

Domestic Smoke Alarms

There were 485 fire deaths in 2005. About 90% of UK fire deaths occur in homes; the death rate in homes where there are no smoke detectors is three times the rate of homes where there are smoke detectors. Fitting smoke detectors in the home saves lives.

In 2005 British Insurers paid out £790 million in commercial fire claims. The average cost of a fire in a commercial building is £44,000; £27,000 of which is building damage costs and £17,000 'business continuity' costs. Fitting fire alarms in commercial properties can save money.

This document explains domestic fire warning appliances; please contact us to discuss commercial fire warning systems.

Domestic Smoke Alarms

There are three types of smoke alarm:

- **Ionisation** smoke alarms – these are the most popular smoke alarms. Ionisation smoke alarms are most sensitive to 'flame fires' such as paper, wood and chip pan fires.
- **Optical (Photosensitive) smoke alarms** – optical fire alarms are most sensitive to 'smouldering fires' that produce dense smoke such as upholstery fires.
- **Combined smoke alarms** – these are equally effective at detecting both types of fires – 'flaming fires' and 'smouldering fires'.

All smoke alarms will detect both 'flaming fires' and 'smouldering fires' it is just that different types of alarm are better at detecting either 'flame fires' or 'smouldering fires'.

Smoke alarms can be battery or mains powered. Battery powered smoke alarms are easy to fit; battery powered smoke alarms can be fitted by the householder. Mains powered alarms are more difficult to fit; a qualified electrician should fit a mains powered smoke alarm.

Optical smoke alarms are the cheapest battery powered alarm to buy starting at about £7.50, optical smoke alarms start at about £10, combined smoke alarms are the most expensive at about £30.

Mains powered alarms are more expensive, a rule of thumb is to double the price of battery powered smoke alarms. Add the cost of fitment of the mains powered smoke alarm to the overall cost.

What type of smoke alarm should I install? You must ask 'what type of fire is most likely?' Then fit the correct type of smoke alarm.

How many alarms should I install? Fit one smoke alarm on each floor of the home for minimum protection; fit one smoke alarm in each room, besides the bathroom, kitchen and garage, for maximum protection.