

# RESIDENTIAL SPRINKLERS FOR FIRE PROTECTION

## Part 2: Installation

Corinne Williams

This is the second part of a two-part Digest. Part 2 is a guide to BS 9251 (*Sprinkler systems for residential and domestic occupancies – Code of practice*). The guide clarifies, amplifies and provides additional requirements to BS 9251. It also includes the need for full hydraulic calculations in preparing the design, and the water supply requirements, and clarifies when BS EN 12845 should be used in preference to BS 9251 because of the building occupancy and hazards to be protected.

Part 2 is aimed primarily at sprinkler contractors approved in the LPCB LPS 1301 certification scheme but will also be of relevance to other interested parties.

Part 1 provides an introduction to residential sprinklers for non-specialists including the reasons for, and the benefits of, installing a domestic or residential sprinkler system.

---

### 1 INTRODUCTION

BS 9251 (*Sprinkler systems for residential and domestic occupancies – Code of practice*)<sup>[1]</sup> provides recommendations for the design, installation and maintenance of domestic and residential sprinkler systems but this standard is not comprehensive. An accompanying guide is needed to interpret BS 9251 and make it more useable.

The commercial and industrial sprinkler standard BS EN 12845 (*Fixed firefighting systems – Automatic sprinkler systems – Design, installation and maintenance*)<sup>[2]</sup> and the accompanying *LPC rules for automatic sprinkler installations*<sup>[3]</sup> can also be used for residential buildings depending on the circumstances.



The LPS 1301 certification scheme<sup>[4]</sup> is a third-party certification scheme for residential sprinkler installers in the UK and Ireland, operated by the Loss Prevention Certification Board (LPCB) and applicable to domestic and residential buildings. This scheme is aimed at helping clients select companies to design, install and service domestic and residential sprinkler systems to BS 9251 to ensure that the sprinkler systems are appropriate for occupancy and/or hazard class of the premises in which they are installed and will operate reliably in the event of a fire.

This Digest is primarily for sprinkler contractors approved in the LPCB LPS 1301 certification scheme. It will also be of relevance to other interested parties.

This Digest provides guidance on how to design, install and maintain automatic domestic and residential sprinkler systems in relation to BS 9251. It does not cover sprinkler systems designed to other sprinkler standards, eg BS EN 12845. It is not relevant to other sprinkler contractor certification schemes, eg LPCB LPS 1048-1<sup>[5]</sup>.

It is intended that this Digest will be updated periodically, and particularly when BS 9251 is revised.