ELECTRIC CONTROL

2025

A WIDE RANGE
OF ELECTRICALLY CONTROLLED PRODUCTS

FAKRO®

WIRELESS CONTROL

WIFI TUYA

If you're looking for an innovative way to control your roof windows within your smart home, WiFi Tuya offers the perfect solution. Installation is remarkably straightforward, and expanding the system is completely hassle-free. Should you choose to enhance your home automation further, you can effortlessly add new devices and features to your existing network.

Tuya WiFi operation is exceptionally intuitive. You can easily control your roof windows via a smartphone app, remote control, or wall switch. This clever solution gives you complete command over air circulation and protects your interior from rain — all without leaving the comfort of your armchair. The system also includes a full range of solar-powered products, each equipped with a battery charged by an integrated solar panel.

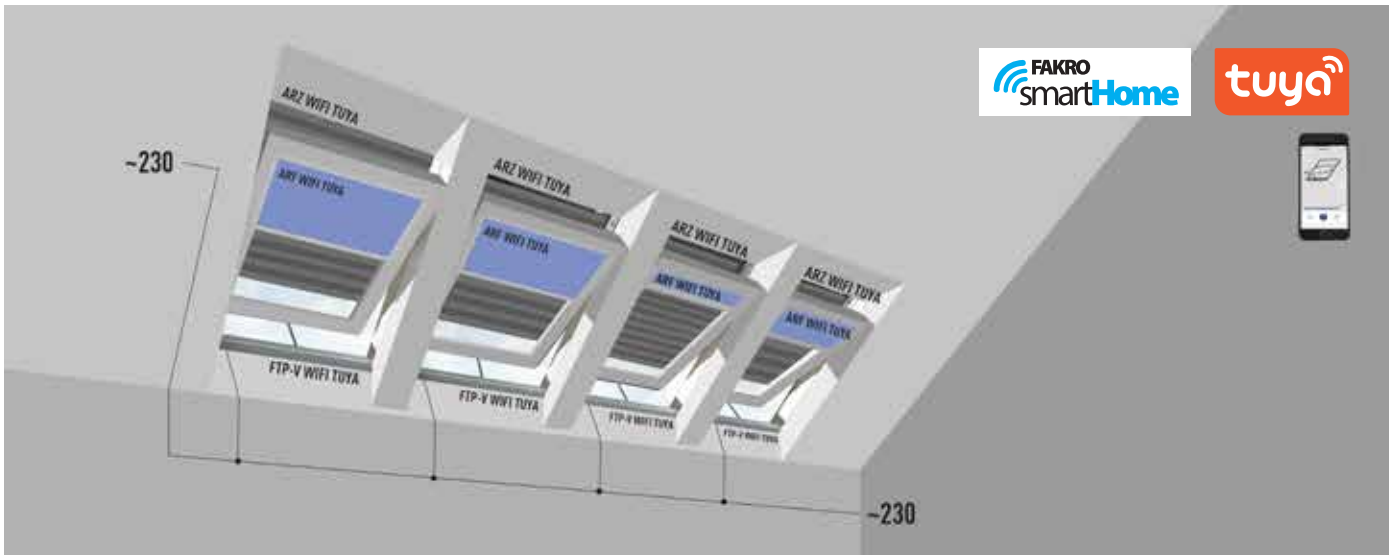
Tuya WiFi operation is exceptionally intuitive. You can easily control your roof windows via a smartphone app, remote control, or wall switch. This clever solution gives you complete command over air circulation and protects your interior from rain — all without leaving the comfort of your armchair. The system also includes a full range of solar-powered products, each equipped with a battery charged by an integrated solar panel.

To further enhance user comfort, it's worth using the dedicated FAKRO Smart app. This free and intuitive tool has been designed specifically for users of FAKRO products operating with Tuya WiFi technology. Available for both Android and iOS, the app enables you to control your devices remotely from anywhere in the world. It allows you to easily add new products, create schedules and scenarios, and automate various processes. With its modern interface, consistent with the brand's visual identity, FAKRO Smart makes it simple to manage your entire Smart Home system – not only FAKRO products, but also other devices compatible with the Tuya platform.

Download the app and discover the full potential of your smart home.

ANDROID **IOS**

SAMPLE USE OF FAKRO WIFI TUYA PRODUCTS

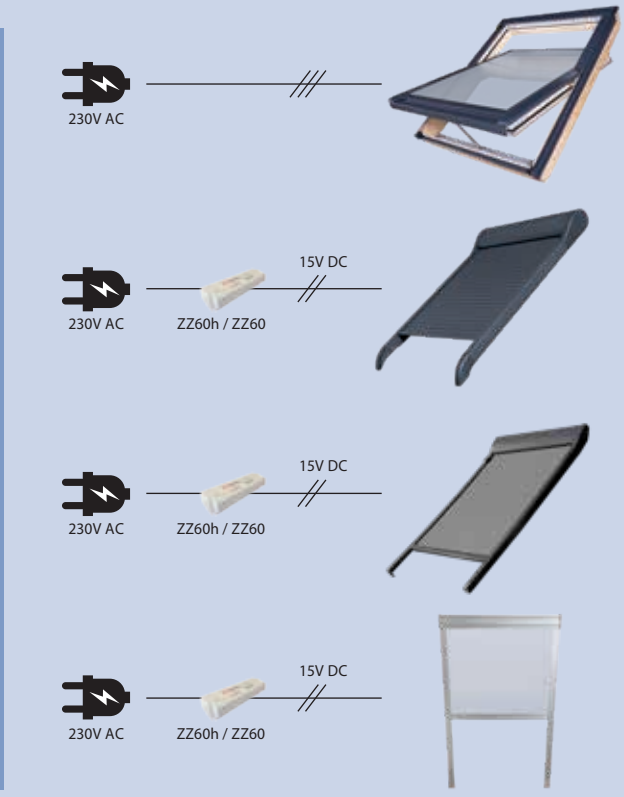


WIFI Tuya roof windows are connected to the 230V AC. WiFi Tuya roof windows and WiFi Tuya accessories provide maximum comfort of using the attic space.

Devices can be controlled via smartphone app locally or from anywhere in the world. Simply install the app to create a schedule of operations tailored to your needs, set a comfortable position, control the status of your devices and share data with your household members.

OPERATION & SPECIFICATION

CONTROL SYSTEM WIFI TUYA



FTP-X P50 APWX WiFi Tuya

The electric roof window provides maximum comfort in the attic. Manage your window via smartphone app. Use your attic safely: the rain sensor monitors the weather conditions outside, the reed relay sensor supervises the status of your window in cooperation with the alarm system.

Technical specification	
Rated voltage	230VAC
Nominal power	60W

External roller shutter ARZ Komfort WiFi Tuya
External awning blind AMZ Komfort WiFi Tuya

The electric roller shutter and awning blind provide maximum comfort within the attic space. Manage your accessories using smartphone app. Control the temperature and the quantity of light entering the attic.

Technical specification	ARZ WIFI Tuya	AMZ WIFI Tuya
Rated voltage	15VDC	15VDC
Nominal power	30W	30W

Internal blinds ARP NE WiFi Tuya, ARF NE WiFi Tuya

The electric internal blind ensures maximum comfort within the attic space. Manage your accessories using smartphone app and control the quantity of light entering the attic.

Technical specification	ARP NE WIFI Tuya	ARF NE WIFI Tuya
Rated voltage	15VDC	15VDC
Nominal power	10W	10W

CONTROLLED DEVICES WIFI TUYA

Roof windows WiFi Tuya

WiFi Tuya roof windows are an important and integral part of the smart home in the WiFi wireless system. Windows can be controlled from any place in the room and even the world via smartphone app to result in comfortable operation. WiFi Tuya windows are particularly recommended for rooms where they are fitted high above user's head and their direct operation is difficult.

Internal accessories WiFi Tuya

Internal accessories protect against light entering the room and pleasantly dim the interior. They also enhance room decor and style. Accessories with the WiFi Tuya module can be fitted in standard windows by connecting via a power supply unit and operated directly via smartphone or using the ZTP3 WiFi remote control. Internal accessories operate only when the window is closed.

External accessories WiFi Tuya

External accessories protect the attic space against excessive heat gain on hot summer days. The WiFi Tuya awning blind and WiFi Tuya roller shutter can be fitted to WiFi or standard windows by connecting via a power supply unit and operated directly via smartphone or using the ZTP3 WiFi remote control.

Window drive ZTN 230

An aesthetic solution for automating manual roof windows, enabling their remote control and attic ventilation. Equipped with a chain actuator with a handle and a power supply unit. Operated via a mobile app or WiFi Tuya controller. An optional rain detector (to be purchased separately) automatically closes the window during rainfall, ensuring safety and comfort of use.

55 / ...	66 / ...	78 / ...	94 / ...	114 / ...	134 / ...
850216 ✓	850217 ✓	850218 ✓	850219 ✓	850220 ✓	850221 ✓

Window drive ZTN Solar

A modern solution for automating manual roof windows, enabling their remote their control and attic ventilation. A built-in solar panel recharges the battery, eliminating the need for connection to the mains. Operation is via a mobile app or WiFi Tuya controller. An optional ZRD rain sensor (to be purchased separately) automatically closes the window during rainfall, increasing comfort and safety of use.

55 / ...	66 / ...	78 / ...	94 / ...	114 / ...	134 / ...
850255 ✓	850256 ✓	850257 ✓	850258 ✓	850259 ✓	850260 ✓

Concentration sensor ZTCO2

Carbon dioxide (CO2) concentration sensor in the air. It is used to monitor indoor air quality. It operates by detecting infrared radiation. Ideal for ventilation and environmental control systems. Compatible with FAKRO Tuya WiFi products, e.g. FTP-V Tuya WiFi roof window.

850226	✓

CONTROLLING DEVICES WIFI TUYA

Shutter module ZTMR230

Remote control module for 230V AC shutters. Control via smartphone app and a wall switch

Technical specification:	
Power supply	230V DC
Radio protocol	WiFi
Working temperature	0-40°C
Dimensions	46 x 44 x 20 mm

850225	✓

Gateway ZTG

WiFi / ZigBee gateway to operate WiFi Tuya devices by means of ZTK3 keyboard and ZTP3 remote control. It is essential to control Solar devices via app, remote control and keyboard. The power supply unit must be purchased separately.

Technical specification:	
Power supply	microUSB 5V/1A DC
Communication protocol	Wi-Fi & ZigBee
Range	30 m (in open space)
Working temperature	-10 to +50°C
Dimensions	62mm x 54mm x 15.5mm

850224	✓

Remote control ZTP3

3-channel remote control, WiFi/ZigBee scene controller.

Used to control up to three devices or three groups of WiFi Tuya devices offered by FAKRO.

A ZTG gateway is required for the remote control to operate.

