



# WHYUSE ROOF WINDOW ACCESSORIES?

# ALL THE COLOURS OF NATURE 3

Play with light, mix colours and patterns to put your stamp on an interior design. Be creative and bring the colours of nature or your chosen style into the room space using FAKRO original roof window accessories.





## INTERIOR DESIGN

Internal accessories can put the finishing touches on any loft conversion. The wide range of blind type, style and colour ensures complete harmony with your chosen décor and helps shape a room's character.

# PROTECTION FROM THE SUN AND UV

External accessories provide the ultimate protection against solar gain and UV while also reduce noise in winter from hail and rain.

## CONTROL OF LIGHT

Regulate the amount and intensity of light entering the room. At one extreme, you can have total darkness, even on a sunny day while at the other you can simply use a blind to prevent light reflection on computer and TV screens.

## PROTECTION OF PRIVACY

FAKRO roof window accessories protect your house interior against viewers and ensure a feeling of privacy.

#### **EASE OF INSTALLATION**

All FAKRO accessories are designed for total ease of installation with our windows, something which is not always the case with blinds from some sources. Internal accessories come with a 2-year warranty and combine the highest standard of functionality and design.

### **EASE OF USE**

Our internal and external accessories are characterized by their ease of use. The FAKRO range also includes electrically operated accessories which are equipped with a Z-Wave module for control alongside appliances from some of the world's leading manufacturers via a remote, wireless touch keyboard, smartphone or tablet.



## PROTECTYOURSELF FROMHEAT GAIN...

## WHICH ACCESSORIES PROVIDE THE BEST PROTECTION FROM OVERHEATING?

**DIN 5034-1** covers the required levels of natural light which should be provided to interiors It says that rooms should be protected from overheating through the use of external accessories (awning or shutter blinds) as they provide better protection than internal blinds.

## HOW DOES THIS WORK?

FAKRO continually analyses all accessories for their efficiency of protection against heat gain in order to improve their performance and enhance user comfort. We have built eight identical room environments to enable us to carry out tests in relation to solar and UV exposure. Windows have been closed during the research and the temperature was constantly measured one metre above the floor at different points and it is these test results which are reflected in the graph above.



# 8 times more effective

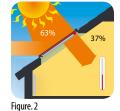
Documented research\* clearly shows that external accessories (awning blinds and roller shutters) protect against heat gain. Awning blinds provide the best means of protection as well as being the most cost-effective and practical. Internal blinds can also be used but are generally less effective, their main benefits being light reduction and internal decoration.

Solar energy transmittance:

Figure 1: Window without blinds q = 61% (0.61) as per EN 410 Figure 2: Window with internal blackout blind q = 37% (0.37) as per EN 13363-1

Figure 3: Window with awning blind (depending on the fabric used) g = 4-14% (0.04 - 0.14) as per EN 13363-1







**FAKRO**®

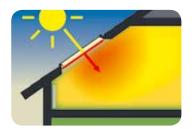


Solar radiation coefficient 'g' informs about the amount of solar energy reaching the glass which penetrates into the room. The higher value of 'g' coefficient, the room heats up faster. The external awning blind offers up to **8 times more effective** protection in comparison with internal blackout blinds.

'A room space should be protected from overheating in summer using external covers to reflect heat. Overheating as a result of absorption of radiation by objects within a room changes into long-wave infrared radiation. This cannot be dispelled and therefore causes an increase in temperature'.



External accessories offer the best protection from high temperatures. They absorb UV radiation, protect the external glazing and keep warm air



Thermal radiation which passes through the window pane is absorbed by an internal blind so the heat radiates to the interior in the form of long wave infrared radiation which is not transmitted back through the glass back to the outside. The blind acts as a radiator causing overheating, particularly on south-facing roofs.

