WINDOW
MASTER®
Fresh Air. Fresh People.

WSC 520
2 x WSA 017

WSC 540
4 x WSA 017

WSC 560
6 x WSA 017

2.20

FlexiSmoke™ WSC 520 / WSC 540 / WSC 560

Modular smoke ventilation panel 20-60A

Natural ventilation	Smoke ventilation EN 12101	Smoke ventilation ISO 21927-9	**230 / 400V** Rated voltage	**MAX 60A** Maksimal output current	MotorLink®	**KNX** KNX product	**BACnet** BACnet product

Application

- for heat and smoke ventilation (H&S) and daily comfort ventilation
- only one type of group (each group can be set as H&S and/or natural ventilation)
- low power consumption
- 20A, 40A or 60A as standard per panel, more panels can easily be linked without any additional modules
- for both ±24V standard motors and/or motors with MotorLink®
- easy configuration via the built-in touch screen
- less cabling as the panel uses bus technology
- wind direction depending H&S ventilation is standard additional modules are not needed

Modular smoke ventilation panel for the control of ±24V DC motors and motors with MotorLink® for smoke ventilation and daily comfort ventilation. The modular panel can be used in larger and medium sized buildings e.g. shopping centres, schools or sport/leisure facilities. Comfort ventilation also possible with KNX or BACnet IP due to bus technology together with eg. NV Advance®.

By linking several panels together the panels can be used in very large buildings. The linking of panels can be carried out from the beginning or later via CAN.

Built-in uninterruptible power supply for min. 72h in case of power loss (batteries are to be ordered separately).

Special technical features

- approval according to EN 12101-10
- approval according to ISO 21927-9
- automatically limited opening for comfort ventilation without additional modules
- field bus modules are available for KNX and BACnet IP
- max. output voltage 27.6VDC @230VAC
- modular plug-in card design
- flexible open system design
- simple installation – due to substantially less cabling
- easy configuration at start up / expanding / rebuilding on the 3½" LCD built in touch screen in the panel – this can also be done on a PC without any additional modules
- the touch screen is also used for quick troubleshooting when maintaining the system

Connection options

- triggering by BMS via potential-free contact without any additional modules
- one ±24V DC standard motor line up to 20A in the WSA 5PS module without additional modules or up to 10A per motor line on the universal motor module, max. total of 20A per section
- up to 30 break glass units per 20A section, 10 of the units can be connected with a smoke detector – up to 10 detectors per unit
- magnetic clamps – for further information see the installation instruction

Structure

Sections

The FlexiSmoke™ smoke ventilation panel is available in three different sizes 20A, 40A and 60A. The smoke ventilation panel consists of 20A-sections, thus WSC 520 contains one section, WSC 540 two sections and WSC 560 three sections.

Modules

Each section contains the WSA 5PS power supply module, the WSA 5MC overall control module and 3 slots for expansion modules. The WSA 5MC overall control module is available with or without field bus interface for KNX or BACnet IP.

At the 3 slots the WSA 5IO input/output module and/or the WSA 5UM universal motor module can be connected. The type and number of the modules are specifically to suit the smoke panel required function.

Motor groups and motor lines

A motor group consists of one or more motor lines and all the motor lines are operated simultaneously.

Each 20A section contains one 20A motor line for connection of ±24V standard motors on the WSA 5PS module. If more motor lines are needed, one or more motor modules WSA 5UM are inserted. Each motor module contains four motor lines. It is possible to connect both ±24V standard motors and motors with MotorLink® to WSA 5UM.

A 20A-section can contain up to 13 ±24V standard motor lines or 12 MotorLink® motor lines as well as 1 ±24V standard motor line. The total power consumption of all the motors must not exceed 20A.

Selection of modules

Expansion modules are selected specifically for the task.

Example of module selection:
a) 1 input/output module and no additional modules
b) 1 input/output module and 1 universal motor module
c) 3 universal motor modules

Expansion modules are mounted in the three expansion slots.

Expansion module position:
If an input-/output module is selected it is inserted in the first slot. If further modules are inserted, the input-/output modules are inserted before the motor modules.

The item no. of the panel specifies the type and mounting of the expansion modules in the section/sections.

Adding panels

The smoke ventilation panel can be expanded by adding more FlexiSmoke™ panels in the CAN inputs on the WSA 5MC module.
The CAN cable between two smoke ventilation panels must not exceed 250m and the total cable length must not exceed 1000m.

