hush" mode the alarm enters a ten-minute period of reduced sensitivity to overcome false alarm conditions. It will then automatically reset itself
- When interconnected to other Ei mains powered alarms, an alarm on one unit will trigger all other interconnected alarms (only the triggered alarm will flash a red indicator)
- The alarm will emit a beep every 40 seconds to indicate that the battery back-up is depleted and needs replacing



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We reserve the right to amend designs and specifications without prior notice.

Ei146RC DataSht Rev 1 05.12.13

Model Ei146RC

Technical Specification

1. The Smoke Alarm carries the BSI Kitemark to indicate type testing to BS EN14604: 2005. It will meet the requirements of Grade D (and exceed the requirements of Grades E and F) as defined in BS 5839: Pt.6: 2013. It carries the CE mark to indicate conformance to Low Voltage and Electromagnetic Compatibility Directives.
2. Optical (photoelectric) sensor with large volume chamber and large high sensitivity photodiode. Insect resistant fine mesh screen with holes less than 0.030 inches.
3. 230V AC Mains Power Supply with 9V Alkaline Battery standby supply capable of lasting up to 4 years in standby mode and capable of powering the alarm for up to 2 years without mains power.
4. Alarm is supplied with an 'Easi-fit' built-in surface mounting plate, with integral terminal block and cable cover. The Alarm connects to the mains and interconnect/control connections automatically as it slides on to the mounting plate. The Alarm disconnects from the mains and interconnect/control connections as it slides off the mounting plate, without the need for a lead and connector.
5. All mains wiring is covered by a cable cover so that the mains cable is not visible when the Smoke Alarm is removed from the ceiling, obviating the need for a ceiling pattress or dry lining box.
6. Encased horn assembly gives a minimum sound output of 85dB(A) at 3 metres. The diameter of the piezo disc in the sounder measures 35mm, and is securely held with silicone mastic to prevent creepage and premature horn failure. Additionally, soldered contacts are used in order to eliminate failures due to corrosion and arcing that are associated with commonly used pressure contacts.
7. Interconnection capability such that if one alarm sounds all interconnected alarms sound. Up to 20 RC alarms, ionisation, optical or heat can be interconnected in this way (along with up to 4 Ei1529RC switches) providing a relay is not used.
8. Automatic self-test feature tests the chamber every 40 seconds and unit beeps (without red LED flash) if it is degraded.
9. Manual integral test/hush button tests circuitry, sensor and horn and activates all interconnected alarms in the system. Also operates 'Hush' feature to silence nuisance alarms. Red LED on alarm cover will flash every 10 seconds to indicate that alarm is in 'Hush' mode and will automatically reset after approximately 10 minutes.
10. One Person Test feature – When the test button is pressed, all the alarms in the interconnected system will sound. When the test button is released, the alarm will stop sounding immediately, but the other alarms will continue to sound for a further 3 seconds. This gives an audible verification that the remote alarms are working on the interconnect.
11. Memory Feature – Indicates if an alarm has previously been activated. If previously activated the red LED will flash twice every 40 seconds. The memory will be cleared automatically after 24 hours or immediately by pressing and releasing the Test/Hush button.
12. Remote test facility via Ei1529RC Remote Control Switch to test circuitry, sensor and horn (red LED will flash rapidly) and to activate all interconnected alarms in the system. Remote alarm activation can also be achieved by using a manual call point MCP401RC. See separate specification sheets for more information on these options.
13. Remote 'Locate' facility via Ei1529RC Remote Control Switch to audibly identify source of alarm signal when system is sounding. All units except the alarm that has triggered and sent out the interconnect signal will be silenced.
14. Remote 'Silence' facility for false alarm control via Ei1529RC Remote Control Switch. Pressing the 'Silence Alarms' switch will silence nuisance alarms. Red LED on the alarm cover will flash every 10 seconds to indicate that alarm is in 'Hush' mode. Automatically resets in approximately 10 minutes.
15. Alarm has a RadioLINK wireless interconnect capability when used with an Ei168RC RadioLINK base. In this case other Radiolink products can be connected. Control via an optional wall-mounted Ei411H or Ei450 RadioLINK Remote Control Switch is also available.
16. Separate green LED mains indicator light on the alarm cover to confirm integrity of mains power supply.
17. Separate red LED on the alarm cover will flash every 40 seconds to indicate full auto test of circuitry and the rechargeable cells. The red LED will flash rapidly in alarm condition and flash once every ten seconds whilst the unit is in a de-sensitive (Hush) condition.
18. Low power cell warning signal operates with or without mains power present.
19. Anti tamper locking device prevents unauthorised removal of the alarm without the use of a tool.
20. Foam gasket built into 'Easi-fit' plate to prevent dust ingress into the rear of the alarm.
21. Ambient temperature range: 0°C to 40°C (32°F – 104°F). 0% to 95% (non-condensing) relative humidity.
22. Dust cover is fitted to the alarm to protect it from contamination during installation.
23. Supplied with two separate sets of instructions – one for the installer and one for the user.
24. Dimensions: 140mm dia. x 54mm depth.
25. Weight inclusive of packaging: 410g.
26. 5 Year Guarantee.
27. Manufactured in Ireland.



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Europe's Leader in Residential Fire + Gas Detection
Ei Electronics, Shannon, Ireland



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