



Expert commentary

BS 5839-1:2017 — *Fire detection and alarm systems for buildings — Part 1: Code of practice for design, installation, commissioning and maintenance of systems in non-domestic premises*

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Summary

In March 2013 BSI published the current version of BS 5839-1, the code of practice for the design, installation, commissioning and maintenance of fire detection and fire alarm systems installed in non-domestic premises. This replaced the previous code, BS 5839-1:2002 (with amendment A2 published in 2008), which was then withdrawn.

The 2013 edition of BS 5839-1 was not a full revision and, although some significant and important changes were introduced, Technical Committee discussions during 2015 lead to the decision that a full revision of the code was now due. This revision work started in January 2016 and the DPC stage was reached in December 2016

As a code of practice, BS 5839-1 takes the form of guidance and recommendations. It should not be quoted as if it were a specification and care should be taken to ensure that claims of compliance are not misleading. All users claiming compliance with this British Standard are expected to be able to justify any course of action that deviates from its recommendations.

The BS 5839-1:2017 code of practice is subdivided in several Sections, each one dealing with specific aspects of the design and installation of the fire detection and fire alarm system up to the time it is ready to enter operation. There are seven Sections as follows:

1. **General** gives the scope of the document, normative references and terms and definitions. This section also explains why a fire detection and fire alarm system may be needed and the type of systems available. It provides several categories of systems which can be used by designers to suit specific cases. It defines the exchange of information which is needed between the parties involved and stipulates when and how variations to recommendations may be adopted when the main recommendations cannot be complied with.
2. **Design considerations** re-groups all items which need to be considered during the system design stage. This includes relating the system categories and areas that are protected and assessing the subdivision of a system in detection zones and alarm zones. More specifically, design considerations address specific issues leading to the selection of the correct type of fire detection and audible and visual alarms, as well as the specific type of control and indicating equipment and power supply equipment which should be used. It also makes recommendations on network systems and radio-linked systems
3. **Limitation of false alarms and unwanted fire alarm signals** recognizes that false alarms can seriously prejudice the safety of occupants by reducing their trust in any future alarms and that unwanted fire alarm signals can waste precious resources in the fire and rescue service. Responsibilities for the limitation of such false alarms and unwanted fire alarm signals are clearly established and tools are given for use by those responsible to achieve the recommended limitation.
4. **Installation** establishes the responsibilities of the installer and recommends best practices and workmanship as well as giving recommendations for the inspection and testing of the system wiring.
5. **Commissioning and handover** specifies the process involving thorough testing of the installed system to ensure that it operates correctly in accordance with the recommendations of this standard and with the specification. It specifies documentation and records which must be made available before the system hand-over to the purchaser for acceptance.
6. **Maintenance** is a critical and essential activity for ensuring the long-term reliability of the installed fire detection and fire alarm system. This section specifies the test and verification process to be carried out by the user or routine testing by a third-party inspection and servicing organization. It also gives guidance and recommendations for dealing with modifications with the system.
7. **User's responsibilities** specify the need for the user to appoint a single, named member of the premises management to supervise all matters pertaining to the fire detection and fire alarm system, including the maintenance of records in a logbook.

Two normative and five informative annexes are included that provides supplementary information to support several aspects covered by the code. They include:

Annex A (informative)

Choice of appropriate category of fire detection and fire alarm system

Annex B (informative)

Typical noise levels in buildings

Annex C (normative)

Control and transmission equipment for tactile alarm devices provided for people with impaired hearing systems