

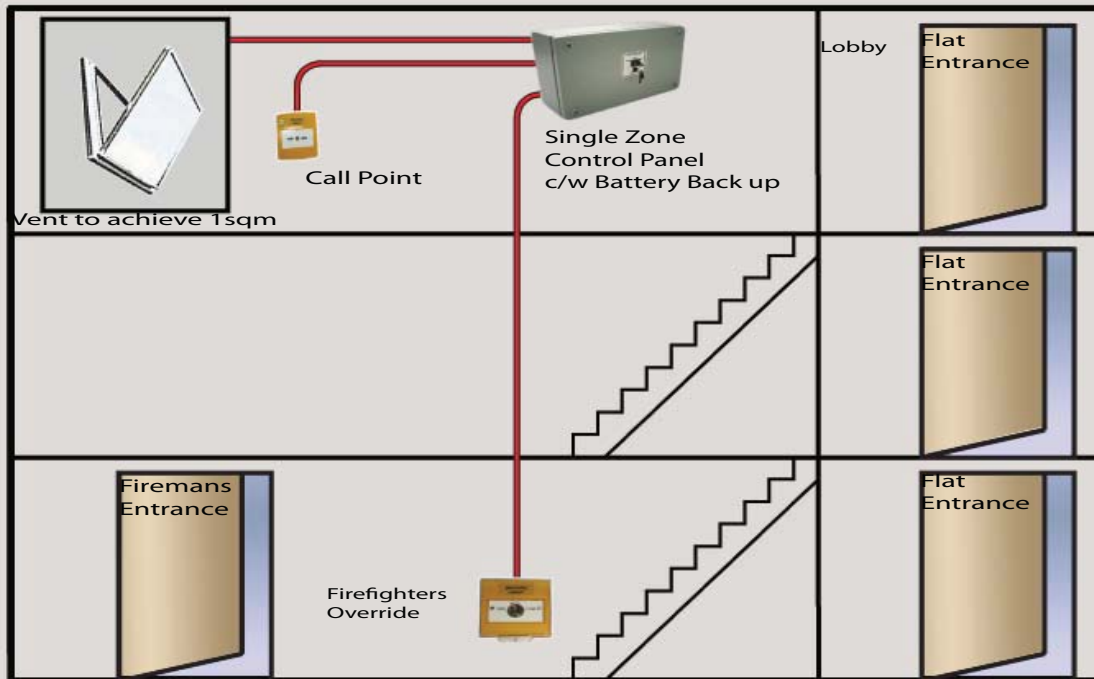
Smoke Controls Systems

Design
Supply
Installation
Service



Smoke Control Systems Limited Unit1 Cymbio Business Centre, Northway Lane, Tewkesbury, Glos. GL20 8JG
Tel:0844 499 6366 Fax:0844 499 6367 Email:info@smokecontrolsystems.co.uk www.smokecontrolsystems.co.uk

OV Stairwell Systems



OV stairwell systems are made from a selection of the following items to suit your particular application where an opening vent is required to meet Building Regs Part B Volume 2. Para 2.21e

Control Panel

Either an SVCS or VCS control panel dependent on the type and number of actuators. This can be installed near to the opening vent or entrance door alternatively hidden from sight in a riser.

F O S (Firefighters Override Switch)

Yellow plastic surface fix box with choice of latch switch or key switch. To be located close to the entrance to the stair for fire fighters use only.

Break glass Call Point

Yellow plastic surface fix box labeled "SMOKE VENT". To be located close to the opening vent.

