COLOURS OF NATURE

World delights with views. Plays with light, mixes natural colours and blurs them with wind to create a true masterpiece.
Now you’re a painter.
Keep the colours of nature in the attic with original accessories for roof windows FAKRO.
WHY DO WE USE ROOF WINDOW ACCESSORIES?

SPACE DECORATION
The main function of internal accessories is to enhance the decor of a loft. The wide range of their types and colours ensures harmony with the decor of any interior and offers the possibility of shaping your attic character.

PROTECTION FROM OVERHEATING
The external accessories are the best protection from high temperatures and help prevent overheating on hot, summer days.

CONTROL OF LIGHT
Accessories enable you to regulate the amount and intensity of light entering the room. As a result you can achieve complete darkness, even on a sunny day. They can additionally protect from the harmful influence of computer screen reflections.

PROTECTION FROM UV RAYS
The accessories also ensure a permanent protection from UV rays, and as a result materials and furniture are protected from fading.

PROTECTION OF PRIVACY
FAKRO roof window accessories can also increase the feeling of privacy.

EASY INSTALLATION AND COMFORT OF USE
The accessories fit Fakro roof windows perfectly and the installation is quick and easy. All Fakro accessories are characterised by high quality, innovative solutions and they enhance the aesthetics of any room.

2 YEAR WARRANTY
Which of the accessories gives the best protection from overheating? According to the **DIN 5034-1** norm, rooms should be protected from overheating with the use of external accessories (awning blind, roller blind) which give better protection than internal accessories.
How does it work in reality?
Fakro, to improve the products and with due regard to the user's comfort, analyses the efficiency of protection from overheating with the use of different accessories. To this end eight similar investigation boxes have been made. They are exposed to the influence of the sun's rays and equipped with roof windows of the same type. The research was made with closed windows, the temperature was taken one metre above the floor in a few different places. These windows then have accessories installed. The results are shown in this diagram.

The investigation results above show clearly that external accessories (awning blind and roller shutter) provide the best protection from outside heat. The optimum sun protection can be acquired be external awning blind, bearing in mind heat protection and ease of installation. Internal accessories also offer protection from the heat but to a lesser degree than external accessories; their main function is to decorate the space and regulate the amount of light entering the room.

Heat radiation in %
- window without blinds
- window with internal black-out blind
- window with awning blind depending on type of fabric
  
  *g = 61% (0.61) according to EN 410*
  *g = 37% (0.37) according to EN 13363-1*
  *g = 4-14% (0.04 − 0.14) according to EN 13363-1*

The external awning blind together with an internal accessory installed on a FAKRO roof window creates a set of accessories which ensure the highest levels of comfort in the loft space, because they protect from heat and light and decorate the room.
The Venetian AJP blind is a popular roof window accessory which can control the amount of light entering the room. Through changing the angle of the lamellas we can control the direction of sunlight and create a unique atmosphere.
The Venetian blind protects from overheating and provides a decorative element. Side aluminium rails enable a complete shading of the room and also make it possible to rotate the sash with the blind pulled down.

**CHARACTERISTICS:**

— the ability to control the direction and the amount of light entering through by changing the angle of the lamellae,
— element of decoration in the attic
— the facility to partially cover the window
— partial reduction of the heat excess in a room*
— possibility to lock the blind in any position
— protection from UV rays,
— providing privacy, without significantly reducing natural light

**CONTROL:**

AJP blind operated manually
For operating Venetian blind installed out of reach, the universal ZST control rod is available
— AJP in wireless Z-wave system, controlled by switch or remote control, powered by 12V DC

Electric drive of AJP-B Venetian blind in Z-Wave system, enables changing the angle of the lamellae only with the window closed.
COLOURS
OF VENETIAN-BLIND AJP
The material samples printed can differ in colour from the actual product.
The standard ARS protects from the light and at the same time can be an additional element of decoration in the attic. The ARS roller blind reduces the amount of incoming light, adds style to the room, and the wide range of fabric designs (plain, patterned) allows you to match or contrast the blind’s material with the decor of any room.
ARS blind is a material rolled up on a roller with a spring. It has an elegant aluminium fascia, which hides the roller. Three pairs of fastenings installed on the sash allow the blind to be fixed in different positions.

**CHARACTERISTICS:**
- gradual reduction of incoming light
- wide range of colours to satisfy individual tastes
- three different fixing positions
- partial reduction of the heat excess in a room
- provides privacy by covering the window

**CONTROL:**
- **ARS** blind is manually controlled. **ZST** control rod enables operation of an ARS blind which is out of reach.
The material samples printed can differ in colour from the actual product.
The ARP roller blind provides protection against sunlight, pleasantly shading the interior during sunny days. When pulled down, ARP covers dazzling sunlight. The blind can be an additional decor of the attic as well.
Operating ARP-Z-Wave is possible with wall switch or remote control. Side aluminium guides enable locking the blind in any position.

