ROLLER SHUTTERS



WIŚNIOWSKI
GATES | WINDOWS | DOORS | FENCES

WINDOW ROLLER SHUTTERS **PROTECTA**

Intended use: Window roller shutters are intended for use in single-family homes. Their main purpose is to cover windows and glazings to ensure a high level of privacy and protection against strong sun and high levels of noise. In modern design, they are also a universal decorative element, which – thanks to the broad individualization options – suits almost all types of architecture. WIŚNIOWSKI roller shutters have a curtain made of aluminium sheet, infilled with polyurethane foam. The box, access cover, as well as guide rails are also made of aluminium, or PVC in the case of top-mounted roller shutters. It is a durable material that ensures reliable operation and the best protection of the entire building.

INSULATION

The Protecta roller shutters protect your home against sun, cold, wind, and noise. They insulate the home interior from everything that can disturb the peace and security of your family.

SMART CONTROL

Thanks to the smartCONNECTED feature, you can control the Protecta roller shutters from your phone. You are at work and want to close the roller shutters so that the strong sun does not overheat the interior? Just do it remotely without having to move one inch.

MODERN DESIGN

The design of the Protecta roller shutters is all about timeless elegance. That is why they will match any type of architecture. But they will always look their best with WIŚNIOWSKI windows.

PROTECTA A ROLLER SHUTTERS

Technical information

The Protecta A roller shutters are a roller shutter system in which the access cover and the guide rails are made of aluminium. The curtain comprises profiles made of aluminium sheet infilled with freon-free polyurethane foam and finished with an end slat. The curtain sheet is covered with two layers of paint, which improves the curtain's resistance to abrasion, scratches, and the weather conditions.
Service access to the inside of the box is provided through the access cover located on the outside of the roller shutter.

These roller shutters can be used in newly built buildings, as well as in existing buildings without having to modify the building structure. Roller shutters can be installed using two methods, either in the window recess, in which case the guide rails are installed to the window frame; or on the façade, in which case the roller shutter dimensions have to be increased to include the guide rail width and the box height.

Thanks to the option to integrate the Protecta A roller shutters with a mosquito screen, the home interior is not only protected against high solar exposure in the summer and loss of heat in the winter, but the roller shutters also ensure effective protection against insects.



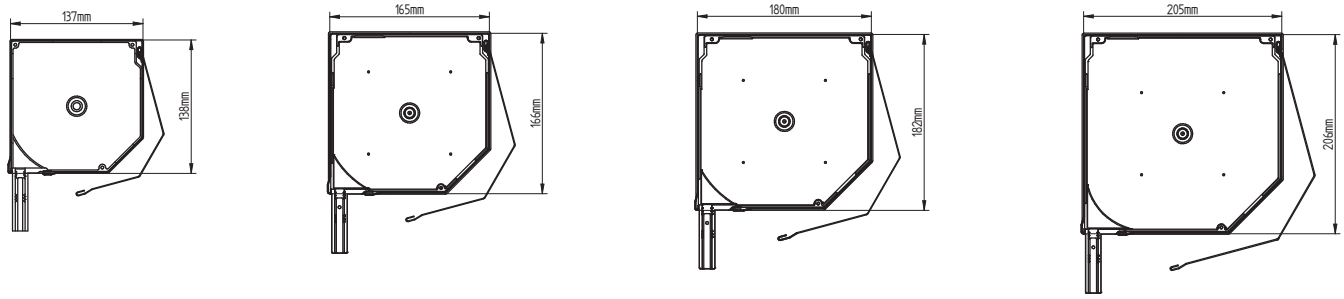
Structure of the Protecta A roller shutter

Standard accessories

- 6 non-perforated slats from the top
- soft steel/PVC hangers with felt
- end slat 51 mm high
- end slat caps with a fixed bumper
- guide rails with a brush seal
- access cover fixed with rivets
- the top end position is set in the power operated version
- rubber cable gland
- cord winder in colour: white / brown

Box sizes – Protecta A roller shutter

137 | 165 | 180 | 205

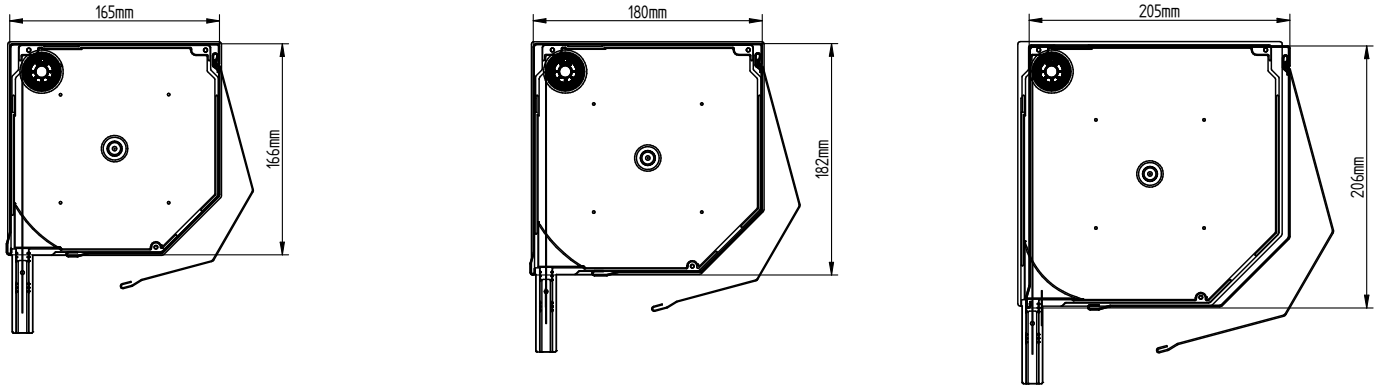


Maximum height including the box for the Protecta A roller shutter [mm]											
Box size	Curtain PA39				Curtain PA43			Curtain BP41R-0			
	SW40 + WB	**SW40**	**SW60 + WB**	**SW60**	**SW40**	**SW60**	**SW60 + WB**	**SW40 + WB**	**SW40**	**SW60 + WB**	**SW60**
137	1,560	1,600	1,440	1,210	1,410	930	1,150	1,560	1,560	1,440	1,210
165	2,390	2,470	2,280	2,120	2,500	2,110	2,320	2,390	2,390	2,280	2,120
180	2,950	3,020	2,790	2,630	2,980	2,590	2,800	2,950	2,950	2,790	2,630
205	4,320	4,210	4,050	3,780	4,020	3,630	3,850	4,210	4,210	4,050	3,780

SW – octagonal steel tube with an internal/external weld
WB – self-locking hanger

Box dimensions – Protecta A roller shutter with a mosquito screen

165 + MKT ⋮ **180 + MKT** ⋮ **205 + MKT**

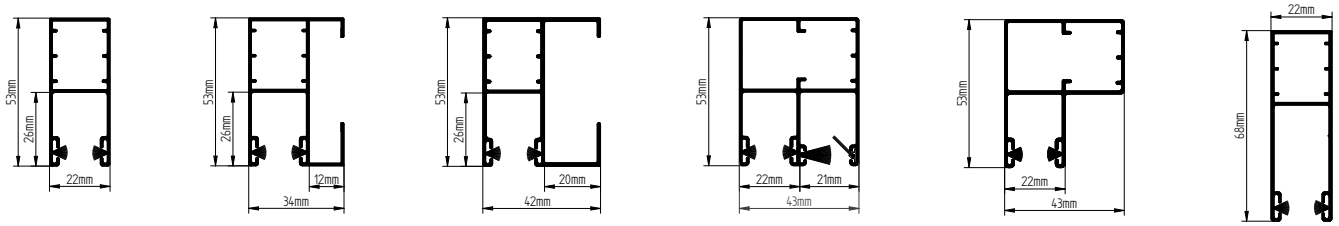


Maximum height including the box for the Protecta A roller shutter with a mosquito screen [mm]											
Box size	Curtain PA39				Curtain PA43			Curtain BP41R-0			
	SW40 + WB	**SW40**	**SW60 + WB**	**SW60**	**SW40**	**SW60**	**SW60 + WB**	**SW40 + WB**	**SW40**	**SW60 + WB**	**SW60**
165	1,700	1,690	1,600	1,650	1,600	1,330	1,510	1,700	1,690	1,600	1,650
180	1,700	1,700	1,700	1,700	2,460	2,120	1,900	1,700	1,700	1,700	1,700
205	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500

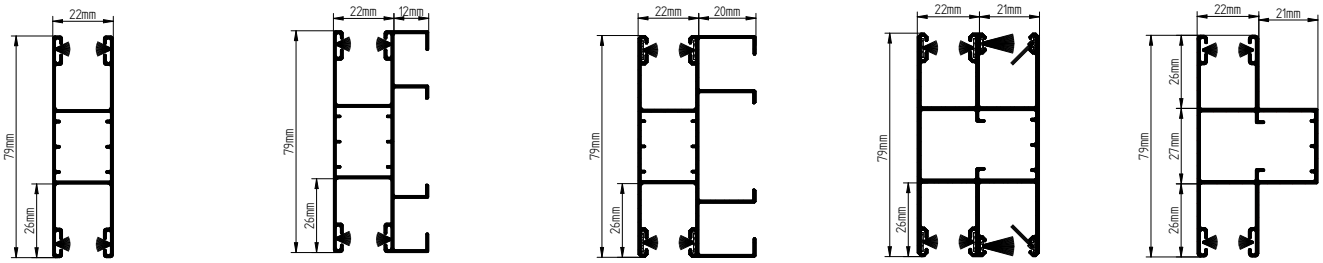
SW – octagonal steel tube with an internal/external weld
WB – self-locking hanger

Guide rail types

PP 53 ⋮ **PP 53/ODS** ⋮ **PK 53/ODS 20** ⋮ **PKDO 53** ⋮ **PPMO 53** ⋮ **PP 68**

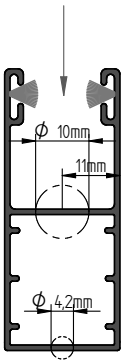


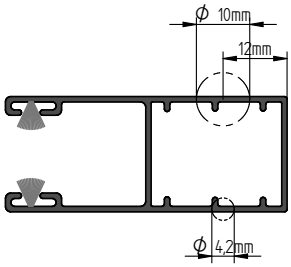
PPD 79 ⋮ **PPD 79 ODS** ⋮ **PPD 79/ODS/20/S** ⋮ **PPDO 79/S** ⋮ **PPDMO 79**

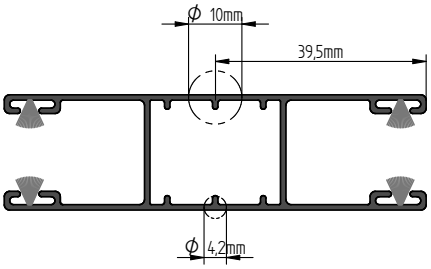


Guide rail drilling options

Drilling type “A”, from the side ⋮ **Drilling type “B”, from the face**

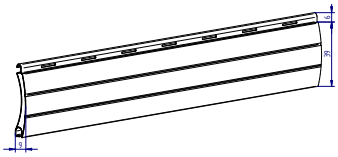


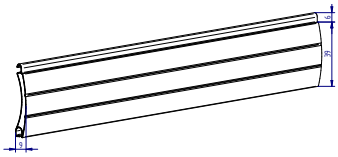


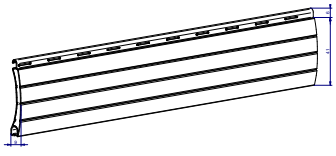


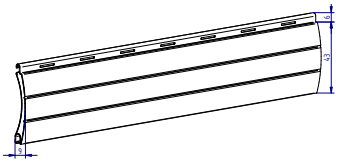
Curtain

PA 39 ⋮ **PA 39** ⋮ **PA 41** ⋮ **PA 43**

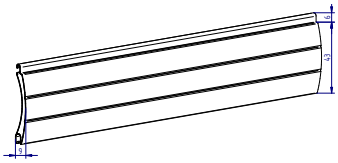








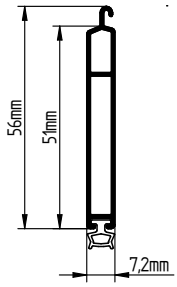
PA 43

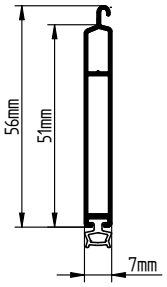


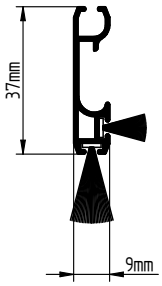
	Technical data		
	PA 39	**PA 43**	**BP41R-0**
Slat height	39 mm	43 mm	41 mm
Weight 1 m²	2.8 kg	2.6 kg	2.7 kg
Slats per metre of height	25.6 pieces	23.2 pieces	24.4 pieces
Max. roller shutter surface	6m²	9m²	6.5m²