Window Actuator

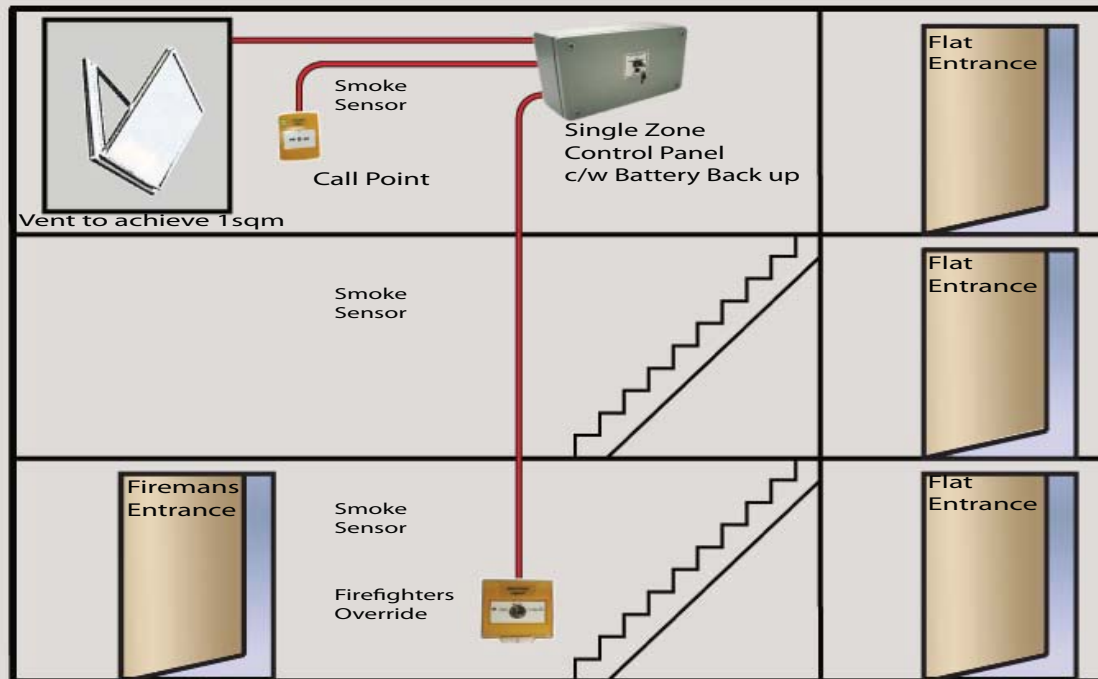
Chosen from our wide range to suit your window design. (alternatively if the stairwell has no window on top floor an alternative ventilator may be used)

Alternative Ventilator

If a window cannot provide the vented area we have a wide range of roof hatches, louvred ventilators and louvred windows.



AOV Stairwell Kits



AOV stairwell systems are made from a selection of the following items to suit your particular application where an opening vent is required to meet Building Regs Part B Volume 2. Para 2.21e note 3

Control Panel

Either an SVCS or VCS control panel dependent on the type and number of actuators. This can be installed near to the opening vent or entrance door alternatively hidden from sight in a riser.

F O S (Firefighters Override Switch)

Yellow plastic surface fix box with choice of latch switch or key switch. To be located close to the entrance to the stair for fire fighters use only.

Break glass Call Point

Yellow plastic surface fix box labeled "SMOKE VENT". To be located close to the opening vent.

Smoke Detector

White plastic surface fix smoke detector with or without sounder option.

Window Actuator

Chosen from our wide range to suit your window design. (alternatively if the stairwell has no window on top floor an alternative ventilator may be used)

Alternative Ventilator

If a window cannot provide the vented area we have a wide range of roof hatches, louvred ventilators and louvred windows.



SVCS-1 control panel



Single zone control panel 2 amp

72 hour battery back up on mains failure.
300mm x 200mm x 150mm IP65 steel enclosure.
Sealed lead acid batteries.
Auto cut off to protect batteries.
Relay to provide volt free fault indication.
Close/Auto/Open Function-
Front of panel keyswitch to control open/close
function of actuators/vents (full override priority).
Facility to connect smoke heads to automatically
reset once smoke has cleared.

Inputs for:
Breakglass callpoints
Smoke detectors
Fire alarm volt free aux. contacts
Firemans Override switch
Outputs for:
2/3wire 24v actuators up to 2amp* load

VOLTAGE SUPPLY	230 Vac
VOLTAGE OUTPUT	24v 2 amp max load (Upgradeable to amps with additional batteries)
ELECTRIC CONNECTION	2 wire polarity reversal or 3 wires drive open drive close
DRIVE TIME	Adjustable 1-100seconds



VCS-1 control panel



Single zone 10 amp control panel with extra inputs and functions.

