

# Radio Frequency Alarm

**BATTERY POWERED 9V**

RF Communication

**Model Ei3105RF Optical**

- RF wireless interconnect
- Unique house coding feature
- Visual RF transmission indicator
- High performance optical chamber with integral insect screen
- Test button
- Advanced suppression and calibration technology
- Radio transmitter and receiver in each alarm
- Built in auto self test feature
- Low power cell warning
- Kitemarked to BS EN 14604:2005
- 5 year guarantee



## Product Description

The Ei3105RF is an Optical Smoke Alarm that runs on 9V alkaline battery and is part of the Radio Frequency range of smoke alarms. The RF signal will wirelessly interconnect the Ei3105RF to other RadiolINK products

The Ei3105RF uses advanced radio transceiver technology with unique software coding to transmit and receive the radio signals. The transmissions are frequency modulated (FM) and use Manchester coding to ensure robust signal integrity and avoid signal noise interference

The Ei3105RF has other advanced features such as high performance optical chambers fitted with integral insect screens to reduce the chances of false alarms, as well as the ability to wireless interconnect up to twelve alarms to allow all alarms to sound if just one of the interconnected alarms should be triggered.

The Ei3105RF has built in circuitry to aid suppression of voltage transients and RF interference to further reduce the chances of false alarms under such conditions

## Operation

- The red indicator will flash every 40 seconds to show that the detector has performed an automatic self test
- In normal standby mode the amber indicator will light to indicate transmission of an RF signal
- In code mode, the amber indicator will flash to indicate the number of other RF alarms that have been "learned" in the system
- The red indicator will flash rapidly to show an alarm condition for the smoke detector
- The "Test/Hush" button will either silence false alarms or perform a unit self test
- In "Hush" mode the alarm enters a ten minute period of reduced sensitivity and the red light flashes every 10 seconds and then resets
- When interconnected to other Ei mains powered alarms, an alarm on one detector will trigger all other interconnected alarms within one second (only the triggered alarm will flash a red indicator)
- The smoke detector will emit a beep and the red light flashes every 40 seconds to indicate that the battery is depleted and needs to be changed



Shannon Free Zone, Shannon, Co. Clare, Ireland.  
Ph.+353 61 471277 Fx.+353 61 471053  
Email. [eielectronics@eiltd.ie](mailto:eielectronics@eiltd.ie)  
Web: [www.eielectronics.com](http://www.eielectronics.com)

## Model Ei3105RF Optical

### Technical Specification

<b>Sensor</b>	Optical, uses light scatter from smoke	<b>Power-On Indicator:</b>	Red light flashes every 40 seconds
<b>Sensitivity:</b>	Complies with BS 5446 Part 1: 2000	<b>Alarm:</b>	Electronic Piezoelectric horn
<b>Automatic Self-Test:</b>	Smoke Chamber is tested every 40 Sec. and unit beeps (without LED flash) if it is degraded.	<b>Alarm Sound Output:</b>	85dB (minimum) at 3m
<b>Supply Voltage:</b>	9V alkaline battery	<b>Alarm Status:</b>	Red LED flashes every second on unit sensing fire
<b>RF Range:</b>	150 meters (min) free space	<b>Temperature Range:</b>	0 <sup>o</sup> to 40 <sup>o</sup> C
<b>RF Visual Indicator:</b>	Amber light flashes continuously for 1.5 to 3.5 seconds while transmitting RF signal	<b>Humidity Range:</b>	15% to 95% Relative Humidity
<b>RF Frequency:</b>	868.499MHZ (1% duty cycle)	<b>Interconnect:</b>	Up to 12 RadioLINK products
<b>RF Power:</b>	+5dBm	<b>Plastic material:</b>	UL94HB flame retardant
<b>Dimensions:</b>	140mm x 120mm x 45mm	<b>Warranty:</b>	5 year (limited) warranty
<b>Weight:</b>	220g	<b>Approvals:</b>	Kitemarked to BS EN 14604: 2005, CE Approved

Specifications are subject to change

### Installation & Placement



Place the alarm on the ceiling/wall and mark the screw holes. Drill with a suitable drill bit, insert the screw plugs and screw the alarm into position. Simply connect the battery on the alarm and slide into position on the mounting plate.

The RF alarms should be house coded to prevent possible interference from neighbouring installations – see instructions for more details.

Alarms should be placed in accordance with the general guidelines shown in the diagram above. These recommendations are based on the problem of areas of "dead air" close to corners of rooms and apexes of ceilings, which could result in the prevention of smoke reaching the smoke detector

### House Code Procedure

1. Connect the battery
2. Press the house code switch until the amber light turns on and then release
3. Similarly, place other alarms into house code mode
4. Check that the number of amber flashes (on each alarm) corresponds to the number of alarms in your system
5. Remove all alarms from house code
6. Button test each alarm to check your system