AOV DIRECT
SUPPLYING SMOKE SYSTEMS SINCE 1988

UK SMOKE BS EN12101-10 CERTIFIED STANDARD



O Range® SMOKE CONTROL PANEL

IDEAL FOR: SINGLE OR MULTI ZONE SYSTEMS

24 HR NEXT DAY DESPATCH | SMOKE VENTILATION | DAILY USE VENTILATION | 230 VOLT INPUT | 24 VOLT OUTPUT | 1 TO 60 ZONES

About This Product

The O Range Smoke Control System manages dampers and vents to allow the dispersal of smoke and heat from a single zone. It can also control daily ventilation via environmental dampers or vents.

Each Control Panel is supplied with two 12Vdc 7Ah in series batteries – these are kept charged when mains power supply is available. When power is unavailable they guarantee a 72 hour period in standby mode allowing the execution of a complete emergency opening command as prescribed by BS EN 12101-10.

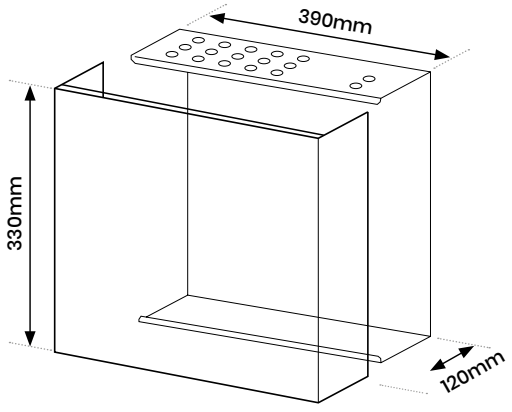
An O Range FS Firefighter Switch will need to be fitted to each panel to show Fault, Open and Close status of all linked panels within the system.

Each O Range FS Firefighter Switch is only available for open/closing of an AOV or damper when the system has been activated. When the system is in Standby Mode the switch is to be considered 'tamperproof'.

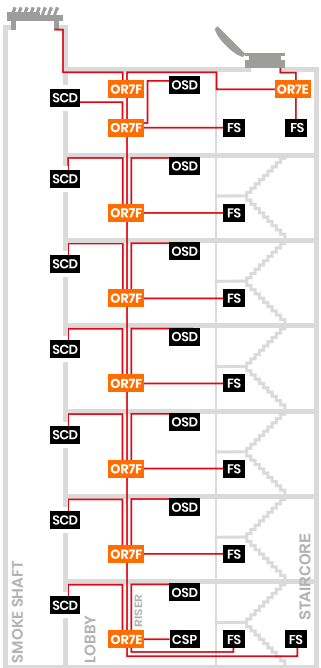
Product Highlights

- 7 amps output
- 3 Core or 7 Core firefighter switch input
- LED fault reporting
- 72 hour standby for emergency activation

Dimensions



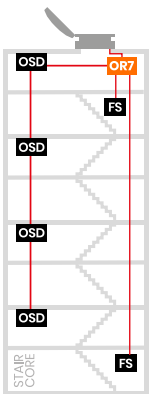
Installation Examples (illustrative only)



MULTI-ZONE
SMOKE SHAFT & STAIRWELL SYSTEM

SYSTEM KEY:

OR7F	O RANGE FIELD PANEL
OR7E	O RANGE LINE END PANEL
SCD	SMOKE CONTROL DAMPER
FS	FIREFIGHTER SWITCH
OSD	OPTICAL SMOKE DETECTOR
CSP	CONTROL STATUS PANEL



OR7E or OR7F can be used in a single stairway system

SINGLE ZONE
STAIRWELL SYSTEM (Out Of The Box)

Technical Data

	O Range 7
Control Panel Voltage In	230Vac
Control Panel Voltage Out	24Vdc nominal
Battery	2x 12Vdc 7Ah
Battery Re-charging Time – 0% to 100%	24 hours max.
Battery Standby / Emergency Use	72 hours
Operating Temperature	-5°C to +40°C
Visual Diagnostics	On Board LEDs & Front Panel LEDs
Daily Ventilation Zones	1
Smoke Ventilation Zones	1
Certifications	BS EN 12101-10