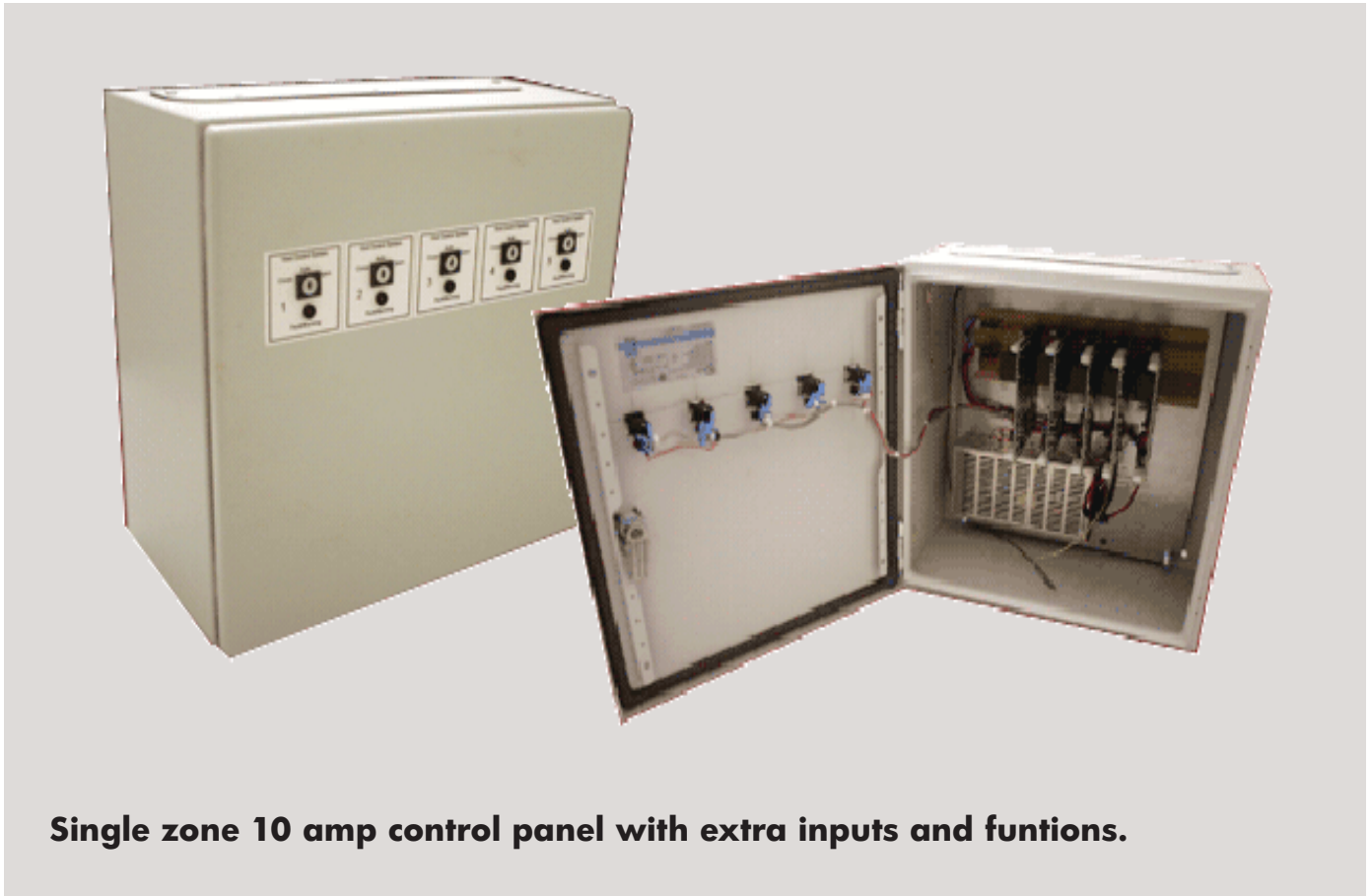
72 hour battery back up on mains failure.
300mm x 200mm x 150mm IP65 steel enclosure.
Sealed lead acid batteries.
Auto cut off to protect batteries.
Relay to provide volt free fault indication.
Close/Auto/Open Function
Front of panel keyswitch to control open/close
function of actuators/vents (full override priority).
Facility to connect smoke heads to automatically
reset once smoke has cleared.
Variable opening of vents
(Option; specify when ordering)

