

Active Fire Precautions

When and Where are they needed?

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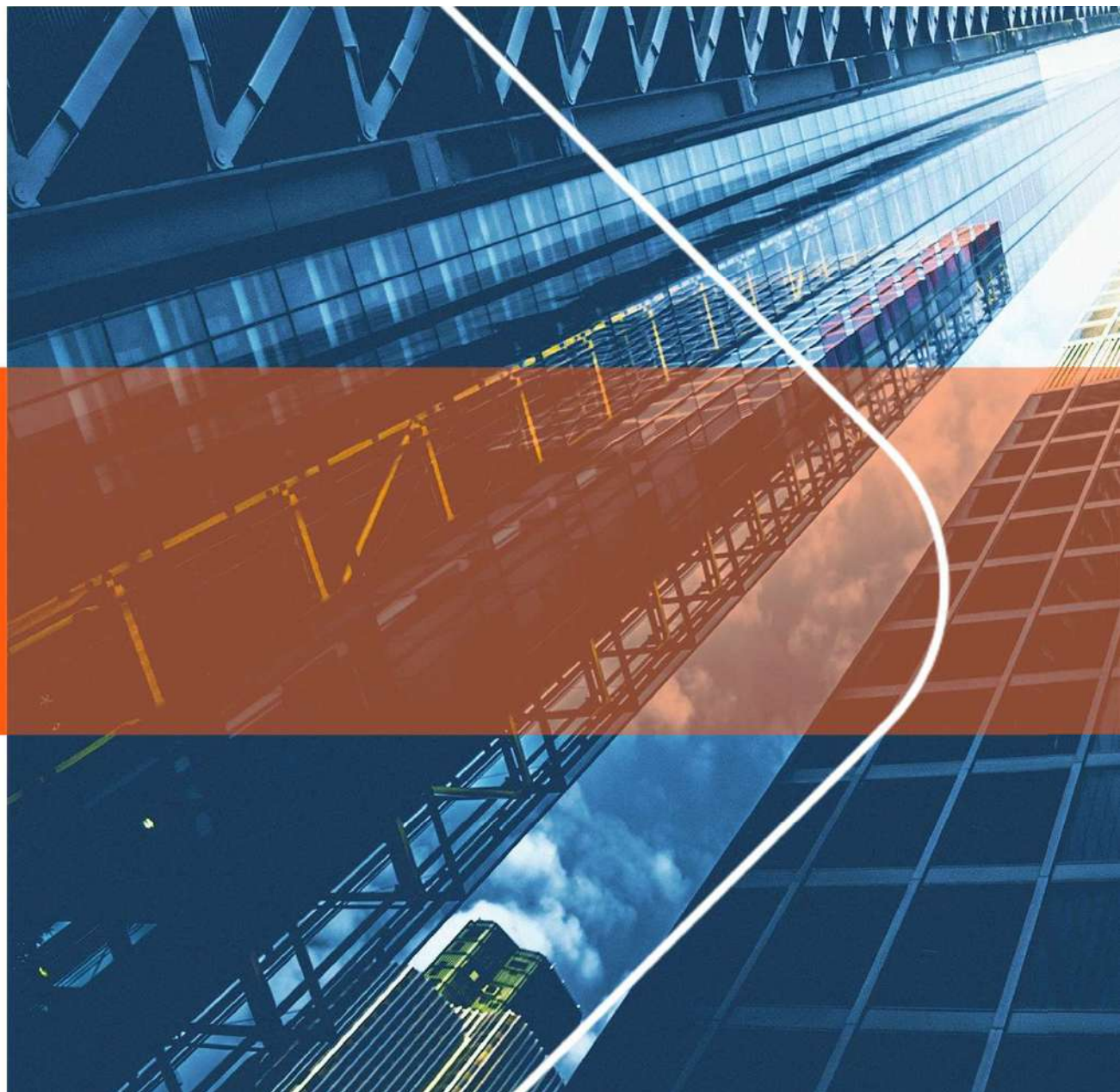
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- Automatic Fire Detection
- Emergency lighting
- Water Suppression systems
- Fire Curtains

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Automatic Fire Detection

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- General requirements of a system
- Main types of Detector
- The different types of system available
- The appropriate system for types of building

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The main Automatic Detection methods

Optical - infrared light to detect smoke particles
Good for circulation spaces and smouldering fire - ie furniture /bedding. Less sensitive to quick burning kitchen fires

Ionisation - tiny source of radiation to detect smoke
*Good for fast burning fires ie living rooms dining rooms
Can be more sensitive and operated by false alarms*

**Heat
Aspirating
Flame**

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10 Types of fire detector and their selection

10.1 Commentary

10.1.1 General

Fire detectors are designed to detect one or more of four characteristics of a fire, namely smoke, heat, combustion gas (normally carbon monoxide) and flame. These characteristics can be detected in various ways. No single type of detector is the most suitable for all applications and the final choice on individual circumstances. Particularly in the case of Category LD2 and LD1 systems, it can be appropriate to use a mixture of types of detector.