## **AWNING BLINDS**

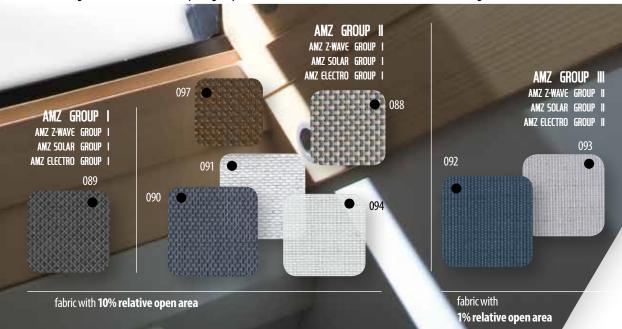
AM/

AMZ Z-Wave AMZ Solar AMZ Electro AME AMB 8 times more effective

## TAKEAREST NTHESHADE...

The awning blind offers the best means of protection against overheating while at the same time providing an unrestricted view. It absorbs solar radiation before it reaches the glazing and reflects heat effectively, even on the sunniest days. It also provides relief for the eyes and protection from the harmful effects of intense, reflected light.

The AMZ awning blind is available in two price groups while AMZ Z-Wave, AMZ Solar and AMZ Electro awning blinds are available in three.





The AMZ awning blind is made of durable, weather-resistant mesh. It is rolled up on a spring--loaded shaft and inserted in an aluminium cassette mounted above the window. This design provides ease of operation and provides a wider fabric area to shade the interior more effectively.

#### CHARACTERISTICS:

- up to 8 times more effective protection against overheating compared to internal blinds — effective shading without restricting views to the outside
- ease of operation. The window can be covered for long periods without the need to roll it up
  - protection against UV radiation
  - reduce noise from rain and hail

#### **AMZ**





— optimum protection against heat gain — ease of installation — the blind is installed from the inside of the roof (by simply unscrewing four screws, mounting the blind and then reusing the same holes)

#### CONTROL:



- AMZ - operated by hand or by using the control rod provided

#### **AMZ SOLAR**



- automatic operation of the blind depending on the insolation level
- photovoltaic panel acts as a sensor which reacts to solar radiation
- high insolation level requirement triggers the blind to unroll automatically
  - blind rolls open automatically in cloudy weather
    - powered by solar battery pack

#### AMZ ELECTRO



- AMZ ELECTRO mains connection
- AMZ ELECTRO 12 mains connection via 15V power supply
- AMZ ELECTOR SOLAR powered by solar panels

#### **CONTROL:**

or wall switch

- AMZ Z-Wave - controlled by handheld remote or wall switch

— ease of operation by hand-held remote

— powered by 15V mains supply

FTP-V Z-Wave roof window

— fully compatible with other Z-Wave

devices and appliances including the FAKRO









#### **CONTROL:**

- AMZ Solar - automatic operation







#### CONTROL:

switch



AMZ Z-WAVE

# ROLLER SHUTTERS A R

ARZ-H ARZ Z-Wave ARZ Solar ARZ Electro

# DISCOVER AN OASIS OF TRANQUILITY...

External roller shutter provides total comfort when using the attic space because it protects from overheating, enables complete shading of the room, reduces noise from the outside and ensures a sense of privacy in the attic.



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Installed externally, roller shutters provide effective protection from unwanted heat gain. Aluminium slats are joined by means of a special rubber connector to increase weather resistance.

#### **CHARACTERISTICS:**

— effective heat and UV protection - reduction of heat loss during winter by up to 15% (for a FAKRO window with a U-value of 1.3W/m<sup>2</sup>K) — complete blackout for total privacy — acoustic protection against external noise — burglary protection

When installing roller shutters on windows in vertical combinations a **minimum 20cm** must be maintained between windows. In horizontal combinations the distance may be reduced to 10cm.

#### ARZ-H



#### CONTROL:

---- ARZ-H - by means of crank handle supplied





#### **CONTROL:**

- ARZ Solar - by remote control. Solar roller shutter is equipped with a control unit and accumulator which are powered by a solar cell on the shutter.