Break glass unit

Break glass units 5-series are to be used together with FlexiSmoke™. The units are configured and assigned to smoke zones via the touch screen in the smoke control panel.

Inputs / outputs

All inputs and outputs on the FlexiSmoke™ smoke ventilation panel can be freely configured – this means that they can be assigned to functions across modules and 20A-sections.
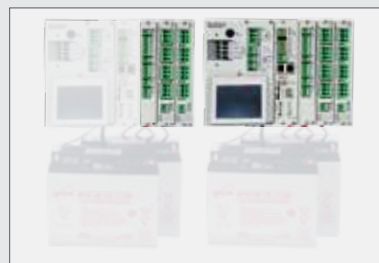
Modules in a FlexiSmoke™ (example with a WSC 540)

WSA 5PS power supply module
– one module in each section

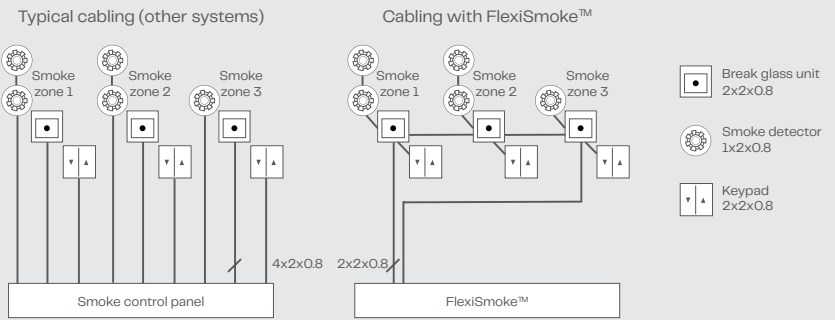WSA 5MC overall control module
– one module in each section

Free slots for connection of expansion modules type WSA 5IO and/or WSA 5UM – 3 free slots in each section

Cabling

FlexiSmoke™ uses bus technology and the overall cabling for break glass units, smoke detectors and keypads is significantly reduced compared to other types of smoke panels:

- the break glass units are series connected, therefore is not necessary to cable from each break glass unit to the smoke ventilation panel

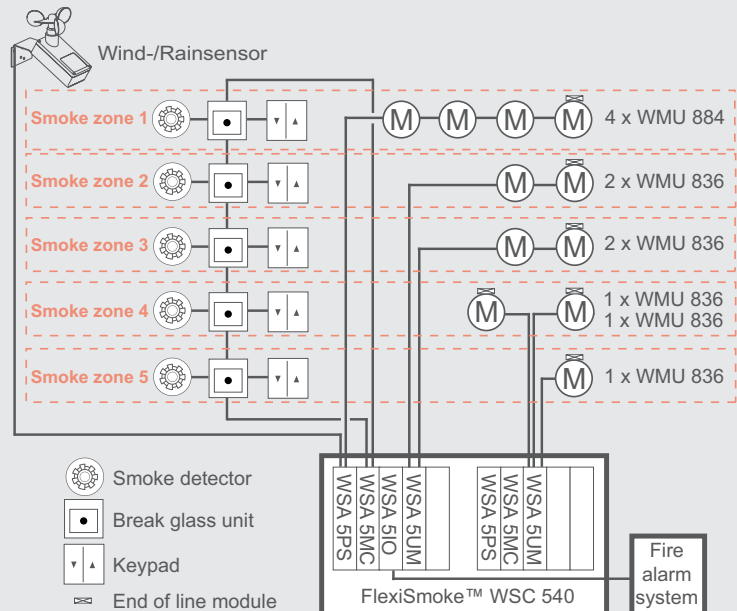- keypads for ventilation and smoke detectors are connected directly to the break glass units in the smoke areas

Typical cabling (other systems)

Smoke zone 1
Smoke zone 2
Smoke zone 3

4x2x0.8

Smoke control panel

Cabling with FlexiSmoke™

Smoke zone 1
Smoke zone 2
Smoke zone 3

2x2x0.8

FlexiSmoke™

Break glass unit 2x2x0.8
Smoke detector 1x2x0.8
Keypad 2x2x0.8

System example with WSC 540

Smoke ventilation panel with two sections (2 x 20A) configured in five smoke zones. Total ±24V standard motor power consumption in the first section is 20A (smoke zone 1 - 2 - 3) and the total ±24V standard motor power consumption in the second section is 3A (smoke zone 4 - 5).