All fire detectors will respond to some extent to phenomena other than fire. Recommendations for reducing the incidence of such false alarms are given in Clause 12.

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Domestic guidance

BS9991, ADB vol. 1 and BS5839 part 6

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BS 5839-6:2019+A1:2020



BSI Standards Publication

Fire detection and fire alarm systems for buildings

Part 6: Code of practice for the design, installation,
commissioning and maintenance of fire detection and fire
alarm systems in domestic premises

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Residential

New build dwellings

Loft conversions/extensions

Within apartments (Stay put policy?)

Common areas?

HIMO's

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System Categories

Coverage and level of detection – Life Safety



LD1 – High Protection

- All areas where a fire could start, e.g.:
- Hallways
- Landings
- Living Room
- Kitchen
- Bedrooms
- Airing cupboards/
Meter cupboards



LD2 – Medium Protection

- Escape routes and high risk areas, e.g.:
- Hallways
- Landings
- Living Room
- Kitchen



LD3 – Minimum Protection

- Escape routes, e.g.:
- Hallways
- Landings



<https://www.londonbuildingcontrol.co.uk/ld1-ld3/>

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Categories of system

Category PD: a fire detection and fire alarm system intended for the protection of property.

- **Category PD1:** a system installed throughout the premises, incorporating detectors in all rooms and areas in which fire might start, other than toilets, bathrooms and shower rooms;
- **Category PD2:** a system incorporating detectors only in defined rooms or areas of the premises in which the risk of fire to property is judged to warrant their provision.

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System Grades

Grade relates to the engineering components of the system. It's about reliability and availability!



The grades are defined as follows.

- *Grade A: A fire detection and fire alarm system, which incorporates CIE conforming to BS EN 54-2 and power supply equipment conforming to BS EN 54-4, and which is designed and installed in accordance with all the recommendations of BS 5839-1:2017, Section 1 to Section 4 inclusive, except those in the following clauses, for which the corresponding clauses of this part of BS 5839 need to be substituted.*
- *Grade C: A system of fire detectors and alarm sounders (which may be combined in the form of smoke alarms) connected to a common power supply, comprising the normal mains and a standby supply, with central control equipment.*
- *Grade D1: A system of one or more mains-powered detectors (see [3.12](#)), each with a tamper-proof standby supply consisting of a battery or batteries (see [3.62](#)).*
- *Grade D2: A system of one or more mains-powered detectors (see [3.12](#)), each with an integral standby supply consisting of a user-replaceable battery or batteries.*

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Means of early warning – AD compliant



General provisions

- 1.1 All **dwelling**s should have a fire detection and alarm system, minimum Grade D2 Category LD3 standard, in accordance with the relevant recommendations of **BS 5839-6**.
A higher standard of protection should be considered where occupants of a proposed **dwelling** would be at special risk from fire. Further advice on this is also given in **BS 5839-6**.
- 1.2 Smoke alarms should be mains operated and conform to **BS EN 14604**.
- 1.3 Heat alarms should be mains operated and conform to **BS 5446-2**.
- 1.4 Smoke and heat alarms should have a standby power supply, such as a battery (rechargeable or non-rechargeable) or capacitor. More information on power supplies is given in clause 15 of **BS 5839-6**.

NOTE: The term 'fire alarm system' describes the combination of components for giving an audible and/or other perceptible warning of fire.

NOTE: In this document, the term 'fire detection system' describes any type of automatic sensor network and associated control and indicating equipment. Sensors may be sensitive to smoke, heat, gaseous combustion products or radiation. Automatic sprinkler systems can also be used to operate a fire alarm system.