End slats

LDG ⋮ **LDG-E** ⋮ **LDSM MKT**





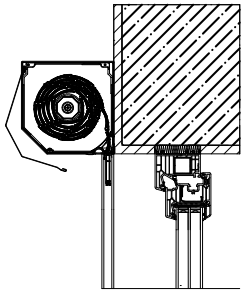


The type of end slats depends on the colour																				
Colour / Slat	00	01	02	03	05	08	09	20	23	23R	28	28R	30	30R	34	40	43	52R	53R	79R
LDG	x	x	x	x	-	x	x	-	x	x	-	x	-	x	x	x	x	x	x	-
LDG-E	x	-	-	-	-	-	-	x	-	-	x	-	x	-	-	-	-	-	-	x
LDSM MKT	x	x	x	x	x	x	x	-	x	-	-	x	x	x	-	-	-	x	-	-

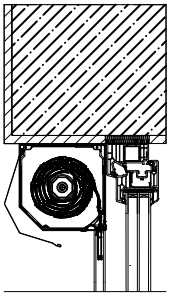
Default roller shutter configuration in Golden Oak and Walnut				
PROTECTA A				
Roller shutter type	**Curtain**	**Guide rails**	**End slat**	**Access cover**
Walnut	Aluprof 28 – varnish	Aluprof 28 – varnish	Aluprof 28 – varnish	Aluprof 28 – varnish
Golden Oak	Aluprof 30 – varnish	Aluprof 30 – varnish	Aluprof 30 – varnish	Aluprof 30 – varnish

Protecta A system roller shutter installation methods

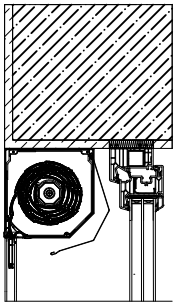
Wall installation
wound outside (anticlockwise)



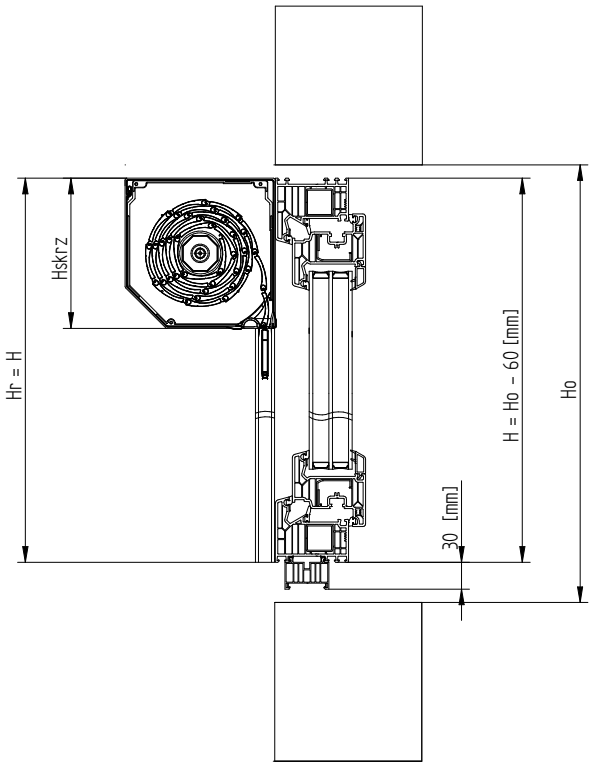
Recess installation
wound outside (anticlockwise)

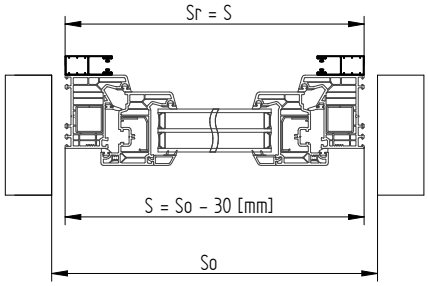


Recess installation
wound inside (clockwise)



Dimensioning roller shutters, Protecta A, recess installation





Colours

CURTAIN	
Standard colours	
Silver	**01**
White	**02**
Grey	**03**
Dark Brown	**08**
Brown	**09**
Anthracite Grey	**23**
Walnut	**28**
Golden Oak	**30**
Special colours	
Black	**20**
Light Grey	**31**
Basalt Grey	**33**
Quartz Grey	**34**
Concrete Grey	**35**
Wenge	**36**
Grey Aluminium	**37**
White Pearl Mat*	**40**
Anthracite Grey Pearl Mat*	**43**
Turner Oak*	**49**
Winchester	**52**
Bleached Oak*	**79**
Woodec Turner Oak Malt**	**-**
Woodec Turner Oak Toffee**	**-**
Grey Metallic*	**75**
Green	**13**
Beige	**05**

END SLAT	
Standard colours	
White	**02**
Grey	**03**
Dark Brown	**08**
Brown	**09**
Anthracite Grey	**23**
Walnut	**28**
Golden Oak	**30**
Special colours	
Silver	**01**
Black	**20**
Anthracite Grey	**23R**
Walnut	**28R**
Golden Oak	**30R**
Quartz Grey	**34**
White Pearl Mat	**40**
Anthracite Grey Pearl Mat	**43**
Winchester	**52R**
Dark Oak	**53R**
Bleached Oak*	**79R**
Anthracite Quartz F4361014	**-**
Black Ulti-Matt 47097	**-**
Woodec Turner Oak Malt	**-**
Woodec Turner Oak Toffee	**-**
Anthracite Grey 4365003	**-**
Dark Grey Silk 4367003	**-**
Walnut 2178007	**-**
Winchester 49240	**-**
Golden Oak 2178001	**-**
Smooth Basalt Grey 701205083	**-**
Agate Grey 703805	**-**
Smooth Basalt Grey 715505083	**-**
Silver Grey 715505	**-**
Anthracite Grau Matt F470-6003	**-**
Natural Oak 3118076	**-**
Jet Black 4467062	**-**
Green 600505	**-**

GUIDE RAILS	
Standard colours	
White	**02**
Grey	**03**
Dark Brown	**08**
Brown	**09**
Anthracite Grey	**23**
Walnut	**28**
Golden Oak	**30**
Special colours	
Silver	**01**
Anthracite Grey	**23R**
Walnut	**28R**
Golden Oak	**30R**
White Pearl Mat	**40**
Anthracite Grey Pearl Mat	**43**
Winchester	**52R**
Dark Oak	**53R**
Bleached Oak*	**79R**
Quartz Grey	**34**
Anthracite Quartz F4361014	**-**
Black Ulti-Matt 47097	**-**
Woodec Turner Oak Malt	**-**
Woodec Turner Oak Toffee	**-**
Anthracite Grey 4365003	**-**
Dark Grey Silk 4367003	**-**
Walnut 2178007	**-**
Winchester 49240	**-**
Golden Oak 2178001	**-**
Smooth Basalt Grey 701205083	**-**
Agate Grey 703805	**-**
Smooth Basalt Grey 715505083	**-**
Silver Grey 715505	**-**
Anthracite Grau Matt F470-6003	**-**
Natural Oak 3118076	**-**
Jet Black 4467062	**-**
Green 600505	**-**
RAL 9007	**-**

BOX	
Standard colours	
White	**02**
Grey	**03**
Dark Brown	**08**
Brown	**09**
Anthracite Grey	**23**
Walnut	**28**
Golden Oak	**30**
Special colours	
Silver	**01**
Golden Oak	**30R**
Quartz Grey	**34**
Winchester	**52R**
Dark Oak	**53R**
Turner Oak	**49R**
Beige	**05**
RAL 9007	**-**
RAL 9006	**-**
RAL 9005	**-**
RAL 7039	**-**
RAL 7023	**-**
RAL 7012	**-**
RAL 8003	**-**
RAL 1013	**-**
RAL 7038	**-**
RAL 7016	**-**
RAL 7024	**-**
RAL 1001	**-**
RAL MODERN GRAPHITE	**-**
RAL 8014	**-**
RAL MODERN BLACK	**-**
RAL ANTHRACITE	**-**
RAL 7047	**-**
RAL 5011	**-**
RAL 7035	**-**
RAL 7037	**-**
RAL 6005	**-**
RAL 7002	**-**

END SLAT	
Special colours	
RAL 9007	-
RAL 9006	-
RAL 9005	-
RAL 7039	-
RAL 7023	-
RAL 7012	-
RAL 8003	-
RAL 1013	-
RAL 7038	-
RAL 7016	-
RAL 7024	-
RAL 1001	-
RAL MODERN GRAPHITE	-
RAL 8014	-
RAL MODERN BLACK	-
RAL ANTHRACITE	-
RAL 7047	-
RAL 5011	-
RAL 7035	-
Beige	**05**
Turner Oak	**49**
Turner Oak (film coating)	**49R**
Chocolate Brown 887505	-
White 915205	-
Siena Rosso 49233	-
Sapeli (Mahogany) 2065021	-
Brown Black 851805	-
Basalt Grey 701205	-
Black FN 301900002	-
Light Grey 725105	-
Ivory 101505	-
Quartz Grey 703905	-
Steel Blue 515005	-
RAL 7037	-
RAL 6005	-
RAL 7002	-
RAL 1034	-
RAL 8011	-
RAL DB703	-
RAL 7042	-
RAL 6009	-

GUIDE RAILS	
Special colours	
RAL 9006	-
RAL 9005	-
RAL 7039	-
RAL 7023	-
RAL 7012	-
RAL 8003	-
RAL 1013	-
RAL 7038	-
RAL 7016	-
RAL 7024	-
RAL 1001	-
RAL MODERN GRAPHITE	-
RAL 8014	-
RAL MODERN BLACK	-
RAL ANTHRACITE	-
RAL 7047	-
RAL 5011	-
RAL 7035	-
Beige	**05**
Turner Oak	**49**
Turner Oak (film coating)	**49R**
Chocolate Brown 887505	-
White 915205	-
Siena Rosso 49233	-
Sapeli (Mahogany) 2065021	-
Brown Black 851805	-
Basalt Grey 701205	-
Black FN 301900002	-
Light Grey 725105	-
Ivory 101505	-
Quartz Grey 703905	-
Steel Blue 515005	-
RAL 7037	-
RAL 6005	-
RAL 7002	-
RAL 1034	-
RAL 8011	-
RAL DB703	-
RAL 7042	-
RAL 6009	-