Technical specification:	
Power supply	battery CR2032 3VDC
Communication protocol	ZigBee
Range	25 m (in open space)
Working temperature	-10 to +45°C
Dimensions	88mm x 30mm x 12mm

850222	✓

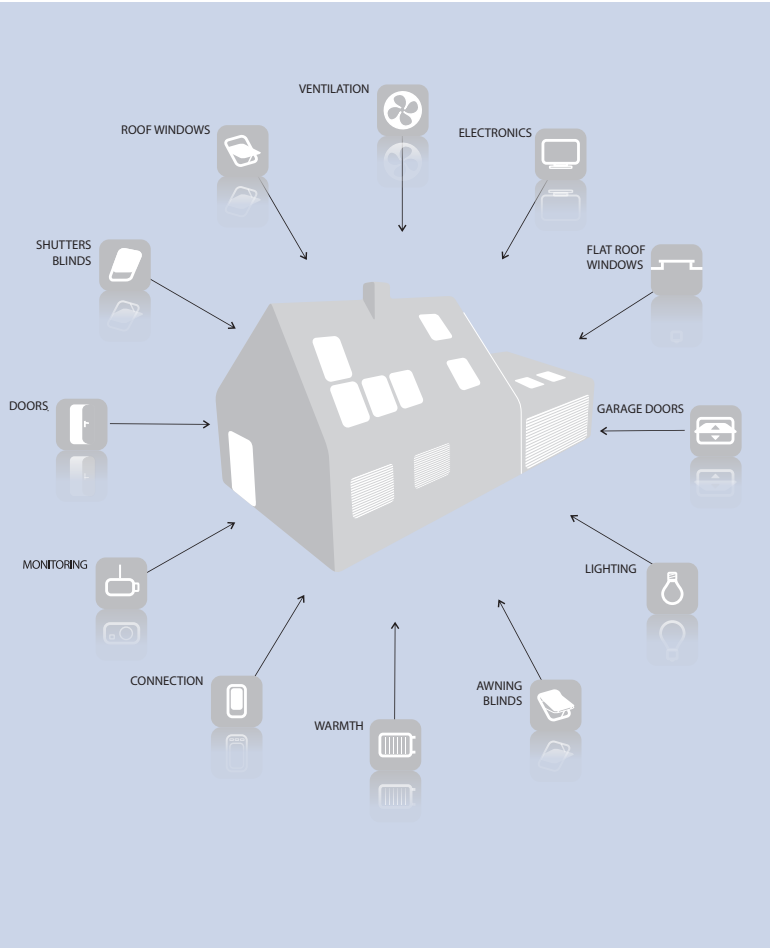
Keyboard ZTK3

3-channel remote control, WiFi/ZigBee scene controller.
Used to control up to three devices or three groups of WiFi Tuya devices offered by FAKRO.
A ZTG gateway is required for the keyboard to operate.

Technical specification:	
Power supply	battery CR2032 3VDC
Communication protocol	ZigBee
Range	25m (in open space)
Working temperature	-10 to +45°C
Dimensions	86mm x 86mm x 13mm

850223	✓

Z-WAVE SYSTEM



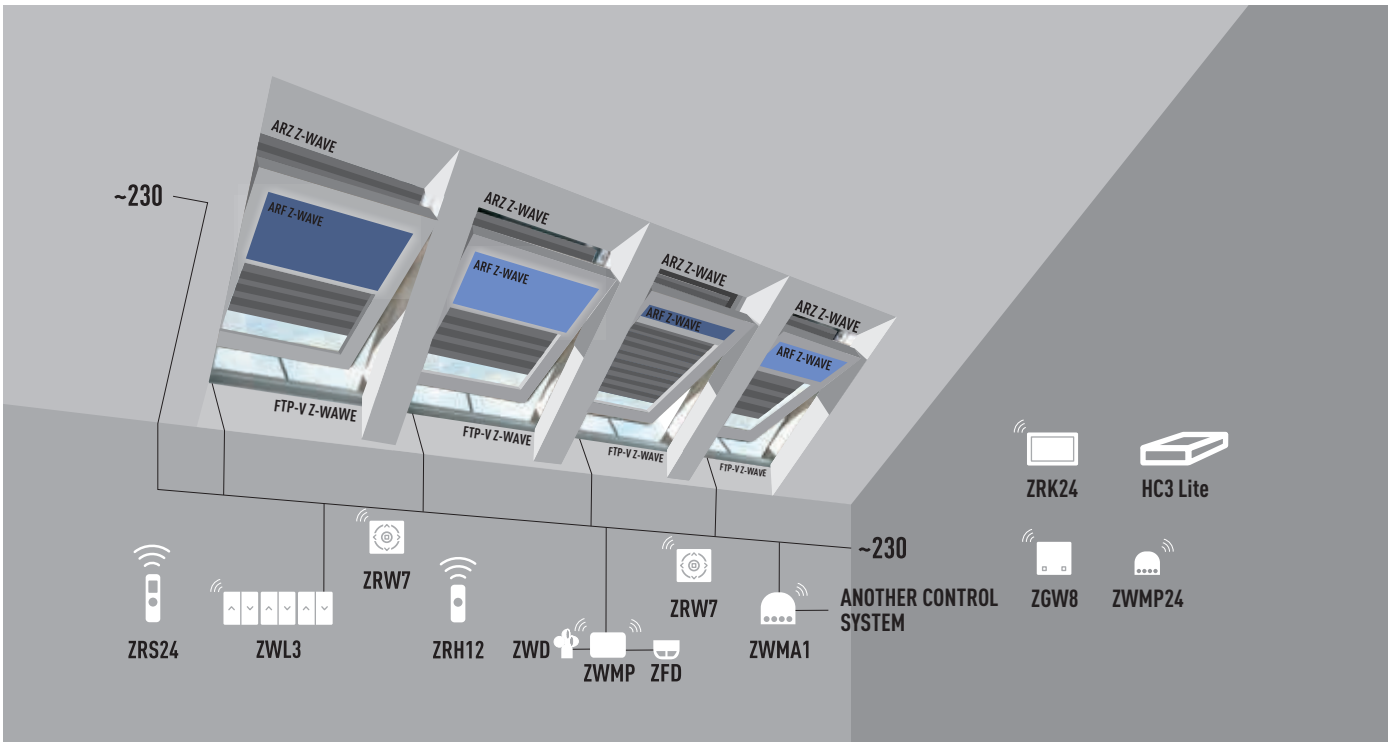
Our solutions in the area of wireless control are designed for those who are at the planning stage of building their dream house as well as for those who are looking for a change and giving their house a new character.

Electrically controlled roof window is often the first element in our house, influencing the selection of subsequent solutions. The Z-Wave system comes here as an ideal solution. This complete wireless radio protocol is used for communication between home electrical appliances. They can be operated via a remote control, wireless keypad, wall switch or smartphone. The Z-Wave gateway (eg. ZGW8 FAKRO or Fibaro Home Center Lite 3) is used for smartphone control and is heart of the system. It allows to create a smart house that can be controlled from anywhere in the world.

The Z-Wave system is easy to install, develop and manage at all stages of the building process. As the system does not require the use of an electrical switchboard or communication cables between the electric products, the cost of fitting is greatly reduced both in terms of the time taken to fit and the amount of materials required to complete the installation.

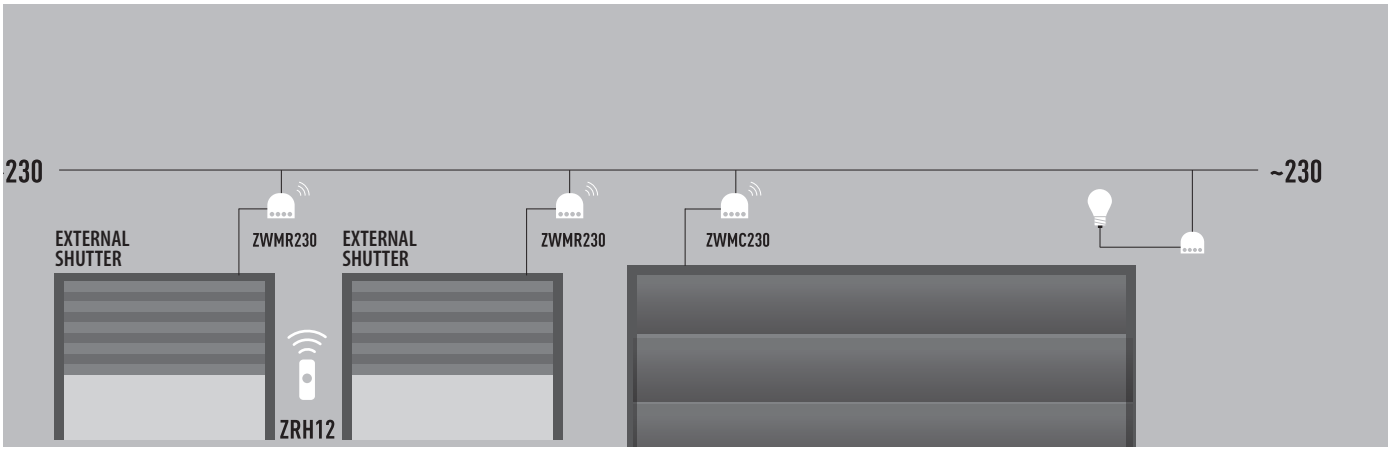
FAKRO products equipped with the Z-Wave module cooperate with FIBARO automation. The application of FIBARO Home Center 3 control unit allows to create a smart home that can be operated via a smartphone app from anywhere in the world with Internet access.

SAMPLE USE OF FAKRO Z-WAVE PRODUCTS



The Z-Wave roof windows are connected to 230V AC. A remote control with an ergonomic joystick operates windows individually or simultaneously. Wall keyboards and radio switches act as additional controllers. Detectors close windows when it starts raining. A weather module in cooperation with wind and smoke detectors is responsible for the safety of the building. Internal and external accessories are connected to the Z-Wave windows that are factory equipped with electrical wiring. Shutters are assigned to a remote control and wall switch.

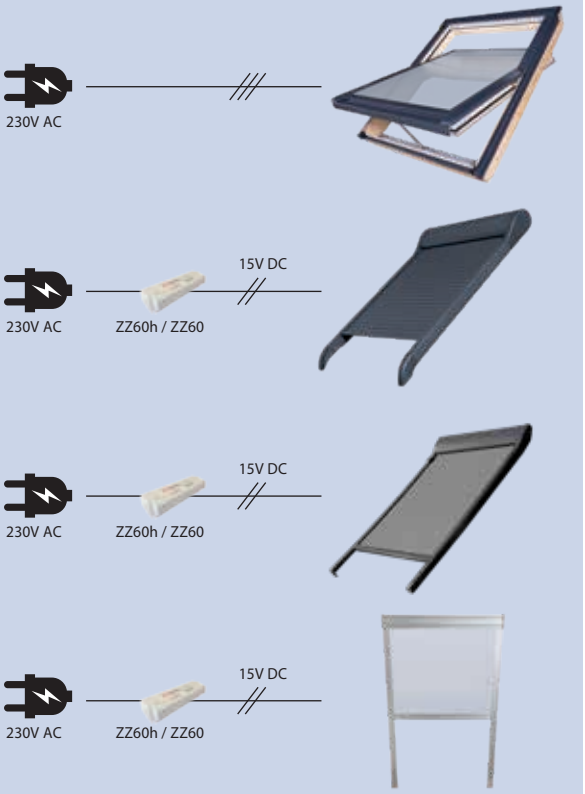
An advanced controller with a display triggers scenes. Another system (eg. emergency) manages windows in cooperation with a conversion module.
The control takes place via a smartphone with installed Supla app.



Vertical shutters fitted in the building are equipped with 230V AC shutter modules. They are operated by means of a remote control with an ergonomic joystick. The garage door is equipped with 230V AC contact module. The operation is via a door remote control. The lighting circuit comes with the Z-Wave controller to allow light management via Z-Wave controllers.

