

THERMAX
Contracting Services Limited

AUTOMATIC SMOKE CURTAIN

Product – Gravity Fail Safe Automatic Smoke Curtain

Approved Standards –

- **BS 7346: Part 3: 1990**
- **BS 746: Part 6: 1989**
- **BS 476: Part 22: 1987**
- **EN 12101-1 : 2006**

Description –

The automatic smoke curtain consists of a micronised aluminium polymer coated glass fibre fabric. The fabric is tested to withstand temperatures of up to 1000°C for a period of 60 minutes minimum; this is wound onto a steel tube, each of which will incorporate a 24volt d.c. motor, a sealed heavy duty ball bearing assembly, and an electronic control circuit. The automatic roller assembly incorporation the fabric, is housed in galvanised mild-steel head box which is normally bolted to the fabric of the building. The standard head box sizes are single box 150mm x 150mm, double box 250mm w x 150mm h. The lower edge of the curtain incorporates a twin inverted aluminium angle which acts as a weight bar to enable the curtain to unwind upon receipt of a signal from the fire alarm panel and also helps to stabilize the curtains. A white polycarbonate extrusion will be fitted to the angle for aesthetic purposes and to provide a stop against the underside of the head box.

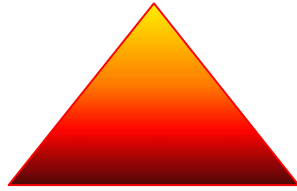
Control –

Operation of the curtains is via the Zone Control Panel which can either be mounted adjacent to the smoke curtain head box within the ceiling void, allowing access for maintenance, or mounted in a remote position from the curtain. The panel requires a local 240v ac supply rated at 3 amps via an unswitched fused spur on a maintained supply installed by others. For operational purposes the Z.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 for twenty cycles during this period. Should the battery voltage fall below a pre determined limit, a low voltage cut off circuit will activate the curtain, which will descend in a controlled manner under the power of gravity.



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The roller motors, which are 24volt d.c., must be wired from the Z.C.P. in a ring main using suitably sized cable to ensure a voltage of 24v d.c -10%. The curtains automatically descend upon receipt of a signal from the fire-alarm panel and automatically retract when the signal is removed. During ascent the motors are controlled via a synchronised speed circuit to ensure all curtains are raised at similar rates. The curtains descend under the power of gravity at all times, including total mains and battery backup failure. Limit switches are not to be used to control the upper and lower positions of the curtains.

Optional Extras –

2 Stage Descent facility –

Upon activation of the fire alarm system a timer in the Zone Control Panel applies 24v from the integral battery to the brake unit. The curtain stops at a pre determined limit to form a partial barrier and also allow egress under the curtain. After the specified time limit has elapsed the 24v brake is released and the curtain will fall to the required drop height.

Audio Visual Units –

24v audio visual units can be installed to warn people that the curtains in that area are descending.
Voice Enunciator with the message “ Warning, curtain descending”

Manual Override Facility –

Operation of the fire alarm system will result in the curtain descending.
A remote key switch/ button can be installed to allow the curtain to be raised even through the fire alarm system is active.

Manual Reset –

After activation of the smoke detector the curtain will descend, the curtain will stay in a down position until the manual reset button has been activated..

PPC (Standard RAL Colours) –

Any standard RAL colour finish available to head box and bottom bar.



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