BOX	
Special colours	
RAL 1034	-
RAL 8011	-
RAL DB703	-
RAL 7042	-
RAL 6009	-

PLEASE NOTE

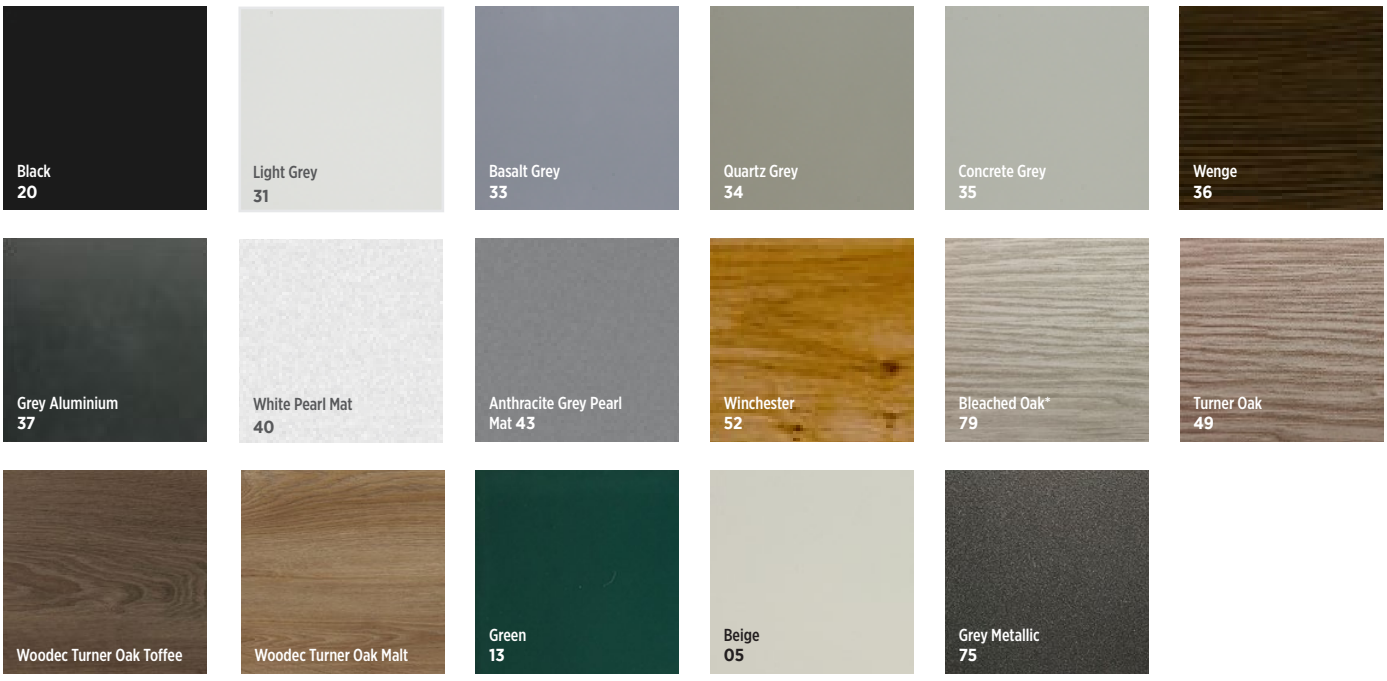
Curtain colours marked with the asterisk symbol * are not available with the PA43 curtain.
Guide rail colours include the standard guide rails PP53/S and PPD79/S.
Curtain colours marked with the double asterisk symbol ** are only available with the BP41R-0 curtain.

The colour hue of the film coating of roller shutters and window joinery may differ.

Curtain – standard colours



Curtain – special colours



PROTECTA P ROLLER SHUTTERS

Technical information

The Protecta P roller shutters are a roller shutter system in which the access cover and the guide rails are made of aluminium. The curtain comprises profiles made of aluminium sheet infilled with freon-free polyurethane foam and finished with an end slat. The curtain sheet is covered with two layers of paint, which improves the curtain's resistance to abrasion, scratches, and the weather conditions.

This system is intended for new buildings and requires proper preparation of the lintel. It can also be installed in already built buildings, but requires certain modifications to me made to the lintel. Before the box installation, the area between the rear wall of the box and the lintel must be insulated, which decreases the risk of a thermal bridge being created. The flush-mounted roller shutter box is designed so that its surface can be covered with a layer of thermal insulation material. With this solution, the flush-mounted roller shutter box becomes a concealed element of the building façade.

The access cover, usually matched with the window colour, is located on the outer side of the building and provides easy access to the inside of the box for servicing. Thanks to the option to integrate the Protecta P roller shutters with a mosquito screen, the home interior is not only protected against high solar exposure in the summer and loss of heat in the winter, but the roller shutters also ensure effective protection against insects.



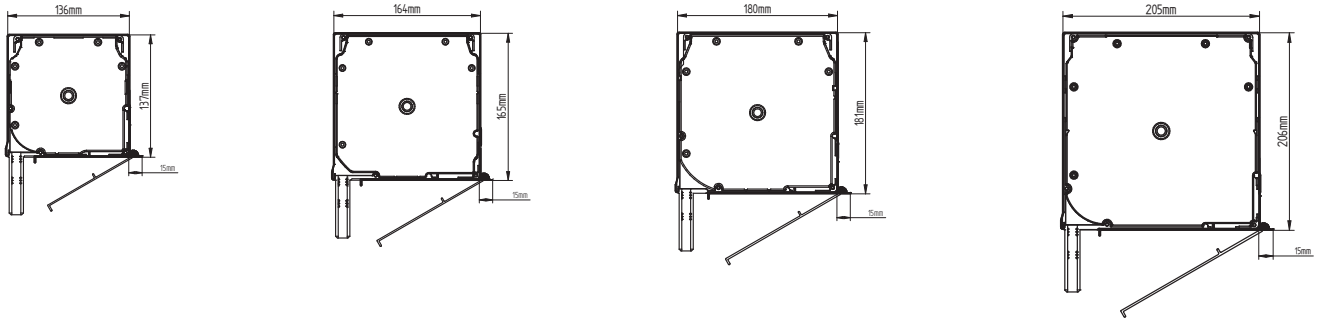
Structure of the Protecta P roller shutter

Standard accessories

- 6 non-perforated slats from the top
- soft steel/PVC hangers with felt
- end slat 51 mm high
- end slat caps with a fixed bumper
- guide rails with a brush seal
- guide caps
- access cover fixed with rivets
- the top end position is set in the power operated version
- rubber cable gland
- cord winder in colour: white / brown
- plaster bracket for covering 15 mm

Box sizes – Protecta P roller shutter

137 ⋮ 165 ⋮ 180 ⋮ 205

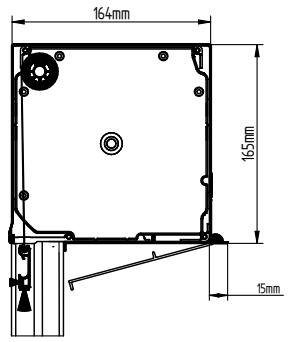


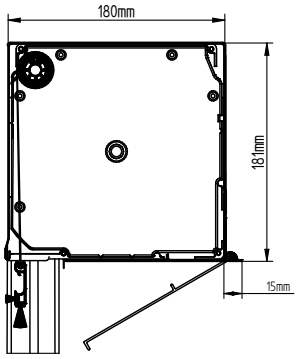
Maximum height including the box for the Protecta P roller shutter [mm]											
Box size	Curtain PA39				Curtain PA43			Curtain BP41R-0			
	SW40 + WB	**SW40**	**SW60 + WB**	**SW60**	**SW40**	**SW60**	**SW60 + WB**	**SW40 + WB**	**SW40**	**SW60 + WB**	**SW60**
137	1,560	1,600	1,440	1,210	1,410	930	1,150	1,560	1,560	1,440	1,210
165	2,390	2,470	2,280	2,120	2,500	2,110	2,320	2,390	2,390	2,280	2,120
180	2,950	3,020	2,790	2,630	2,980	2,590	2,800	2,950	2,950	2,790	2,630
205	4,320	4,210	4,050	3,780	4,020	3,630	3,850	4,210	4,210	4,050	3,780

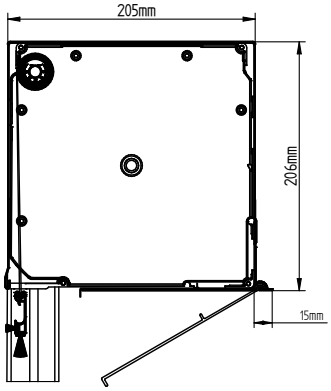
SW – octagonal steel tube with an internal/external weld
WB – self-locking hanger

Box dimensions – Protecta P roller shutter with a mosquito screen

165 + MKT ⋮ **180 + MKT** ⋮ **205 + MKT**





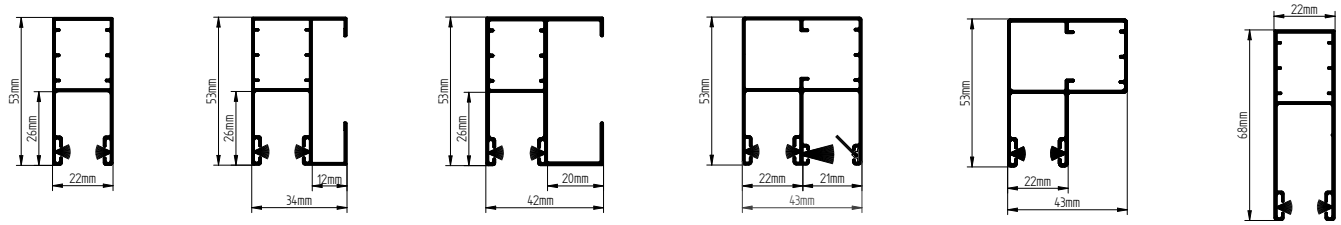


Maximum height including the box for the Protecta P roller shutter with a mosquito screen [mm]											
Box size	Curtain PA39				Curtain PA43			Curtain BP41R-0			
	SW40 + WB	**SW40**	**SW60 + WB**	**SW60**	**SW40**	**SW60**	**SW60 + WB**	**SW40 + WB**	**SW40**	**SW60 + WB**	**SW60**
165	1,700	1,690	1,600	1,650	1,600	1,330	1,510	1,700	1,690	1,600	1,650
180	1,700	1,700	1,700	1,700	2,460	2,120	1,900	1,700	1,700	1,700	1,700
205	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500

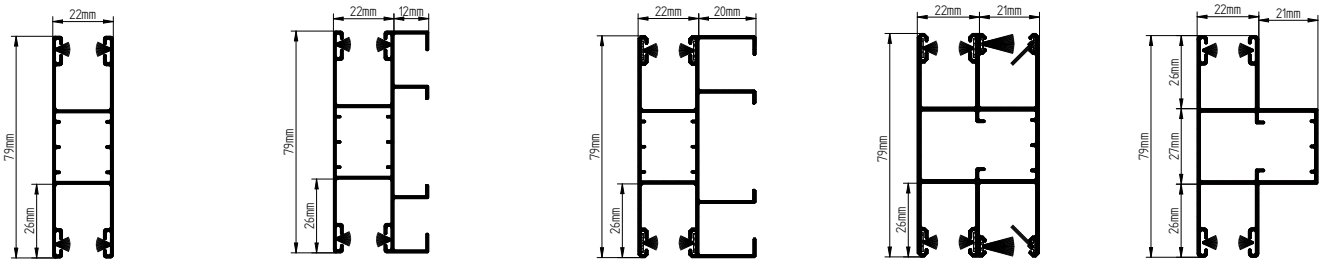
SW – octagonal steel tube with an internal/external weld
WB – self-locking hanger