#### **ARZ Z-WAVE**



#### CONTROL:

---- ARZ - in wireless Z-Wave system operated by wall switch or remote and powered by 15V DC supply







#### arz electro



#### CONTROL:

- ARZ Electro 230 — mains connection — ARZ Electro 12 — mains connection and 15 V DC power supply — ARZ Electro Solar – solar panels

**ARZ Electro** roller shutters are operated by means of a wall switch









The AJP Venetian blind protects against overheating and can be used to enhance interior design. The blind is enclosed by an aluminium cassette which protects against alight infiltration down the sides. The window sash can also be changed with the blind down.

#### **CHARACTERISTICS:**

- adjustment of slats to change the amount and direction of light entering the room
  - enhancement of interior design
  - partial reduction against heat gain
  - blind may be locked in any position
    - partial UV protection
- provision of privacy without significant reduction of natural light within the room

#### CONTROL:

— AJP - manually operated



For operation of blinds which are out of reach the universal **ZST** control rod is available — **AJP** — wireless Z-Wave system operated by wall switch

or remote powered by 15V DC supply



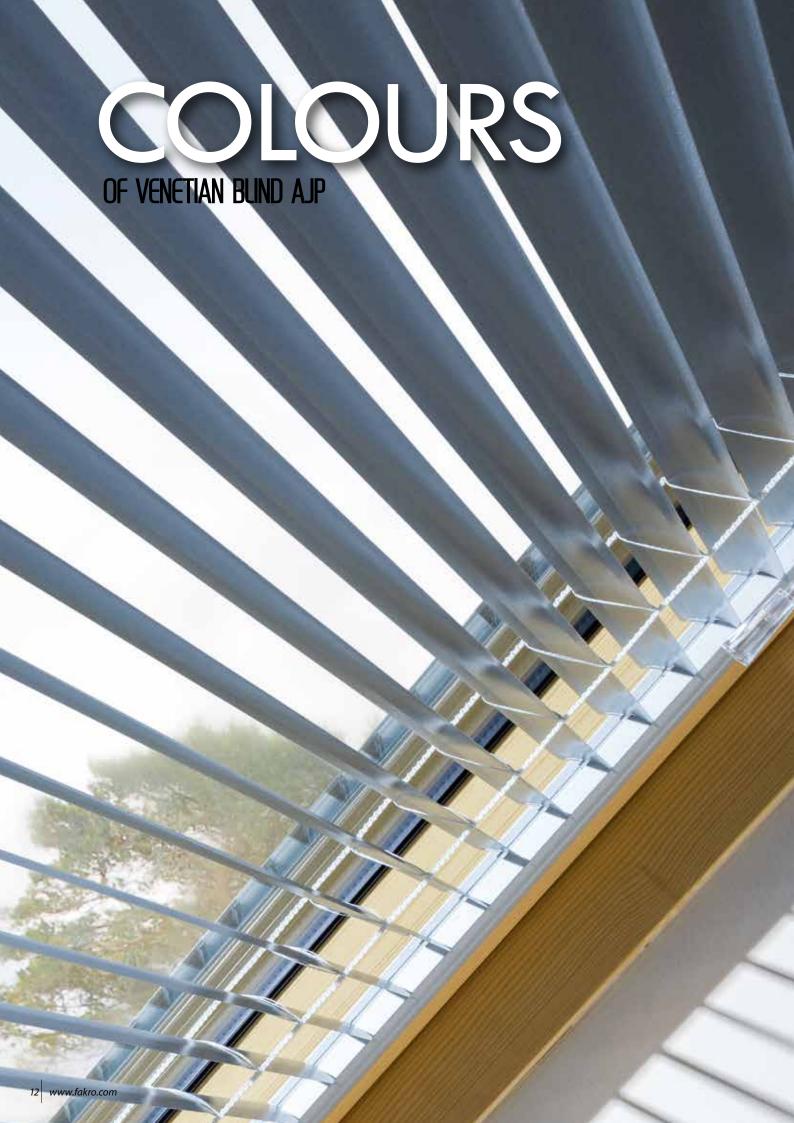
The electric drive of an **AJP Venetian blind in a Z-Wave** system controls the angle of slats only when the window is closed.





