

TECHNICAL SPECIFICATION EI146 Optical Smoke Alarm

- 1) The Smoke Alarm carries the BSI Kitemark to indicate type testing to BS 5446: Pt.1: 2000. It will meet and exceed the requirements of Grades D, E and F systems as defined in BS 5839: Pt.6: 2004. It carries the CE mark to indicate conformance to BS EN 60065:1994 Low Voltage, and BS EN 50081-1:1992 and BS EN 50082-1:1992 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 smoke alarm connects to the mains automatically as it slides on to the mounting plate. The smoke alarm disconnects from the mains 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. This obviates 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 40mm, 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) Alkaline battery is connected using a snap fit connector to ensure correct polarity. The battery is supplied pre-connected to obviate the risk of non-connection when installed. The circuit is not connected until the smoke alarm is fully attached to the mounting plate. The battery compartment is fitted with a 'battery missing device' which will not allow fitting of the alarm to the backplate if the battery is removed. Low battery warning signal operates with or without mains power present.
- 8) Interconnection capability such that if one alarm sounds all interconnected alarms sound. Up to 36 units, ionisation, optical or heat, can be interconnected in this way providing a relay is not used.
- 9) Automatic self test feature - chamber is tested every 40 seconds and unit beeps (without red LED flash) if degraded.
- 10) Manual integral test/hush button to test circuitry, sensor and horn and activate all interconnected alarms in the system. Also operates 'Hush' feature to silence nuisance alarms. Red LED will flash every 10 seconds to indicate that alarm is in 'hush' mode and will automatically reset after approximately 10 minutes.
- 11) Separate green LED mains indicator light to confirm integrity of mains power supply.
- 12) Separate red LED will flash every 40 seconds to indicate full auto test of circuitry. 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.
- 13) Anti tamper locking device prevents unauthorised removal of the alarm without the use of a tool.
- 14) Foam gasket built into the surface mount plate to prevent dust ingress into the rear of the unit.
- 15) Ambient temperature range: 0°C to 40°C (32°F - 104°F). 0% to 95% (non-condensing) relative humidity.
- 16) Dust cover is fitted to the alarm to protect it from contamination during installation.
- 17) Supplied with two separate sets of instructions - one for the installer and one for the user.
- 18) Dimensions: 140mm dia. x 54mm depth.
- 19) Weight inclusive of packaging: 376g.
- 20) 5 Year Guarantee.

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