OPERATION & SPECIFICATION OF Z-WAVE PRODUCTS

CONTROL SYSTEM Z-WAVE



FTP-X P50 APZX Z-Wave

The electric roof window provides maximum comfort in the attic. Manage your window via modern Z-Wave controller. Use your attic safely: the rain sensor monitors the weather conditions outside, the reed relay sensor supervises the status of your window in cooperation with the alarm system.

Technical specification:	
Rated voltage	230 VAC
Nominal power	60W

Internal blind ARZ Komfort Z-Wave
External awning blind AMZ Komfort Z-Wave

Electrically operated roller shutters and awning blinds provide maximum comfort in the attic. Manage your accessories using any Z-Wave controller. Control the temperature and the quantity of light entering the attic.

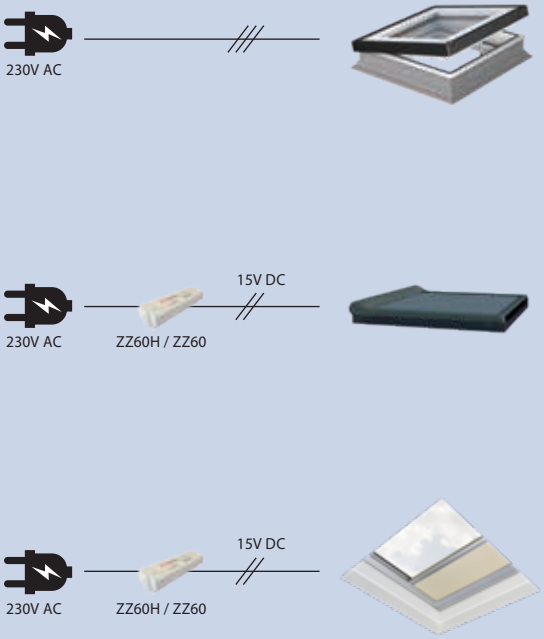
Technical specification:	ARZ Z-Wave	AMZ Z Wave
Rated voltage	15 VDC	15 VDC
Nominal power	25W	25W

Internal blind ARP NE Z-Wave, ARF NE Z-Wave

The electric internal blind provides maximum comfort in the attic. Manage your accessories using any Z-Wave controller. Control the quantity of light entering the attic.

Technical specification:	ARP NE Z-Wave	ARF NE Z Wave
Rated voltage	15 VDC	15 VDC
Nominal power	10W	10W

CONTROL SYSTEM Z-WAVE



Flat roof windows DEC Z-Wave,
DEF Z-Wave, DEG Z-Wave, DEZ Z-Wave

Electrically operated flat roof windows provide maximum comfort in the attic.

Technical specification:	DEC Z-Wave
Rated voltage	230 VAC
Nominal power	60W

Technical specification:	DEF Z-Wave	DEG Z-Wave	DEZ Z-Wave
Rated voltage	230VAC	230VAC	230VAC
Nominal power	60W	60W	60W

Window accessories AMZ/C Z-Wave, AMZ/Z Z-Wave

Accessories for windows control the quantity of light entering the attic.

Technical specification:	AMZ/C Z-Wave	AMZ/Z Z-Wave
Rated voltage	15 VDC	15 VDC
Nominal power	10W	10W

Blackout blind ARF/D Z-Wave

The blackout blind controls the quantity of light entering the attic.

Technical specification:	ARF/D Z-Wave
Rated voltage	15 VDC
Nominal power	10W

Z-WAVE CONTROLLED DEVICES

Window drive ZWN230

An aesthetic solution for automating manual roof windows and enabling their remote control. Equipped with a chain actuator with a handle and a power supply unit. It can be operated via a remote control, switch or smartphone app after applying the Z-Wave gateway. The control device and rain sensor must be purchased separately.

Technical specification:	
Chain reach	240mm
Power voltage	230 VAC
Nominal power (power supply unit)	60W
Nominal power (actuator)	12W
Chain pushing force	250N
Chain speed	4.25mm/s 9.7mm/s
Working temperature	(-10°C) to (+65°C) (-9°C)
Power cable	3x0.75mm^2

The cover comes in silver colour, also available in white on request.

	55 / ...	66 / ...	78 / ...	94 / ...	114 / ...	134 / ...
	850187	850188	850189	850190	850191	850192
	✓	✓	✓	✓	✓	✓

Set ZWZ Solar

An aesthetic solution for automatic manual roof windows and enabling their remote control without using electrical system. Equipped with a chain actuator with a handle, battery set, PV panel and ZRH12 remote control. It can also be operated via a smartphone app after installing HC3 Lite gateway. The rain sensor must be additionally purchased.

Technical specification:	
Radio protocol	Z-Wave EU 868.4 MHz
Radio range	up to 20 m in building
Chain pushing force	240mm
Chain speed	4.25mm/s
Power supply	14.4VDC. 1400mAh – NiMh
Working temperature	-10 to +65°C

The cover comes in silver colour, also available in white on request.

	55 / ...	66 / ...	78 / ...	94 / ...	114 / ...	134 / ...
	850233	850234	850235	850236	850237	850238
	✓	✓	✓	✓	✓	✓

Z-WAVE CONTROLLING DEVICES

Remote control ZRS24

An advanced Z-Wave remote control with a display, designed to control FAKRO Z-Wave devices, including the Solar version. It allows to create and manage 24 groups, 24 locations and 24 scenes. With the built-in display, the user can assign individual names to devices. The remote control comes with a USB charging port and a magnetic wall holder for convenient storage.

Technical specification:	
Radio protocol	Z-Wave
LCD display	240x320px
Power supply	3x1.2V AAA AKU
Working temperature	(5°C) to (40°C)
Dimensions	52x20x180mm

white 850083	✓
black 850092	✓

Remote control ZRH12

This remote control is a practical Z-Wave radio controller. It allows operation of up 12 devices in 12 groups by means of an ergonomic joystick. It features a modern design and is designed for all Z-Wave devices, including Solar versions. The remote control comes with a magnetic wall holder.

Technical specification:	
Radio protocol	Z-Wave
Power supply	2x1.5V AAA
Working temperature	(5°C) to (40°C)
Dimensions	48x17x125mm

white 850093	✓
black 850112	✓

Remote control ZRH1

This remote control is a single-channel Z-Wave radio controller. It allows operation of one device or one group of devices. A group can include up to 12 devices.

Technical specification:	
Radio protocol	Z-Wave
Power supply	2x1.5V AAA
Working temperature	(5°C) to (40°C)
Dimensions	48x17x125mm

850140	✓

Touch screen Z-Wave ZRK24

This touch screen is a 24-channel Z-Wave radio controller. It is designed to remotely control FAKRO Z-Wave devices. The touch screen makes it possible to operate up to 24 devices in 24 groups. It has the option to name devices and report their current status. The touch screen allows to automate the operation of Z-Wave devices using the functionality called Scenes.

Technical specification:	
Radio protocol	Z-Wave
Power supply	AKU 3.7 VDC.
Charging	µUSB 5V.1A
Screen	3.5" 640x480
Working temperature	(5°C) to (40°C)
Dimensions	98x80x25

850163 ✓

Wall keypad ZRW7

This is a multi channel wall keypad that works with FAKRO Z-Wave devices. The keypad can support up to 12 devices in each of 7 groups.

Technical specification:	
Radio protocol	Z-Wave
Power supply	3 VDC, 4xAAA
Working temperature	(0°C) to (40°C)
Dimensions	80x80x20mm

850110 ✓

Gateway HC3 Lite

This Z-Wave gateway is used to operate FAKRO Z-Wave products via Yubii smartphone app.

Technical specification:	
Radio protocol	Z-Wave
Power supply	5 V DC, max. 1 A
Working temperature	(5°C) to (40°C)
Working humidity	max. 75%
Power connector	USB Micro B
Dimensions	178x110x31mm

850199 ✓

Gateway ZGW8 Supla

This internet gateway integrating the Z-Wave system and WiFi allows easy and comfortable operation of chosen Z-Wave devices. The gateway supports up to 8 Z-Wave devices from anywhere in the world via Supla smartphone app or web browser.

Technical specification:	
Radio protocol	Z-Wave, WiFi
Power supply	230V AC
Working temperature	(5°C) to (40°C)
Dimensions	70x70x30mm

850184 ✓

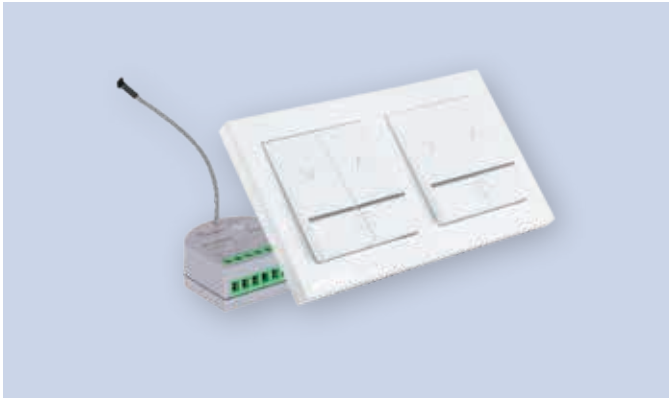
WALL CONTROLLER SONATA SERIES

Single controller ZWL1

A radio wall switch placed in a flush-mounted box used for the control of a single Z-Wave device or one group of devices. Compatible with Sonata series by Ospel.

Technical specification:	
Power supply	230 VAC
Radio protocol	Z-Wave
Working temperature	(5°C) to (40°C)
Dimensions	84x84x41 mm
Radio module dimensions	42x42x26 mm

white 850073	✓
Black 850079	✓

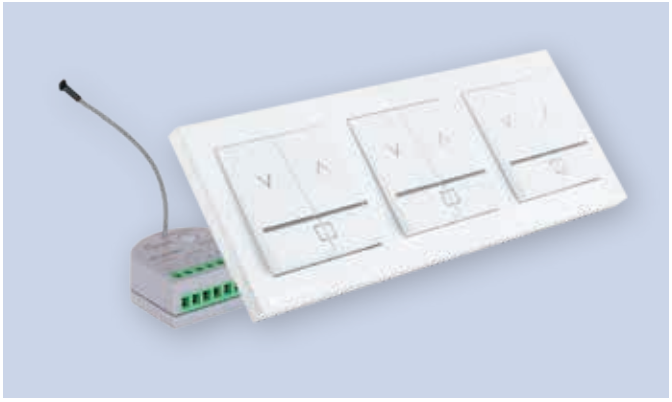


Double controller ZWL2

A radio wall switch placed in a flush-mounted box used for the control of two Z-Wave devices or two groups of devices. Compatible with Sonata series by Ospel.

Technical specification:	
Power supply	230 VAC
Radio protocol	Z-Wave
Working temperature	(5°C) to (40°C)
Dimensions	155x84x41 mm
Radio module dimensions	42x42x26 mm

white 850074	✓
black 850080	✓



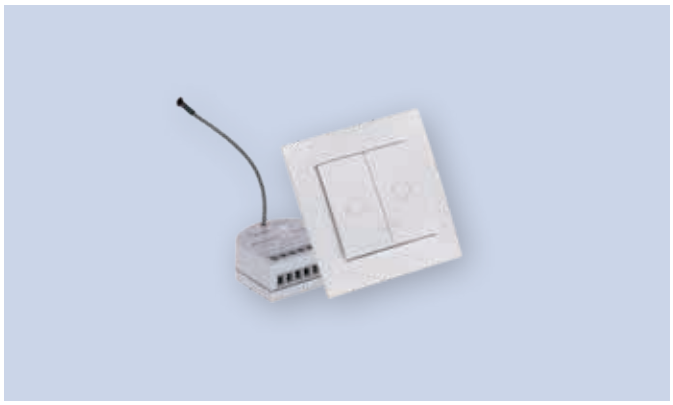
Triple controller ZWL3

A radio wall switch placed in a flush-mounted box used for the control of three Z-Wave devices or three groups of devices. Compatible with Sonata series by Ospel.