Side aluminium guides enable a complete shading of the room and keep the slats in line







# ROLLER BLINDS

# LIVE WITH COLOUR.

The standard ARS roller blind is used to reduce light entering a room while offering scope to be used as an intrinsic element of interior design. In addition to reducing incoming light, the wide range of fabric colours and patterns can add enhance room décor and style.





The ARS roller blind is fabric wound on a spring-loaded shaft. It comes with an attractive aluminium fascia which elegantly conceals the shaft and has three pairs of hooks placed in the sash to enable the blind to be locked in these positions.

#### **CHARACTERISTICS:**

— variable reduction of incoming light — wide range of colours and patterns to suit varied tastes — partial protection against heat gain — lock the blind in a choice of three positions — provision of complete privacy when closed

#### CONTROL:

— ARS - manually operated. For operation of blinds which are out of reach the universal **ZST** control rod is available





Aluminium fascia to conceal the shaft



Hook to lock the blind in one of three positions



# **COLOURS**

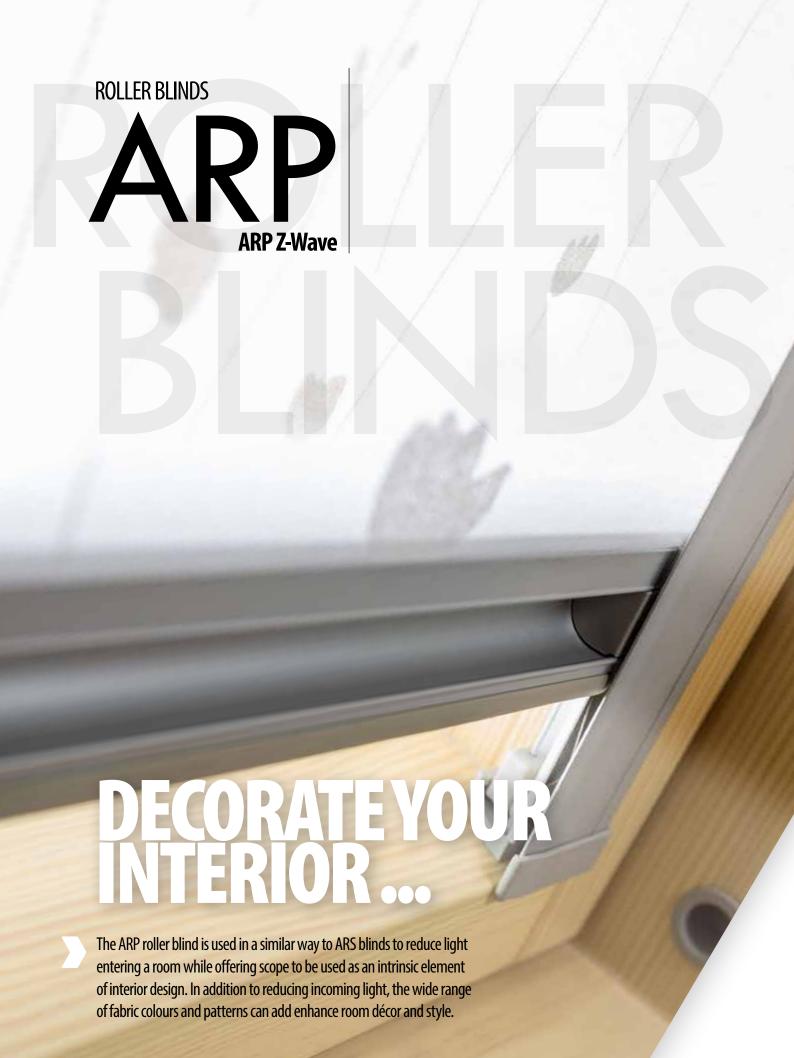
#### OF ROLLER BLIND ARS





#### GROUP |







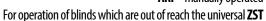
The wide range of colours and patterns can be used to greatly enhance the aesthetics of any room. Aluminium guides cover the fabric edges and enable the blind to be set in any position.

