Multi-Sensor Alarm

MAINS POWERED 230V~
Remote Control Capability &
Rechargeable Battery Back-Up

Model Ei2110

- **Multiple sensor elements – optical and heat**
- **Unique dust compensation**
- **Comprehensive Indicating LEDs**
- **Remote Control capability**
- **Tamper-proof rechargeable Lithium battery back-up**
- **Low power cell warning**
- **Built-in Test/Hush button**
- **Easi-fit base**
- **Interconnectable to other Ei mains powered alarms**
- **Advanced suppression and calibration technology**
- **Kitemarked to BS EN14604:2005**
- **5 year guarantee**

Product Description

The Ei2110 is a Multi-Sensor Fire Alarm that contains two separate sensing elements – optical and heat. As the unit monitors two different byproducts of fire, its response to all fire types (e.g. fast flaming, slow smouldering etc.) is vastly improved over traditional single sensor alarms. Additionally, its resistance to false alarms is also increased. This is further enhanced by the unique dust compensation feature that automatically adjusts for any contamination within the optical sensor chamber.

The Ei2110 runs on 230V AC mains power and has built in tamper-proof rechargeable Lithium cells that act as a battery back-up in the event of mains failure. These rechargeable Lithium cells are designed to have a minimum ten-year life and outlast the life of the alarm itself. They provide up to six months alarm operation without mains power.

The E2110 also has **R**emote **C**ontrol capability - allowing the alarm to be controlled remotely from an Alarm Control Switch (Ei1529RC). This allows Alarm Test, Locate and Hush functions to be performed from floor level. If the Ei2110 is also interconnected to other Ei2110/Ei160RC series mains powered alarms, then the whole system can be controlled remotely. Up to twelve alarms can be interconnected which will cause all alarms to sound when one unit senses fire. A Manual Call Point (MCP401RC) is also available.

The Ei2110 is supplied with an Easi-fit base that allows quick and simple installation of the alarm, combined with simple alarm head removal and replacement. The Easi-fit base automatically connects both mains power and battery as the alarm head slides on.

The Ei2110 can also be fitted to an Ei168RC RadioLINK base to allow wireless interconnection of alarms and connection to additional RadioLINK devices.

Operation

- The green indicator will illuminate to show mains power is present

- The indicator will flash red to indicate the following:
  - flashes once every 40 seconds to show that the alarm has performed an automatic self test
  - flashes once every 10 seconds to indicate that the alarm is in reduced sensitivity or 'Hush' mode
  - rapidly flashes to indicate an alarm condition
  - gives a double flash every 40 seconds to indicate that the unit has previously triggered into alarm

- The indicator will flash amber to indicate the following:
  - flashes once every 40 seconds to indicate that the smoke sensing chamber needs cleaning
  - flashes once every 40 seconds along with a single beep if a sensor fault is detected

- Pressing and holding the "Test/Hush" button will result in the following:
  If in normal standby state – will perform a test on the alarm. This checks the sensors, electronics and sounder.
  If the unit has previously been in alarm – will cause the alarm to emit short beeps. This can aid in identifying the unit that has previously triggered the entire alarm system.

- Pressing and releasing the "Test/Hush" button when the unit is in alarm will silence the unit by reducing its sensitivity. The unit will automatically reset after 10 minutes

- When interconnected to other Ei mains powered alarms, an alarm on one unit will trigger all other interconnected alarms (only the triggered alarm will have a rapidly flashing red indicator)

Technical Specification

1. The Fire Alarm carries the BSI Kitemark to indicate type testing to BS EN 14604: 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. Multiple sensing elements - Optical (photoelectric) sensor with high sensitivity photodiode and welded insect resistant fine mesh screen coupled with a fixed temperature thermistor type heat sensor. Enhances fire sensing performance, when compared to single sensor alarms, whilst reducing nuisance alarms.

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. The cells are automatically monitored and the red LED will flash along with a single beep if the cells are low on power (this signal operates with or without mains power present)

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. All mains wiring is covered by a cable cover so that the mains cable is not visible when the Alarm is removed from the ceiling, obviating the need for a ceiling pattress or dry lining box.

5. 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.

6. Interconnection capability such that if one alarm sounds all interconnected alarms sound. Up to 20 Alarms (Ei2110/Ei140/Ei160RC Series) can be interconnected in this way providing a relay is not used.

7. Manual integral test/hush button
   - Press and hold to test circuitry, sensor, horn and activate all interconnected alarms in the system
   - Press and hold to check alarm memory – If unit has been into alarm state within the previous 24hrs, the alarm will emit short beeps when tested as opposed to the full alarm sound
   - Press and release to operate '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

8. Comprehensive indicating LEDs
   - Constant green LED to indicate mains power is present
   - Red LED will flash every 40 seconds to indicate full auto test of circuitry and the rechargeable cells
   - Red LED will flash rapidly when the unit is in an alarm state. The red LED will also give two flashes every 40 seconds to indicate the unit has been in an alarm state within the previous 24hrs
   - The amber LED will flash once every 40 seconds to indicate that the smoke sensing chamber is contaminated and requires cleaning
   - The amber LED will flash once every 40 seconds along with a single beep to indicate that there is a fault with one of the sensor elements

9. Unique dust compensation to vastly reduce false alarms due to contamination. The unit automatically monitors the contamination in the smoke sensing chamber and adjusts the alarm trigger threshold accordingly. In standby mode, the compensation is in 'slow state' whereas if the unit is initially powered up, the compensation is in 'fast state' – the unit will automatically find the correct threshold within 45 seconds.

10. Remote Test, Hush and Locate facility via Ei1529RC Remote System Control Switch
    - Test - to test circuitry, sensor and horn and to activate all interconnected alarms in the system
    - Locate - 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
    - Hush – to 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
    - 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. Alarm has a Radio-frequency interconnect capability when used with an Ei168RC RadioLINK base. In this case other RadioLINK products e.g. Ei170RF & Ei405TY can be connected. An optional Ei411H RadioLINK Remote Control Switch is also available.

12. Mounting plate has anti-tamper locking device to prevent unauthorised removal of the alarm without the use of a tool and also foam gasket to prevent air draughts and dust ingress into the rear of the unit

13. Ambient temperature range: 0°C to 40°C. 0% to 95% (non-condensing) relative humidity.

14. Dimensions: Diameter 147mm, Height 65mm

15. 5 Year Guarantee. Manufactured in the EC.

Ei2110 RevC