Inputs for:
Breakglass callpoints
Smoke detectors
Fire alarm volt free aux. contacts
Firemans Override switch
Optically Isolated inputs
(BMS or variable manual controls)
Thermostat (option)
Rain sensor (option)
Wind sensor (option)
Outputs for:
2/3 wire 24v actuators up to 10amp load

VOLTAGE SUPPLY	230 Vac
VOLTAGE OUTPUT	24v 10 amp max load
ELECTRIC CONNECTION	2 wire polarity reversal or 3 wires drive open drive close
DRIVE TIME	Adjustable 1-100seconds



SVCS multi zone control panel



Single zone 10 amp control panel with extra inputs and functions.

Input for fire alarm, break glass call points, smoke detectors and heat detectors.

72 hour battery back up on mains failure.
Sealed lead acid batteries.
Auto cut off to protect batteries.
Relay to provide volt free fault indication.
Open circuit cable detect (issues a coded fault signal).

Auto-Reset Test – Front of panel keyswitch enables the smoke heads to be reset after smoke detection and/or test the opening & closing of all actuators/vents connected.

Facility for smoke heads to automatically reset.

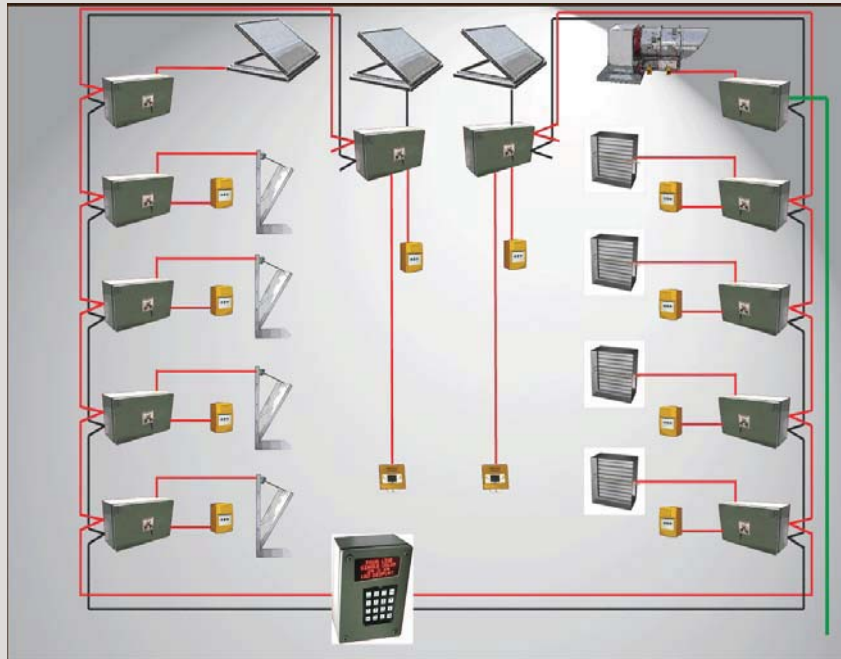
Each zone has Input for:

Breakglass callpoints
Smoke detectors
Fire alarm volt free contacts (N/O)
Override switch

Alternatively a zone can be set as a slave to open or close when any master zone is triggered

VOLTAGE SUPPLY	230 Vac
VOLTAGE OUTPUT	24v 200AMP (10 amp max load/zone card)
ELECTRIC CONNECTION	2 wire polarity reversal or 3 wires drive open drive close
DRIVE TIME	Adjustable 1-100seconds

Addressable Control Systems



Addressable Control System with up to 200 Single zone 10 amp outstations.