#### **CHARACTERISTICS:**

— variable reduction of incoming light wide range of colours and patterns to suit individual tastes — partial protection against heat gain — lockable in any position — protection against UV radiation — provision of complete privacy

#### **CONTROL:**

--- ARP - manually operated



control rod is available

**ARP** – in wireless **Z-Wave** system operated by means of a wall switch or remote control by mains connection and 15 V DC power supply



Operating ARP Z-Wave in the standard version is only possible when the roof window is closed.



Aluminium fascia to conceal the shaft of the blind



Side guides enable to stop the blind in any position



# COLOURS

#### OF ROLLER BLIND ARP





#### GROUP |



# BLACKOUT BLINDS ARF Z-Wave

The **ARF** Sunset blackout blind provides complete protection against sunlight entering the room space. As a result, you can enjoy total darkness of the sunniest of days.

NIGHT BY DAY ...





The **ARF** blackout blind is made of an elegant and decorative fabric which does not let light through. It comes with side guides which allow to stop the blind in any position and ensure shading of the room.

#### CHARACTERISTICS:

- variable reduction of incoming light
- partial protection against heat gain
  - lockable in any position
  - protection against UV radiation
  - provision of complete privacy
    - easy to clean

#### CONTROL:



For operation of blinds which are out of reach the universal **ZST** control rod is available – **ARF** - in wireless **Z-Wave** system operated by means of a wall switch or remote control by mains connection and 15 V DC power supply



Operating **ARF Z-Wave** in the standard version is only possible when the roof window is closed.



Aluminium fascia to conceal the shaft of the blind



Side guides enable to stop the blind in any position and ensure shading of the room.



The ARF Z-Wave can be operated by means of a wall switch or a remote control





PLEATED BLINDS

# APS

The APS pleated blind is a stylish and decorative sun screening device which can be used to provide a diffused lighting effect which will enhance any interior design.

# SURROUND YOURSELF WITH BEAUTY...





Aluminium guides are available in two colour versions — lacquered white and anodised silver.

#### **CHARACTERISTICS:**

— provision of soft, diffused light

variable reduction of incoming light

— partial protection against heat gain

— lockable in any position

— top down system - easy operation by means of an upper and lower bar

— protection against UV radiation

— provision of complete privacy

#### **CONTROL:**

— APS - manually operated. For operation of blinds which are out of reach the universal **ZST** control

rod is available.



Aluminium guides enable to stop the blind in any position



Convenient handle to operate the blind



Top-down system - easy operation by means of the upper and lower bar



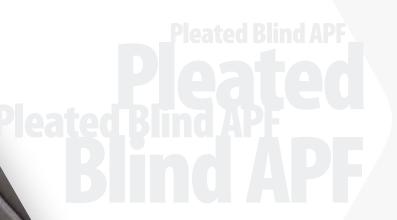




# PLEATED BLINDS

The **APF** pleated blind is an ideal sun screening device for use with contemporary interiors. Its fabric has a honeycomb structure and an aluminium coating which provides blackout and good thermal performance.

# INNOVATIVE BEAUTY...





Aluminium guides are available in two colour versions — lacquered white and anodised silver.

#### **CHARACTERISTICS:**

variable reduction of incoming light

— partial protection against heat gain

— lockable in any position

— top down system - easy operation by means of an upper and lower bar

- protection against UV radiation

— provision of complete privacy

#### **CONTROL**:

For operation of blinds which are out of reach the universal **ZST** control rod is available.