Technical specification:	
Power supply	230 VAC
Radio protocol	Z-Wave
Working temperature	(5°C) to (40°C)
Dimensions	226x84x41 mm
Radio module dimensions	42x42x26 mm

white 850075	✓
black 850081	✓

WALL CONTROLLER SIMON54 SERIES

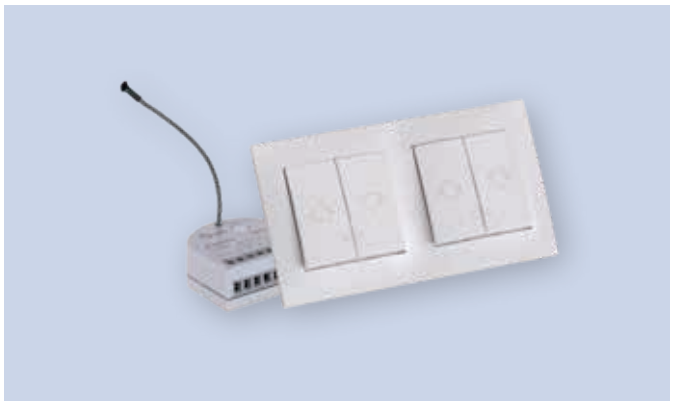


Single controller ZWK1

A radio wall switch placed in a flush-mounted box used for the control of a single Z-Wave device or one group of devices. Compatible with Simon54 series by Kontakt-Simon.

Technical specification:	
Power supply	230 VAC
Radio protocol	Z-Wave
Working temperature	(5°C) to (40°C)
Dimensions	82x87x41 mm
Radio module dimensions	42x42x26 mm

850165	✓

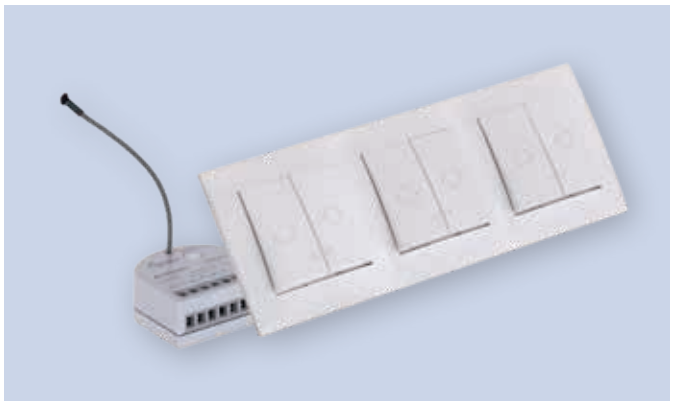


Double controller ZWK2

A radio wall switch placed in a flush-mounted box used for the control of two Z-Wave devices or two groups of devices. Compatible with Simon54 series by Kontakt-Simon.

Technical specification:	
Power supply	230 VAC
Radio protocol	Z-Wave
Working temperature	(5°C) to (40°C)
Dimensions	153x87x41 mm
Radio module dimensions	42x42x26 mm

850166	✓



Triple controller ZWK3

A radio wall switch placed in a flush-mounted box used for the control of three Z-Wave device or three groups of devices. Compatible with Simon54 series by Kontakt-Simon.

Technical specification:	
Power supply	230 VAC
Radio protocol	Z-Wave
Working temperature	(5°C) to (40°C)
Dimensions	224x87x41 mm
Radio module dimensions	42x42x26 mm

850167	✓

Z-WAVE MODULES

Weather module ZWMP

The module allows to control Z-Wave devices in case of changing weather conditions. For example, it closes roof windows when it starts raining.
The weather module is compatible with the ZRD rain sensor, ZWD wind sensor and ZFD smoke detector.

Technical specification:	
Radio protocol	Z-Wave
Power supply	230V AC
Working temperature	(5°C) to (40°C)
Dimensions	160x120x70 mm

850039	✓

Weather module ZWMP24

The module allows to control Z-Wave devices in case of changing weather conditions. For example, it closes roof windows when it starts raining. The weather module is compatible with the ZRD rain sensor, ZWD wind sensor and ZFD smoke detector. It is powered by 24VDC (ZZ16a power supply unit).

Technical specification:	
Radio protocol	Z-Wave
Power supply	12-24 VDC
Power consumption	5W
Working temperature	(-10°C) to (60°C)
Dimensions	46x44x20mm

850196	✓

Conversion module ZWMA4

The module allows to control 4 devices or 4 groups of Z-Wave devices by means of another control system, eg. alarm, thermostat, KNX/EIB system. Potential-free inputs are used for the control.

Technical specification:	
Radio protocol	Z-Wave
Power supply	230V AC
Working temperature	(5° C) to (40° C)
Dimensions	120x80x45 mm

850045	✓

Conversion module ZWMA1

The module allows to control one device or one group of Z-Wave devices by means of another control system, eg. alarm, thermostat, KNX/EIB system. Potential-free inputs are used for the control.

Technical specification:	
Radio protocol	Z-Wave
Power supply	230 VAC
Working temperature	(+5° C) to (40° C)
Dimensions	42 x 42 x 26 mm

850040	✓

Shutter module ZWMR230

A remote control module used to operate 230V AC roller shutters. The module is operated by means of any Z-Wave controller and a wall switch.

Technical specification:	
Power supply	230 VAC
Working temperature	(0°C) to (40°C)
Dimensions	46x44x20mm

850106	✓

Shutter module ZWMR24 - updating previous version of control system

A remote control module used to operate 24V DC devices, eg. ARZ-E roller shutters. It allows to update the previous version of FAKRO electric devices to the Z-Wave version. The module is operated by means of any Z-Wave controller and a wall switch.

Technical specification:	
Radio protocol	Z-Wave
Power supply	12-24 VDC
Maximum load	1A, 24 VDC
Working temperature	(0°C) to (40°C)
Dimensions	46x44x20 mm

850107	✓

Contact module ZWMC230

A remote control module used to operate a control panel of the garage door, entrance door, roller shutter or awning blind. The module is operated by means of any Z-Wave controller and a wall switch.

Technical specification:	
Radio protocol	Z-Wave
Power supply	230V AC
Maximum load	1A, 230 VAC DC
Working temperature	(0°C) to (40°C)
Dimensions	46x44x20 mm

85122	✓

Contact module ZWMC24

A remote control module used to operate a control panel of the garage door, entrance door, roller shutter or awning blind. The module is operated by means of any Z-Wave controller and a wall switch.

Technical specification:	
Radio protocol	Z-Wave
Power supply	12-24 VDC
Working temperature	(0°C) to (40°C)
Dimensions	46x44x20mm

850108	✓

Module ZWGR

A Z-Wave repeater module improving Z-Wave communication range.

Technical specification:	
Radio protocol	Z-Wave
Power supply	230 VAC
Working temperature	(0°C) to (40°C)
Dimensions	46x44x20mm

850124	✓

Z-WAVE SENSORS

Thermostat Z-Wave ZRT

It allows automatic control of Z-Wave devices based on temperature and humidity measurements in the room. The thermostat is available in 4 control groups with 5 devices in each of them. The ZRH12, ZRS24 remote control or Z-Wave gateway is required for configuration.

Technical specification:	
Radio protocol	Z-Wave
Power supply	2x1,5V AAA
Working temperature	(5°C) to (40°C)
Dimensions	48x17x125 mm

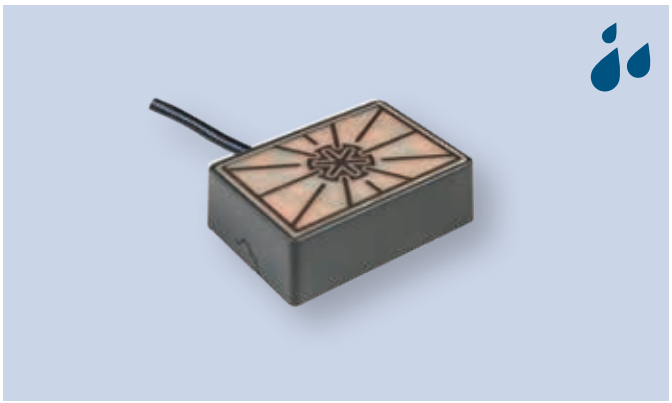
850142 ✓

Solar sensor Z-Wave ZID

It allows automatic control of Z-Wave devices based on insolation level measurement. The solar sensor is available in 2 control groups with 5 devices in each of them. The ZRH12, ZRS24 remote control or Z-Wave gateway is required for configuration.

Technical specification:	
Radio protocol	Z-Wave
Power supply	solar
Dimensions	577x82x62mm

850172 ✓



Rain sensor ZRD

In cooperation with the **ZWMP/ZWMP24 weather module**, the rain sensor closes Z-Wave devices in the event of rain.

Technical specification:	
Power supply	8-32V DC
Dimensions	50x35x15 mm
Power cable	3x0.25mm^2 (5 m in packaging)

55035 ✓

Wind sensor ZWD

In cooperation with the **ZWMP/ZWMP24 weather module**, the wind sensor controls Z-Wave devices under impact of the wind speed.

Wind speed activating the sensor: 40km/h.

Technical specification:	
Dimensions	80x85 mm
Power cable	2x0.25mm² (5 m in packaging)

55036	✓

Smoke detector ZFD

In cooperation with the **ZWMP/ZWMP24 weather module**, the ZFD detector automatically opens Z-Wave devices upon detecting visible smoke.

Technical specification:	
Power supply	12 VDC
Dimensions	ø109x49 mm

850053	✓

Z-WAVE POWER SUPPLY UNITS

Power supply unit ZZ60

Ventilated switched-mode power supply unit 15V DC used to adjust the available power voltage to the requirements of a powered electric product. The power supply unit is intended for FAKRO Z-Wave devices and is suitable for installation in the distribution box.

Technical specification:	
Nominal power	60W
Power voltage	90 - 264 VAC
Output voltage	15V DC+-2%
Working temperature	(0°C) to (50°C)
Dimensions	78x93x56 mm

ZZ60

850038	✓

Power supply unit ZZ60h

Ventilated switched-mode power supply unit 15V DC used to adjust the available power voltage to the requirements of a powered electric product. The power supply unit is intended for FAKRO Z-Wave devices and is suitable for installation in non-standard locations.

Technical specification:	
Nominal power	60W
Power voltage	90 - 264 VAC
Output voltage	15V DC+-5%
Working temperature	(-25°C) to (65°C)
Dimensions	163x43x32 mm

ZZ60h

850041	✓

A maximum number of FAKRO Z-Wave electric products connected to the ZZ60/ZZ60h power supply unit: ARZ Z-Wave (2 pcs.), AMZ Z-Wave (2 pcs.), VMZ Z-Wave (1 pc.), ARF Z-Wave (6 pcs.), ARP Z-Wave (6 pcs.), ZWS12 (5 pcs.).

