

# RESIDENTIAL SPRINKLERS FOR FIRE PROTECTION

## Part 1: Introduction

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Automatic fire sprinkler systems are increasingly being installed to complement other fire protection measures in domestic and residential buildings in the UK. This two-part Digest introduces the subject and gives guidance on installing sprinklers in accordance with BS 9251 (*Sprinkler systems for residential and domestic occupancies – Code of practice*).

This first part of the Digest provides information on residential sprinklers for non-specialists. It covers a wide range of issues: background; research and development studies; description and how the sprinkler systems work; current UK standards; planning, specification, design, installation, commissioning, maintenance and system continuity issues; and use of certified contractors and approved products. It also gives references, further reading and where to obtain further information.

Part 2 provides a detailed commentary on BS 9251. Part 2 is aimed primarily at sprinkler contractors in the LPCB LPS 1301 scheme and other interested parties.



### Glossary of terms

#### **Dwellings**

Buildings occupied by households, excluding hotels, hostels and residential institutions and including mobile homes

#### **Domestic buildings**

Individual dwellings for occupation as single family units used, constructed or adapted to be used wholly or principally for human habitation. This includes dwelling houses, individual flats, maisonettes and transportable homes

#### **Residential buildings**

Buildings for multiple occupation. This includes apartments, residential care homes, houses in multiple occupation (HMOs), blocks of flats, boarding houses, nursing homes, residential rehabilitation accommodation and dormitories. This does not include secure accommodation or asylum centres

#### **Residential sprinkler systems**

Fixed, automatic fire sprinkler systems suitable for use in domestic and residential buildings

## 1 INTRODUCTION AND BACKGROUND

### Consequences of fires in dwellings

According to UK fire statistics<sup>[1]</sup>, each year most fires in buildings attended by local authority fire and rescue services are fires in dwellings, and most fire deaths and injuries occur as a result of people being overcome by smoke or toxic gases. Accidental fires which result in deaths in dwellings most frequently start in rooms defined as 'the lounge, living or dining room' followed by rooms defined as 'the bedroom or bed sitting room'.