The keypads and smoke detectors are cabled directly to the break glass units in the smoke zones which means that the need for cabling in the building is significantly reduced.

A wind/rain sensor is connected to close the windows during comfort ventilation in case of high wind and/or rain.

The smoke ventilation panel is connected to the Fire Alarm System via the WSA 5IO module.

Wind-/Rainsensor

Smoke zone 1 — 4 x WMU 884
Smoke zone 2 — 2 x WMU 836
Smoke zone 3 — 2 x WMU 836
Smoke zone 4 — 1 x WMU 836 / 1 x WMU 836
Smoke zone 5 — 1 x WMU 836

Smoke detector
Break glass unit
Keypad
End of line module

WSA 5PS | WSA 5MC | WSA 5IO | WSA 5UM | WSA 5PS | WSA 5MC | WSA 5UM

FlexiSmoke™ WSC 540

Fire alarm system

Description of modules

Power supply module (WSA 5PS)

Each 20A section contains WSA 5PS power supply module.

The module contains:
- one motor line for ±24V standard motors
- two free configurable inputs for connection of eg. wind/rain sensor WLA 330 or keypad for comfort ventilation
- one output for additional power supply to sensors
- output for fault signal
- connection of power supply
- touch screen for configuration, commissioning and maintenance

X1: 1.1 (white)
1.2 Cable surveillance
1.3 (brown) } 20A motor linie ±24V motors

X2: 2.1 Open
2.2 Close
2.3 GND / 0V } input

X3: 3.1 24V UPS
3.2 24V
3.3 GND / 0V } AUX power

X4: 4.1
4.2
4.3 (nc) } fault signal to Fire Alarm System

X5: 5.1 N
5.2 L1
5.3 (L2)
5.4 (L3) } power supply 230/400V AC

Overall control module (WSA 5MC)

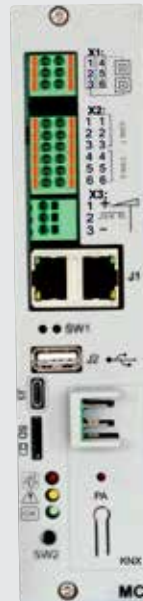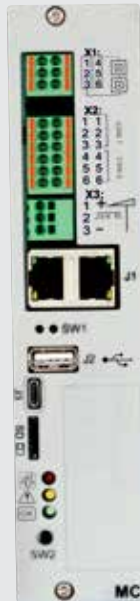Each 20A section contains an overall control module WSA 5MC.

The module is available with or without field bus interface for KNX and BACnet (BACnet IP).

The module can contain i.a.:
- two inputs for break glass unit type WSK 50x
- CAN bus interface for connection of more smoke ventilation panels
- connection of weather station
- LEDs for status of the smoke control panel
- connection for field bus for KNX (only modules with communication)

WSA 5MC   **WSA 5MC KNX**

X1: 1.1 1.4 24V ⎫ break glass unit
    1.2 1.5 Lin ⎬ WSK 50x
    1.3 1.6 GND / 0V ⎭

X2: 2.1 CAN GND ⎫ CAN 1
    2.2 CAN low ⎬
    2.3 CAN high ⎭
    2.4 CAN GND ⎫ CAN 2
    2.5 CAN low ⎬
    2.6 CAN low ⎭

X3: 3.1 24V ⎫ weather station
    3.2 communication ⎬
    3.3 GND / 0V ⎭

J1: 2 x ethernet BACnet IP

SW1: reset all

J2: USB host

J3: USB device   PA: button for switching between normal / adressing mode for transferring of physical adress

SD: SD-micro card

KNX: KNX connection

LED 1/2/3: status   SW2: (not connected)

Input / output module (WSA 5IO)

The WSA 5IO module contains:

Inputs
- 1 connection for external smoke detector when no break glass unit is connected
- 3 free configurable inputs for connection of e.g. keypads for comfort ventilation or inputs from Fire Alarm System
- 1 24/48V Fire Alarm System input – primarily used in France