Power supply unit ZZ100-24V

Hermetic switched-mode power supply unit 24V DC used to adjust the available power voltage to the requirements of a powered electric product. The power supply unit is intended for installation in non-standard locations. It allows to upgrade the previous version of FAKRO electric devices to the Z-Wave version. For this purpose it is required to purchase the ZWMR24 shutter module.

Technical specification:	
Nominal power	230 VAC
Power voltage	100W
Rated voltage	24V DC
Rated current	4,2A
Working temperature	(-25°C) to (65°C)
Dimensions	190x52x37 mm

ZZ100-24V

850125	✓

Power supply unit ZZ16A

Switched-mode power supply unit 24V DC used to adjust the available power voltage to the requirements of a powered electric product. The power supply unit is intended to power devices whose power does not exceed 16W such as the ZWMP24 weather module.

Technical specification:	
Nominal power	16W
Power voltage	90 - 264 VAC
Output voltage	24V DC
Working temperature	(-25°C) to (65°C)
Dimensions	77x40x29 mm

ZZ16A

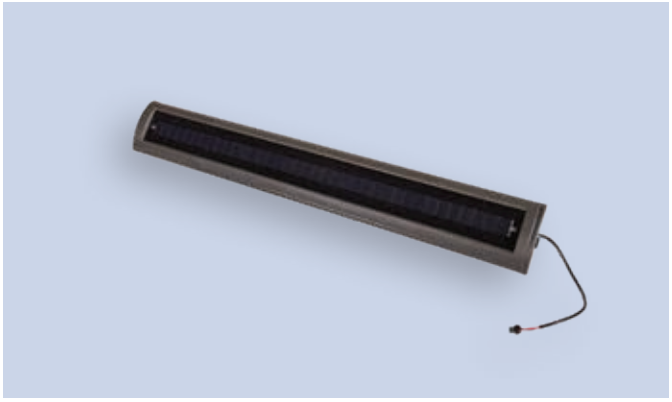
850069	✓

Power supply unit ZZ150h

Hermetic switched-mode power supply unit 15V DC used to adjust the available power voltage to the requirements of a powered electric product. The power supply unit is intended for FAKRO Z-Wave devices, especially large-sized VMZ Z-Wave vertical awning blinds

Technical specification:	
Nominal power	100W
Power voltage	90-264 VAC
Output voltage	15VDC
Working temperature	(-25°C) to (70°C)
Dimensions	191x63x37.5mm

ZZ150h	
850254	✓



Solar panel ZPV

An additional photovoltaic panel providing an extra power source for the VMZ Solar awning blind, which is located in an unfavourable (shaded) location. Also available in a double version (ZPV2) for large-sized vertical awning blinds.

ZPV	
850068	✓

Technical specification:	
Housing colour	RAL 7022
Dimensions	590x80x 55 mm

ZPV-2	
850239	✓

OTHER CONTROLLING DECICES

Single wall switch LP1

A single wall switch allows potential-free control of the modules: ZWMR24, ZWMR230, ZWMA1, ZWMA4, ZWMC24, ZWMC230.

Technical specification:	
Colour*	white, black
Working temperature	(5°C) to (40°C)
Frame dimensions	84 x 84 x 41 mm

other colours available on request: white glass, black glass, wood, stone

white	850070	✓
black	850076	✓

Double wall switchLP2

A double wall switch allows potential-free control of the modules: ZWMR24, ZWMR230, ZWMA1, ZWMA4, ZWMC24, ZWMC230.

Technical specification:	
Colour*	white, black
Working temperature	(5°C) to (40°C)
Frame dimensions	155 x 84 x 41 mm

other colours available on request: white glass, black glass, wood, stone

white	850071	✓
black	850077	✓

Triple wall switch LP3

A triple wall switch allows potential-free control of the modules: ZWMR24, ZWMR230, ZWMA1, ZWMA4, ZWMC24, ZWMC230.

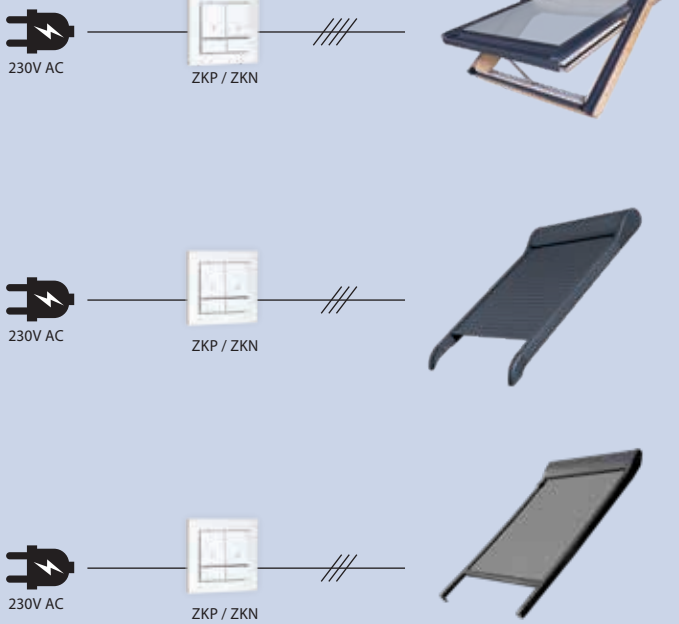
Technical specification:	
Colour*	white, black
Working temperature	(5°C) to (40°C)
Frame dimensions	226 x 84 x 41 mm

other colours available on request: white glass, black glass, wood, stone

white	850072	✓
black	850078	✓

WIRED CONTROL

OPERATION & SPECIFICATION OF ELECTRO 230 PRODUCTS

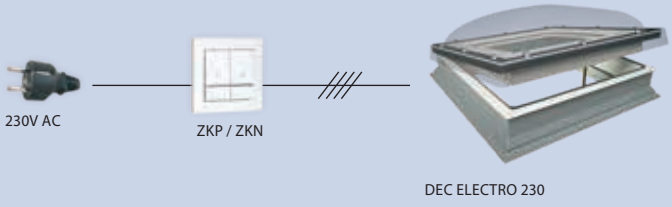


Electro 230
- Wired control for roof windows

The Electro 230 products include the FTP-V Electro windows equipped with the 230V AC actuator and external accessories such as the ARZ Electro 230 roller shutter or Electro 230 awning blind with built-in 230V AC motor. These products can be operated by means of the ZKP wall switch (flush-mounted).

Instead of the switch, one can use the shutter switch with 230V AC. It is also possible to connect the product to the Z-Wave network using the ZWMR230 controller and operate it using a smartphone via the Z-Wave or WiFi Tuya gateway.

Technical specification:	FTP-V Electro 230	ARZ Komfort Electro 230	AMZ Electro 230
Rated voltage	230 VAC	230 VAC	230 VAC
Nominal power	25W	25W	25W



DEC ELECTRO 230

Electro 230
- Wired control for flat roof windows

The DE_ Electro 230 windows are factory equipped with the actuator controlled using any 230V AC system, while built-in reed relay ensures quick and easy connection of the window to home alarm system.

Z-Wave external and internal electric accessories should be used with the Electro 230 flat roof windows as it is not possible to control them directly using 230V AC.

Technical specification:	DEC Electro 230	DEF Electro 230	DEG Electro
Rated voltage	230 VAC	230 VAC	230 VAC
Nominal power	25W	25W	25W

ELECTRO 230 CONTROLLING DEVICES 230

Single flush-mounted wall switch ZKP

A single flush-mounted momentary position wall switch enables the control of a single device such as the AMZ Electro 230.

Technical specification:	
Frame colour	white
Switch colour	white
Working temperature	(-20°C) to (45°C)
Dimensions	85 x 85 x 35 mm

850066	✓

Single surface-mounted wall switch ZKN

A single surface-mounted momentary position wall switch enables the control of a single device such as the AMZ Electro 230.

Technical specification:	
Frame colour	white
Switch colour	white
Working temperature	(-20°C) to (45°C)
Dimensions	90 x 90 x 55 mm

850067	✓

Module DZU

A module used to control one tubular actuator in a 230V central control system for shutter and awning drives.

Technical specification:	
Power voltage	230VAC
Control voltage	230VAC
Dimensions	45mm x 45mm x 20mm

850128	✓

Shutter module ZWMR230

A remote control module used to operate 230V AC roller shutters. The module is operated by means of any Z-Wave controller and a wall switch.

Technical specification:	
Power supply	230 VAC
Working temperature	(0°C) to (40°C)
Dimensions	46x44x20mm

850106	✓

Shutter module ZWMR24 - updating previous version of control system

A remote control module used to operate 24V DC devices, eg. ARZ-E roller shutters. It allows to update the previous version of FAKRO electric devices to the Z-Wave version. The module is operated by means of any Z-Wave controller and a wall switch.

Technical specification	
Radio protocol	Z-Wave
Power supply	12-24 VDC
Maximum load	1A, 24 VDC
Working temperature	(0°C) to (40°C)
Dimensions	46x44x20 mm

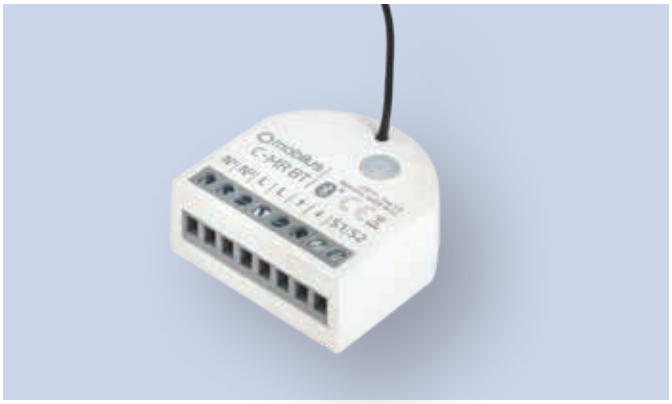
850107	✓

Shutter module ZTMR230

Remote control module for 230V AC shutters. Control via the FAKRO Smart smartphone app and a wall switch.

Technical specification	
Power supply	230V DC
Working temperature	0-40
Radio protocol	WiFi
Dimensions	46 x 44 x 20 mm

850225	✓



C-MR BT

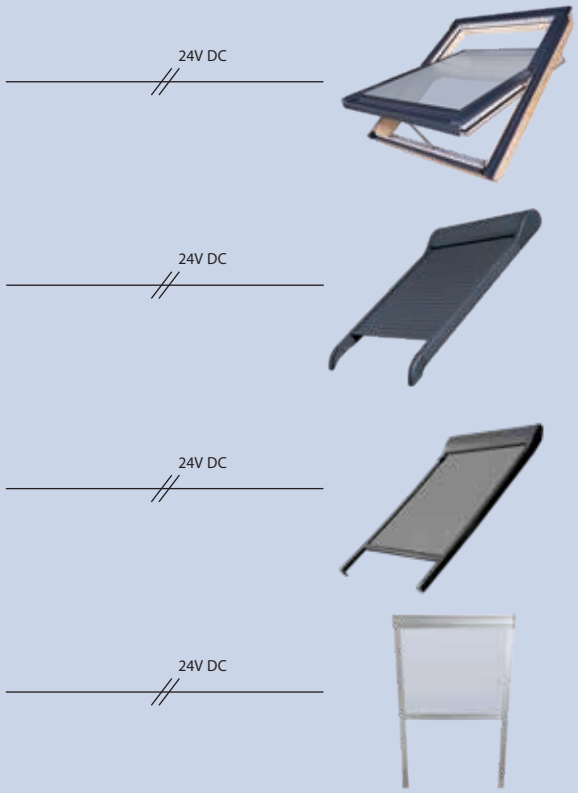
The MOBILUS C-MR BT flush-mounted module provides control of standard roller shutter and awning blind actuators.
It is the first module of its kind on the market to support the Apple Home protocol. Integration with the Apple Home system guarantees ease of use, a high level of security and close integration with Siri (Apple's voice assistant).

