

BS5839 Fire Detection and Fire Alarm Systems for Buildings - Code of Practice for System Design, Installation, Commissioning and Maintenance of fire detection and fire alarm systems in dwellings

Type	Conventional Fire Alarm System	2 Wire Fire Alarm System	Addressable Fire Alarm System
Standards	Fully complies with all relevant BS and EN standards	Fully complies with all relevant BS and EN standards	Fully complies with all relevant BS and EN standards
Panel Sizes	Fire alarm panel available in 1, 2, 4, 6 or 8 zones	Fire alarm panel available in 2, 4 or 8 zones	Fire alarm panel available in 4 zones
Wiring	Detectors & call points are connected on a pair of wires for each zone, warning devices (sounders & flashers) for all zones are connected on a separate pair of wires	All devices (detectors, call points, sounders & flashers) are connected on the same pair of wires for each zone	All devices (detectors, call points, sounders & flashers) are connected on a single pair of wires for all zones, this is typically wired in a complete loop returning to the panel (similar to an electrical ring main)
Alarm Identification	During an alarm the panel will identify the zone containing the detector which was triggered	During an alarm the panel will identify the zone containing the detector which was triggered	During an alarm the panel will identify the exact detector which was triggered (a 20 character label can also be specified for each device, for instance "Bedroom a" which will be shown during an alarm)
Other Features			Alarm & fault history, cable break & short circuit protection and system monitoring

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This needs to take into account:

- The probability of fire
- Ignition sources
- Possible fire prevention methods
- The lifestyle of the occupants
- The probability and extent of harm
- Means of escape
- Number of stories in the dwelling
- Flammable materials (e.g. smoking)
- The age, physical condition and socio-economic nature of the occupant