

NBS Specification

Compact Fire Shutters – Solid Structures



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1. PRODUCT SUMMARY

• Product Name: Compact Fire Shutter

• Manufacturer: Security Direct

• Website: www.securitydirectuk.com

• **Applications:** Kitchen serveries, reception counters, stores, smaller openings requiring fire resistance

2. PRODUCT DESCRIPTION

The Compact Fire Shutter is designed for smaller openings and is ideal for applications such as kitchen serveries and reception counters. It features a compact design with a smaller shutter box due to the use of a single-phase tube motor located within the barrel. Tested and certified to BS EN 16034:2014 and CE marked to BS EN 13241-1:2003, the shutter offers 30, 60, 120, and 240-minute fire ratings.

3. TECHNICAL CHARACTERISTICS

3.1. Curtain Slats

- Single skin, 76 mm (3") curved steel slat.
- Wall thickness options: 0.7 mm, 0.9 mm, or 1.2 mm, depending on fire rating and size of the opening.
- Maximum dimensions: Width: 6000 mm (depending on height), Height: 4800 mm (depending on width).
- Standard finish: Galvanised; optional powder coating in BS or RAL colours.

3.2. Shutter Box

- Material: Galvanised steel casing and end plates.
- Plate sizes vary based on guide height; refer to installation guides for precise measurements.
- Finish: Galvanised as standard, powder coating available at additional cost.

3.3. Bottom Rail

• Standard: Galvanised steel 'T' shaped bottom rail.



3.4. Guide Channels

- Galvanised steel 'U' channel guides.
- Sizes: 65 mm, 75 mm, or 100 mm, depending on application and size.
- Galvanised finish as standard.

3.5. Operation

- Motor: Single-phase tube motor integrated within the barrel for a neat, compact design.
- Control Options:
 - Standard: Fire Alarm Relay, Battery Backup and Manual Override.
 - Optional: Heat Detectors, Audio-visual panels, staged descent and emergency release switches.
- Safety: Anti-drop brake feature when installed over a doorway or a means of escape.
- Fire Rating: Available in 30, 60, 120, and 240-minute configurations.

4. PERFORMANCE

- Fire Resistance: Tested to BS EN 16034:2014, CE marked to BS EN 13241-1:2003.
- **Finish Options:** Standard galvanised finish, with optional powder coating for custom colour schemes.
- Lead Time: Approximately 10-15 working days, subject to change.

5. PRODUCT OPTIONS

- Finish: Galvanised as standard; optional powder coating in BS or RAL colours.
- Fire Rating: Configurable for 30, 60, 120, or 240-minute protection.
- **Control Systems:** Basic Fire Alarm Relay or fully automated control systems with various safety features.



6. SUBSTRATE RECOMMENDATIONS

The Compact Fire Shutter is certified for installation into masonry or structural steel substrates only. Specific substrate requirements are as follows:

6.1 Masonry:

- o Density: Minimum 1600 kg/m², thickness of 102.5 mm.
- o Fixings: M6 x 70 mm sleeve anchors (Fisher FSA 8 mm), steel and nylon washers.
- Must be fire-rated equal to or greater than the fire rating of the shutter.

6.1 Structural Steel:

- Structural Steel section factor, A/V must be less than 230m-1. Section factor must be calculated assuming section is exposed on all four sides. The section factor shall be calculated as described in EN 13381-4 and EN 13381-8. This rules applies to both vertical and horizontal steel sections of the support frame.
- Fire protection system must have been shown by test to EN 13381 to maintain the steel temperature 400oC or less to retain strength and minimise the effects of expansion in the steel section.

7 INSTALLATION

- Compliance: Installation must adhere to BS EN 13241-1:2014+A1:2018 and BS EN 16034:2014, as well as local building codes.
- **Expansion Allowance:** Ensure vertical expansion of the shutter box is accounted for during installation. A 50 mm upstand is necessary for face-fixing applications.
- Operation Checks: Regular weekly checks are recommended for battery backup, alarm system integration, and overall operation.

8 WARRANTY

• Standard 1-year manufacturer's warranty on the motor and control systems.