Technical specification	
Power supply	230V
Radio protocol	Bluetooth, Cosmo 2Way
Working temperature	(0°C) to (40°C)
Dimensions	44 x 46 x 19 mm

850200	✓

OPERATION & SPECIFICATION OF ELECTRO 24 PRODUCTS

CONTROL SYSTEM ELECTRO 24



Electro 24 are wired FAKRO electric products operated via appropriate controller by changing the polarization of 24V DC voltage. They are suitable for cooperation with external control systems, eg. ZWMR24 module.

FTP-V Electro 24

The electric roof window provides maximum comfort in the attic. It can be operated using external control system. Use your attic safely: the reed-relay sensor supervises the status of your window in cooperation with the alarm system.

Technical specification:	
Rated voltage	24 VAC
Nominal power	9W

External accessories ARZ Electro 24 & AMZ Electro 24

Electrically operated roller shutters and awning blinds provide maximum comfort in the attic. They can be operated using external control system. Control the quantity of light entering the attic.

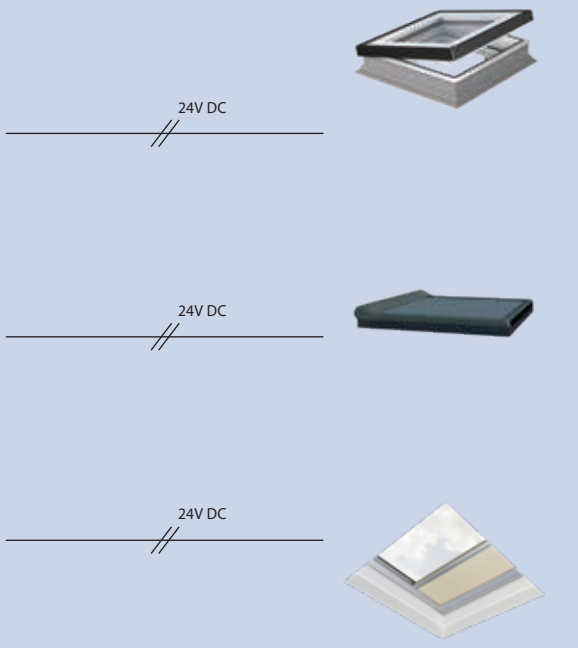
Technical specification:	ARZ Komfort Electro 24	AMZ Electro 24
Rated voltage	24 VDC	24 VDC
Nominal power	15W	15W

Internal blinds ARP Electro 24, ARF Electro 24

Electrically operated internal blind provide maximum comfort in the attic. They can be operated using external control system. Control the quantity of light entering the attic.

Technical specification:	ARP Electro 24	ARF Electro 24
Rated voltage	24 VDC	24 VDC
Nominal power	15W	15W

CONTROL SYSTEM ELECTRO 24



DEC ELECTRO 24, DEF ELECTRO 24, DEG ELECTRO 24

Windows ensure excellent performance and convenient operation. They are factory equipped with the actuator controlled using any 24V DC system, while built-in reed relay ensures quick and easy connection of the window to home alarm system.

Technical specification:	
Rated voltage	24 VDC
Nominal power	12W

AMZ/C ELECTRO 24

The AMZ/C Electro 24 external awning blind protects against excessive heat gain in the summer while providing eye contact with the surroundings. It comes with 24V motor and an overload module. The blind can be controlled using any 24V DC system by changing the polarization.

Technical specification:	
Rated voltage	24 VDC
Nominal power	12W

Shutter module ZWMR24 - updating previous version of control system

A remote control module used to operate 24V DC devices, eg. ARZ-E roller shutters. It allows to update the previous version of FAKRO electric devices to the Z-Wave version. The module is operated by means of any Z-Wave controller and a wall switch.

Technical specification:	
Radio protocol	Z-Wave
Power supply	12-24 VDC
Maximum load	1A, 24 VDC
Working temperature	(0°C) to (40°C)
Dimensions	46x44x20 mm

850107	✓

Single wall switch LP1

A single wall switch allows potential-free control of the modules: ZWMR24, ZWMR230, ZWMA1, ZWMA4, ZWMC24, ZWMC230.

Technical specification:	
Colour*	white, black
Working temperature	(5°C) to (40°C)
Frame dimensions	84 x 84 x 41 mm

other colours available on request: white glass, black glass, wood, stone

white 850070	✓
black 850076	✓

Power supply unit ZZ100-24V

Hermetic switched-mode power supply unit 24V DC used to adjust the available power voltage to the requirements of a powered electric product. The power supply unit is intended for installation in non-standard locations. It allows to upgrade the previous version of FAKRO electric devices to the Z-Wave version. For this purpose it is required to purchase the ZWMR24 shutter module.

Technical specification:	
Power supply	230 VAC
Nominal power	100W
Rated voltage	24V DC
Rated current	4,2A
Working temperature	(-30 °C) to (70 °C)
Dimensions	190x52x37 mm

ZZ100-24V

850125	✓

Power supply unit ZZ16A

Switched-mode power supply unit 24V DC used to adjust the available power voltage to the requirements of a powered electric product. The power supply unit is intended to power devices whose power does not exceed 16W such as the ZWMP24 weather module.

Technical specification:	
Nominal power	16W
Power voltage	90 - 264 VAC
Output voltage	24V DC
Working temperature	(-30°C) to (70°C)
Dimensions	77x40x29 mm

ZZ16A

850069	✓

SMOKE VENTILATION

SMOKE VENTILATION WINDOW FSP P2

FEATURES:

- The window is a part of gravitational smoke ventilation system and is used for extraction of smoke and heat emitted in a building during a fire.
- Under normal operating conditions the window can serve the purpose of room ventilation and lighting.
- Made of pinewood, vacuum impregnated and coated with two layers of acrylic varnish.
- Equipped with two electric actuators (24V), which open the sash after receiving electric signal from the control unit.
- Open sash protects the ventilation opening against lateral wind. The window is installed in such a way that all its edges are below the roof ridge level.
- The window is manufactured and certified according to harmonised EN 12101-2:2003. The most common area for their use are stairwells.
- Compliant with requirements of EN 12101-2: RE 1000(+10000), SL 500, WL1500, T(00), B300.
- Maximum sash opening pitch: 75° in 51 seconds when fully loaded.
- Suitable for pitches from 20° - 60° with special flashings type: ESS, EZS-P, EHS-P and EGS (flashings for pivot windows do not fit smoke ventilation windows). The EFS system is used for installing the smoke ventilation window in flat roofs.

Technical specification	FSP P2
Glazing U-value	1.1 W/m^{2}K
Glazing unit	4H-14-33.2 T
Glazing cavity filled with inert gas	argon
External glass toughened	+
Internal glass anti-burglary	+
Wind load resistance	WL 1500 as per EN 12101-2:2003
Low ambient temperature	T (-05) as per EN 12101-2:2003
Resistance to high temperature	B 300 as per EN 12101-2:2003
Reliability	RE 1000 as per EN 12101-2:2003

Technical specification	Actuator SP8
Chain reach	350 mm
Power voltage	24 V DC
Rated current	2x1A
Chain pushing force	800 N
Chain retraction force	400 N
Chain speed	7 mm/s
Working temperature	(-5°C) to (75°C)
Power cable	2x2x0.75 m^2 (2x1m)

WARRANTY:

- 5 years

Sizes of standard smoke ventilation windows

PRODUCT CODE	78/140 0.53 0.91 07	94/140 0.65 1.12 09	114/118 0.67 1.15 10	114/140 0.80 1.38 11	134/98 0.65 1.11 12					
window frame external dimensions maximum effective smoke ventilation area [m^2] frame internal area [m^2]										
LUX FSP P2 Window coated with clear lacquer										
87HD___	✓	✓	✓	✓	✓					
LUX FSU P2 White window										
875K___	✓	✓	✓	✓	✓					

Non-standard solutions
Window with wooden elements
painted in colours from the RAL palette
painted with lazulite lacquer
in mahogany woodwork
Window with cladding
painted in colours from the RAL palette
in metal covering - copper CU
in metal covering - titanium-zinc TC

Windows are available as standard in RAL 7022, and can also be ordered in RAL 7016 and RAL 9005 at no extra charge.

Sizes of standard flashings

PRODUCT CODE	78/140 07	94/140 09	114/118 10	114/140 11	134/98 12
ESS for flat roof coverings					
8811___	✓	✓	✓	✓	✓
EZS-P for corrugated roof coverings					
898___	✓	✓	✓	✓	✓
EHS-P for high profile roof coverings					
899___	✓	✓	✓	✓	✓

PRODUCT CODE	78/140 07	94/140 09	114/118 10	114/140 11	134/98 12
EGS for thick slate roof coverings					
	✓	✓	✓	✓	✓
EFS flat roof system					
8837___	✓	✓	✓	✓	✓

Flashings are available as standard in RAL 7022, and can also be ordered in RAL 7016 and RAL 9005 at no extra charge.

SMOKE VENTILATION WINDOWS FSR P2, FSR P5

FEATURES:

- Smoke ventilation window is intended to evacuate heat and smoke from inside the building during fire. In normal usage conditions, the window is used for ventilation and lighting of the room.
- Made of pinewood, vacuum impregnated and coated with two layers of acrylic varnish.
- Factory equipped with an electric actuator (24V) which when connected to the control system opens and closes the window.
- Fitted with a chain actuator to open the sash to 90 degrees in relation to the frame. This allows for achieving an effective smoke ventilation geometric surface. In emergency situations, smoke ventilation window can also be used as an exit point to the roof.
- Maximum sash opening pitch: 90° in 60 seconds when fully loaded.
- Compliant with the requirements of PN EN 12101-2 standard: "Smoke and heat control systems. Part 2: Specification for smoke vents".
- Can be used in gravitational smoke ventilation systems provided that the smoke exhaust area has been calculated in accordance with the standard VdS 2221:2001 08(01): "Devices for smoke exhaust from stairwells. Design and installation."
- Suitable for pitches from 15° - 90°.
- Wide range of flashings the same as for standard roof windows.