The wide range of colours and patterns of the blind’s fabric enhances the interior’s aesthetics and allows you to match with the decor of any room. Side aluminium guides cover the edge of the fabric and additionally limit the amount of the incoming sunlight.

**CHARACTERISTICS:**
- gradual reduction of the incoming sunlight
- wide range of colours to satisfy individual needs
- partial protection against heat from the sun
- possibility to lock the blind in any position
- protection against UV radiation
- provides complete privacy by covering the window

**CONTROL:**
- ARP manually controlled
  - ZST rod enables operation of ARP installed out of reach,
- ARP in wireless Z-Wave system controlled by switch or remote control, powered by 12V DC.

Operating ARP-E in standard version is possible only with the window closed.
COLOURS
OF ARP ROLLER BLIND
The material samples printed can differ in colour from the actual product.
NIGHT BY DAY ...

ARF Sunset provides perfect protection from the sunlight ensuring complete room interior blackout.
ARF blackout blinds are made of an elegant, decorative material. They have side runners enabling room interior black out. ARF blackout blind can be stopped at any point up the window.

**CHARACTERISTICS:**

— gradual reduction of the incoming sunlight up to black out  
— partial protection against heat from the sun*  
— possibility to lock the blind in any position  
— reduction of heat loss in the room in winter  
— protection against UV radiation  
— provides complete privacy by covering the window  
— suitable for cleaning

**CONTROL:**

— ARF manually controlled  
— ZST rod enables operation of ARF installed high up in the roof  
— ARF- in wireless Z-Wave system controlled by switch or remote control, powered by 1.2V DC

Operating ARF-Z-Wave in standard version is possible only with the window closed.

**Notes:**

*protection from high temperatures is provided by external awning blind
COLOURS OF ARF BLIND
The material samples printed can differ in colour from the actual product.
APS pleated blind is a stylish and decorative blind. It provides a soft, diffused level of light in the room, in colours to match any interior design.
Side white aluminium guides cover the edge of the fabric and additionally limit the amount of incoming sunlight. The blind can be positioned at any point.

**CHARACTERISTICS:**
- Provides a soft, diffused light into the room, in colours to match interior design
- Reduction of incoming sunlight
- Partial protection against heat from the sun*
- Possibility to lock the blind in any position
- Protection against UV radiation
- Provides privacy by covering the window

**CONTROL:**
- APS manually controlled

*Protection from high temperatures is provided by external awning blind*
COLORS
OF PLEATED BLINDS APS
The material samples printed can differ in colour from the actual product.
AMS
INSECT SCREEN

UNDISTURBED TRANQUILLITY ...

AMS insect screen stops mosquitoes and other insects entering the room. Fitting an Insect Screen means we can leave a roof window ajar, and no insects will enter the room.
AMS Insect Screen is the only accessory that is mounted onto the lining and not the window. It is made of glass fibre netting covered with PVC and comes with white aluminium runners.

**CHARACTERISTICS:**
- stops mosquitoes and other insects from entering the room when the roof window is open,
- minimum shading of the room,
- possibility to install with other internal and external accessories

**CONTROL:**
- AMS insect screen is operated manually

Glass fibre netting covered with PVC.

The construction of AMS Insect Screen ensures full protection from insects.

**INSECT SCREEN DIMENSIONS**

<table>
<thead>
<tr>
<th>Window width [cm]</th>
<th>134</th>
<th>134</th>
<th>114</th>
<th>114</th>
<th>94</th>
<th>94</th>
<th>78</th>
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<th>66</th>
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<td>Internal lining width [cm]</td>
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<td>127.5</td>
<td>107.5</td>
<td>107.5</td>
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<td>Max. lining internal height [cm]</td>
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<td>195</td>
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<td>165</td>
</tr>
<tr>
<td>Length of slide guides [cm]</td>
<td>240</td>
<td>200</td>
<td>240</td>
<td>200</td>
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<td>200</td>
<td>240</td>
<td>200</td>
<td>240</td>
<td>200</td>
<td>200</td>
<td>170</td>
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</table>
Have a rest in shade ...

The awning blind provides optimum protection from overheating while at the same time providing a view to the outside. Fakro awning blind reflects sun rays before they reach the glass and thus protects against heat build-up on sunny days, providing relief for the eyes and protection from the harmful effects of strong reflected light, which is especially important when working with computers.