Guide rail types

PP 53 ⋮ **PP 53/ODS** ⋮ **PK 53/ODS 20** ⋮ **PKDO 53** ⋮ **PPMO 53** ⋮ **PP 68**

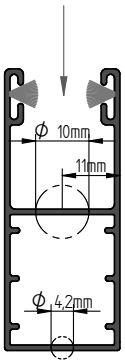


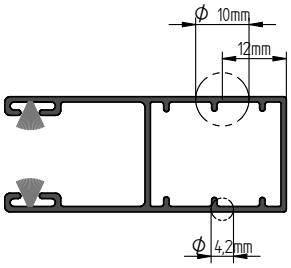
PPD 79 ⋮ **PPD 79 ODS** ⋮ **PPD 79/ODS/20/S** ⋮ **PPDO 79/S** ⋮ **PPDMO 79**

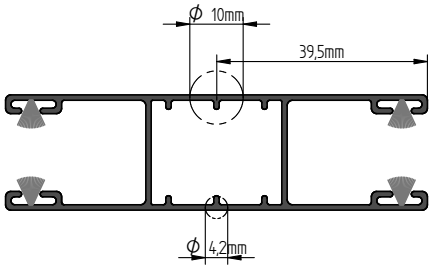


Guide rail drilling options

Drilling type “A”, from the side ⋮ **Drilling type “B”, from the face**

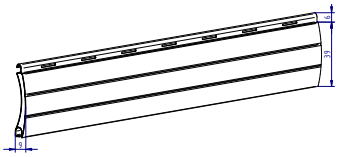


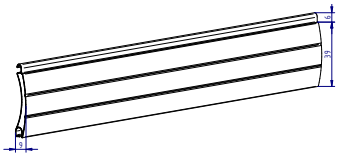


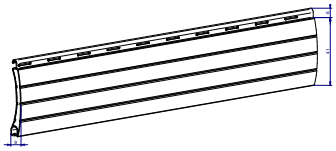


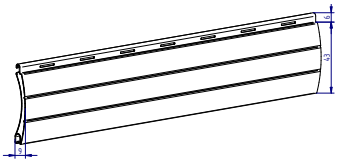
Curtain

PA 39 ⋮ **PA 39** ⋮ **PA 41** ⋮ **PA 43**

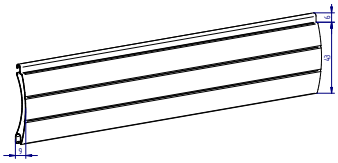








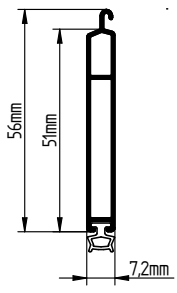
PA 43

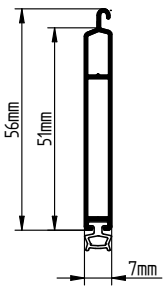


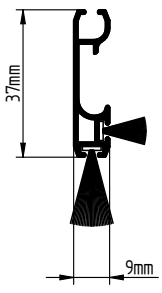
	Technical data		
	PA 39	**PA 43**	**BP41R-0**
Slat height	39 mm	43 mm	41 mm
Weight 1 m²	2.8 kg	2.6 kg	2.7 kg
Slats per metre of height	25.6 pieces	23.2 pieces	24.4 pieces
Max. roller shutter surface	6m²	9m²	6.5m²

End slats

LDG ⋮ **LDG-E** ⋮ **LDSM MKT**







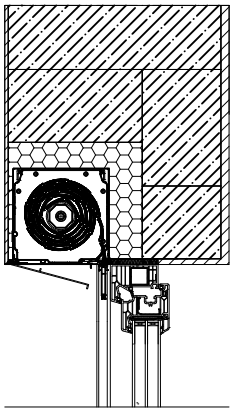
The type of end slats depends on the colour																				
Colour / Slat	00	01	02	03	05	08	09	20	23	23R	28	28R	30	30R	34	40	43	52R	53R	79R
LDG	x	x	x	x	-	x	x	-	x	x	-	x	-	x	x	x	x	x	x	-
LDG-E	x	-	-	-	-	-	-	x	-	-	x	-	x	-	-	-	-	-	-	x
LDSM MKT	x	x	x	x	x	x	x	-	x	-	-	x	x	x	-	-	-	x	-	-

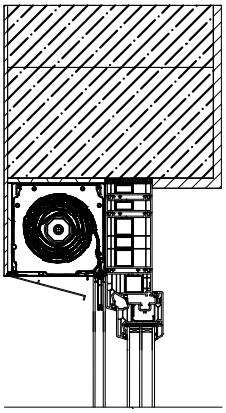
Default roller shutter configuration in Golden Oak and Walnut				
PROTECTA P				
Roller shutter type	**Curtain**	**Guide rails**	**End slat**	**Access cover**
Walnut	Aluprof 28 – varnish	Aluprof 28 – varnish	Aluprof 28 – varnish	Film coating 2178007
Golden Oak	Aluprof 30 – varnish	Aluprof 30 – varnish	Aluprof 30 – varnish	Film coating 2178001

Protecta P system roller shutter installation methods

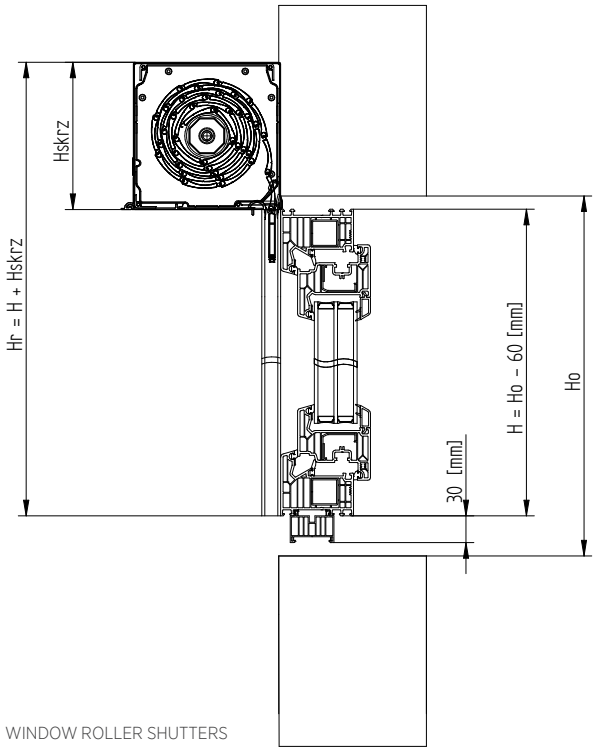
Installation in the lintel
Specially prepared lintel

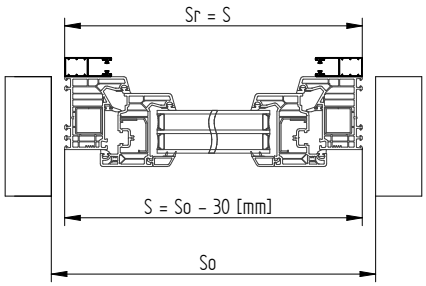
Installation on the widening





Dimensioning roller shutters, Protecta P lintel installation





Colours

CURTAIN	
Standard colours	
Silver	**01**
White	**02**
Grey	**03**
Dark Brown	**08**
Brown	**09**
Anthracite Grey	**23**
Walnut	**28**
Golden Oak	**30**
Special colours	
Black	**20**
Light Grey	**31**
Basalt Grey	**33**
Quartz Grey	**34**
Concrete Grey	**35**
Wenge	**36**
Grey Aluminium	**37**
White Pearl Mat*	**40**
Anthracite Grey Pearl Mat*	**43**
Turner Oak*	**49**
Winchester	**52**
Bleached Oak*	**79**
Woodec Turner Oak Malt**	**-**
Woodec Turner Oak Toffee**	**-**
Grey Metallic*	**75**
Green	**13**
Beige	**05**

END SLAT	
Standard colours	
White	**02**
Grey	**03**
Dark Brown	**08**
Brown	**09**
Anthracite Grey	**23**
Walnut	**28**
Golden Oak	**30**
Special colours	
Silver	**01**
Black	**20**
Anthracite Grey	**23R**
Walnut	**28R**
Golden Oak	**30R**
Quartz Grey	**34**
White Pearl Mat	**40**
Anthracite Grey Pearl Mat	**43**
Winchester	**52R**
Dark Oak	**53R**
Bleached Oak*	**79R**
Anthracite Quartz F4361014	**-**
Black Ulti-Matt 47097	**-**
Woodec Turner Oak Malt	**-**
Woodec Turner Oak Toffee	**-**
Anthracite Grey 4365003	**-**
Dark Grey Silk 4367003	**-**
Walnut 2178007	**-**
Winchester 49240	**-**
Golden Oak 2178001	**-**
Smooth Basalt Grey 701205083	**-**
Agate Grey 703805	**-**
Smooth Basalt Grey 715505083	**-**
Silver Grey 715505	**-**
Anthracite Grau Matt F470-6003	**-**
Natural Oak 3118076	**-**
Jet Black 4467062	**-**
Green 600505	**-**
RAL 9007	**-**

GUIDE RAILS	
Standard colours	
White	**02**
Grey	**03**
Dark Brown	**08**
Brown	**09**
Anthracite Grey	**23**
Walnut	**28**
Golden Oak	**30**
Special colours	
Silver	**01**
Anthracite Grey	**23R**
Walnut	**28R**
Golden Oak	**30R**
White Pearl Mat	**40**
Anthracite Grey Pearl Mat	**43**
Winchester	**52R**
Dark Oak	**53R**
Bleached Oak*	**79R**
Quartz Grey	**34**
Anthracite Quartz F4361014	**-**
Black Ulti-Matt 47097	**-**
Woodec Turner Oak Malt	**-**
Woodec Turner Oak Toffee	**-**
Anthracite Grey 4365003	**-**
Dark Grey Silk 4367003	**-**
Walnut 2178007	**-**
Winchester 49240	**-**
Golden Oak 2178001	**-**
Smooth Basalt Grey 701205083	**-**
Agate Grey 703805	**-**
Smooth Basalt Grey 715505083	**-**
Silver Grey 715505	**-**
Anthracite Grau Matt F470-6003	**-**
Natural Oak 3118076	**-**
Jet Black 4467062	**-**
Green 600505	**-**
RAL 9007	**-**

ACCESS COVER	
Standard colours	
White	**02**
Grey	**03**
Dark Brown	**08**
Brown	**09**
Anthracite Grey	**23**
Walnut	**28R**
Golden Oak	**30R**
Special colours	
Silver	**01**
Anthracite Grey	**23R**
Basalt Grey	**33**
White Pearl Mat	**40**
Anthracite Grey Pearl Mat	**43**
Winchester	**52R**
Dark Oak	**53R**
Bleached Oak***	**79R**
Anthracite Quartz F4361014	**-**
Black Ulti-Matt 47097	**-**
Woodec Turner Oak Malt	**-**
Woodec Turner Oak Toffee	**-**
Anthracite Grey 4365003	**-**
Dark Grey Silk 4367003	**-**
Walnut 2178007	**-**
Winchester 49240	**-**
Golden Oak 2178001	**-**
Smooth Basalt Grey 701205083	**-**
Agate Grey 703805	**-**
Smooth Basalt Grey 715505083	**-**
Silver Grey 715505	**-**
Anthracite Grau Matt F470-6003	**-**
Natural Oak 3118076	**-**
Jet Black 4467062	**-**
Green 600505	**-**
RAL 9007	**-**
RAL 9006	**-**

END SLAT	
Special colours	
RAL 9006	-
RAL 9005	-
RAL 7039	-
RAL 7023	-
RAL 7012	-
RAL 8003	-
RAL 1013	-
RAL 7038	-
RAL 7016	-
RAL 7024	-
RAL 1001	-
RAL MODERN GRAPHITE	-
RAL 8014	-
RAL MODERN BLACK	-
RAL ANTHRACITE	-
RAL 7047	-
RAL 5011	-
RAL 7035	-
Turner Oak	**49**
Turner Oak	**49R**
Beige	**05**
RAL 7037	-
RAL 6005	-
RAL 7002	-
RAL 1034	-
RAL 8011	-
RAL DB703	-
Chocolate Brown 887505	-
White 915205	-
Siena Rosso 49233	-
Sapeli (Mahogany) 2065021	-
Brown Black 851805	-
Basalt Grey 701205	-
Black FN 301900002	-
Light Grey 725105	-
Ivory 101505	-
Quartz Grey 703905	-
Steel Blue 515005	-
RAL 7042	-
RAL 6009	-

