

National Building Specification FireSafe PLUS

Product Reference:

Firesafe Plus
Automatic Fire Barriers

Approved Standards:

BS EN 1634-1:2008
BS EN 1363-1:1999
BS EN 1363-2:1999
BS EN 949
EN1634 -3
BS EN 12101 Annex B
EN13501-2:2007 + A1:2009
PAS 121

Description:

The FireSafe Plus is an electrically operated automatic Fire Barrier, to be used to form a continuous barrier against fire.

Product Performance:

Complete product tested to (BS) EN1634- 1 and achieved a rating of DH (1000°C, above 120 minutes).

When tested to EN1634- 1 the FireSafe Plus product achieved

E – Integrity 120 minutes

W- Irradiance 120 minutes

IZ – Insulating Zone 120 minutes

(IZ measured from 50mm from face of specimen did not exceed more than 91° C at 120mins)

The specimen was evaluated against the performance requirements for ‘Insulating Zone’ as detailed within Annex D of PAS 121: 2007. A movable thermocouple was positioned 50 mm in front of the test specimen and its position adjusted throughout the test so as to maintain a recorded air temperature as close to 180oC as possible.

Classifications as detailed within EN 13501 – 2:2007 + A1: 2009 is therefore detailed as **E240 EW60**.

Designed to operate for 2000 cycles at normal ambient temperatures in the range of 0°C to 60°C and to withstand hot air and smoke at temperatures up to 1000°C for over 120 minutes once only.

The Firesafe Plus can be provided to protect openings widths from 9m to 6.6m in height.

General Description:

The curtain head box is manufactured from 1.2mm zintec steel, the enclosure is rated at the same temperature as the curtain fabric. Removable cover plates are incorporated to allow access to the curtain rollers. Standard head box sizes are 180mm x 180mm larger head boxes may be required where the curtain drop is in excess of 3m. A suitably weighted bottom bar is provided to prevent deflection and ensure correct operation under gravity.

The roller is constructed from tube, each of which incorporates a 24volt D.C motor. The Insulated Zone Fire Curtain Fabric is a stainless steel wire reinforced glass fabric, coated with a specially formulated intumescent filled silicone. When exposed to temperatures above 160°C the coating system will form an expanding carbonic char to provide a thermally insulating barrier. The weight is approx. 1750 g/m² in its finished form. The Fabric thickness is 1.90mm and the weave is 8 shaft satin.

Side guide with a fabric retaining system shall be installed either side to provide a seal between the curtain fabric and the surroundings.

The FireSafe Plus curtain has fixing options to suit all types of ceiling configurations and can be integrated into either a suspended or a solid ceiling. It remains hidden until required. Upon receiving a signal from the fire detection system or on loss of power with the gravity fail safe system, the curtain automatically unwinds to its operational position

Control System:

The panel model number is FC- 01 GFS and is classified within the following EU Directives: Low Voltage Directive 2006/95/EC and Electromagnetic Compatibility Directive 2004/108/EC.

Under normal operating conditions the curtains would be held in the retracted position via the motors operating at low voltage. Upon activation of the fire alarm the control panel will remove the supply voltage and the curtain will descend under the power of gravity in a controlled manner. A dynamic braking system housed in the motor control circuit controls the speed of descent of the curtain, this is electronically synchronised on overlapping curtains with a common bottom bar.



Global Fire Control Solutions

To retract the curtain the control panel supplies 24v to the motor and the motors drive the curtains to the upper position. As the bottom bar hits the curtain head box the limits setting holds the bottom bar in the retracted position.

Should the mains power fail to the group control panel the supply is automatically switched to the integral standby battery. The curtain remains in the retracted position for 24hrs. The curtain will remain fully operational until the battery low voltage cut off facility reads a voltage of 21v, the curtains will then safely descend under the power of gravity to the operational position.

Optional Extra's

Split Drop:

An optional braking system is available to allow a stage descent during gravity deployment. Partial descent to a predetermined level to permit preliminary escape and initial smoke containment, after delay the barrier descends to full operational position.

Delay on Alarm:

The system control can be programmed to allow a timer delayer on the alarm for a number minutes before the barrier descends to its fire operations position.

Beam Sensor

A beam sensor by itself can be used as either a block sensor or an override; when the fire alarm goes off and someone passes through the curtain the beam sensor can be wired to either stop the curtain in its tracks or to retract the curtain. Please note that when used in isolation the beam sensor does not trigger a sound.