Technical specification	FSR P2	FSR P5
Glazing U-value	1.0 W/m^{2}K	0.5 W/m^{2}K
Glazing unit	4H-15-33.2 T	4HS–Tg10Kr–4HT–Tg8Kr–33.2T
Glazing cavity filled with inert gas	argon	krypton
External glass toughened	+	+
Internal glass anti-burglary	+	+
Wind load resistance	WL 3000 as per EN 12101-2:2003	
Low ambient temperature	T (-15) as per EN 12101-2:2003	
Resistance to high temperature	B 300 as per EN 12101-2:2003	
Reliability	RE 1000 as per EN 12101-2:2003	
Snow load resistance	SL* as per EN 12101-2:2003	

** see Declaration of Performance*

Technical specification	Actuator KA54/800,	Actuator KA54/890,
Chain reach	800 mm	890 mm
Power voltage	24 V DC	24 V DC
Rated current	1.4A	
Chain pushing force	1000 N	
Chain retraction force	500 N	
Chain speed	14.8 mm/s	
Working temperature	(-5°C) to (75°C)	
Power cable	3x0.75mm^2	

WARRANTY:

- 5 years

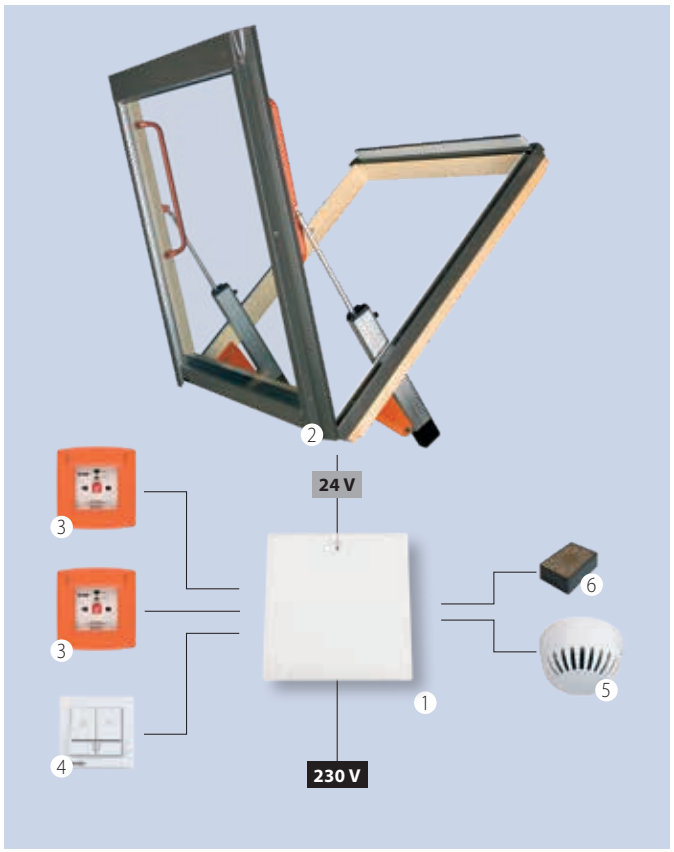
Sizes of standard smoke ventilation windows

PRODUCT CODE	78/78	78/98	78/118	78/140	94/78	94/98	94/118	94/140	94/160	114/78	114/98	114/118	114/140	134/78	134/98	134/118	134/140	
	0.50	0.64	0.78	0.93	0.61	0.78	0.96	1.14	1.32	0.75	0.97	1.17	1.41	0.90	1.15	1.40	1.68	geometric smoke ventilation area Av[m²]
	0.35	0.47	0.59	0.73	0.45	0.60	0.75	0.92	1.07	0.53	0.76	0.95	1.16	0.68	0.92	1.15	1.40	glazing effective area[m²]
	23	**05**	**06**	**07**	**24**	**15**	**08**	**09**	**80**	**25**	**20**	**10**	**11**	**26**	**12**	**18**	**17**	
FSR P2 Window coated with clear lacquer, internal glass laminated																		
87DK__	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
FSR P5* Window coated with clear lacquer, internal glass anti-burglary and outer easy maintenance layer																		
87FU__	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		

** Smoke ventilation windows are available as standard in RAL 7022, and can also be ordered in RAL 7016 and RAL 9005 at no extra charge.*

Non-standard solutions
Window with wooden elements
painted with polyurethane varnish (white)
painted in colours from the RAL palette
painted with lazulite lacquer
in mahogany woodwork
Window with cladding
painted in colours from the RAL palette
in metal covering - copper CU
in metal covering - titanium-zinc TC

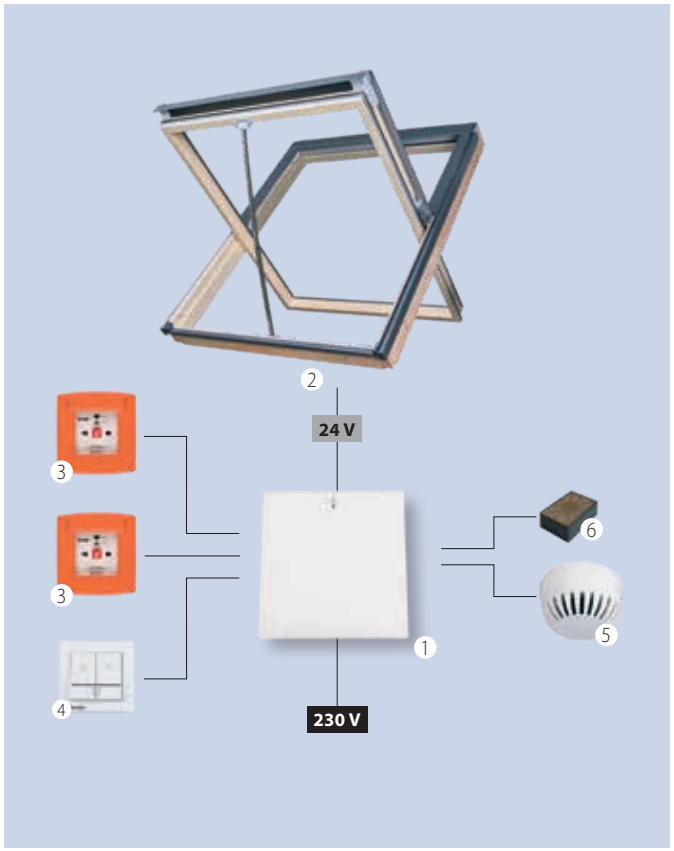
GRAVITATIONAL SYSTEM FOR SMOKE AND HEAT EXTRACTION



The system enables automatic or manual opening of the smoke ventilation window in order to remove the excess of heat, smoke and toxic gases emitted during a fire. Applying this system increases the safety of inhabitants as it allows to keep smoke-free evacuation area in a building, helps locate the source of fire and allows faster fire extinguishing.
Once the smoke is detected, the sensor sends the signal to the control unit which subsequently runs automatically electric actuators opening the window. If the fire is observed before the sensor reacts, the smoke ventilation window can be opened using the RT 45 smoke vent alarm button. In addition, the system enables daily ventilation of the room by opening the window with the use of the LP1 ventilation switch. The window is closed automatically once programmed ventilation period is over. The system can be connected to the ZRD rain sensor which closes the window during rain. In case of fire the rain sensor signal does not affect operation of the window. Effective smoke ventilation area is to be found in detailed description of FSP and FSR windows.

Installation

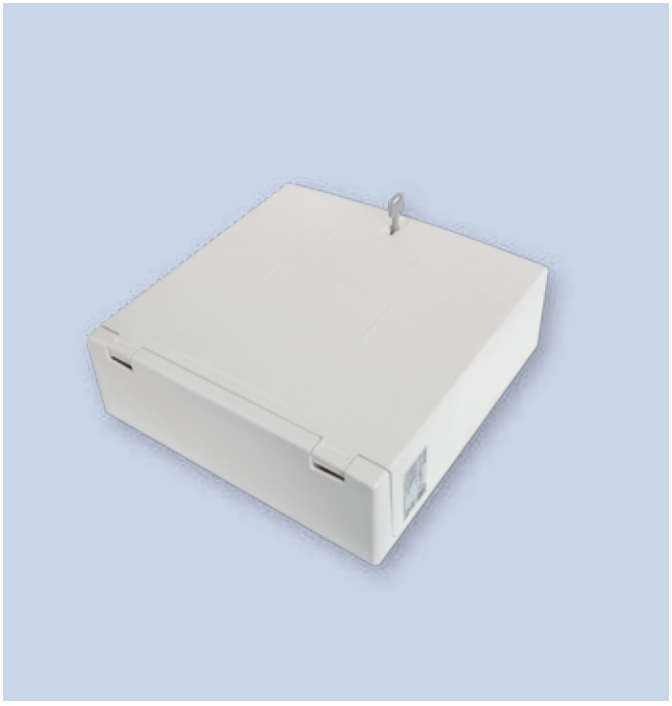
Installation of the system is carried out by connecting 230V AC power supply to the smoke control unit and then using suitable cables to other elements of the system (cross-sections of cables are to be found in the table together with names of elements). The length of required cables depends on the arrangement of individual elements of the system. The wiring diagram is included with the fitting instructions. The smoke ventilation system should be installed by a qualified individual holding a certificate of operation of equipment (electrical licence up to 1 kV). The inspection of the system should be carried out every 6 months.
All elements of the system offered by FAKRO have certificates and are approved for use in the construction industry.



Elements of the set with FSP window		
1	RZN 4408K	Control unit with emergency back-up power for 4 windows (3 x 2,5mm^2)
1	CPS-B1	Control unit
2	**FSP P1**	Smoke sensor, electric cable (3 x 1 mm^2)
3	RT 45	Alarm buttons, electric cable (5 x 1 mm^2)
4	LP1	Ventilation switch, electric cable (3 x 1 mm^2)
5	OSD 23	Smoke sensor, electric cable (2 x 1 mm^2)
6	ZRD	Rain sensor, electric cable (2 x 1 mm^2)

Elements of the set with FSR window		
1	RZN 4408K	Control unit with emergency back-up power for 4 windows (3 x 2,5mm^2)
1	CPS-B1	Control unit
2	**FSR P1**	Smoke sensor, electric cable (3 x 0.75mm^2)
3	RT 45	Alarm buttons, electric cable (5 x 1 mm^2)
4	LP1	Ventilation switch, electric cable (3 x 1 mm^2)
5	OSD 23	Smoke sensor, electric cable (2 x 1 mm^2)
6	ZRD	Rain sensor, electric cable (2 x 1 mm^2)

COMPONENTS FOR SMOKE VENTILATION



Control unit CPS-B1

The smoke extraction control unit is a compact device that controls smoke extraction and natural ventilation systems. It is used to operate FSP (max. 2 pcs.) and FSR (max. 3 pcs.) smoke ventilation windows.

Technical specification:	
Power voltage	230 V AC/50 Hz
Rated current	5 A
Output voltage	24 V DC
Dimensions	310/310/104 mm
Channels/groups	1
Housing colour	white

850201	✓

Control unit RZN 4408-K

The smoke extraction control unit is a compact device that controls smoke extraction and natural ventilation systems. It is used to operate FSP (max. 4 pcs.) and FSR (max. 5 pcs.) smoke ventilation windows.

Technical specification:	RZN 4408-K
Power voltage	230 V AC/50 Hz
Output power	do 240 W
Rated current	8 A
Output voltage	24 V DC
Working temperature	(– 5° C) to (40° C)
Dimensions	341/341/91 mm
Weight with batteries	11 kg
Battery capacity	2x12 V/3,4 Ah

RZN 4408-K

850028	✓

Ventilation switch LP1

Used in smoke extraction systems, it is designed for ventilating attics with FSP or FSR smoke ventilation windows compatible with CPS-B1 and RZN4408-K smoke extraction control units.