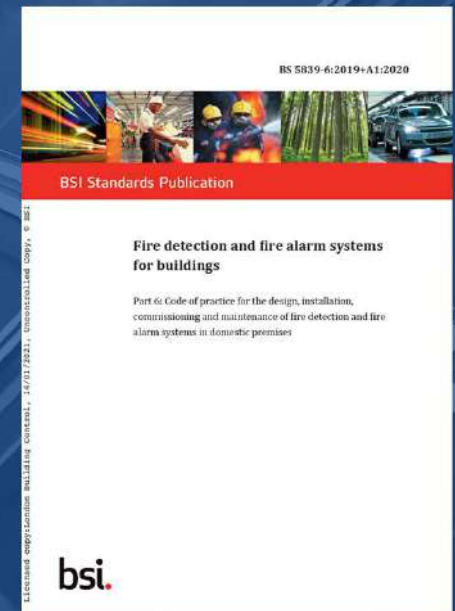
Reference to BS 5839 Part 6

Grade D2 = mains powered with standby supply

Category LD3 = Detectors in circulation spaces only

Large dwellinghouses

- 1.5 A large **dwellinghouse** has more than one **storey**, and at least one **storey** exceeds 200m².
- 1.6 A large **dwellinghouse** of two **storeys** (excluding **basement storeys**) should be fitted with a Grade A Category LD3 fire detection and alarm system, as described in **BS 5839-6**.
- 1.7 A large **dwellinghouse** of three or more **storeys** (excluding **basement storeys**) should be fitted with a Grade A Category LD2 fire detection and alarm system as described in **BS 5839-6**.



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Enhanced Detection – Material Alterations



Will it make a difference that can be quantified/documentated in some way?



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Automatic Fire Detection BS5839-6

Table 1 — Minimum grade and category of fire detection and fire alarm system for protection of life in typical premises

Class of premises	Minimum grade and category of system for installation in:			
	New or materially altered premises		Existing premises	
	Grade	Category	Grade	Category
Single-family dwellings ^{A)} and shared houses ^{B)} with no floor greater than 200 m² in area				
Owner-occupied ^{C)} bungalow, flat or other single-storey unit	D2	LD2 ^{D)}	F2 ^{E), F), G)}	LD3 ^{F), G), H)}
Rented bungalow, flat or other single-storey unit	D1	LD2 ^{D)}	D1	LD2 ^{D)}
Owner-occupied ^{C)} maisonette with no floor above 4.5 m from ground level or owner-occupied two-storey house	D2	LD2 ^{D)}	F2 ^{E), F), G)}	LD3 ^{F), G), H)}
Rented maisonette with no floor above 4.5 m from ground level or rented two-storey house	D1	LD2 ^{D)}	D1	LD2 ^{D)}
Rented maisonette with any floor above 4.5 m from ground level and with alternative means of escape	D1	LD2 ^{D)}	D1	LD2 ^{D)}
Any maisonette with any floor above 4.5 m from ground level and no alternative means of escape	D1	LD1	D1	LD1
Owner-occupied ^{C)} three-storey house	D2	<u>LD2 ^{D)}</u>	F2 ^{E), F), G)}	LD2 ^{D)}
Rented three-storey house	D1	LD2 ^{D)}	D1	LD2 ^{D)}
Owner-occupied ^{C)} four- (or more) storey house	A	LD2 ^{D)}	D2 ^{I)}	LD2 ^{D)}
Rented four- (or more) storey house	A	LD1 ^{I)}	D1	LD1 ^{I)}

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Automatic Fire Detection BS5839-6

Table 1 (continued)

Class of premises	Minimum grade and category of system for installation in:			
	New or materially altered premises		Existing premises	
	Grade	Category	Grade	Category
Houses in multiple occupation ^{(K), (L)} (HMOs)				
HMOs of one or two storeys with no floor greater than 200 m ² in area	D1	LD1 ⁽¹⁾	D1	LD2 ⁽²⁾
Other HMOs:				
Individual dwelling units, within the HMO, comprising a single room, which include cooking facilities (bedsits)	D1 ⁽³⁾	LD1 ^{(1), (3)}	D1 ⁽³⁾	LD1 ^{(1), (3)}
Individual dwelling units, within the HMO, comprising a single room, which do not include cooking facilities (bedsits)	D1 ⁽³⁾	LD1 ⁽¹⁾	D1 ⁽³⁾	LD1 ⁽¹⁾
Individual dwelling units, within the HMO, comprising two or more rooms	D1 ⁽³⁾	LD2 ⁽²⁾	D1 ⁽³⁾	LD2 ⁽²⁾
Communal areas of the HMO	Grade A, Category LD2, with detectors sited in accordance with the recommendations of BS 5839-1:2017 for a Category L2 system ⁽¹⁾			
Sheltered housing ^(P)				
Individual dwelling units	D2	LD1 ⁽¹⁾	D2	LD2 ⁽²⁾
Communal areas	Grade A in accordance with the recommendations of BS 5839-1:2017 for a Category L4 or L5 system ⁽³⁾			

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Non-domestic premises system grades and level of coverage

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BS 5839-1:2017
Incorporating Corrigendum No.1



BSI Standards Publication

Fire detection and fire 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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Categories of system



- **Category M** – Manual fire alarm system
- **Category L1** – Maximum life protection automated system
- **Category L2** – Additional life protection automated system
- **Category L3** – Standard life protection automated system
- **Category L4** – Modest life protection automated system
- **Category L5** – Localised life protection automated system
- **Category P1** – Maximum property protection automated system
- **Category P2** – Minimum property protection automated system.

