

# SMOKE AND FIRE CURTAINS

## SPECIFICATION SHEET: Fire Series HC1 (HC180) Horizontal Fire Curtain Barrier

### HC1 / E180W20 Horizontal Fire Curtain



#### Testing or Certification:

##### BS EN 1634-1:2008

Fire resistance & smoke control tests for door, shutter and open-able window assemblies and elements of building hardware. Fire resistance tests for doors, shutters and open-able windows.

##### BS EN 1363-1:2012

Fire resistance tests. Part 1: General requirements.

##### BS EN 1363-2:1999

Fire resistance tests. Part 2: Alternative & additional procedures (Radiation).

##### BS 8524-1:2013

Reliability, Response time and Durability tests (Annex D).

#### Fabric Testing

DIN EN 53855, 53851, 53855 T1, 53830, 53857 T1, 52273 & DIN EN 1049

#### Technical Data & Classification:

Fire Resistance Integrity (E)	180 minutes up to 1000°C
Radiation (W)	29 minutes < 15Kw/m <sup>2</sup>
Maximum Box Dimensions	6000mm Wide or 5790mm Traverse
Maximum Fabric Dimensions	Must not exceed 36m <sup>2</sup>
Curtain Fabric	C41000WK Glass Fibre
Standard Roller Housing Size	230mm wide x 230mm high Twin Roller Housing
Tolerance	Maximum install tolerance is 5mm in any plane
Standard Roller Housing Material	18swg (1.2mm) Galvanised Steel
Standard Guide Installation	A. Face Fixed B. Recessed Into Structure
Standard Guide Material	14swg (2mm) Galvanised Steel
Standard Bottom Bar Material	18swg (1.2mm) Mild Steel Octagonal Tube
Motor	24V DC
Standard Traverse Speed	Synchronised at 0.08m/s
Standard Operation	Motor operation with dual power supply – SMD control circuits
Compatible Control Panels	BLE Smoke & Fire Horizontal Group Control Panel (GCP)

#### Product Performance:

Complete product tested to BS EN1634-1:2008 BS EN1634-3:2004 and achieved up to 1000° C for 180 minutes and is ASB 1 and 3 classified.

Designed to operate for 500 cycles at normal ambient temperatures with 20 minutes between cycles..

The fabric has a class 1 surface spread of flame when tested to BS 476: Part 7 and a fire propagation index I =3.2 when tested to BS 476: Part 6. The results of the tests demonstrate that the product complies with the requirements for Class 0, as defined in paragraph B2.v of Approved Document B; 'Fire Safety', to the Building Regulations 2006 edition consolidated with 2010 and 2013 amendments.

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## **General Description:**

The active fire curtain barrier consists of a C41000WK wire inserted woven glass fibre fabric. The fabric is tested to withstand temperatures of up to 1000°C for a period of 180 minutes minimum (UL standard 120 minutes minimum) & an irradiance protection of up to 20 minutes, this is wound onto a steel tube, each of which will incorporate a 24 volt d.c. motor, a sealed heavy duty ball bearing assembly, and an electronic control circuit.

The active roller assembly, incorporating the fabric, is housed in galvanised mild-steel head box which is normally bolted to the fabric of the building.

Metal side guides with a fabric retaining system shall be installed to provide a seal between the curtain fabric and the building construction.

## **Control system:**

A motor control circuit is placed adjacent to each fire curtain roller housing within the ceiling void, allowing access for maintenance, or mounted in a remote position from the curtain.

The panel requires a local 230v ac supply rated at 3 amps via an un-switched fused spur on a maintained supply installed by others. For operational purposes the G.C.P. must be connected to a normally-closed volt-free contact within the fire alarm control panel configured to open on fire and fail safe.

Each control panel is capable of operating up to six rollers and includes battery back-up which will maintain the curtains in their retracted position for a period of three hours during a mains failure. It is also possible to manually operate the curtains during this period.

The roller motors, which are 24 volt D.C., must be wired from the G.C.P. in a ring main using 4mm cable, provided that the G/C.P. is located adjacent to the curtain. Should the G.C.P. be located away from the curtain; please contact BLE to advise on the recommended cable core size.

The curtains traverse upon receipt of a signal from the fire-alarm panel and retract when the signal is removed. There is a manual key operation from GCP to facilitate override and testing.

## **Optional Extras:**

### **Voice warning:**

Audio or spoken multi message facility.

### **Obstruction warning:**

A beam detector which will sound in the event of any obstruction being placed in the curtain traverse line.

### **Visual alert system:**

Standard localised light or strobe light

### **Emergency retract:**

Manual operation to momentarily retract for occupant escape and emergency service access

### **Others:**

Other variants are available such as manual reset, curtain decals and signage and delayed descent.

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## Product Overview:

### Product

HC1 / E180W20

### Size

36m<sup>2</sup> max

### Side Guide Options

Face fixed or Recess

### Orientation

Horizontal

### Finish Options

Galvanised Steel, Powder Coated Galvanised Steel

### Accessories

AV Unit, Obstruction sensor, Manual Override

### Warranty

The manufacturer will provide a written warranty for a period of one year from either pick up, delivery or installation as per prior agreement. Exclusions may apply if any element is sublet to any unauthorised party.