INPUTS	
Smoke Detectors / Fire Alarm	✔
Firefighter Switches Supported	2 max.
Firefighter Switches Input No. Of Cable Cores	3 Core + Earth 7 Core + Earth
Environmental Switch (manual)	1
Thermostat / Wind / Rain Sensor	✔
Carbon Dioxide (CO_2) Sensor	✔
Maglock Support – Auxiliary Output	Upgrade Option

OUTPUTS	
Motor Output Current	1x 7 amps
Enviro Assist Damper	Upgrade Option
Visual Display	via O Range Firefighter Switch & Front Panel LEDs
Fault VFC (Volt Free Contact) 2x	Upgrade Option
Lift To Ground	Upgrade Option

Electrical Ratings

	O Range 7	Notes
AC Mains Supply	230Vac 50Hz	Standby
AC Current Draw (Standby)	150mA	
AC Current Draw (Charging)	275mA	
AC Max. Current Draw	2.2 amps	
Battery Capacity	7000mAh	
PSU Output Voltage	27.8Vdc	Test on install
Motor Output Current	7 amps	
Sensor Output Current Budget	0.05 amps Average Continuous (0.5 amps max. pulse)	Combined budget: Sensor 1, Sensor 2, FOS1, FOS2. When operating from battery
Relay Board Current	1 amp Each Relay	
Maglock Current	0.5 amps	Disabled when using secondary supply
Ext. Relay Output Current	1 amp	Disabled when using secondary supply
Max. Interruption Time	500 milliseconds	Switching from Primary to Secondary Supply

Fuse Ratings

AC Mains Input	3A Fast – 5x20 BS1362
Option Relay 1 / Option Relay 2	1A Fast – Blade Type
Option Maglock	1A PTC Resettable
Actuator	Programmable Digital Auto Reset
Sensors / FOS	1A PTC Resettable
Ext. Relay Output	1A PTC Resettable

AOV Direct advises that the design, supply, and installation of all electrical wiring be carried out in accordance with current standards.

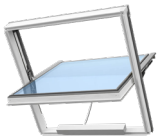
System Components (illustrative only)





Smoke VENT

SMOKE VENTILATION
On fire alarm, smoke detector, or firefighter switch activation – specific zone operates as per designated cause and effect



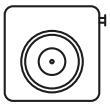


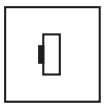


Enviro Assist VENT

230Vac OUT
To power additional control panels (local only)

24Vdc OUT
(or Maglock)





230Vac 13A UNSWITCHED FUSED SPUR





O Range OSD
(Optical Smoke Detector)

OR

Fire Alarm
(by others)



O Range FS
(Firefighter Switch)



NETWORK IN

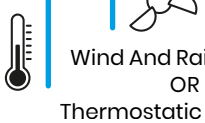
NETWORK OUT

REMOTE MONITORING OPTION

System fault and/or System in fire alarm



DAILY VENTILATION CONTROL



Wind And Rain Sensor
OR
Thermostatic controller

Control Panels

O Range 7	7 amps Standard
O Range 7	7 amps + Maglock Card
O Range 7	7 amps + Enviro / Relay Card
O Range 7	7 amps + Maglock Card + Enviro / Relay Card

Ancillaries

O Range FS	Firefighter Switch
O Range OSD	Optical Smoke Detector
Ventec RKS	Roof Access Key Switch
Ventec CSP	Control Status Panel
Ventec MDR	Magnetic Door Release (Maglock)
Ventec TC	Thermostatic Controller
Ventec TTC	Tamperproof Thermostatic Controller
Ventec DC	Door Closer



Smoke ventilation systems require regular testing and record-keeping by authorised, competent persons.



...by "Accredited" and "certified smoke vent engineers only"

*REFERENCE:
DAME JUDITH HACKITT REPORT



Related Products and Services

The following should also be considered when planning your system.


DAILY VENTILATION


WEATHER STATION OPTIONS



CO_2 DETECTOR


MAGNETIC DOOR RELEASE


VENTEC DAY SWITCH


INSTALLATION & MAINTENANCE


PROJECT COMMISSIONING