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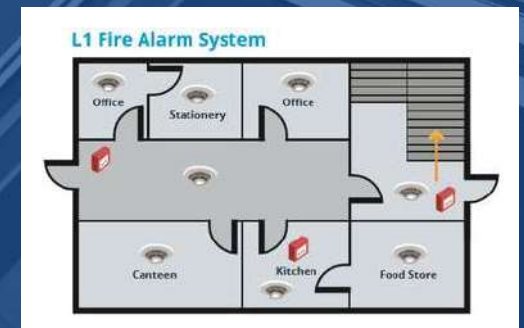


Non-domestic

Phased Evacuation?

Total Evacuation?

Mixed use buildings



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Table A.1 — *Choice of appropriate category of a fire detection and fire alarm system*

Type of premises	Typical category of system	Comments
Common places of work, such as offices, shops, factories, warehouses and restaurants	M or P2/M A or P1/M	Category M system normally satisfies the requirements of legislation. It is, however, often combined with a Category P system to satisfy the requirements of insurers, as company policy for protection of assets, or to protect against business interruption.
Hotels, hostels, student accommodation, houses in multiple occupation and similar premises with sleeping accommodation	L1 or L2	In bedroom areas, the design requirements are usually based on the recommendations for a Category L3 system. Detectors are, however, typically installed in most other rooms and areas, as a fire in almost any area of the building could pose a threat to sleeping occupants; the system category is, therefore, at least L2. In practice, few, if any, areas are left unprotected and the system category is effectively L1, except that a variation from the recommendations applicable to a Category L1 system might apply to the siting of heat, smoke or carbon monoxide detectors in bedrooms; this often follows the recommendations of 22.3e) for detectors in a Category L3 system.

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Large public houses (No residential accommodation)	M	-
Public houses with residential accommodation	L2	-
Schools, other than small single-storey schools with less than 160 pupils	M or M/P2 or M/P2/L4 or M/P2/L5	System category is normally based on a fire risk assessment. In many schools, a Category P system is installed to combat the hazard of arson. In schools that are partly occupied at certain times (e.g. during evening classes or community use), a Category L4 or L5 system is sometimes considered appropriate.
Hospitals	L1 (with possible minor variations)	Detailed guidance on areas to be protected and possible variations is given in HTM 05-03 Part B [N1] (in England and Wales) or SHTM 82 [N26] (in Scotland).

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Risk Profiles – BS9999

Table 4 Risk profiles

Occupancy characteristic (from Table 2)	Fire growth rate (from Table 3)	Risk profile
A (Occupants who are awake and familiar with the building)	1 Slow	A1
	2 Medium	A2
	3 Fast	A3
	4 Ultra-fast	A4 ^{A)}
B (Occupants who are awake and unfamiliar with the building)	1 Slow	B1
	2 Medium	B2
	3 Fast	B3
	4 Ultra-fast	B4 ^{A)}
C (Occupants who are likely to be asleep)	1 Slow	C1 ^{B)}
	2 Medium	C2 ^{B)}
	3 Fast	C3 ^{B), C)}
	4 Ultra-fast	C4 ^{A), B)}

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Automatic Fire Detection – BS9999

Table 7 Minimum level of fire detection and fire alarm system for premises

Risk profile	Minimum acceptable detection and alarm system
A1	M
A2	M
A3	L2
A4 ^{A)}	Not applicable ^{A)}
B1 ^{B)}	M
B2 ^{B)}	M
B3 ^{B)}	L2
B4 ^{A)}	Not applicable ^{A)}
Ci1	Automatic fire detection in individual units
Ci2	Automatic fire detection in individual units
Ci3 ^{A)}	L3
Cii1	L2
Cii2	L2
Cii3 ^{A)}	L1
Ciii1	L1
Ciii2	L1
Ciii3 ^{A)}	L1
C4 ^{A)}	Not applicable ^{A)}

NOTE Type M, L3, L2 and L1 systems are defined in BS 5839-1:2013.

^{A)} See Table 4.

^{B)} In some circumstances where people are in an unfamiliar building the provision of a voice and/or visual alarm system can help reduce evacuation time (see 18.2).