Aluminium guides enable to stop the blind in any position



Fabric with the structure resembling honeycomb and internal aluminium coating



Top-down system - easy operation by means of the upper and lower bar

# PLEATED BLIND A 32 www.fakro.com

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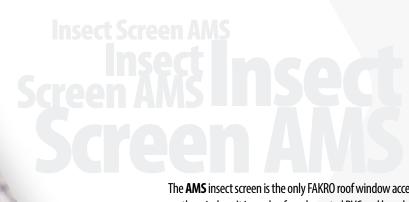
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#### **INSECT SCREENS**

# UNDISTURBED TRANQUILITY...

The **AMS** roll-up insect screen protects the home from the smallest insects so your rest won't be disturbed even if your roof windows are open.





The **AMS** insect screen is the only FAKRO roof window accessory that is not mounted on the window. It is made of mesh-coated PVC and has aluminium guides which are available in two colour versions — lacquered white and anodised silver.

#### CHARACTERISTICS:

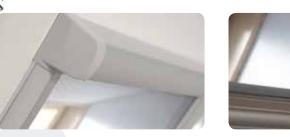
effective protection against mosquitoes and other insects
 minimal reduction of natural light
 can be installed with other internal and external blinds and awnings

#### CONTROL:

— AMS - manually operated.

For operation of blinds which are out of reach the universal **ZST** control rod is available.





Insect screen structure ensures full protection against insects

#### INSECT SCREEN DIMENSIONS

WINDOW WIDTH (CM)	55	55	66	66	78	78	94	94	114	<b>II</b> 4	134	134
INTERNAL LINING WIDTH (CM)	48,5	48,5	59,5	59,5	71,5	71,5	87,5	87,5	107,5	107,5	127,5	127,5
MAX. LINING INTERNAL HEIGHT (CM)	170	500	200	250	200	250	200	250	200	250	500	250









WIRELESS CONTROL

# Z-WAVE

FAKRO offers electrical accessories fitted with a Z-Wave module as standard. Z-Wave is a wireless protocol used to enable compatible devices to connect in a single network. I addition to the roof windows and blinds these can include lighting, thermostats, alarms, air conditioning, tv and hi-fi.

# **FAKRO**®

## Z-WAVE ELECTRIC CONTROL DEVICES

#### ZWP IO REMOTE

The ZWP 10 remote is designed to operate a combination of products separately or simultaneously: Z-Wave window, actuator ZWS 230 or ZWS 12 for operating the window, external roller shutter ARZ Z-Wave, awning blind AMZ Z-Wave, internal blackout blind ARF Z-Wave, internal roller blind ARP Z-Wave or Venetian blind AJP Z-Wave.



#### ZWK IO KEYBOARD

The ZWK 10 keyboard is designed to operate a combination of products separately or simultaneously: **Z-Wave** window, actuator **ZWS 230** or ZWS 12 for operating the window, external roller shutter ARZ Z-Wave, awning blind AMZ Z-Wave, internal blackout blind ARF Z-Wave, internal roller blind ARP Z-Wave or Venetian blind AJP Z-Wave.



#### ZWG I TOUCH KEYPAD

The stylish, modern ZWG 1 touch keypad is made of toughened glass and is designed to operate either a single item or several simultaneously: Z-Wave window, actuator ZWS 230 or ZWS 12 for operating the window, external roller shutter ARZ Z-Wave, awning blind AMZ Z-Wave, internal blackout blind ARF Z-Wave, internal roller blind ARP Z-Wave or Venetian blind AJP Z-Wave.



#### ZWG 3 TOUCH KEYPAD

This similarly stylish touch keypad is also made of toughened glass and is designed to operate numerous products separately or in combination: **Z-Wave** window, actuator **ZWS 230** or ZWS 12 for operating the window, external roller shutter ARZ Z-Wave, awning blind AMZ Z-Wave, internal blackout blind ARF Z-Wave, internal roller blind ARP Z-Wave or Venetian blind AJP Z-Wave.



