



24 HR NEXT DAY
DESPATCH

✓ **SMOKE**
VENTILATION

✓ **ENVIRO**
OPTION

✓ **230V**
POWER INPUT

✓ **24V**
POWER OUTPUT

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.

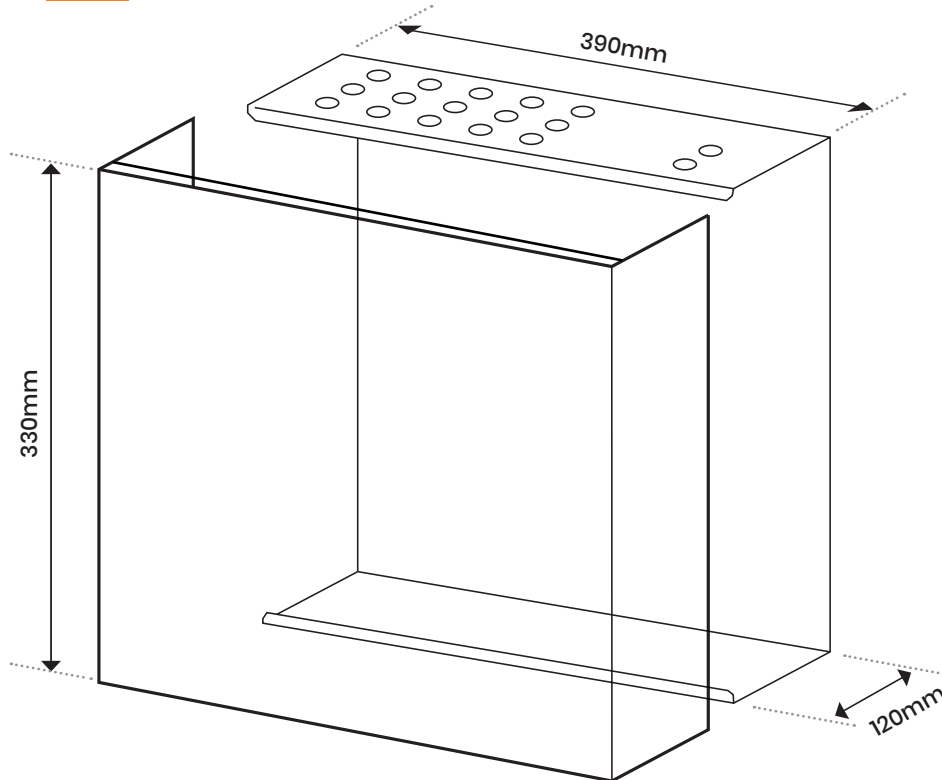
An O Range FS Firefighter Switch will need to be fitted to each panel to show Fault, Open and Close status of all linked panels within the system.

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'.

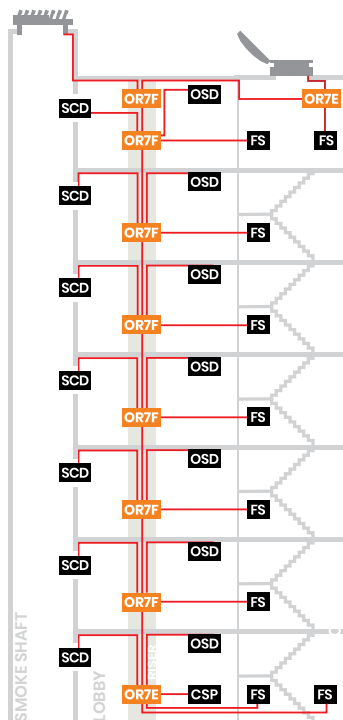
Product Highlights

- 7 amps output
- Connection of up to 60 zones (in series)
- LED fault reporting
- 72 hour standby for emergency activation

Dimensions (Control Panel)



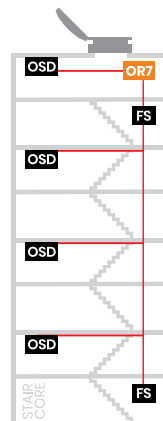
Installation Examples (indicative only)



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



SINGLE ZONE
STAIRWELL SYSTEM
(Out Of The Box)

OR7E or OR7F can be used in a single stairway system

Technical Data

	O Range 7 Smoke Control Panel
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	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