Outputs
- 3 free configurable solid state outputs
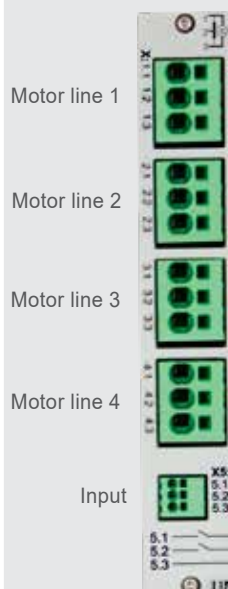- 1 free configurable potential free output for connection to e.g. Fire Alarm System or siren

X1: 1.1 + ⎫ connection of smoke
    1.2 - ⎭ detector WSA 311

X2: 2.1 In 1.1 ⎫
    2.2 In 1.2
    2.3 GND / 0V
    2.4 In 2.1
    2.5 In 2.2 ⎬ inputs
    2.6 GND / 0V
    2.7 In 3.1
    2.8 In 3.2
    2.9 GND / 0V ⎭

X3: 3.1 + ⎫ 24/48V input
    3.2 - ⎭

X5: 5.1 NC ⎫
    5.2 com ⎬ output (pot. free)
    5.3 NO ⎭

X4: 4.1 Out 1 ⎫
    4.2 Out 1
    4.3 Out 2 ⎬ outputs
    4.4 Out 2 (solid state)
    4.5 Out 3
    4.6 Out 3 ⎭

X6: 6.1 ⎫
    6.2 ⎬ (not connected)
    6.3
    6.4 ⎭

Univesal motor modules (WSA 5UM)

The WSA 5UM modul contains:

- 4 motor lines for eiter ±24V standard motors for motors with MotorLink®
- 1 x 2 free configurable inputs for connection of e.g. keypad or wind/rain sensor

ML-comm = MotorLink® communication.

WSA 5UM

Motor line 1   X1: 1.1 24V / 0V
        1.2 Cable surveillance / ML-comm
        1.3 0V / 24V

Motor line 2   X2: 2.1 24V / 0V
        2.2 Cable surveillance / ML-comm
        2.3 0V / 24V

Motor line 3   X3: 3.1 24V / 0V
        3.2 Cable surveillance / ML-comm
        3.3 0V / 24V

Motor line 4   X4: 4.1 24V / 0V
        4.2 Cable surveillance / ML-comm
        4.3 0V / 24V

Input   X5: 5.1 Input
        5.2 Input
        5.3 GND / 0V

Combination of expansion modules	Number				
	Motor lines ±24V standard	Motor lines ±24V standard or MotorLink®	Inputs x 2	Outputs (solid state)	Outputs (relay) (nc+no))
000	1	0	1	1	0
I00	1	0	4	4	1
II0	1	0	7	7	2
III	1	0	10	10	3
IU0	1	4	5	4	1
IUU	1	8	6	4	1
IIU	1	4	8	7	2
U00	1	4	2	1	0
UU0	1	8	3	1	0
UUU	1	12	4	1	0

Actuator type / number of speeds

This smoke ventilation panel gives the possibility of up to three window actuator speeds depending on the type of connected actuator:

- ±24V DC standard actuator – 1 speed (H&S)
- MotorLink® actuator – 3 speeds
  (H&S / manually operated / automatically)

The different speeds:
- automatically control speed – actuators run slowly and almost soundlessly.
- manual control speed – actuators run faster and more audibly.
- H&S and safety control speed – actuators run fastest. H&S control always has highest priority.

Max numbers of motors per motor line which can be connected per module

Type of motor	Max total 20A per section Note: WSC 520 has one section, WSC 540 has two sections, WSC 560 has three sections				
	WSA 5PS module 1 x 20A-motor line ±24V	WSA 5UM module 4 x 10A-motor lines for either ±24V standard motors or motors with MotorLink®			
		±24V standard motors per motor line	±24V standard motors per module	MotorLink® motors per motor line	MotorLink® motors per module
WMS 409 xxxx 01	10	5	10	0	0
WMS 409-1	10	5	10	4	10
WMS 409-2	10	4	10	2	8
WMS 409-3	9	3	9	3	9
WMS 409-4	8	4	8	4	8
WMS 515	4	2	4	0	0
WMU 831-1 / WMU 851-1	20	10	20	4	16
WMU 831-2 / WMU 851-2	20	10	20	2	8
WMU 831-3 / WMU 851-3	18	9	18	3	12
WMU 831-4 / WMU 851-4	20	8	20	4	16
WMU 836-1	20	10	20	4	16
WMU 836-2	20	10	20	2	8
WMU 836-3	18	9	18	3	12
WMU 836-4	20	8	20	4	16