Introduction

Smoke Control Systems's PACS (Programmable-Addressable Control System) is an ideal solution to control multiple Vents and Inputs while reducing Cabling and associated costs.

With the addition of a small communication board to our existing VCS-S1 control panels the need for large multi zone control panels is no longer required, reducing on average wiring costs by 75%.

Features

The System comprises of a Master Controller to 200 outstations as a stand alone system or can be integrated with an existing Fire Alarm System.

Outstations

- -Work autonomous and report their status back to the Master Controller
- -Inputs from Fire Alarm, Break glass Call Point, Smoke Sensors or Firmans Override.
- -Outputs timed 24v up to 10 amps 2wire for reverse polarity actuators, 24v 3 wire signal for hold open actuators, 24v up to 10 amp signal for solenoid actuators

Master Controller

- -Gives the fire officer complete control of the AOV system
- -Ability to override any automatic signals that the outstations have received.
- -Monitors all outstations and display any faults reported.

VOLTAGE SUPPLY	CommsMaster 230 Vac	Outstation 36Vdc or 230 Vac
VOLTAGE OUTPUT	5v / 24v	24v 2-10 amp max load
ELECTRIC CONNECTION	3 wires data only	2 wire polarity reversal or 3 wires drive open drive close
DRIVE TIME	n/a	Adjustable 1-100seconds



CALL POINTS & DETECTORS



Smoke Detectors - Call Points

Smoke Detectors

Features a removable, high performance smoke chamber which allows the detector threshold level to be increased. This improves signal to noise ratio and reduces susceptibility to false alarm.

Site cleanable for easy maintenance.

Remote indicator output. Range of mounting bases. Low profile design.

Call Points

A complete range of call points and over ride switches. In yellow surface or recess enclosures labelled

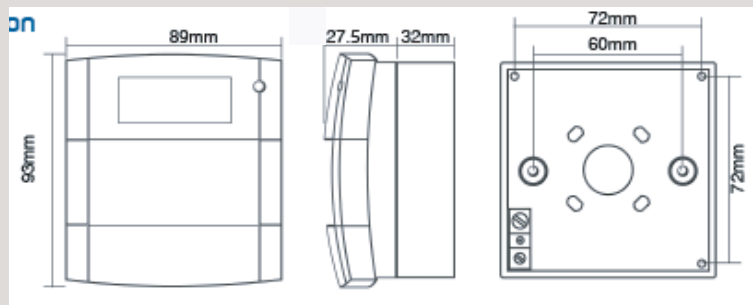
"Smoke Vent" or "Firemans Override".

Standard Break Glass - BGS

Resettable Break Glass - BGSR

Firemans Override Switch - BG-FOS

Firemans Override Key Switch - BG-KSCover-



A Series Chain Actuators



Single chain window actuator

24V dc or 230V ac Chain type actuator with adjustable travel.
Adjustment of stroke in 7 positions from 100mm to 400mm in 50mm increments.
Strong die-cast aluminium body with rigid or pivot fixing options and various brackets and extension pins to suit most applications.

A robust, centrally positioned double link stainless steel chain with an acoustic device that warns of any eventual incorrect installations.
All electrical parts are double insulated and supplied with 1.5m cable.
Standard colours: White (RAL 9010), Grey (RAL 9006), Matt Black

VOLTAGE SUPPLY	230 Vac	24 Vdc
STROKE	100 - 400 mm (50mm steps)	100 - 400 mm (50mm steps)
ELECTRIC CONNECTION	3 wires	2 wires
DOUBLE INSULATED	Yes	No
OPERATION	drive open - drive close	by polarity inversion
FORCE (PUSH ACTION)	350 N	350 N
SPEED	~ 28 mm/s	~ 18 mm/s
CURRENT ABSORPTION (WITH MAX LOAD)	0,32 A	1.35 A
PROTECTION CLASS	IP 55	IP 55

S-Series Heavy Duty Chain Actuators



Single chain window actuator

Heavy duty actuator with a powerful 400N thrust and strong, double link stainless steel chain. Ideal for heavy windows or windows requiring large opening for smoke control or natural ventilation.