— AMZ for centre pivot windows FT__PTP with raised axis of rotation FYP proSky, and top hung and pivot windows FP__PPP preSelect,
— AME for panoramic windows FEP,
— AMB for L-shaped windows B___.

www.fakro.com
The awning blind is made of durable, weather-resistant fibre glass fabric. The fabric is roller mounted, spring loaded and fitted inside an aluminium casing which is installed at the top of the window. This enables easy control of the blind and makes it possible to use a wider fabric, thus providing additional protection against ingress of light. To control the blind an 80cm long rod is supplied in package. There is also available a rod ZSZ which is 150 cm long.

**CHARACTERISTICS:**

— up to 8 times more effective protection against overheating when compared with internal blinds,

— the best protection from tiresome heat,

— effective shading of the room whilst still allowing some light in,

— comfortable use – we can cover the window for a whole summer without the need to roll it up and down every day,

— easy installation – we install the blind from the inside (unscrew four screws and then rescrew them again in the same holes),

— protection from harmful UV radiation,

— when used in rainy weather, reduces noise of rain.

**CONTROL:**

— AMZ manually operated or with the use of rod (supplied in package)

**AMZ**

GROUP I

- 090
- 089

GROUP II

- 091
- 094

**AMZ, AME, AMB**

Awning blinds are available in two groups:

GROUP I - in four colours (material with 10% relative fabric transparency),

GROUP II - available in two colours (with 1% relative fabric transparency).
Discover Oasis...

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 privacy by completely covering the window.

ARZ-H
ARZ Z-Wave
ARZ SOLAR

— ARZ-H for centre pivot windows FT_ and with raised axis of rotation FYP proSky
— ARZ-Wave and ARZ Solar for centre pivot windows FT_, PT_, top hung and pivot windows FP_, PPP preSelect, and with raised axis of rotation FYP proSky.
Installed on the outside, roller shutters improve protection on sunny days from uncomfortable heat gain. The inside surface of the aluminium slats is covered with a special coating, which limits incoming heat.

**CHARACTERISTICS:**
- effective reduction of heat entering the room,
- reduction of heat loss during winter,
- complete blackout,
- increases the feeling of privacy,
- protection from UV radiation,
- good sound reduction, increased security.

**CONTROL:**
- **ARZ-H** operated manually from the inside with a crank (supplied in package)
- **ARZ** in wireless Z-Wave system, controlled by wall switch or remote control, powered by 12V DC
- **ARZ Solar** roller shutter controlled by a remote control

Solar roller shutter is equipped with a control unit and accumulator. The accumulator is powered by a solar cell placed on the roller shutter. Recommended for places with no access to 230V supply.

When installing roller shutters on windows in any vertical combinations the **minimum 20cm** distance between them must be observed and **10cm** between the windows installed side by side.

External roller shutters ARZ Z-Wave can be operated with wall mounted switch or a remote control.

ARZ Solar roller shutter, powered with a solar cell, controlled with a remote control.

The material samples printed can differ in colour from the actual product.
For roof windows installed in places difficult to reach, FAKRO offers electrical accessories fitted as standard with Z-Wave system module. Z-Wave is a wireless radio protocol used to communicate home electrical equipment. It is used to connect into one network - electrical equipment such as lighting, thermostats, alarms, computers, telephones, air conditioning and to control electric windows and blinds. All electrical equipment, which has a Z-Wave module can be connected into the network.
**ELECTRIC CONTROLLING DEVICES**

- **ZWK 1**
  The ZWK 1 wall keyboard enables control of one or more receivers separately: Electro Z-Wave window, actuator ZWS230 for operating the window, external roller shutter ARZ Z-Wave, internal blind ARF Z-Wave, internal blind ARP Z-Wave or Venetian blind AJP Z-Wave.

- **ZWK 15**
  The ZWK 15 wall keyboard enables control of many receivers separately or simultaneously: Electro Z-Wave window, actuator ZWS230 for operating the window, external roller shutter ARZ Z-Wave, internal blind ARF Z-Wave, internal blind ARP Z-Wave or Venetian blind AJP Z-Wave.

- **ZWP 15**
  The ZWP 15 remote used for control of many products separately or simultaneously: Electro Z-Wave window, actuator ZWS230 for operating the window, external roller shutter ARZ Z-Wave, internal blind ARF Z-Wave, internal blind ARP Z-Wave or Venetian blind AJP Z-Wave.

- **ZWG 1**
  The modern-looking, touch keyboard ZWG 1 made of toughened glass enables control of one or more devices simultaneously: Electro Z-Wave window, actuator ZWS230 for operating the window, external roller shutter ARZ Z-Wave, internal blind ARF Z-Wave, internal blind ARP Z-Wave or Venetian blind AJP Z-Wave.