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Automatic Fire Detection selection

Table E.2 — Example fire risks

Fire phenomenon	Example fire(s)	Ionization detection	Optical (scatter) detection	CO detection	Heat detection	Flame detection	Typical multi-sensor detection e.g. optical-heat ^A	Typical multi-sensor detection e.g. optical-heat-CO ^A
Smouldering white smoke	Smouldering electrical fire	**	****	*	*	*	****	****
	Smouldering wood	***	****	****	*	*	****	****
Smouldering dark smoke	Smouldering furnishings	**	***	****	*	*	****	****
Smouldering changing to flaming	Waste paper bin to fire	****	****	**	**	***	****	****
Flaming (clean burn)	Burning solvents	*	*	*	***	****	***	****
Flaming (dirty)	Burning oils	**	***	**	***	****	****	****

Key to fire hazard detection: very good = ***** good = **** moderate = *** poor = ** very poor = *

^A Multi-sensor detector responses could be a combination of the single-sensor responses, but the behaviour of a multi-sensor is dependent on the manner in which the sensors are combined within the detector. The combination of sensors within a multi-sensor detector could provide an enhancement to performance overall and cannot be considered to be the linear sum of the individual sensor responses. The response of multi-sensors is not common across all detector manufacturers due to differences in construction and internal algorithms. The response of a chosen multi-sensor, including its mode and settings, should be properly understood to ensure that the risks are adequately covered. This table shows some typical examples of multi-sensor responses and does not represent an exhaustive list of all possible sensor combinations and algorithms.

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Generally which would be the most appropriate system for Building Regulations purposes in the following scenarios. eg Residential LD1, LD2 or LD3. Commercial- Type M, L1, L2, L3, L4 or L5?

	System type
An office building multi storey with potential lone working on the upper floors	Type M and some automatic detection to cover lone working areas L5
A residential care home 10 bedroom	L2 with False alarm measures but as size increases L1/L2 and PHE zone requirements
A 2 storey medium sized shop/ retail unit	Type M
An Assembly building ie Theatre or Events Venue operating near peak physical evacuation capacity.	L2 with false alarm measures and voice alarm L5
Flats above a shop where compartmentation is good	Grade D2 LD3 in each unit. Common areas detection linked to AOV L5
A hotel multi storey	L1 with False alarm measures

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Voice Alarms to BS5839-8

What are the benefits

- They provide occupants clearer certainty of why there is an alarm and what needs to be done. Shortened pre movement time results in higher occupancy capacities being possible
- Under BS9999 they can be used as an enhancement to allow less exit width provisions and extended travel distances.

Where to consider installing them

- Entertainment areas
- Assembly buildings and larger retail premises

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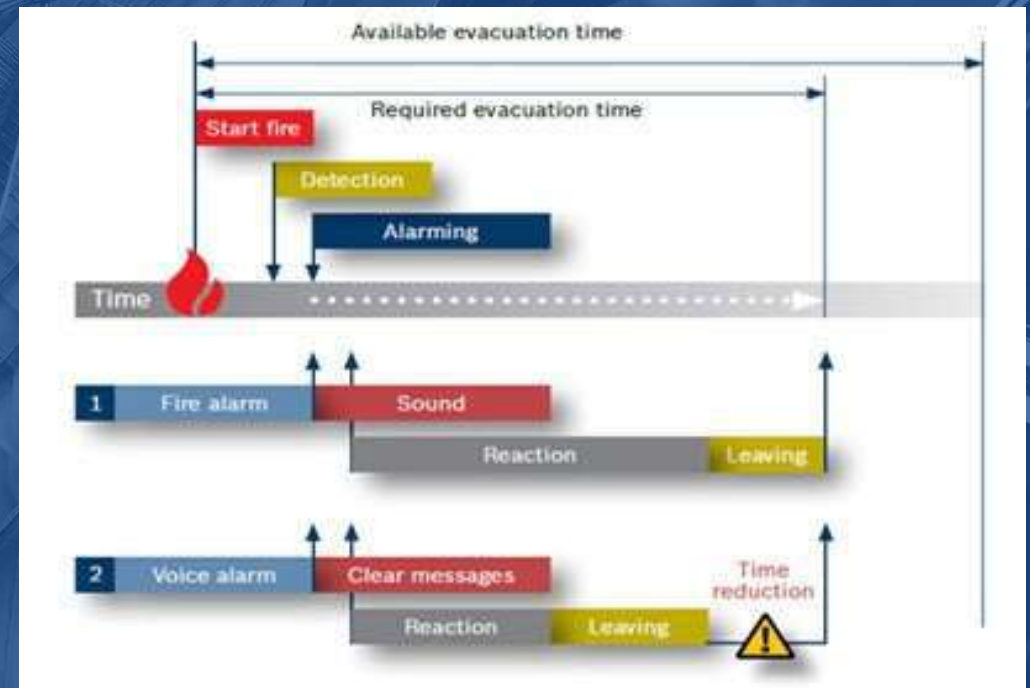


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Emergency Lighting

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BS 5266-1:2016



BSI Standards Publication

Emergency lighting –

**Part 1: Code of practice for the
emergency lighting of premises**

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General requirements of a system

- Uniform light distribution
- No debilitating glare
- Lux requirements - **Defined Escape routes - 1lux and >60m2 open plan - 0.5lux**
- Locations
- Duration periods

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Annex E
(informative)
E.1

Typical illuminance for specific locations

General

A number of locations require higher light levels, and in some cases the emergency illumination is required in specific positions to enable normal activities to be terminated safely.