GUIDE RAILS	
Special colours	
RAL 9006	-
RAL 9005	-
RAL 7039	-
RAL 7023	-
RAL 7012	-
RAL 8003	-
RAL 1013	-
RAL 7038	-
RAL 7016	-
RAL 7024	-
RAL 1001	-
RAL MODERN GRAPHITE	-
RAL 8014	-
RAL MODERN BLACK	-
RAL ANTHRACITE	-
RAL 7047	-
RAL 5011	-
RAL 7035	-
Turner Oak	**49**
Turner Oak	**49R**
Beige	**05**
RAL 7037	-
RAL 6005	-
RAL 7002	-
RAL 1034	-
RAL 8011	-
RAL DB703	-
Chocolate Brown 887505	-
White 915205	-
Siena Rosso 49233	-
Sapeli (Mahogany) 2065021	-
Brown Black 851805	-
Basalt Grey 701205	-
Black FN 301900002	-
Light Grey 725105	-
Ivory 101505	-
Quartz Grey 703905	-
Steel Blue 515005	-
RAL 7042	-
RAL 6009	-

ACCESS COVER	
Special colours	
RAL 9005	-
RAL 7039	-
RAL 7023	-
RAL 7012	-
RAL 8003	-
RAL 1013	-
RAL 7038	-
RAL 7016	-
RAL 7024	-
RAL 1001	-
RAL MODERN GRAPHITE	-
RAL 8014	-
RAL MODERN BLACK	-
RAL ANTHRACITE	-
RAL 7047	-
RAL 5011	-
RAL 7035	-
Turner Oak	**49R**
Beige	**05**
RAL 7037	-
RAL 6005	-
RAL 7002	-
RAL 1034	-
RAL 8011	-
RAL DB703	-
Chocolate Brown 887505	-
White 915205	-
Siena Rosso 49233	-
Sapeli (Mahogany) 2065021	-
Brown Black 851805	-
Basalt Grey 701205	-
Black FN 301900002	-
Light Grey 725105	-
Ivory 101505	-
Quartz Grey 703905	-
Steel Blue 515005	-
RAL 7042	-
RAL 6009	-

PLEASE NOTE

Curtain colours marked with the asterisk symbol * are not available with the PA43 curtain.
Guide rail colours include the standard guide rails PP53/S and PPD79/S.
Curtain colours marked with the double asterisk symbol ** are only available with the BP41R-0 curtain.
*** except box size 205 mm

The colour hue of the film coating of roller shutters and window joinery may differ.

Curtain – standard colours

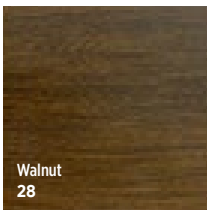


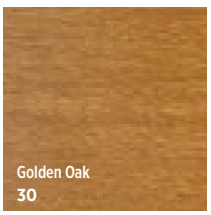




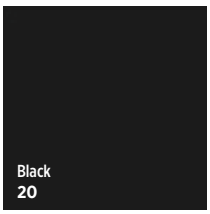








Curtain – special colours

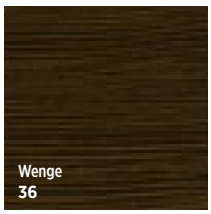












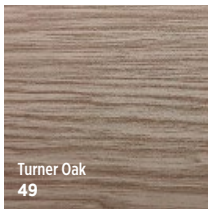






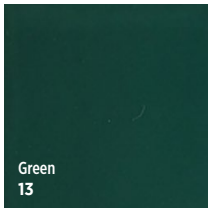
















PROTECTA N ROLLER SHUTTERS

Technical information

The Protecta N roller shutters are a system of roller shutters where the box and the guide rails are made of PVC. The curtain is made up of profiles from aluminium sheet infilled with freon-free polyurethane foam and finished with an end slat. The curtain sheet is covered with two layers of paint, which improves the curtain's resistance to abrasion, scratches, and the weather conditions.

Top-mounted roller shutters can be installed both in newly built buildings, as well as in renovated buildings when the window joinery is replaced. The roller shutter box is seated on the window using a special adaptation profile, the guide rails are screwed directly to the window frame, and then this combination is installed and anchored as a single structure in the window opening. The height of the window in relation to the window opening should be decreased by the height of the top-mounted roller shutter box. The inside of the box is additionally insulated with expanded polystyrene for improved thermal insulation. The boxes can be installed from the outside and from the inside of the room, which makes them an integral part of the inside or the façade of the building.

The access cover is located inside the room, and the broad range of colours makes it possible to match it with the window colour.

Thanks to the option to integrate the Protecta N roller shutters with a mosquito screen, the home interior is not only protected against high solar exposure in the summer and loss of heat in the winter, but the roller shutters also ensure effective protection against insects.



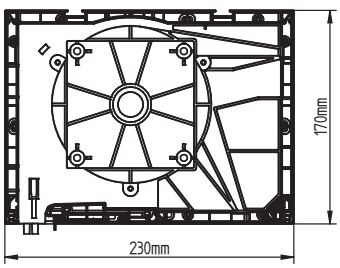
Structure of the Protecta N roller shutter

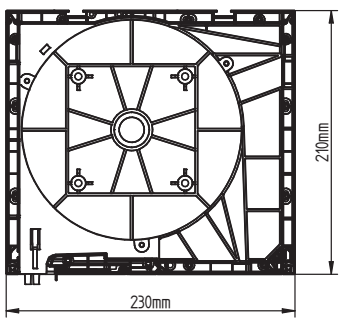
Standard accessories

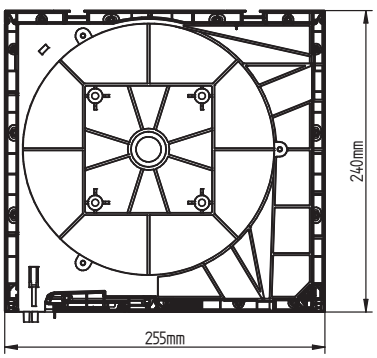
- 6 non-perforated slats from the top
- soft steel/PVC hangers with felt
- end slat 51 mm high
- end slat conical stoppers 30mm, with MKT 18 mm
- PVC guide rails with a brush seal
- Guide rails can be cut at a 5° angle
- installation anchors
- side cover and window frame connector
- extruded polystyrene thermal insulation
- the top end position is set in the power operated version
- rubber cable gland
- tape winder in colour: white / brown

Box sizes – Protecta N roller shutter

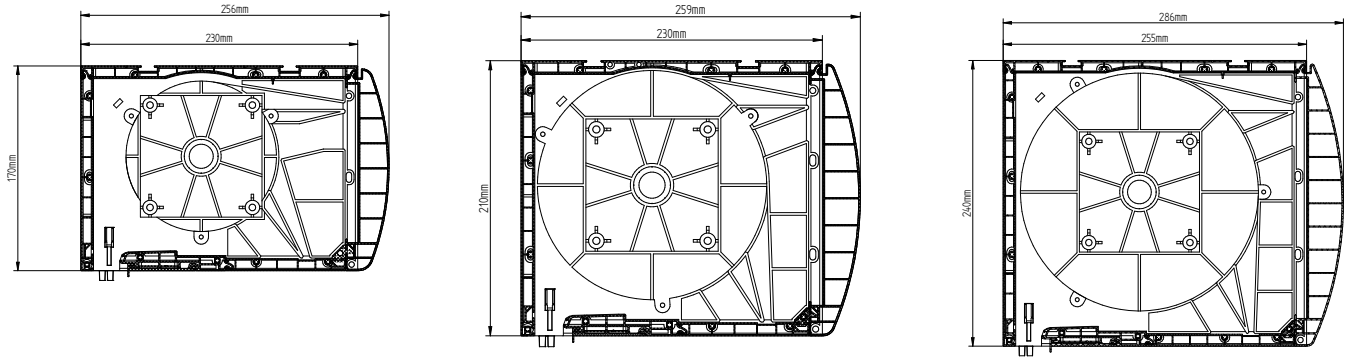
230/170 | 230/210 | 255/240







230/170 rounded ⋮ 230/210 rounded ⋮ 255/240 rounded

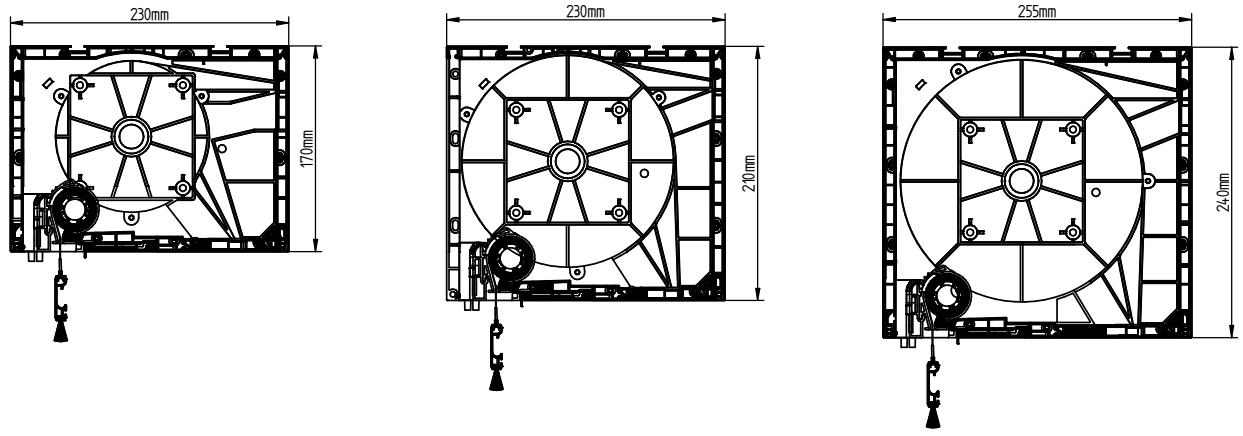


Maximum height including the box for the Protecta N roller shutter [mm]							
Box size	Curtain PA39				Curtain PA43		
	SW40 + WB	**SW40**	**SW60 + WB**	**SW60**	**SW40**	**SW60**	**SW60 + WB**
230/170 (OC)	1,890	1,690	1,730	1,570	1,720	1,590	1,460
230/210 (OC)	3,230	3,310	3,270	3,040	3,120	3,080	3,250
255/240 (OC)	4,460	4,770	4,460	4,420	4,680	4,210	4,420

SW – octagonal steel tube with an internal/external weld
WB – self-locking hanger
OC – box thermal insulation (expanded polystyrene)

Box dimensions – Protecta N roller shutter with a mosquito screen

MKT 230/170 ⋮ MKT 230/210 ⋮ MKT 255/240

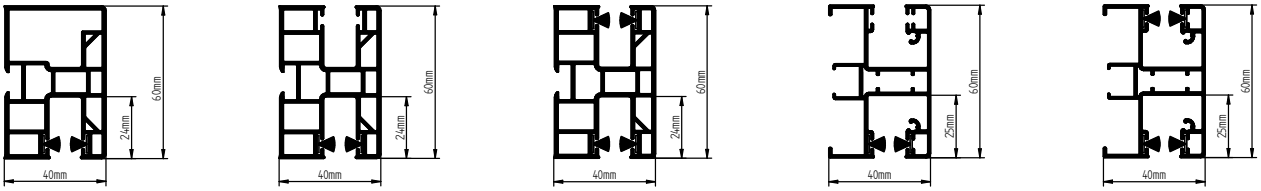


Maximum height including the box for the Protecta N roller shutter with a mosquito screen [mm]							
Box size	Curtain PA39				Curtain PA43		
	SW40 + WB	**SW40**	**SW60 + WB**	**SW60**	**SW40**	**SW60**	**SW60 + WB**
230/170 (OCM)	1,600	1,460	1,220	1,260	1,460	1,250	1,290
230/210 (OCM)	1,700	1,700	1,700	1,700	1,700	1,700	1,700
255/240 (OCM)	2,500	2,500	2,500	2,500	2,500	2,500	2,500