Technical specification:	
Dimensions	80x80 mm
Weight	0.11 kg

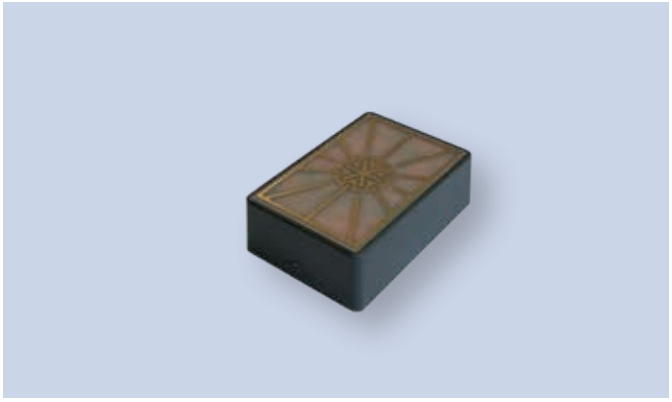
white 850070	✓
black 850076	✓

Smoke vent alarm button RT 45

Used for manual alarm activation in case of fire. Equipped with LEDs indicating the operating status of the smoke extraction system. Compatible with CPS-B1 and RZN4408-K smoke extraction control units.

Technical specification:	
Power voltage	24 V DC
Alarm current	20 mA
Working temperature	(– 10° C) to (50° C)
Dimensions	124x 24x35 mm
Weight	0.3 kg

55069	✓



Rain sensor ZRD

It ensures automatic closure of windows in case of rain and can cooperate with CPS-B1, RZN4408-K control units. The sensor is equipped with a heating system, therefore it is insensitive to such interferences as fog, dew, etc. It is mounted in the unshielded areas of the roof directly exposed to weather conditions. The rain sensor signal is not taken into account unless is working in the monitoring mode. In case of fire the rain sensor does not influence operation of the window.

Technical specification:	
Power voltage	8 – 32 V DC
Dimensions	50/35/15 mm
Power cable	3/0.25 mm^2 (5 m)

55035	✓

Smoke sensor OSD 23

The OSD 23 optical smoke sensor is designed to detect visible smoke, emitted in the initial stages of fire when a material is smouldering, usually long before the appearance of an open flame and a noticeable increase in temperature. The sensor is intended to work in confined spaces where normally there is no smoke, dust or condensation. However, with the introduction of an analogue compensation of changes in the environment, it features enhanced protection against changes in pressure, temperature and condensation. One sensor supports 40m^2 room.

Technical specification:	
Power voltage	18 – 28 V
Alarm current	20 mA
Working temperature	(– 25° C) to (55° C)
Maximum relative humidity	95 % at 40° C
Dimensions	115/54 mm
Weight	0.15 kg
Power cable	2x1m^2

55010	✓

	PRODUCT NAME	Z-WAVE																													WIFI TUYA				
		CONTROLLER										GATEWAY		REPEATER	POWER SUPPLY				MODULE								SENSOR					REMOTE	SWITCH	GATEWAY	SENSOR	MODULE
		ZRH12	ZRS24	ZRK24	ZRH1	ZRW7	ZWL1	ZWL2	ZWL3	ZWK1	ZWK2	ZWK3[13]	HC3 Lite[14]	ZWGR	ZZ60	ZZ60h	ZZ16A	Z100-24V	ZWMR24	ZWMR230	ZWMC24	ZWMC230	ZWMA1	ZWMA4	ZWMP	ZWMP24[15]	ZRD[1]	ZWD[1]	ZFD[1]	ZRT[3]	ZID[3]	ZTP3	ZTK3	ZTG	ZTCO2	ZTMR230
ROOF WINDOW	FT_ Z-Wave	+	+	+	+	+	+	+	+	+	+	+	+	+	–	–	–	–	–	–	–	–	+	+	+	+	+	+	+	+	–	–	–	–	–
	FT_ Z-Wave Solar	+	+	+	+	+	+	+	+	+	+	+	+	+	–	–	–	–	–	–	–	–	+	+	+	+	+	+	+	+	–	–	–	–	–
	DE_ Z-Wave [4]	+	+	+	+	+	+	+	+	+	+	+	+	+	–	–	–	–	–	–	–	–	+	+	+	+	+	+	+	+	–	–	–	–	–
	FT_ WiFi Tuya [4,5]	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	+[11]	+[11]	+	+	–
	DE_ WiFi Tuya [4]	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	+[11]	+[11]	+	+	–
INTERNAL ELECRICAL ACCESSORY	ARF_ Z-Wave	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	–	–	–	–	–	–	+	+	+	+	+	+	+	+	–	–	–	–	–
	ARF_ Z-Wave Solar	+	+	+	+	+	+	+	+	+	+	+	+	+	–	–	–	–	–	–	–	–	+	+	+	+	+	+	+	+	–	–	–	–	–
	ARF_ WiFi Tuya	–	–	–	–	–	–	–	–	–	–	–	–	–	+	+	–	–	–	–	–	–	–	–	–	–	+	+	+	+	+	+[11]	+[11]	+	+	–
	ARF_ Tuya Solar [12]	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	+[11]	+[11]	+	+	–
EXTERNAL ELECRICAL ACCESSORY	ARZ Z-Wave	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	–	–	–	–	–	–	+	+	+	+	+	+	+	+	–	–	–	–	–
	ARZ Z-WaveSolar	+	+	+	+	+	+	+	+	+	+	+	+	+	–	–	–	–	–	–	–	–	+	+	+	+	+	+	+	+	–	–	–	–	–
	ARZ Komfort Z-Wave	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	–	–	–	–	–	–	+	+	+	+	+	+	+	+	–	–	–	–	–
	ARZ Komfort Z-Wave Solar	+	+	+	+	+	+	+	+	+	+	+	+	+	–	–	–	–	–	–	–	–	+	+	+	+	+	+	+	+	–	–	–	–	–
	ARZ Electro 230	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	–	–	–	–	–	+	–	–	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[7]	+[7]	+[7]	+[7]	+
	ARZ Komfort Electro 230	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	–	–	–	–	–	+	–	–	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[7]	+[7]	+[7]	+[7]	+
	ARZ Electro 24	+[8]	+[8]	+[8]	+[8]	+[8]	+[8]	+[8]	+[8]	+[8]	+[8]	+[8]	+[8]	+[8]	–	–	–	+[8]	+	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	AMZ Z-Wave	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	–	–	–	–	–	–	–	+	+	+	+	+	+	+	–	–	–	–	–
	AMZ Z-Wave Solar	+	+	+	+	+	+	+	+	+	+	+	+	+	–	–	–	–	–	–	–	–	+	+	+	+	+	+	+	+	–	–	–	–	–
	AMZ Electro 230	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	–	–	–	–	–	+	–	–	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[7]	+[7]	+[7]	+[7]	+
	AMZ/C Z-Wave	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	–	–	–	–	–	–	+	+	+	+	+	+	+	+	–	–	–	–	–
	AMZ/F Z-Wave Solar	+	+	+	+	+	+	+	+	+	+	+	+	+	–	–	–	–	–	–	–	–	+	+	+	+	+	+	+	+	–	–	–	–	–
	VM_ Z-Wave	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	–	–	–	–	–	–	+	+	+	+	+	+	+	+	–	–	–	–	–
	VM_ Z-Wave Solar	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	–	–	–	–	–	–	+	+	+	+	+	+	+	+	–	–	–	–	–
	ARZ WiFi Tuya	–	–	–	–	–	–	–	–	–	–	–	–	–	+	+	–	–	–	–	–	–	–	–	–	–	–	–	–	–	+[11]	+[11]	+	+	–
	ARZ Komfort WiFi Tuya	–	–	–	–	–	–	–	–	–	–	–	–	–	+	+	–	–	–	–	–	–	–	–	–	–	–	–	–	–	+[11]	+[11]	+	+	–
	ARZ Tuya Solar [12]	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	+	+	+	+	–
	ARZ Komfort Tuya Solar [12]	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	+[11]	+[11]	+	+	–
	AMZ WiFi Tuya	–	–	–	–	–	–	–	–	–	–	–	–	–	+	+	–	–	–	–	–	–	–	–	–	–	–	–	–	–	+[11]	+[11]	+	+	–
	VM_ WiFi Tuya	–	–	–	–	–	–	–	–	–	–	–	–	–	+	+	–	–	–	–	–	–	–	–	–	–	–	–	–	–	+[11]	+[11]	+	+	–
	VM_ Tuya Solar [12]	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	+[11]	+[11]	+	+	–
WINDOW DRIVE	ZWS12	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	–	–	–	–	–	–	+	+	+	+	+	+	+	+	–	–	–	–	–
	ZWS230	+	+	+	+	+	+	+	+	+	+	+	+	+	–	–	–	–	–	–	–	–	+	+	+	+	+	+	+	+	–	–	–	–	–
	ZWS12 / FTT U6/U8	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	–	–	–	–	–	–	+	+	+	+	+	+	+	+	–	–	–	–	–
	ZWS230 / FTT U6/U8	+	+	+	+	+	+	+	+	+	+	+	+	+	–	–	–	–	–	–	–	–	+	+	+	+	+	+	+	+	–	–	–	–	–
	ZWS12 / FDY	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	–	–	–	–	–	–	+	+	+	+	+	+	+	+	–	–	–	–	–
	ZWS230 / FDY	+	+	+	+	+	+	+	+	+	+	+	+	+	–	–	–	–	–	–	–	–	+	+	+	+	+	+	+	+	–	–	–	–	–
	ZWN Solar	+	+	+	+	+	+	+	+	+	+	+	+	+	–	–	–	–	–	–	–	–	+	+	+	+	+	+	+	+	–	–	–	–	–
	ZWZ Solar [2]	+	+	+	+	+	+	+	+	+	+	+	+	+	–	–	–	–	–	–	–	–	+	+	+	+	+	+	+	+	–	–	–	–	–
	ZWN230	+	+	+	+	+	+	+	+	+	+	+	+	+	–	–	–	–	–	–	–	–	+	+	+	+	+	+	+	+	–	–	–	–	–
	ZTN230	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	+	+	+	+	+	+	+	–	+[11]	+[11]	+	+	–
	ZEZ230	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	–	–	–	–	–	+	–	–	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[6]	+[7]	+[7]	+[7]	+[7]	+
	ZEZ24	+[8]	+[8]	+[8]	+[8]	+[8]	+[8]	+[8]	+[8]	+[8]	+[8]	+[8]	+[8]	+[8]	–	–	+[8]	+[8]	+[8]	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
LOFT LADDERS	LET + ZTMS [10]	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	+[11]	+[11]	+	–	–
	LET + ZWMS [10]	+	+	+	+	+	+	+	+	+	+	+	+	+	–	–	–	–	–	–	–	–	–	–	–	–	–	–	+	+	+	+	+	+	–	–

[1] *after using the ZWMP / ZWMP24 weather module*
[2] *product contains the remote controller ZRH12*
[3] *in the Z-Wave network it acts as a sensor, there must be a Z-Wave controller in the network, e.g. ZRH12*
[4] *Z-Wave windows are factory equipped with rain sensor*
[5] *and other windows such as FP, PT, PP ...*
[6] *after using the ZWMR230*
[7] *after using the ZTMR230*
[8] *after using the ZWMR24*
[9] *the remote controller ZRH12 included*
[10] *the remote controller ZRHS included*
[11] *after using the gateway ZTG*
[12] *to operate the Fakro Smart App and ZTP3, ZTK3, a ZTG gateway is required*
[13] *SUPLA App required*
[14] *Yubii Home App required*
[15] *required ZZ16A power supply*

NOTES

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