Emergency Retract Switches:

Hold on retract facility for escape and emergency service access.

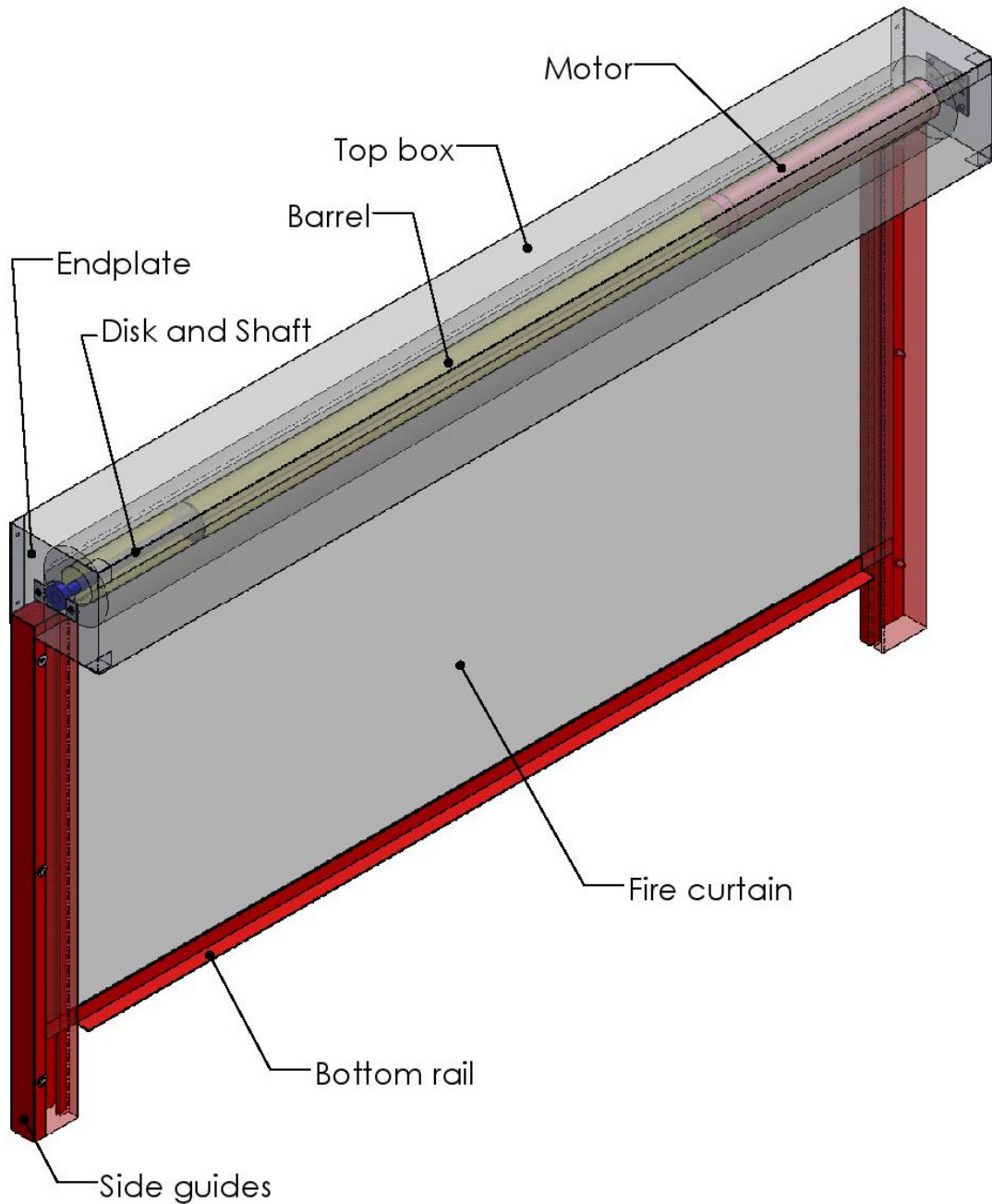
Smoke Seals

Additional protection to enhance the smoke sealing properties of the fabric barrier

Visual Alert System:

Flashing light and sirens are connected to the control panel and provide a warning when the curtain is about to descend. When the fire alarm is triggered and the fire curtain deploys the beacon will flash and a sounder alert until the signal from the alarm is lost. Please note that when used in isolation the audio visual unit does not stop the fire curtain descending or retract the curtain.

FireSafe Plus – Single Curtain Drawing



Headbox Dimensions:

200mm x 200mm