The applications in E.2 to E.10 are normal activities and less arduous than those requiring high risk task illumination. This is not an exhaustive list, but examples are given of the methodology that can be applied for specific hazard areas.

Guidance on illuminance measurements and calculations for these applications is given in Annex G.

Illuminances for high risk task areas are given in BS EN 1838:2013.

E.2 Kitchens

The illumination in areas where people are preparing or transporting hot food needs to be sufficient for them to be able to leave equipment in a safe condition, e.g.:

- gas powered equipment needs to be turned off to ensure that a fully safe condition exists whilst the area is evacuated;
- electric appliances need to be isolated to ensure that they do not turn on once the supply is reinstated and cause a possible unsafe condition.

Table E.1 shows the typical minimum emergency lighting level to be used on sudden failure of the normal lighting in kitchens.



E.3 First aid rooms

The illumination needs to be sufficient to enable simple medical procedures to be completed, e.g. applying a bandage.

Table E.1 shows the typical minimum emergency lighting level to be used on sudden failure of the normal lighting in first aid rooms. The specific level to be used depends on the nature of the task(s) being undertaken.

E.4 Examination and treatment rooms

The illumination needs to be sufficient to enable complex procedures to be completed, e.g. minor operations.

NOTE Operating theatres are outside the scope of this standard.

Table E.1 shows the typical minimum emergency lighting level to be used on sudden failure of the normal lighting in examination and treatment rooms. The specific level to be used depends on the nature of the task(s) being undertaken.

E.5 Refuge areas for people with mobility impairments

Designated people within the premises have a responsibility to check and collect people with mobility impairments from designated refuge areas. At any refuge emergency voice communication system, and in the area for transfer of people from wheelchairs to evacuation sleds as applicable, a higher level of illumination than for escape route lighting is likely to be needed.

Table E.1 shows the typical minimum illumination for communication devices and relevant instruction signs within designated refuge areas.

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Emergency Lighting locations



Table 5.1 Provisions for escape lighting

Use of the building or part of the building	Areas requiring escape lighting
Residential	All common escape routes ¹⁾
Office, industrial, storage and other non-residential	<p>a. Underground or windowless accommodation</p> <p>b. Stairs either:</p> <ul style="list-style-type: none"> • in a central core • that serve storey(s) more than 18m above ground level <p>c. Internal corridors more than 30m long</p> <p>d. Open-plan areas of more than 60m²</p>
Shop and commercial, and car parks	<p>a. Underground or windowless accommodation</p> <p>b. Stairs either:</p> <ul style="list-style-type: none"> • in a central core • that serve storey(s) more than 18m above ground level <p>c. Internal corridors more than 30m long</p> <p>d. Open-plan areas of more than 60m²</p> <p>e. All escape routes (other than the following exception) to which the public are admitted¹⁾ The exception is shops that meet all of the following:</p> <ul style="list-style-type: none"> • have a maximum of three storeys • have no sales floor of more than 280m² • are not a restaurant or bar
Assembly and recreation	<p>a. All escape routes¹⁾</p> <p>b. Accommodation except for that which is open on one side to view sport or entertainment during normal daylight hours</p>
Any purpose group	<p>a. All toilet accommodation with a minimum floor area of 8m²</p> <p>b. Electricity and generator rooms</p> <p>c. Switch room/battery room for emergency lighting system</p> <p>d. Emergency control rooms</p>

NOTE:

1. Including external escape routes.

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Emergency Lighting BS9999



Table 8 Provisions for emergency escape lighting

Occupancy characteristic	Areas needing emergency escape lighting
A	Underground or windowless accommodation Stairways in a central core or serving storey(s) more than 18 m above ground level Internal corridors more than 30 m long Open-plan areas of more than 60 m ²
B ^{A)}	All escape routes ^{B)} (except in shops of three or fewer storeys with no sales floor more than 280 m ² provided that the shop is not a restaurant or bar)
C	All common escape routes ^{B)} , except in two-storey blocks of flats
Any use	All sanitary accommodation with a floor area over 8 m ² Windowless sanitary accommodation with a floor area not more than 8 m ² Electricity and generator rooms Switch room/battery room for emergency lighting system Emergency control room

^{A)} In areas of shops where the public are not admitted use occupancy characteristic A.