#### **ELECTRIC POWER SUPPLY ELEMENTS – 15V**

#### **ZZ60**

ZKN

Switching the 15V DC power supply to power Z-Wave devices. Output power 60W. To be installed on DIN TS35 rail. A maximum number of devices connected to the ZZ60 power unit:



ARZ Z-Wave - 2 items ARP Z-Wave - 8 items AMZ Z-Wave - 2 items AJP Z-Wave - 6 items

ARF Z-Wave - 8 items 7WS 12 - 5 items



#### **ELECTRIC CONTROL ELEMENTS - 230V**

a single device such as the

**AMZ Electro 230** 

A surface-mounted controller for operating

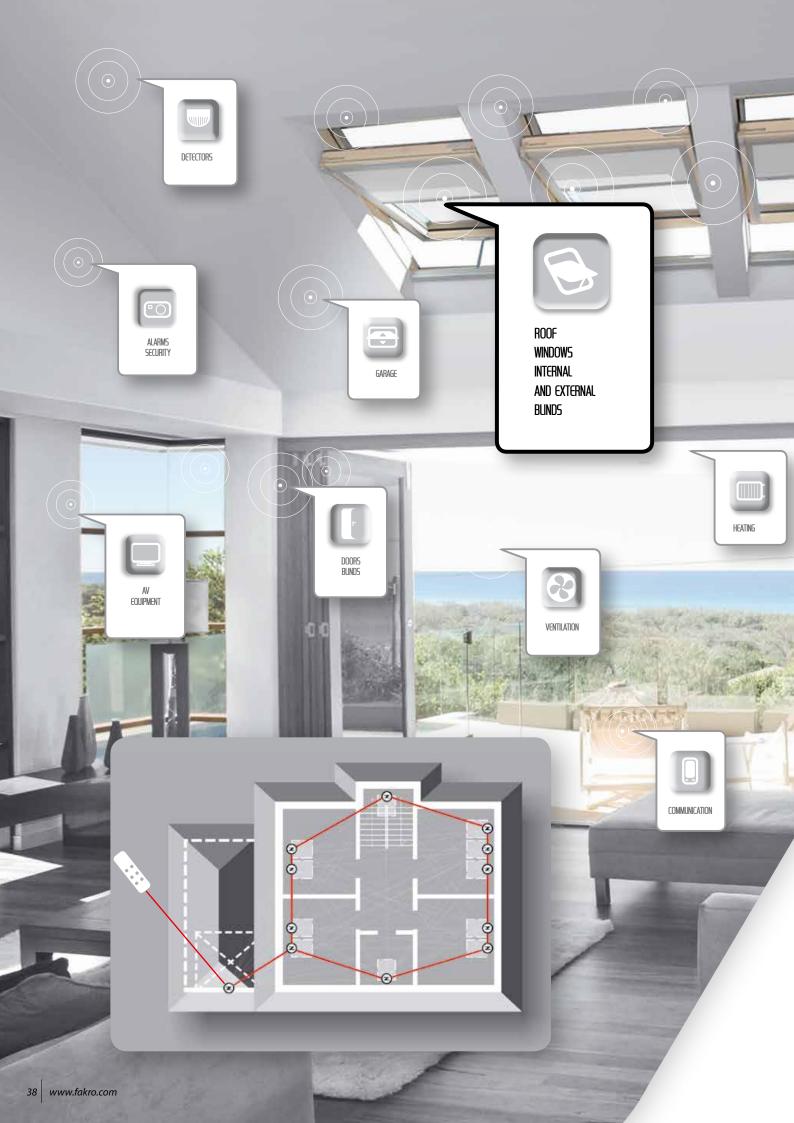
#### **ZKP**

A flush-mounted controller for operating a single device such as the **AMZ Electro 230** 











FAKRO offers extendable control rods for opening and closing roof windows and blinds which may be out of reach.

