

# Smoke Alarm

**MAINS POWERED 230V~**  
9V Alkaline Battery Back-Up

## Model Ei146 Optical

- Easi-Fit base
- 9V Alkaline Battery back up
- High performance optical chamber with integral insect screen
- Test/Hush button
- Advanced suppression and calibration technology
- Interconnectable to other Ei mains powered alarms
- Built in auto self test feature
- Low power cell warning
- Kitemarked to BS5446-1:2000
- 5 year guarantee



## Product Description

The Ei146 is an Optical Smoke Alarm that runs on 230V AC mains power, and has a 9V alkaline battery back up in the event of mains failure. The 9V battery will last for up to 4 years in standby mode, and capable of powering the smoke detector for up to 2 years in the event of mains failure.

The Ei146 is supplied with the Easi-Fit base that allows very quick and simple installation of the smoke alarm, combined with simple detector head removal and replacement. The Easi-Fit base automatically connects both mains power and battery as the detector head slides on to the Easi-Fit base.

The Ei146 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 interconnect up to twelve alarms to allow all alarms to sound if just one of the interconnected alarms should be triggered.

The Ei146 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 green indicator will illuminate to show mains power is present
- The red indicator will flash every 40 seconds to show that the detector has performed an automatic self test
- 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 "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, and will then automatically reset itself
- 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 flash the red light every 40 seconds to indicate that the battery back up is depleted and needs replacing



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

# Model Ei146 Optical

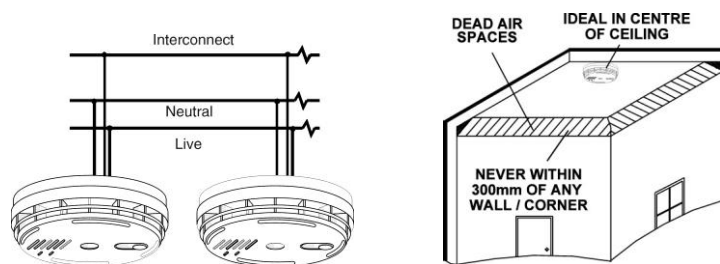
## Technical Specification

<b>Sensor</b>	Optical, uses light scatter from smoke	<b>Power-On Indicator:</b>	Continuous green LED
<b>Sensitivity:</b>	Complies with BS 5446 Part 1: 2000	<b>Alarm:</b>	Electronic Piezoelectric horn
<b>Source:</b>	Contains no radioactive material	<b>Alarm Sound Output:</b>	85dB (minimum) at 3m
<b>Airspeed:</b>	Essentially immune to the effect of airspeed.	<b>Alarm Status:</b>	Red LED flashes every second on unit sensing fire
<b>Button Test:</b>	Simulates the effect of smoke and checks chamber, electronics and horn.	<b>Temperature Range:</b>	0° to 40°C
<b>Ambient Light:</b>	Chamber housing design and compensation overcomes problems with stray light.	<b>Humidity Range:</b>	15% to 95% Relative Humidity
<b>Automatic Self-Test:</b>	Smoke Chamber is tested every 40 Sec. and unit beeps (without LED flash) if it is degraded.	<b>Interconnect:</b>	Up to 12 interconnected mains powered easi-fit smoke or heat alarms, along with an EI128 relay base
<b>Insect Screen:</b>	Prevents insects or debris entering chamber (1.00mm mesh size)	<b>Fixing:</b>	Easi-Fit mounting base
<b>Supply Voltage:</b>	230V AC	<b>Plastic material:</b>	UL94VO flame retardant
<b>Battery back up:</b>	9V Alkaline Battery	<b>Dimensions:</b>	152mm x 50mm depth
		<b>Weight:</b>	345g
		<b>Warranty:</b>	5 year (limited) warranty
		<b>Approvals:</b>	Kitemarked to BS5446-1:2000, CE Approved

Specifications are subject to change

## Installation & Placement

### Wiring for Interconnected Alarms



Be very careful about correctly wiring the alarms as mixing Live and Neutral will blow/damage interconnected alarms.

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

Please consult instruction booklet for specific installation details

### Important Precaution:

Do not install the actual smoke/heat alarm itself in new or renovated buildings until all work is completed (including floor coverings) and the building has been fully cleaned. The wiring can be installed when appropriate. (Excessive dust and debris from building work can contaminate the smoke chamber and cause problems, and it will also invalidate the guarantee). If it must be installed, cover it completely, particularly around the edges, with a dust cover (eg. a plastic bag), until all cleaning is finished.. Connect wires to the unit as in wiring diagram. All wiring must comply with local codes.