^{B)} Including external escape routes.

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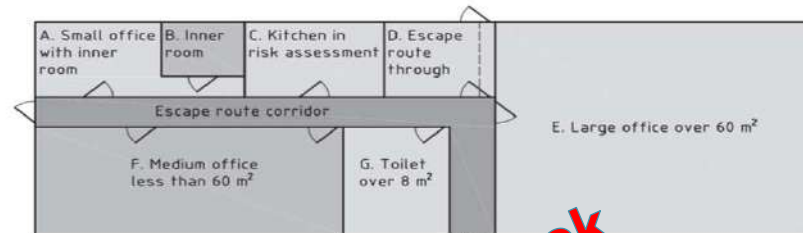


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Emergency Lighting Locations – e.g. Offices

Figure 2 Example of rooms requiring emergency lighting



Key

Area	Dimensions	Function and relevant considerations	Emergency lighting needed
Escape route	(2 x 17) m	Corridor leading to exits; luminaires required to indicate direction of exits and outside building to place of safety	Yes
Room A with inner room	(3 x 9) m = 27 m ²	Small office in which the office becomes the escape route of the inner room and needs emergency lighting	Yes
Room B	(2 x 4) m = 8 m ²	Inner room with no risks	No
Room C	(3 x 4) m = 12 m ²	Kitchen needing emergency lighting in the risk assessment for the premises	Yes
Room D	(3 x 4) m = 12 m ²	Small office, escape route passes through this open area	Yes
Room E	(10 x 8) m = 80 m ²	Main office larger than 60 m ² floor area	Yes
Room F	(5 x 11) m = 55 m ²	Medium office smaller than 60 m ² floor area	No
Room G	(5 x 6) m = 30 m ²	Toilet larger than 8 m ² floor area	Yes

Reality Check

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Emergency Lighting locations



5.2.8.1 General

Siting and illuminance levels of emergency escape lighting luminaires should be in accordance with BS EN 1838.

Emergency escape lighting should be provided in escape routes, open areas, high risk task areas, and points of emphasis including:

- a) near (see Note 1) each exit door intended to be used in an emergency;
- b) near (see Note 1) stairs so that each flight of stairs receives direct light;
- c) near (see Note 1) any other change in level;
- d) externally illuminated escape route signs, escape route direction signs and other safety signs needing to be illuminated under emergency lighting conditions;
- e) at each change of direction (see Note 2);
- f) at each intersection of corridors (see Note 2);

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Emergency Lighting



- g) near (see Note 1) to each final exit and outside the building to a place of safety;
- h) near (see Note 1) each first aid post;
- i) near (see Note 1) each piece of fire-fighting equipment and call point;
- j) near (see Note 1) escape equipment provided for disabled people;
- k) near (see Note 1) refuges and call points, including two-way communication systems and disabled toilet alarm call position;
- l) near (see Note 1) manual release controls provided to release electronically locked doors as recommended in BS 7273-4.

NOTE 1 For the purpose of this subclause, "near" is normally considered to be within 2 m measured horizontally.

NOTE 2 For the purpose of this subclause, "at" means that the emergency luminaire would illuminate in both directions at the change of direction or intersection.

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6.7.3 Duration

COMMENTARY ON 6.7.3

The time required to evacuate premises depends upon their size and complexity. The duration is dependent not only on the time to evacuate the premises but also on whether they are evacuated immediately on a supply failure and whether they will be reoccupied immediately that the supply is restored.

BS EN 1838:2013, 4.2.5 and 4.3.5 specify a minimum duration of the emergency escape lighting of 1 h.

A minimum duration of 3 h should be used for emergency lighting if premises are not expected to be evacuated immediately in the event of a supply failure, such as sleeping accommodation or places of entertainment, or if the premises are expected to be reoccupied when the supply is restored without waiting for batteries to recharge.

A minimum duration of 1 h should be used only if the premises are expected to be evacuated immediately on supply failure and not reoccupied until full capacity has been restored to the batteries.

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Suppression

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- General requirements of a system
- Types of system available
- Where is suppression required
- What type of suppression is permitted?
- Where can this be used as a compensatory feature?

