

DOMESTIC SMOKE ALARMS

Emma Warren

Smoke alarms in homes can save lives, are easy to use and are inexpensive. If correctly specified, installed and maintained, they will give an early warning of fire that can allow occupants to safely escape, while nuisance alarms are minimised.

This Information Paper provides guidance on the different types of smoke alarm available, and on correctly specifying, locating, installing and maintaining fire detection and alarm systems. It reviews a number of the recommendations given in relevant regulatory guidance, as well as the use of third-party-approved fire detection and alarm products and installers.

The information provided will be of particular interest to UK house builders, building control officers, specifiers, manufacturers, building owners and the fire and rescue services, and may also be of use to similar professionals in other countries – subject to local code or national legislative requirements.

INTRODUCTION

The number of UK homes fitted with smoke alarms has risen from just 8% in 1988 to 91% in 2008^[1], as a result of the changes to the Building Regulations Approved Document B – Fire Safety^[2] in 1992.

This has led to a dramatic reduction in deaths and injuries from household fires, but there are still more than 200 deaths and some 7500 injuries from the 36,000 dwelling fires attended by fire and rescue services every year^[3]. Many of these casualties could be avoided if people had early warning of fire and were able to escape in time.



Smoke alarms that are appropriately selected, located, fitted and maintained can dramatically improve fire safety in homes

A suitably specified, located and maintained smoke alarm can provide this warning by detecting smoke in the early stages of the fire and sounding an alarm. UK fire statistics show that you are almost twice as likely to die in a domestic fire where there is no working smoke alarm as you are where one is present^[3].

TYPES OF SMOKE ALARM

Domestic smoke alarms are simple, self-contained but often interconnected units, incorporating a smoke detector, power source and alarm sounder.

Smoke detectors

There are two types of smoke alarm in common use: one is fitted with an ionisation smoke detector, the other with an optical or photoelectric detector.