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

Electrical Ratings

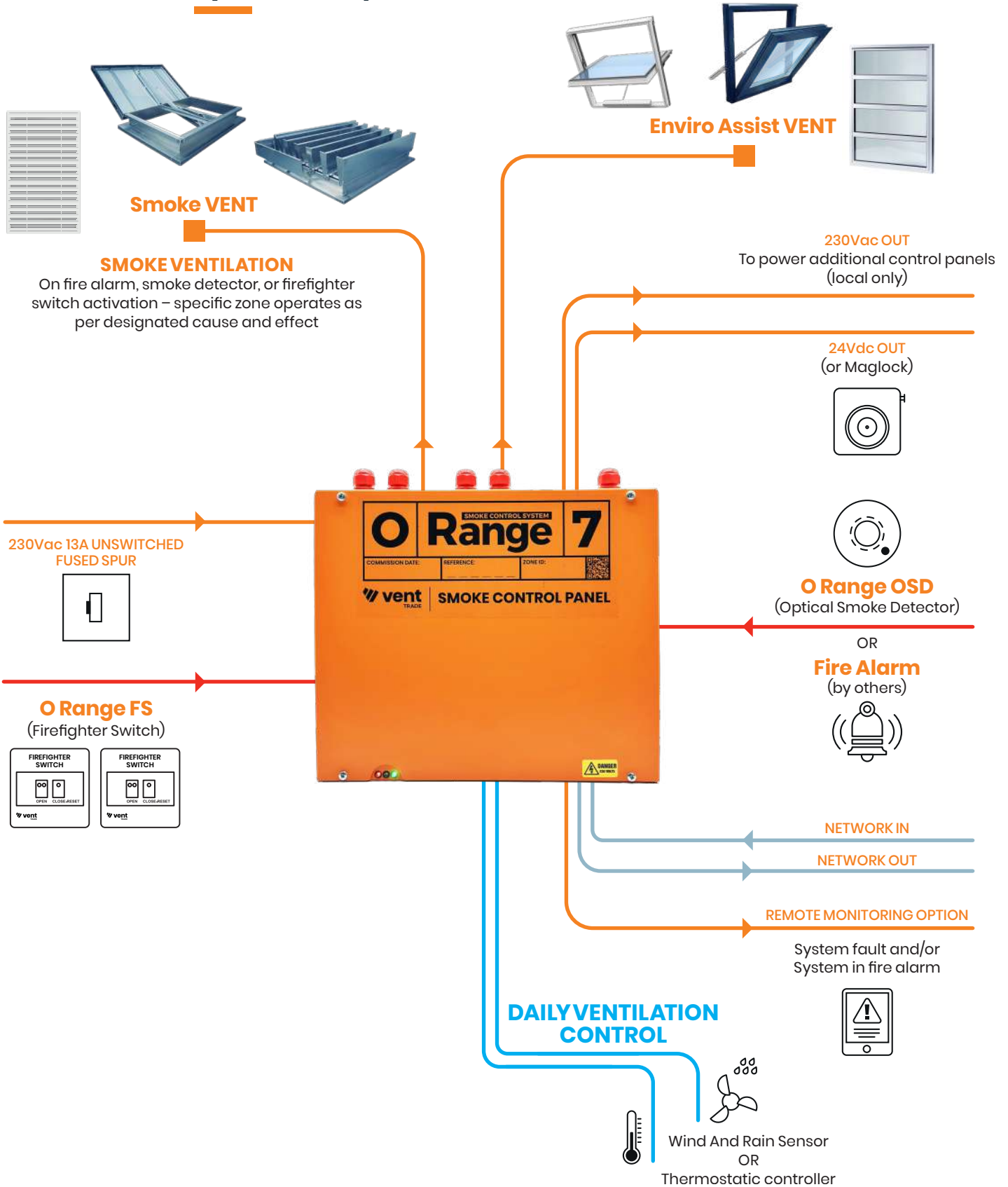
	O Range 7	Notes
AC Mains Supply	230VAC 50Hz	Standby
AC Current Draw (Standby)	150mA	
AC Current Draw (Charging)	275mA	
AC Max. Current Draw	2.2 amps	
Battery Capacity	7000mAh	
PSU Output Voltage	27.8Vdc	Test on install
Motor Output Current	7 amps	
Sensor Output Current Budget	0.05 amps Average Continuous (0.5 amps max. pulse)	Combined budget: Sensor 1, Sensor 2, FOS1, FOS2. When operating from battery
Relay Board Current	1 amp Each Relay	
Mag Lock 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 – Automotive Blade
Option Maglock	1A PTC Resettable
Actuator	Programmable Digital Auto Reset
Sensors / FOS	1A PTC Resettable
Ext. Relay Output	1A PTC Resettable

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

System Components (indicative only)



Control Panels

O Range 7	7 amps Standard
O Range 7	7 amps + Maglock Card
O Range 7	7 amps + Enviro Card
O Range 7	7 amps + Maglock Card + Enviro 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 (Mag Lock)
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