Very high speed and noiseless operation. Safe operation with push button. Both 24V dc and 230V ac versions are available. Supplied with 2m cable.

Minimum window height when using:

Slide Brackets:

900mm for 450mm stroke, 1200mm for 600mm stroke, 1600mm for 800mm stroke.

Pivot Brackets:

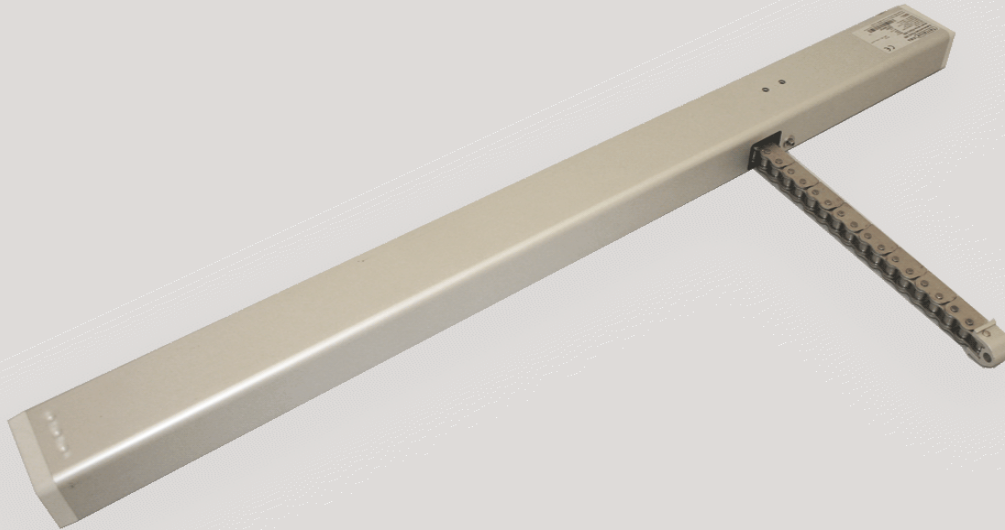
450mm for 450mm stroke, 600mm for 600mm stroke, 800mm for 800mm stroke.

Standard colours: White (RAL 9010),

VOLTAGE SUPPLY	230 Vac	24 Vdc
STROKE	450-600-800-1000mm	450-600-800-1000mm
ELECTRIC CONNECTION	3 wires + earth	2 wires
DOUBLE INSULATED	No	No
OPERATION	drive open - drive close	by polarity inversion
FORCE (PUSH ACTION)	400N (300 N for 800-1000mm)	400N (300 N for 800-1000mm)
SPEED	~ 23 mm/s	~ 20 mm/s
CURRENT ABSORPTION (WITH MAX LOAD)	0,8A	2A
PROTECTION CLASS	IP 20	IP 20



K- Series Extra Heavy Duty Chains



Single chain window actuator

For opening and closing vents in facades and roof areas (e.g. bottom hung, top hung, side hung, vertical & horizontal pivot windows)

For smoke and heat exhaust (SHEVS) and natural ventilation systems.

Suitable for integration with building management systems (BMS / LON / CAN)

Soft start and soft load disconnection (electronically controlled)

*Synchronized multiple operation without additional control module.

Adaptable to special structural requirements via programmable microprocessor (e.g. stroke reduction)

Stepless optimization for smooth operation via adjustment of chain tension.

Optional covering profile for uniform design.