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General Fire Safety Guidance



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Sprinkler Guidance - Residential Premises



BS 9251:2014



BSI Standards Publication

**Fire sprinkler systems for
domestic and residential
occupancies – Code of
practice**

BS 8458:2015



BSI Standards Publication

**Fixed fire protection
systems – Residential and
domestic watermist
systems – Code of practice
for design and installation**

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Commercial Premises



BS 8489-1:2016



BSI Standards Publication

**Fixed fire protection
systems – Industrial and
commercial watermist
systems**

Part 1: Code of practice for design
and installation

BS EN 12845:2015

Incorporating corrigenda December 2015 and January 2016



BSI Standards Publication

**Fixed firefighting systems —
Automatic sprinkler systems
— Design, installation and
maintenance**

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Sprinkler design to BS 9251

- *Mains water supply*
- *Pipework can be of plastic material*
- *Installation certified*



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Water-mist Design to BS 8458

An alternative to sprinklers. May require specialist design to the standard or demonstrate equivalency

- *Pressurised cylinders/pumps*
- *Nozzle differences*
- *Installation certified*



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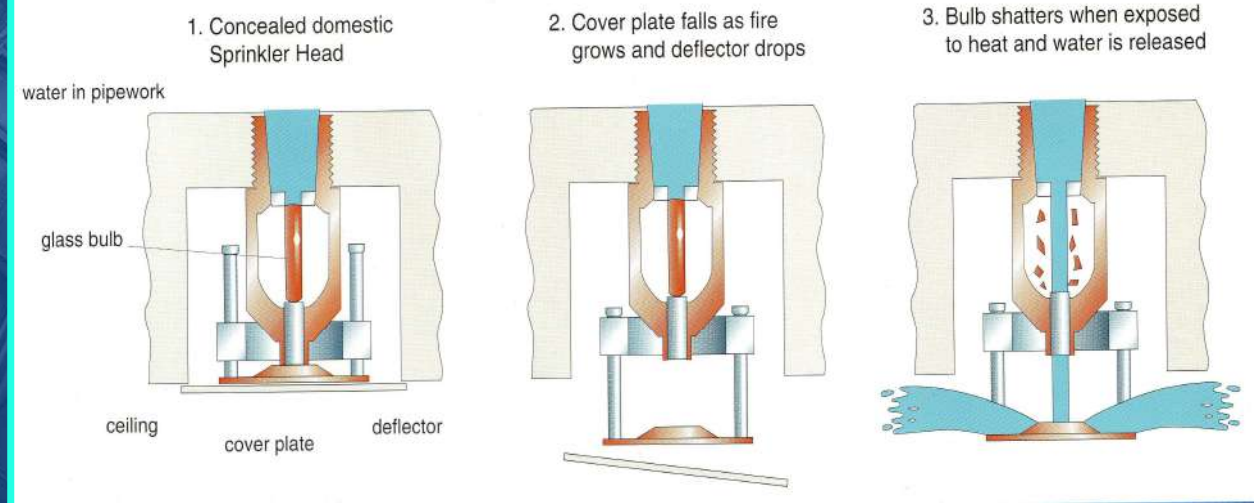


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Dropdown sub-assembly



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As a recognised compensatory feature in Approved guidance BS9991 & BS9999

- B1 – Extend travel distances
- B1 – Allows inner rooms
- B3 – Increases compartment sizes
- B3 – Reduce Structural Fire resistance
- B4 – Boundary space separation half the requirements
- B5 – Extend hose distances and access from pump appliances to building

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Fire Curtains

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Fire Curtain barriers



BS 8524-1:2013



BSI Standards Publication

**Active fire curtain barrier
assemblies –**
Part 1: Specification

BS 8524-2:2013



BSI Standards Publication

**Active fire curtain barrier
assemblies –**
Part 2: Code of practice for
application, installation and
maintenance

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What purpose can they serve?

- In maintaining protected escape routes
- Compartmentation and fire containment
- Forming ceiling smoke reservoirs
- Allowing unobstructed free circulation but protection of escape routes when needed
- B4 Boundary condition situations



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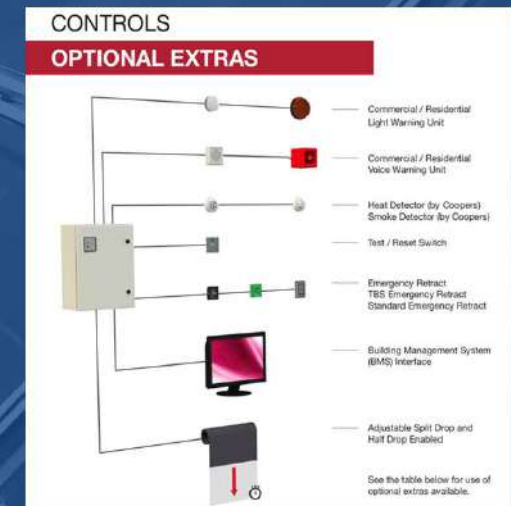
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Considerations

- Controls
- Linked to detection
- Obstruction alerts
- Operation alert
- Manual retract buttons
- Half drop facility
- Types
- Smoke or Fire resistance
- Radiant heat provision



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