CO₂ DETECTOR



MAGNETIC DOOR RELEASE



VENTEC DAY SWITCH



INSTALLATION & MAINTENANCE



PROJECT COMMISSIONING



Certificate of
constancy of performance
0063-CPR-252190013
Issue: 00



Issued	03-04-2025	Replaces	
First issued	03-04-2025	Page	1 / 2

In compliance with Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011 (the Construction Products Regulation or CPR), this certificate applies to the construction product:

Product description:	Smoke Control Panel
Trademark:	--
Type designation:	32840203393
Hardware / Software:	2.1 / 3.03
Conditions and essential characteristics:	See Annex 1
Variants:	See Annex 1

placed on the market under the name or trademark of:

Name of the manufacturer:	Ventec 100 Limited
Address:	Unit 16C Chalwyn Ind. Est., St Clements Road
City:	BH12 4PE Poole
Country:	United Kingdom

and produced in the manufacturing plant(s):

Manufacturing plant:	Ventec 100 Limited
Address:	Unit 16C Chalwyn Ind. Est., St Clements Road
City:	BH12 4PE Poole
Country:	United Kingdom

This certificate attests that all provisions concerning the assessment and verification of constancy of performance described in Annex ZA of the standard(s):

EN 12101-10:2005
EN 12101-10:2005/AC:2007

under system 1 for the performances set out in this certificate are applied and that the factory production control conducted by the manufacturer is assessed to ensure the **constancy of performance of the construction product**

This certificate was first issued on 03-04-2025 and will remain valid as long as neither the harmonised standard, the construction product, the AVCP methods nor the manufacturing conditions in the plant are modified significantly, unless suspended or withdrawn by the notified product certification body.

Ron Scheepers
Managing director

CERTIFICATE

Kiwa Nederland B.V.
Kiwa FSS Products
Wilmersdorf 50
Postbus 137
7300 AC Apeldoorn
The Netherlands

<https://www.kiwa.com/nl/en/specials/fire-safety-and-security>

Notified Body No. 0063



Remarks and observations

The following conditions are applicable:

Essential characteristics	Requirement clauses in this European Standard	Levels and/or classes
Operational reliability	6 (limited to 6.1, 6.2 and 6.4) and 7	–
Performance parameters under fire conditions	4.1	–
Response time	4.1 and 6.2.2	–

The product as described in this certificate includes the following type designations

- Product description:	Smoke Control Panel
- Trademark:	--
- Type designation:	32840203393
- Hardware version:	2.1
- Software version:	3.03



Certificate of
constancy of performance
1720-CPR-242190021
Issue: 00



Issued	10-04-2025	Replaces	
First issued	10-04-2025	Page	1 of 2

In compliance with Construction Products Regulation 2011 (retained EU law EUR 305/2011) as amended by the Construction Products (Amendment etc.) (EU Exit) Regulations 2019 and the Construction Products (Amendment etc.) (EU Exit) Regulations 2020, this certificate applies to the construction product:

Product description:	Smoke Control Panel
Trademark:	--
Type designation:	32840203393
Hardware / Software:	2.1 / 3.03
Conditions and essential characteristics:	See Annex 1
Variants:	See Annex 1

placed on the market under the name or trademark of:

Name of the manufacturer:	Ventec 100 Limited
Address:	Unit 16C Chalwyn Ind. Est., St Clements Road
City:	BH12 4PE Poole
Country:	United Kingdom

and produced in the manufacturing plant(s):

Manufacturing plant:	Ventec 100 Limited
Address:	Unit 16C Chalwyn Ind. Est., St Clements Road
City:	BH12 4PE Poole
Country:	United Kingdom

This certificate attests that all provisions concerning the assessment and verification of constancy of performance described in Annex ZA of the standard(s):

EN 12101-10:2005
EN 12101-10:2005/AC:2007

under system 1 for the performances set out in this certificate are applied and that the factory production control conducted by the manufacturer is assessed to ensure the **constancy of performance of the construction product**

This certificate was first issued on 10-04-2025 and will remain valid as long as neither the harmonised standard, the construction product, the AVCP methods nor the manufacturing conditions in the plant are modified significantly, unless suspended or withdrawn by the notified product certification body.

Signed on behalf of Kiwa Ltd
David Mowatt
Head of IFC Certification /
Kiwa Group Limited

CERTIFICATE

IFC Certification Ltd
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Bear Brook Office Park
Walton Street
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Buckinghamshire
HP21 7GQ
United Kingdom
T +44 (0)1844 276920
www.ifccertification.com



Remarks and observations

The following conditions are applicable:

Essential characteristics	Requirement clauses in this European Standard	Levels and/or classes
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