End position indicator (optional)

Fire Test (300°C): TÜV-Nord, KH99.7.1

	KS2	KSA2	KSA2	KSA2	KSA2	KSA2	KSA2
STROKE	600mm	600mm	600mm	800mm	800mm	1000mm	1000mm
ELECTRICAL CONNECTION	2wire +1*	2wire +3*	2wire +3*	2wire +3*	2wire +3*	2wire +3*	2wire +3*
DOUBLE INSULATED	No	No	No	No	No	No	No
FORCE (PUSH ACTION)	250-50N	300N	600-300N	300-200N	600-200N	300-100N	600-100N
OPERATION	polarity	polarity	polarity	polarity	polarity	polarity	polarity
	inversion	inversion	inversion	inversion	inversion	inversion	inversion
SPEED	~7.9mm/s	~13.1mm/s	~7.5mm/s	~13.1mm/s	~7.5mm/s	~13.1mm/s	~7.5mm/s
CURRENT ABSORPTION	0.8A	1.0A	1.0A	1.0A	1.1A	1.0A	1.1A
PROTECTION CLASS	IP32	IP32	IP32	IP32	IP32	IP32	IP32



P- Series Heavy Duty Linear Actuators



Pair of linear window actuator



Very strong pair of linear actuators c/w tandem controller ideal to operate large/heavy roof vents, domes or windows to 90 degrees (e.g. bottom hung, top hung, side hung)

For smoke and heat exhaust (SHEVS) and natural ventilation systems.

Supplied complete with brackets

Soft start and soft load disconnection (electronically controlled)

Robust & corrosion-resistant design

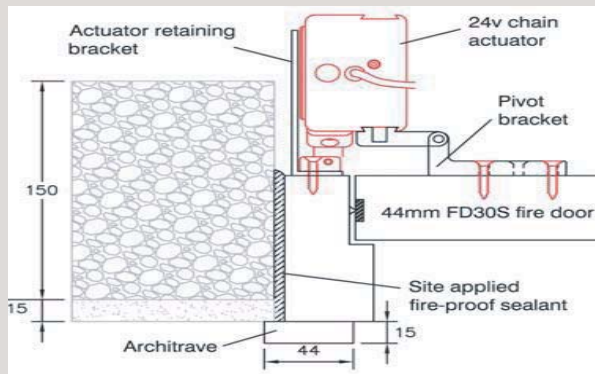
Fire Test (300°C): TÜV-Nord, KH99.7.1

Satin Anodised Aluminium finish.

VOLTAGE SUPPLY	PL6 - 24 Vdc	PL10 - 24 Vdc	PLA - 24 Vdc
STROKE	100-300mm	100-300mm	300-1000mm
ELECTRIC CONNECTION	2 wires	2 wires	2 wires
DOUBLE INSULATED	No	No	No
OPERATION	by polarity inversion	by polarity inversion	by polarity inversion
FORCE (PUSH ACTION)	1200 N	2000 N	1000 - 3200N
CURRENT ABSORPTION (WITH MAX LOAD)	1.2A	1.6A	1.4 - 2.8A
PROTECTION CLASS	IP 54	IP 54	IP 54



S- Series AOV Door Actuator



Single chain window actuator



Heavy duty actuator with a powerful 400N thrust and strong, double link stainless steel chain. Ideal for heavy windows or windows requiring large opening for smoke control or natural ventilation.

Very high speed and noiseless operation. Safe operation with push button. Both 24V dc and 230V ac versions are available. Supplied with 2m cable.

VOLTAGE SUPPLY

24 Vdc

STROKE

450-600-800-1000mm

ELECTRIC CONNECTION

2 wires

DOUBLE INSULATED

No

OPERATION

by polarity inversion

FORCE (PUSH ACTION)

400N (300 N for 800-1000mm)

SPEED

~ 20 mm/s

CURRENT ABSORPTION (WITH MAX LOAD)