Max numbers of motors per motor line which can be connected per module					
		Max total 20A per section Note: WSC 520 has one section, WSC 540 has two sections, WSC 560 has three sections			
	WSA 5PS module 1 x 20A-motor line ±24V	**WSA 5UM module** 4 x 10A-motor lines for either ±24V standard motors or motors with MotorLink®			
Type of motor		±24V standard motors per motor line	±24V standard motors per module	MotorLink® motors per motor line	MotorLink® motors per module
WMU 852-1	9	4	9	4	9
WMU 852-2	8	4	8	2	8
WMU 852-3	9	3	9	3	9
WMU 852-4	8	4	8	4	8
WMU 861-1	13	6	13	4	13
WMU 861-2	12	6	12	2	8
WMU 861-3	12	6	12	3	12
WMU 861-4	12	4	12	4	12
WMU 842-1 / WMU 862-1 / WMU 882-1	9	4	9	4	9
WMU 842-2 / WMU 862-2 / WMU 882-2	8	4	8	2	8
WMU 842-3 / WMU 862-3 / WMU 882-3	9	3	9	3	9
WMU 842-4 / WMU 862-4 / WMU 882-4	8	4	8	4	8
WMU 863-1 / WMU 883-1	6	2	6	2	6
WMU 863-2 / WMU 883-2	6	2	6	2	6
WMU 863-3 / WMU 883-3	6	3	6	3	6
WMU 863-4 / WMU 883-4	4	4	4	4	4
WMU 864-1 / WMU 884-1	4	2	4	2	4
WMU 864-2 / WMU 884-2	4	2	4	2	4
WMU 864-3 / WMU 884-3	3	0	0	0	0
WMU 864-4 / WMU 884-4	4	0	0	0	0
WMU 885-1	4	2	4	2	4
WMU 885-2	4	2	4	2	4
WMU 885-3	3	0	0	0	0
WMU 885-4	4	0	0	0	0
WMX 503 / 504 / 523 / 526-1	40	20	40	4	16
WMX 503 / 504 / 523 / 526-2	40	20	40	2	8
WMX 503 / 504 / 523 / 526-3	39	18	39	3	12
WMX 503 / 504 / 523 / 526-4	40	20	40	4	16
WMX 803 / 804 / 823 / 826-1	20	10	20	4	16
WMX 803 / 804 / 823 / 826-2	20	10	20	2	8
WMX 803 / 804 / 823 / 826-3	18	9	18	3	12
WMX 803 / 804 / 823 / 826-4	20	8	20	4	16
WML 820/825	20	10	20	0	0
WMB 801/802*	max. 4A connected to the WMB	max. 4A connected to the WMB		0	0
WMB 811/812*/**	20	10	20	2	2

* Do not exceed the total power consumption of the motor line
** When having two locking motors per motor line, it must be one of each type: 1 x WMB 811 and 1 x WMB 812

