

Optical Smoke Alarm

Mains Powered 230V~ with Rechargeable Battery Backup

Model Ei166RC

- Large volume Optical chamber sensor
- Tamper proof rechargeable Lithium battery back-up
- Easi-fit base
- Remote Control capability
- Built in Test/Hush button
- Advanced suppression and calibration technology
- Interconnectable to other Ei mains powered alarms
- Low power cell warning
- Kitemarked to BS EN14604:2005
- 5 Year Guarantee



Product Description

The Ei166RC is an Optical Smoke Alarm that runs on 230V AC mains power, and has built in tamper proof Lithium cells that act as a battery back up in the event of mains failure. These rechargeable Lithium cells are designed to have a ten-year life and outlast the life of the smoke alarm itself, whilst providing up to six months of smoke alarm operation without mains power.

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

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

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

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.

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 on 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 emit a full alarm sound
- In "Hush" mode the alarm enters a ten-minute period of reduced sensitivity to overcome false alarm conditions. It will then automatically reset
- When interconnected to other Ei mains powered alarms, if one alarm is triggered, it 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 recharging



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Ei166RC DataSht Rev1 08.11.10

Model Ei166RC

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: 2004. 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 built-in tamper proof Rechargeable Vanadium Pentoxide Lithium standby cells, capable of lasting at least 10 years and powering the alarm initially for at least 6 months in the event of mains power failure. The Lithium cell manufacturer endorses a minimum 10 year life expectation for the rechargeable cells.
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 bleeps (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. 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.
11. 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.
12. Remote 'Silence' facility for false alarm control via Ei1529RC Remote Control Switch. Pressing the 'Silence Alarm' 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.
13. 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 RadioLINK Remote Control Switch is also available.
14. Separate green LED mains indicator light on the alarm cover to confirm integrity of mains power supply.
15. 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.
16. Low power cell warning signal operates with or without mains power present.
17. Anti tamper locking device prevents unauthorised removal of the alarm without the use of a tool.
18. Foam gasket built into 'Easi-fit' plate to prevent dust ingress into the rear of the alarm.
19. Ambient temperature range: 0°C to 40°C (32°F - 104°F). 0% to 95% (non-condensing) relative humidity.
20. Identification label, "10YR+", on the alarm cover to differentiate between 140 and 160RC Series models.
21. Dust cover is fitted to the alarm to protect it from contamination during installation.
22. Supplied with two separate sets of instructions - one for the installer and one for the user.
23. Dimensions: 140mm dia. x 54mm depth. Weight inclusive of packaging: 380g.
24. 5 Year Guarantee.
25. Manufactured in Ireland.



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Europe's Leader in Residential Fire + Gas Detection
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