2A

PROTECTION CLASS

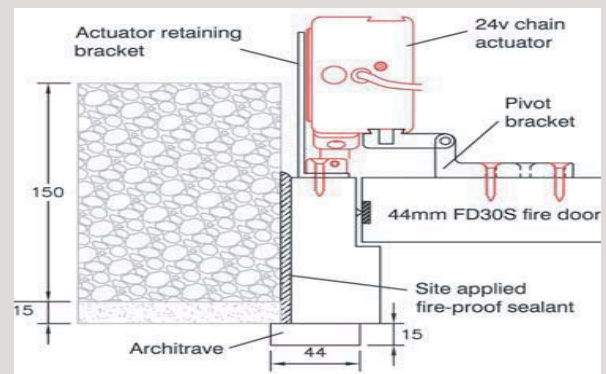
IP 20



AOV Timber Door Actuator



AOV Smoke shaft Door



Based on an FD30, 30 minute fire rated door, with a 24v actuator fitted the doorset can be supplied primed ready for site painting or finished with a choice of veniers.

Complete with;

Plywood with MDF facing, primed for site painting
Exposed lippings to two long edges.

Softwood, once rebated, four sided frame, 44 x 94 finished sizes Factory hinged at bottom edge on standard BZP hinges

Operated by a heavy duty actuator with a powerful 400N thrust and strong, double link stainless steel chain. Ideal for heavy windows or windows requiring large opening for smoke control or natural ventilation.

Very high speed and noiseless operation. Safe operation with push button.

Both 24V dc and 230V ac versions are available. Supplied with 2m cable.

VOLTAGE SUPPLY

24 Vdc

STROKE

450-600-800-1000mm

ELECTRIC CONNECTION

2 wires

DOUBLE INSULATED

No

OPERATION

by polarity inversion

FORCE (PUSH ACTION)

400N (300 N for 800-1000mm)

SPEED

~ 20 mm/s

CURRENT ABSORPTION (WITH MAX LOAD)

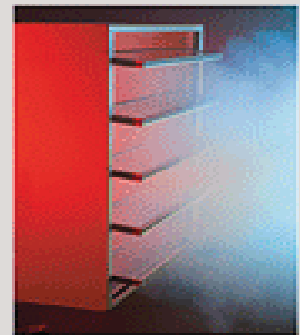
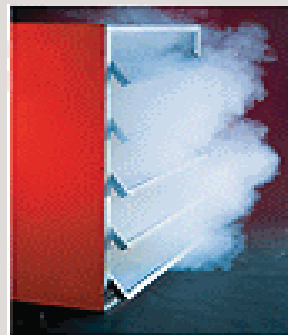
2A

PROTECTION CLASS

IP 20



AOV Louvre Windows



Louvre Windows

.....are Double glazed, louvre windows with thermally broken extruded aluminium frames. The horizontal louvres rotate on pivot bearings linked to a rack and pinion system, which ensures smooth, synchronised operation. With a maximum opening angle of 90 deg, these windows provide a large free area of ventilation compared to a standard windows..

Can be fitted directly into glazing system or builders opening.

Frameless louvres also available. Certified in accordance with EN 12101-2. For natural smoke and heat exhaust ventilation systems, NSHEVs. In addition to general ventilation applications we can also supply units for specialist smoke control use. The new SmoTec System has been fully tested and certified to EN 12101-2.

VOLTAGE SUPPLY

24 Vdc

STROKE

0-90 deg

ELECTRIC CONNECTION

2 wires

DOUBLE INSULATED

No

OPERATION

by polarity inversion

FORCE (PUSH ACTION)

1200 N

CURRENT ABSORPTION (WITH MAX LOAD)

0.65 A

PROTECTION CLASS

IP 54



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Smoke Control made easy

Smoke Ventilation of Stairwells,
Lobby areas and Corridors in
communal areas in accordance
with EN12101 and BS9999

Design

Standard and purpose made systems designed to accommodate virtually every smoke control requirement, to current building regulations, BS12101, BS9999.

Supply

Using only top quality proven and tested products.

Installation

By full trained and qualified personnel.

Servicing

As part of BS7346, BS5588 and BS9999 all Natural, Smoke and Heat exhaust ventilation systems need to be serviced on a regular basis, we now offer a complete maintenance and service packages for all requirements