- **ZWG 3**
  The modern-looking, touch keyboard ZWG 3 made of toughened glass enables control of many devices separately or simultaneously: Electro Z-Wave window, actuator ZWS230 for operating the window, external roller shutter ARZ Z-Wave, internal blind ARF Z-Wave, internal blind ARP Z-Wave or Venetian blind AJP Z-Wave.

- **ZWP TV**
  The ZWP TV remote control used for control of RTV devices and many electric accessories form FAKRO product range separately or simultaneously: Electro Z-Wave window, actuator ZWS230 for operating the window, external roller shutter ARZ Z-Wave, internal blind ARF Z-Wave, internal blind ARP Z-Wave or Venetian blind AJP Z-Wave.

- **Z650**
  Power supply unit 12VdC used to feed Z-Wave devices. Output power 60W. To be installed on DIN TS35 rail. Provides power for a maximum of three electric accessories.
The operating principle of this system consists in “mapping out a route” for a signal. For radio waves sent from a controlling device (e.g. remote control) there is set a route in such a way so that a command reaches the right device and is always performed. This is achieved by means of requiring conformation of command reception by a device sending out commands, in this case a remote control. The confirmation is sent by a device to which the command has been addressed. If there is an obstacle in the way of radio waves and signal cannot reach the device to which the command was directed, the Z-Wave system searches for “a new route” to a given device. The new route leads through other devices in the Z-Wave network. It is this feature which ensures high system reliability. Thanks to it, the Z-Wave protocol can have a virtually unlimited range as, for the command sending, it uses other devices in the network, thus contributing to a reduction in energy consumption as well.

The whole Z-Wave protocol is contained in a single small chip. The basic Z-Wave chip includes: processor, flash memory, radio transmitter and receiver.
The FAKRO Company offers functional control rods for operating roof windows installed out of user’s direct reach. They make it possible to easily open and close the windows installed high above the floor level and operate internal Venetian blinds, blackout blinds, roller blinds as well as external awning blinds.

CONTROL RODS FOR OPERATING ACCESSORIES

ZST
CONTROL ROD ZST
The universal ZST telescopic rod enables the user to operate ARS, ARP, ARF blinds and AJP Venetian blinds on windows in out-of-reach positions. It also enables easy opening and closing of windows.
Standard rod length is 119cm, which can be extended to 134, 164, 190 and 218 cm. By using the ZSP extension, it is possible to extend the rod further to 246, 274, 302 and 330cm.

ZSZ ROD
The ZSZ Rod is an aluminium bar (circular in cross-section) with a plastic hook, for operation awning blinds such as the AMZ on windows in out-of-reach positions. Standard rod length is 150cm. Note: The standard AMZ awning blind is supplied with an 80cm rod.
CHOOSING THE ACCESSORIES

In order to select type and size of accessories correctly it is essential to know the window type and its dimensions which are to be found on a data plate placed on the window sash.

Accessories for FAKRO roof windows are available:
— in FAKRO roof windows sales chain
— in on-line store at shop.fakro.co.uk

Using original FAKRO accessories ensures maintaining the 10-year warranty for roof windows.

Printed swatches presented in this catalogue may not correspond to the real ones. There are three kinds of samplers available in stores containing all material swatches used in FAKRO accessories.

Internal accessories are adapted to all FAKRO roof window types. In order to properly choose the size of the accessories the window size which is given on the identification label of the window sash has to be known. FAKRO offers a wide range of external awnings, blinds and blinds adjusted to various roof window designs. An external awning blind and internal accessory installed on the same FAKRO roof window form a set of accessories providing maximum comfort of living in the attic. They protect the room against excessive heat and light, additionally decorating the interior.

### INTERNAL ACCESSORIES

<table>
<thead>
<tr>
<th>Internal accessories</th>
<th>FTS, FTP, FTT, FTP US*</th>
<th>Thermo</th>
<th>FPP-V</th>
<th>FPP-U-V</th>
<th>preSelect</th>
<th>PTP</th>
<th>FPP-V</th>
<th>FPO-V</th>
<th>FPP-V</th>
<th>FEP</th>
<th>FTP/D</th>
<th>FTP/D</th>
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</table>

* — internal accessories made to order, standard external accessories
1 — for lining for combination up to 240 cm long
2 — retaining 20 cm distance between the windows in vertical position

### EXTERNAL ACCESSORIES

<table>
<thead>
<tr>
<th>External accessories</th>
<th>FTS, FTP, FTT</th>
<th>FTP US*</th>
<th>FPP-V</th>
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<th>PTP</th>
<th>FPP-V</th>
<th>FPO-V</th>
<th>FPP-V</th>
<th>FEP</th>
<th>FTP/D</th>
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<td>Roller shutters ARZ-Z Wave</td>
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Fakro reserves the right to change specifications and technical parameters of products without prior notice.