Technical specifications	
Output current (nominal)	WSC 520: 20A / WSC 540: 40A / WSC 560: 60A
Motor lines **Motor groups** **Smoke zones**	Per 20A section: max. 13 motor lines (1 x 20A ±24V standard motor line and 12 x ±24V standard / MotorLink® motor lines) in max 13 motor groups and max 13 smoke zones Via the software more motor lines can be connected in the same group
Primary voltage	WSC 520: 1 x 230V AC (±10%) / 50Hz WSC 540: 2 x 230V AC (±10%) / 50Hz WSC 560: 3 x 230V AC (±10%) (400V AC) / 50Hz
Actuator secondary voltage	Motor voltage	24V DC (±15%)
	Open circuit voltage at 230V AC (no load)	27.6V DC @ 20°C
	Ripple at max load	max 6% (3.5Vpp)
Power consumption	WSC 520: min 2,5W[1+2], typ. 2,8W[1+3]. At max load 540W WSC 540: min 5,0W[1+2], typ. 5,6W[1+3]. At max load 1080W WSC 560: min 7,5W[1+2], typ. 8,4W[1+3]. At max load 1620W 1) no load: system operational but no motors are running 2) min: with 1 x WSK 501 break glass unit and 1 x WSA 311 smoke detector per 20A section 3) max load: with 4 x WSK 501 break glass unit and 4 x WSA 311 smoke detector per 20A section
Leakage current	WSC 520: max 0.4mA @ 240VAC WSC 540: max 0.8mA @ 240VAC WSC 560: max 1.2mA @ 240VAC
Inrush current on primary site	WSC 520: 30A / WSC 540: 60A* / WSC 560: 90A* <0,05ms *= 30A > 0,05ms on each phase
Operating condition	-5°C - +40°C, max. 95% relative humidity (not condensing)
Emergency power supply	>72 hours in accordance with EN 12101-10
Switch-on duration	ED 40% (4 min. per 10 min.)
Cable connection	Actuator: flexible max 6mm²/solid max 10mm², other components: min 0.2mm²/max 1.5mm²
Size and weight	WSC 520: 400 x 600 x 210mm (WxHxD), 16.5kg no batteries, 28.5kg with batteries (2xWSA 017) WSC 540: 600 x 600 x 210mm (WxHxD), 24.5kg no batteries / 48.5kg with batteries (4xWSA 017) WSC 560: 1000 x 800 x 210mm (WxHxD), 54kg no batteries / 90kg with batteries (6xWSA 017)
Material	Metal housing for surface mounting
Colour	Grey (RAL 7035)
IP rating	IP54
Approval / certification	WSC 520/540/560: Approved according to EN 12101-10. The panel is also a ISO 21927-9 Type D panel WSC 5MC KNX (module): Certified and listed by BACnet Interest Group Europe. See certificate and pics on our website www.windowmaster.com
Delivery includes	FlexiSmoke™ smoke ventilation panel. Supplied with: • WSA 510 end of line module, 1 pcs. • WSA 501 10kΩ resistors (package of 10 pcs.): WSC 520/1 package, WSC 540/2 packages, WSC 560/3 packages If the module WSA 5UM is a part of the panel delivery will include 4 pcs. WSA 510 end of line module per "WSA 5UM" module.
To be ordered separately	Back-up battery type WSA 017 (12V/17-18Ah) – order two batteries per 20A section
Note	We reserve the right to make technical changes

Item code composition

1   **Size of the smoke control panel – Choose overall amps**
A. 20A   = WSC 520
B. 40A   = WSC 540
C. 60A   = WSC 560

2   **Overall control module – with or without field bus interface?**
A. Without field bus interface (WSA 5MC NCO)   = 0
B. With field bus interface (KNX/BACnet IP)   = K

3   **Expansion module in slot 3* – the first free slot in the section**
A. No module   = 0
B. WSA 5IO – input-/output module*   = I
C. WSA 5UM – motor module for ±24V standard or MotorLink® motors   = U

4   **Expansion module in slot 4* – the second free slot in the section**
A. No module   = 0
B. WSA 5IO – input-/output module*   = I
C. WSA 5UM – motor module for ±24V standard or MotorLink® motors   = U

5   **Expansion module in slot 5* – the third free slot in the section**
A. No module   = 0
B. WSA 5IO – input-/output module*   = I
C. WSA 5UM – motor module for ±24V standard or MotorLink® motors   = U

6   **Certification**
Approval according to EN 12101-10   = E
Approval according to ISO 21927-9

7   **Product version**
Product version   = 5

To be defined per 20A section

*   **Expansion module position**
A. If an input-/output module is selcted, it is inserted in slot 3.
B. If further modules are inserted, the input-/output modules are inserted before the motor modules