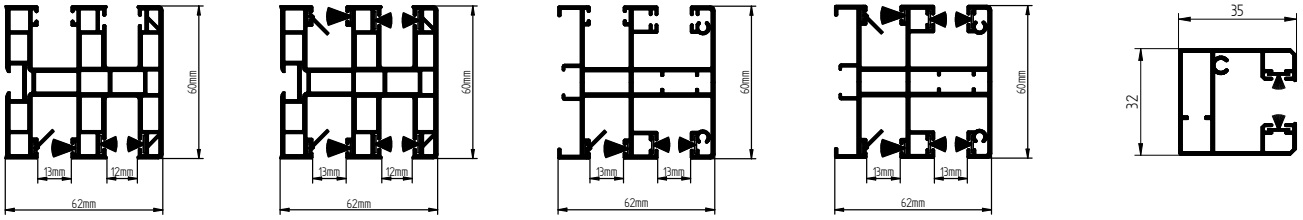
SW – octagonal steel tube with an internal/external weld
WB – self-locking hanger
OCM – thermal insulation of a box with a mosquito screen (expanded polystyrene)

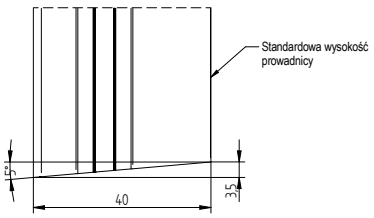
Guide rail types

PP 60/12 ⋮ **PPD 60/12** ⋮ **PPD-P 60/12** ⋮ **PPDA 60/12** ⋮ **PPDA-P 60/12**



PPDMW 60/12 ⋮ **PPDMW-P 60/12** ⋮ **PPDAMW 60/12** ⋮ **PPDAMW-P 60/12** ⋮ **PPAMB 35/12**

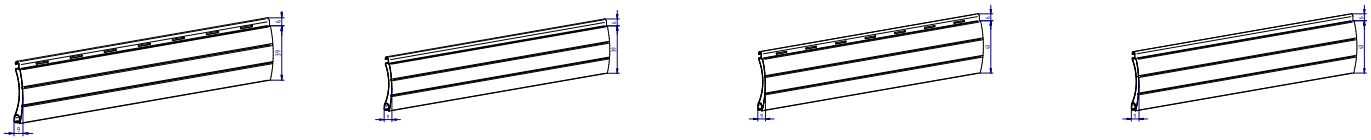




When the option to cut the guide rails at a 5° angle is selected, the rear wall of the guide rail will be cut to standard length, while the length of the front wall will be extended by 3.5 [mm].

Curtain

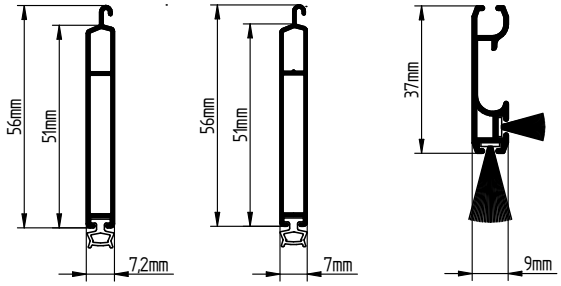
PA 39 ⋮ PA 39 ⋮ PA 43 ⋮ PA 43



	Technical data	
	PA 39	**PA 43**
Slat height	39 mm	43 mm
Weight 1 m²	2.8 kg	2.6 kg
Slats per metre of height	25.6 pieces	23.2 pieces
Max. roller shutter surface	6 m²	9 m²

End slats

LDG ⋮ LDG-E ⋮ LDSM MKT

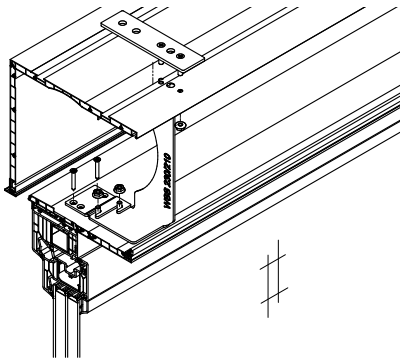


The type of end slats depends on the colour																			
Colour / Slat	**00**	**01**	**02**	**03**	**05**	**08**	**09**	**20**	**23**	**23R**	**28**	**28R**	**30**	**30R**	**34**	**40**	**43**	**52R**	**53R**	**79R**
LDG	x	x	x	x	-	x	x	-	x	x	-	x	-	x	x	x	x	x	x	-
LDG-E	x	-	-	-	-	-	-	x	-	-	x	-	x	-	-	-	-	-	-	x
LDSM MKT	x	x	x	x	x	x	x	-	x	-	-	x	x	x	-	-	-	x	-	-

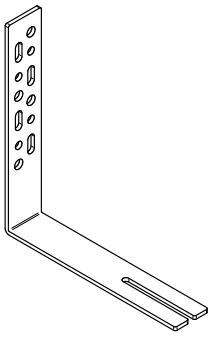
Default roller shutter configuration in Golden Oak and Walnut				
PROTECTA N				
Roller shutter type	**Curtain**	**Guide rails**	**End slat**	**Access cover**
Walnut	Aluprof 28 – varnish	Film coating 2178007	Film coating 2178007	Film coating 2178007
Golden Oak	Aluprof 30 – varnish	Film coating 2178001	Film coating 2178001	Film coating 2178001

WSS reinforcement

Quantity of WSS reinforcement pieces depending on the roller shutter width									
Quantity of WSS reinforcement pieces		**pc.**	**1**	**2**	**3**	**4**	**5**	**6**	**7**
Window width	PVC	mm	1,401-2,100	2,101-2,800	2,801-3,500	3,501-4,200	4,201-4,900	4,901-5,600	5,601-6,000
	Aluminium/ wood	mm	1,601-2,400	2,401-3,200	3,201-4,000	4,001-4,800	4,801-5,600	5,601-6,000	-
	Sliding	mm	1,001-1,500	1,501-2,000	2,001-2,500	2,501-3,000	3,001-3,500	3,501-4,000	4,001-4,500

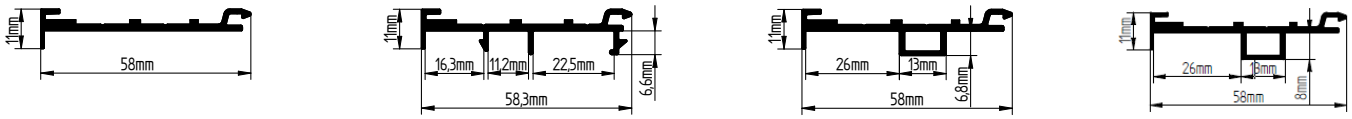


Mounting plate



Adaptation profiles

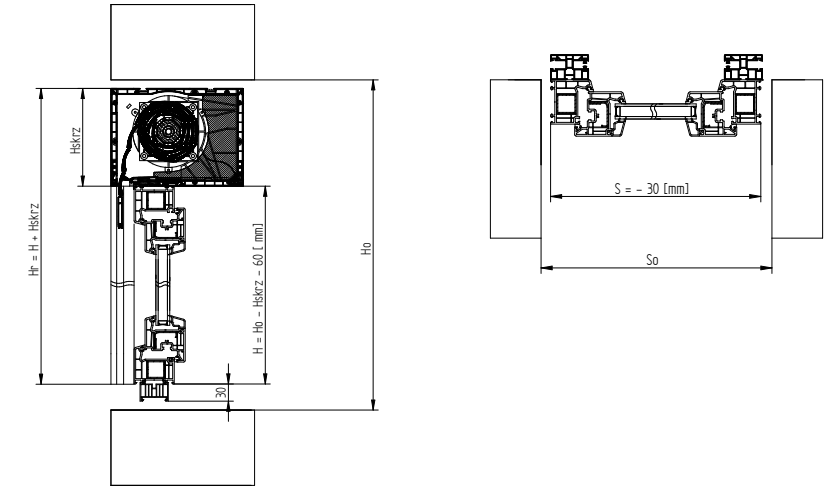
PSA | **PSAW/6.7** | **PSAW/6.8** | **PSAW/8**



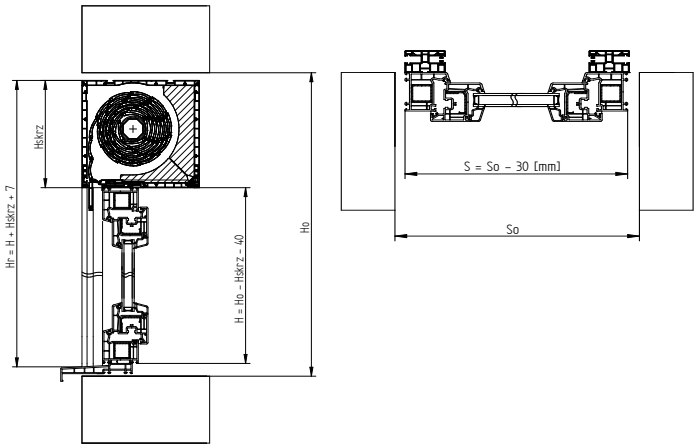
System	Adapter
PRIMO 82 Windows	PSAW/6.7
Primo 82 HST Skymotion	PSAW/6.7
PRIMO 76 Windows	PSAW/6.7
Primo 76 Renovation frame 101.359	PSA
Primo 70 Standard frame	PSAW/6.7
Primo 70 Renovation frames	PSA
Primo 70 Monoblock frames	PSA
Develo	PSAW/6.8
Develo Renovation	PSAW/6.8
Develo HST	PSAW/8
ALU: Ecofutural, MDS, HST MB 79HS, Ultraglide	PSA

Dimensioning the Protecta N roller shutters with fully exposed installation or installation on the frames

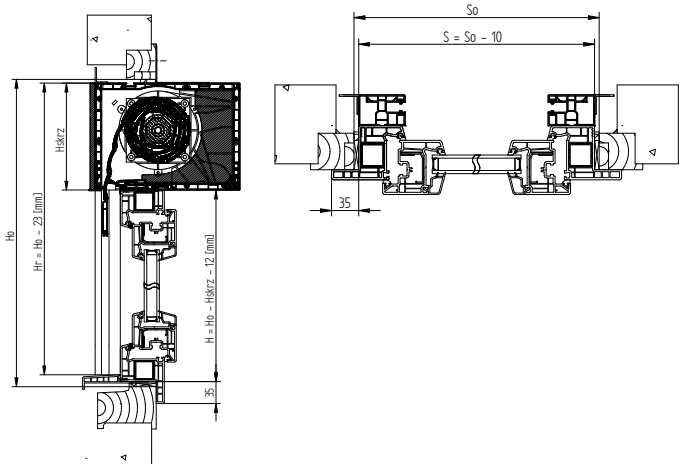
For the PRIMO 70 window, fully exposed | **For the PRIMO 70 window, fully exposed**



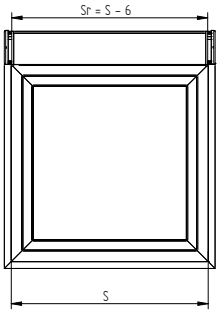
Installation 110.105 with a roller shutter



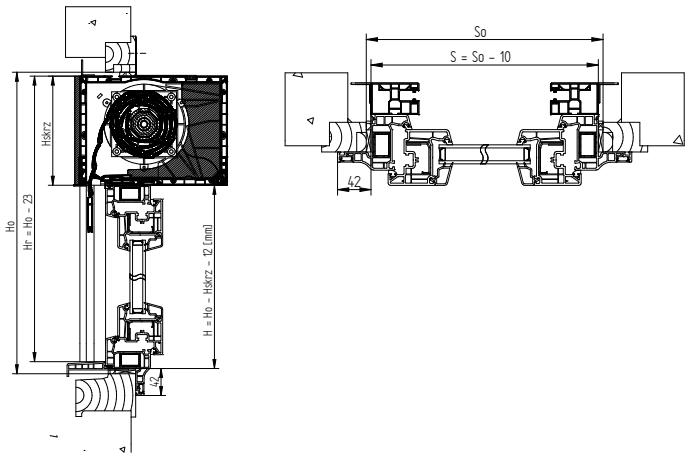
Installation 101.218 with a roller shutter