# CONTROL RODS FOR OPERATING ROOF WINDOWS AND ACCESSORIES



#### CONTROL ROD ZST

The universal **ZST** telescopic control rod enables the user to open and close windows and blinds at high level. It can be used with the **ARS, ARP, ARF, APS, APF and AJP** blinds and **AMZ** insect screen. The standard rod length is 119cm but this can be extended to 134, 162, 190 or 218cm. **A ZSP** extension can further extend this to 246, 274, 302 or 330cm.



#### **ROD 757**

The **ZSZ** is a round-shaped aluminium bar for opening and closing the **AMZ** awning blind which is supplied with an 80cm rod. The standard length of the **ZSZ** is 150cm.

# CHOOSING FAKROS ACCESSORIES

In order to select the right size and type of accessory you must first ensure you know the roof window type and its dimensions. These are to be found on a data plate which is mounted on the window sash. FAKRO accessories are available via:

- FAKRO roof windows sales chain
- dedicated online stores
- best stores offering accessories for windows

Using original FAKRO accessories from this catalogue helps maintain the 10-year warranty of your roof windows.

Note: - colour swatches in this catalogue may differ from the actual fabric. Fabric swatches are available.









Internal accessories are compatible with all FAKRO roof window types. The window dimensions which are provided on the identification label of the window sash have to be known in order to select the right size of accessories. FAKRO offers a wide range of external awning blinds and accessories adapted to different roof window designs. The external awning blind and internal accessory fitted on the same FAKRO roof window create a set of accessories providing a maximum comfort of living in the attic space. They protect the room against excessive heat and light, additionally enhancing interior design.

#### INTERNAL ACCESSORIES

	FTS,	FTT	FTT U6,	PTP.	FPP-V,	PPP-V preSelect	FEP	FYP-V	PYP-V	FDY-V		FGH-V		BD_,	FTP/D,	FXP,	
	FTP, FTU	U5*, FPT U5*	FTT U8 Thermo	DTD_V	FPU-V preSelect					top sash	bottom sash	top sash	bottom sash	BVP, BXP	FTU/D	FXU	FW_
AJP Venetian blind	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+4
AJP Z-Wave Venetian blind	+	+	_	+	+	+	+	+	+	+			_		+		+4
ARS roller blind	+	+	+	+	+	+		+	+	+	+		+		+		+
ARP roller blind <sup>1</sup>	+	+	+	+	+	+	+	+	+	+	+	_	+	+	+	+	+4
ARP Z-Wave roller blind <sup>1</sup>	+	+	_	+	+	+	+	+	+	+	$\mid - \mid$	_	_	_	+	_	+4
ARF blackout blind	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+4
ARF Z-Wave blackout blind	+	+	_	+	+	+	+	+	+	+	_	+	_	_	+	_	+4
APS pleated blind	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
APF pleated blind	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
AMS insect screen	+	+	+	+	+	+	+	+	+		<del> </del> 2	-	_	_	+2	+2	+

#### **EXTERNAL ACCESSORIES**

AMZ awning blind	+	+	+	+	+	+		+	+	+	+5	+	+5		+	+5	
AMZZ-Wave, AMZ Solar awning blind	+	+	+	+	+	+	_	+	+	+5	+5	+5	+5		+	+5	
AME awning blind	_	_		_	_	_	+	_	_								
AMB awning blind	_	_	_	_	_	_	_	_	_	_			_	+	_	_	
ARZ-H roller shutter	+			_	+		_	+5		+ 5					+3		
ARZZ-WAVE, ARZ SOLAR ROLLER SHUTTER	+	+	+	+	+	+	_	+5	+5	+5	+5	+5	_	_	+3	+5	
ARKZ-Wave, ARK Solar roller shutter		_		_	_		+	_		_	_			_		_	

- \* internal accessories made to order, standard external accessories
- window with maximum height of 140cm
- <sup>2</sup> for lining for combination up to 250cm long
- retaining 20cm distance between windows
- installation recommended to be performed by FAKRO service
- made to special order, limited application