Examples with FlexiSmoke™		
Number/type of motor groups and other functions	**Expansion modules**	**Item number**
Examples with WSC 520		
1 ±24V standard motor line	No communication No expansion modules	WSC 520 0000 Ex
1 ±24V standard motor lines and 4 ±24V standard or MotorLink® motor lines	1 x WSA 5UM ±24V universal motor module	WSC 520 0U00 Ex
1 ±24V standard motor lines, 4 ±24V standard or MotorLink® motor lines, and KNX/BACnet IP field bus interface	1 x WSA 5MC overall control module with KNX/BACnet IP 1 x WSA 5UM universal motor module	WSC 520 KU00 Ex
1 ±24V standard motor lines, 4 ±24V standard motor or MotorLink® lines, KNX/BACnet IP field bus interface and input / output module	1 x WSA 5MC overall control module with KNX/BACnet IP 1 x WSA 5IO input/output module 1 x WSA 5UM universal motor module	WSC 520 KIU0 Ex
1 ±24V standard motor lines, 8 ±24V standard or MotorLink® motor lines, KNX/BACnet IP field bus interface and input / output module	1 x WSA 5MC overall control module with KNX/BACnet IP 1 x WSA 5IO input/output module 2 x WSA 5UM universal motor module	WSC 520 KIUU Ex
1 ±24V standard motor lines, 8 ±24V standard or MotorLink® motor lines, and KNX/BACnet IP field bus interface	1 x WSA 5MC overall control module with KNX/BACnet IP 2 x WSA 5UM universal motor modules	WSC 520 KUU0 Ex
1 ±24V standard motor lines, 12 ±24V standard or MotorLink® motor lines KNX/BACnet IP field bus interface	1 x WSA 5MC overall control module with KNX/BACnet IP 3 x WSA 5UM universal motor modules	WSC 520 KUUU Ex
Examples with WSC 540 and WSC 560		
2 ±24V standard motor lines, 16 ±24V standard or MotorLink® motor lines	2 x WSA 5IO input/output module 4 x WSA 5UM universal motor modules	WSC 540 0IUU 0IUU Ex
3 ±24V standard motor lines, 20 ±24V standard or MotorLink® motor lines and KNX/BACnet IP field bus interface	3 x WSA 5MC KNX/BACnet IP field bus interface modules 5 xWSA 5UM universal motor modules	WSC 560 KU00 KUU0 KUU0 Ex

FlexiSmoke™ WSC 520 / WSC 540 / WSC 560
Modular smoke ventilation panel 20-60A

Modules	Item no.
Power supply module 20A with 1 pcs. end of line module WSA 510	WSA 5PS
Overall control module without field bus interface	WSA 5MC NCO
Overall control module with field bus interface for KNX/BACnet IP	WSA 5MC KNX
Input/output module	WSA 5IO
Universal motor module with 4 pcs. end of line module WSA 510	WSA 5UM
Accessories	**Item no.**
Back-up battery for WSC 5xx, 12V, 17-18Ah (order two batteries per 20A section)	WSA 017
Break glass unit with signal, primary, plastic housing, with data communication. Smoke detectors and keypads can be connected to the break glass unit. Colour of the housing = x: red = 1, yellow = 2, grey = 3, orange = 5	WSK 501 000x
Break glass unit with signal, primary, metal housing, with data communication. Smoke detectors and keypads can be connected to the break glass unit. Colour of the housing = x: yellow = 2, grey = 3, orange = 5	WSK 502 000x
Break glass unit with signal, primary, plastic housing, with data communication. Smoke detectors and keypads can not be connected to the break glass unit. Requires FlexiSmoke™ firmware version 0.85 or later. Colour of the housing = x: red = 1, yellow = 2, grey = 3, orange = 5	WSK 503 000x
Break glass unit with signal, primary, metal housing, with data communication. Smoke detectors and keypads can not be connected to the break glass unit. Requires FlexiSmoke™ firmware version 0.85 or later. Colour of the housing = x: yellow = 2, grey = 3, orange = 5	WSK 504 000x
Smoke detector	WSA 311
Rain sensor	WLA 331
Rain/wind sensor	WLA 330
Rain/wind sensor, with pulse output	WLA 340
End of line motor module with resistance, 10 pcs.	WSA 510
Cable for CAN connection, 2x2x0.33mm^2, sold in hole meters	WLL 501
10kΩ resistance, 10 pcs.	WSA 501
Fire Alarm System module	WSA 306
Cable for wind and rain sensor WLA 340, 4m UV-resistent cable 4 x 2 x 0.75mm^2	WLL 604
Cables for comfort ventialtion – see separate product sheet for further information	WLL 7xx
Cables for smoke ventilation – see separate product sheet for further information	WLL 8xx
Cable glands for smoke panels	WSA 333
USB stick for log-data, back-up and firmware updates	WCA 304
Comfort keypad for 1 window or 1 window group	WSK 110 0A0B
Comfort keypad for 2 windows or 2 window groups	WSK 120 0A0B 0A0B