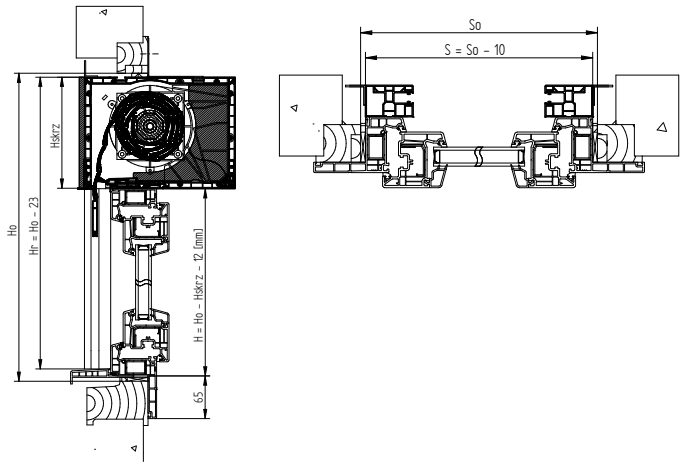
View of the window + roller shutter from the outside – dimensioning for tapee



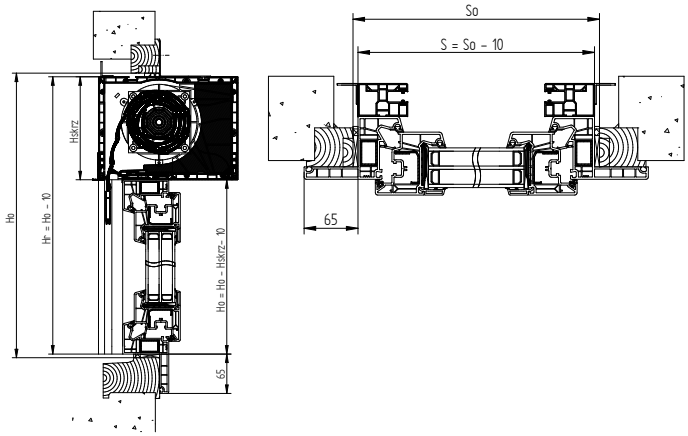
Installation 101.043 with a roller shutter



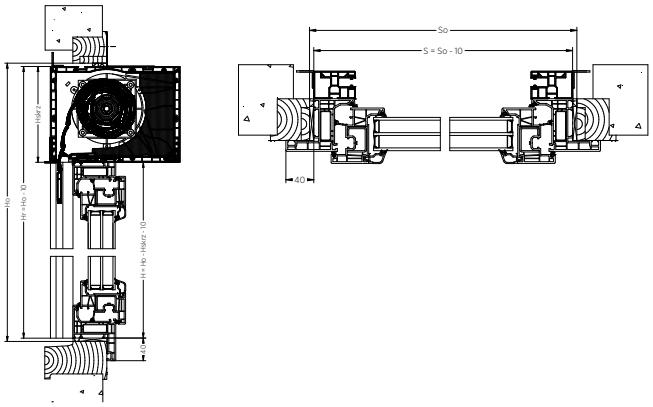
Installation 101.053 with a roller shutter



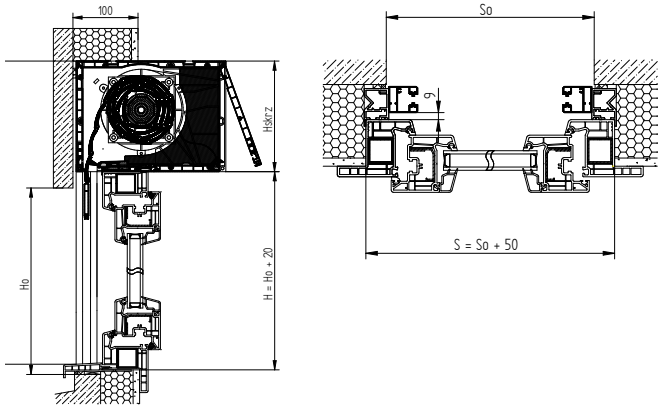
Installation 101.359 with a roller shutter



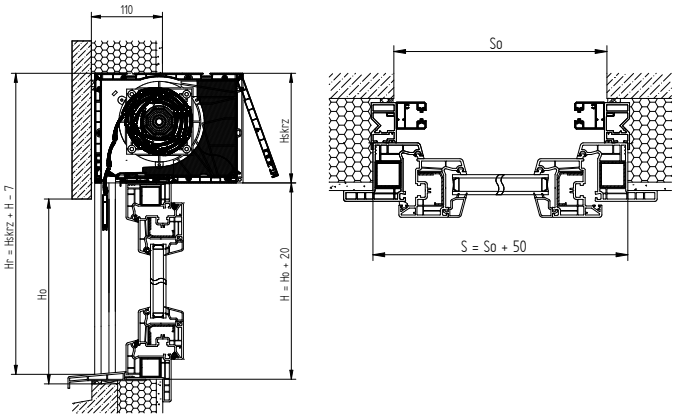
Installation of Develo 5105 with a roller shutter



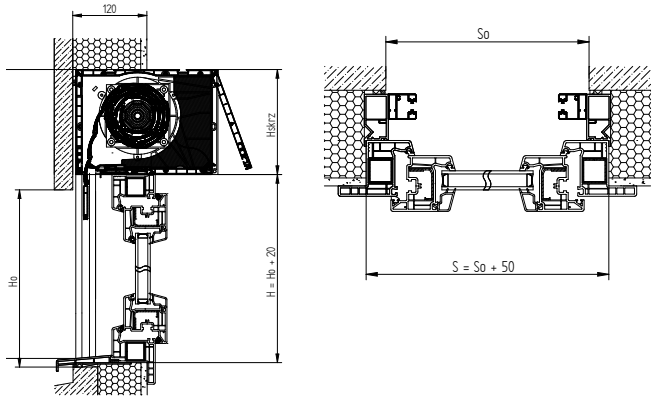
ISO 100



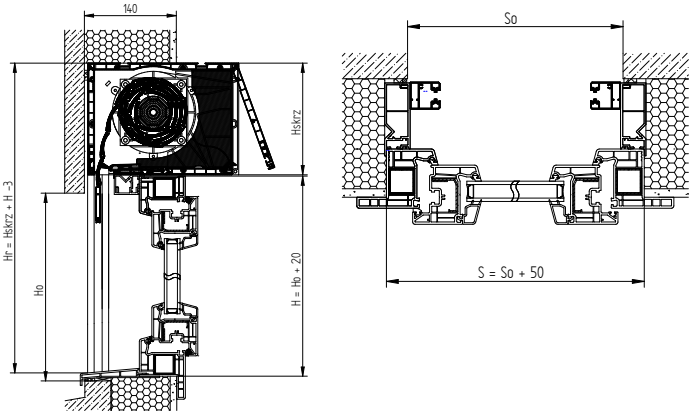
ISO 110



ISO 120

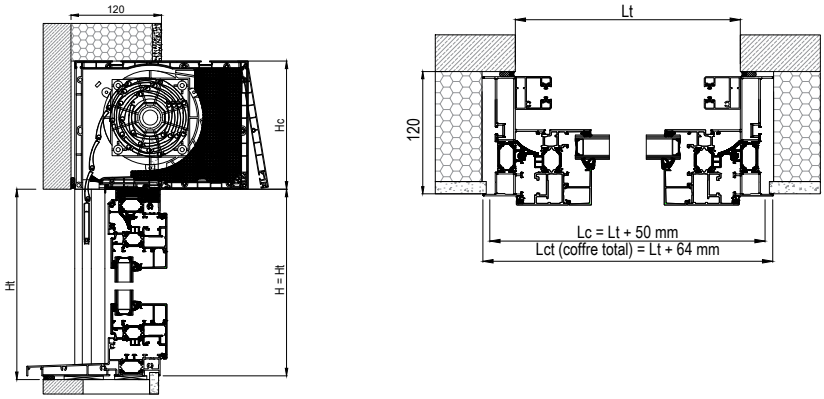


ISO 140

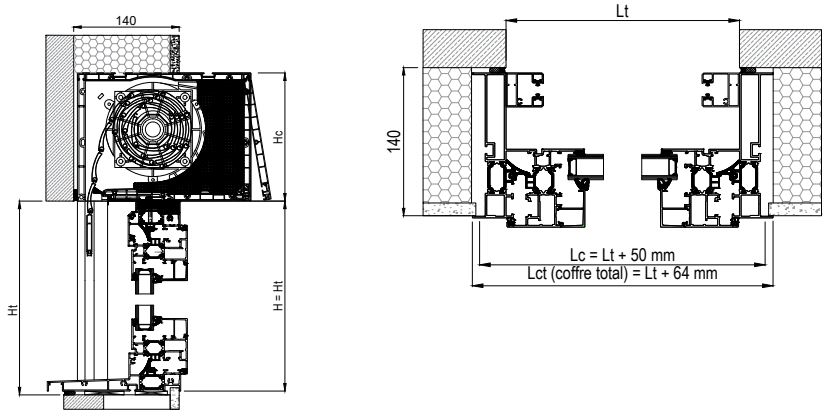


Roller shutter dimensioning, Protecta N for aluminium window systems

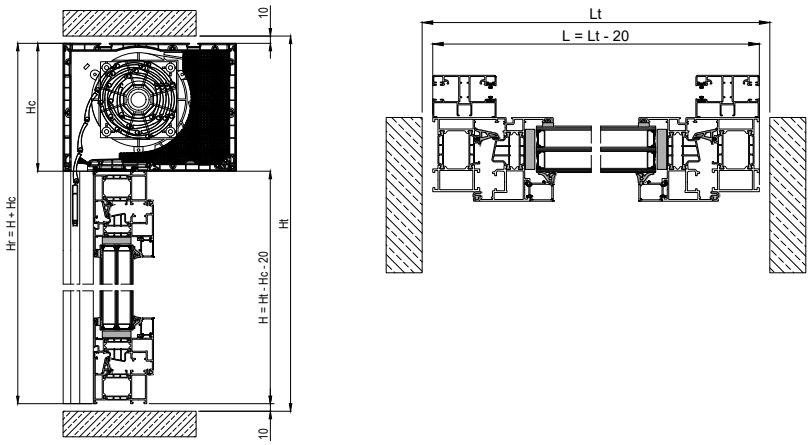
Installation of the Protecta N Ecofutural Monoblock ISO 120 roller shutter



Installation of the Protecta N Ecofutural Monoblock ISO 140 roller shutter



Installation of the Protecta N MB79N roller shutter

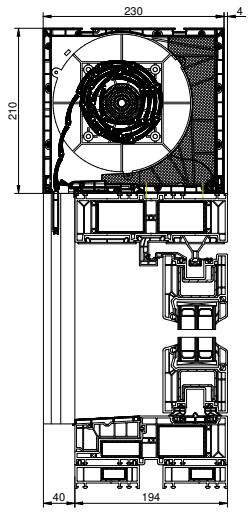


Designations

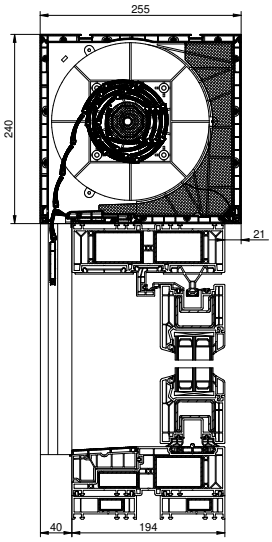
H – structure height
L – structure width
Ht – opening height
Lt – opening width
Hc – box height
Lc – box width
Lct – total width of the box with side covers
Hr – total height of the roller shutter with the box

Installation of the Protecta N roller shutter on HST PVC

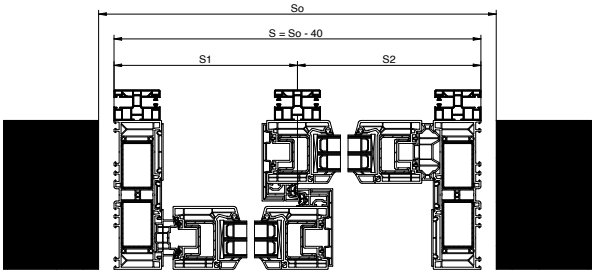
Protecta N 230x210



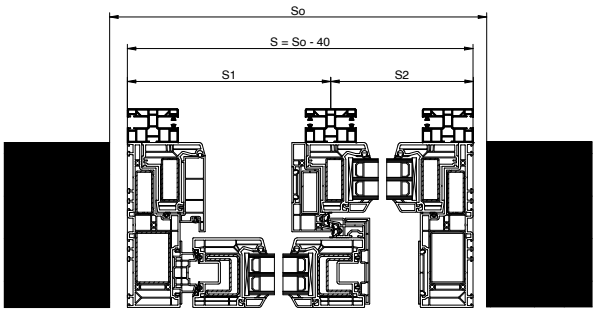
Protecta N 255x240



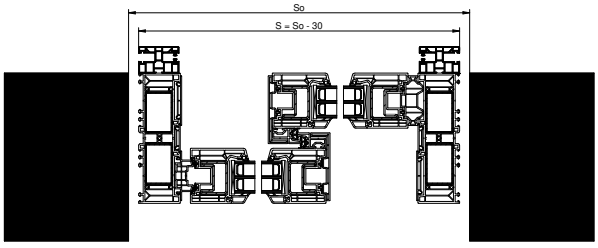
HST VEKAMOTION + roller shutter, division – horizontal cross-section



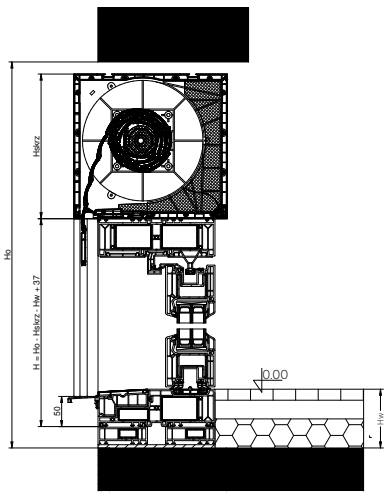
HST VEKAMOTION Max + roller shutter, division – horizontal cross-section



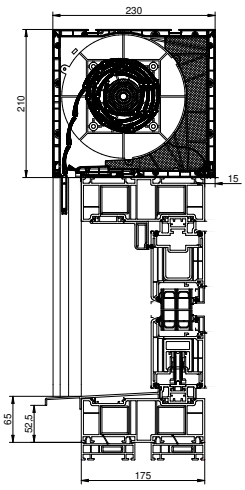
HST VEKAMOTION + roller shutter – horizontal dimensioning



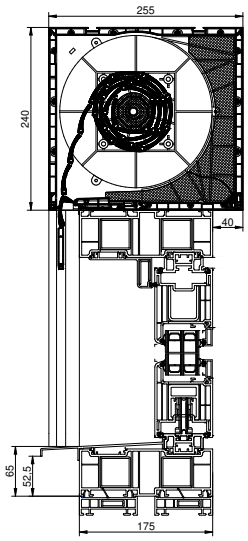
HST VEKAMOTION + roller shutter – dimensioning



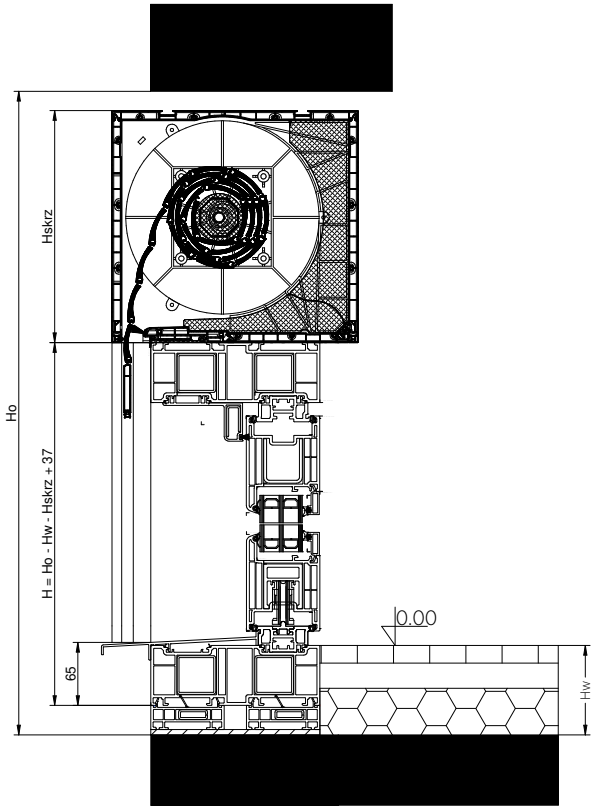
HST Develo + box 210 – vertical cross-section



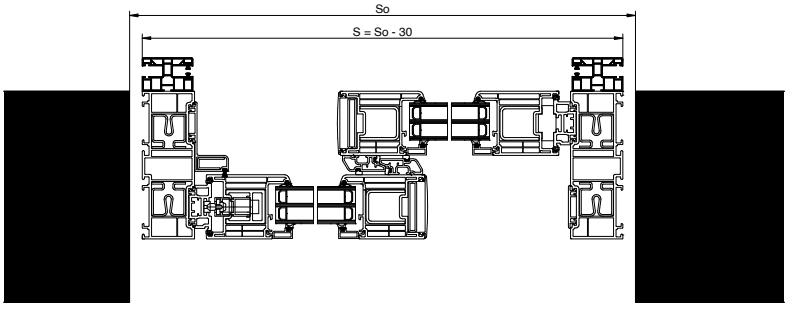
HST Develo + box 240 – vertical cross-section



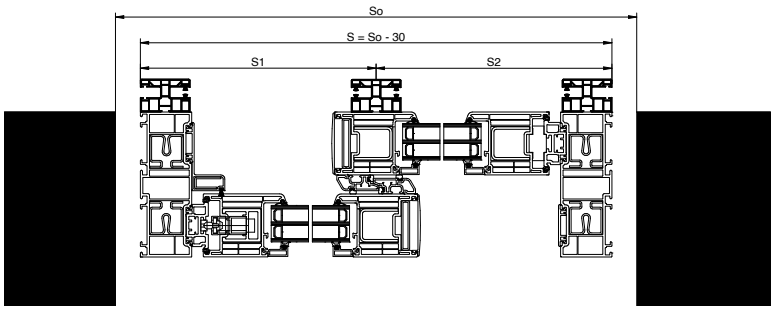
HST Develo + ROLLER SHUTTER – dimensioning



HST Develo + ROLLER SHUTTER – horizontal dimensioning

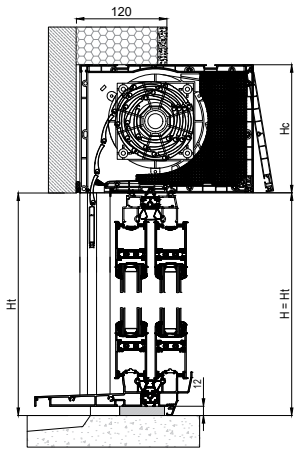


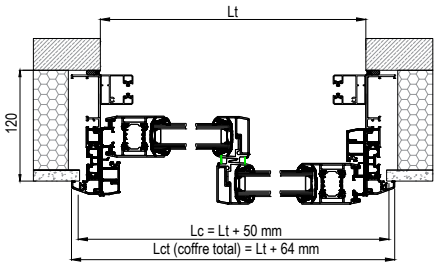
HST Develo + ROLLER SHUTTER division – horizontal dimensioning



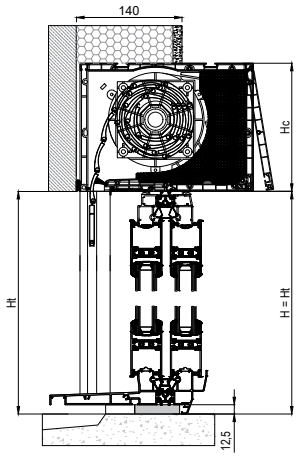
Installation of the Protecta N roller shutter on aluminium sliding systems

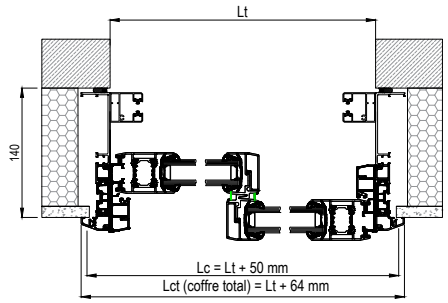
Installation of the Protecta N MDS Monoblock ISO 120 roller shutter



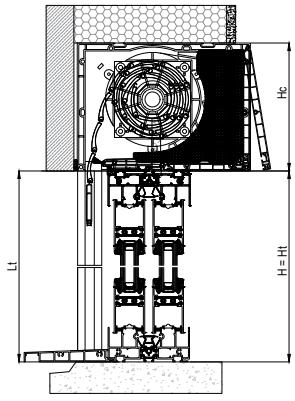


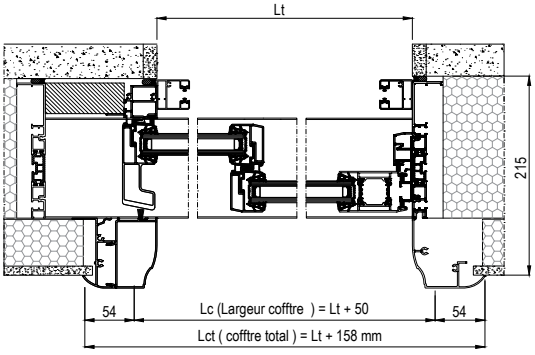
Installation of the Protecta N MDS Monoblock ISO 140 roller shutter





Installation of the Protecta N MDS Galandage roller shutter

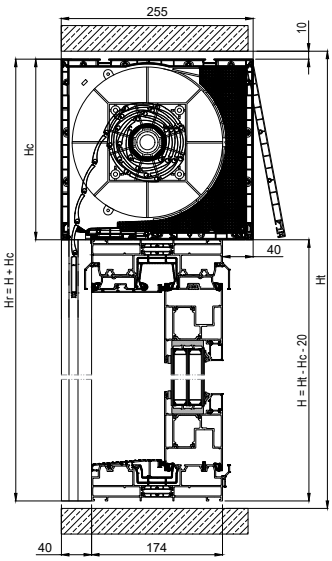


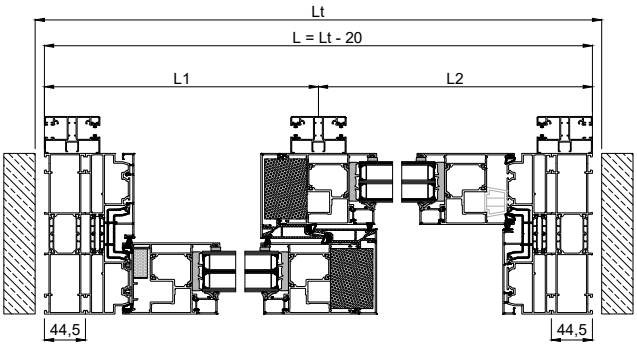


Designations

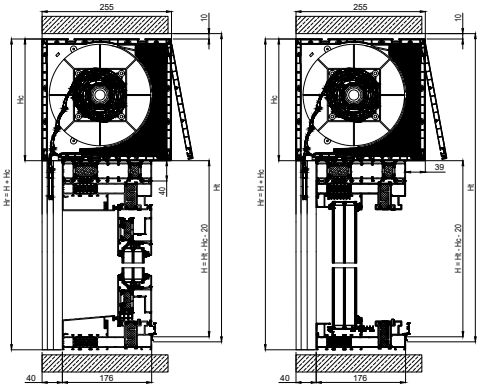
H – structure height
L – structure width
Ht – opening height
Lt – opening width
Hc – box height
Lc – box width
Lct – total width of the box with side covers
Hr – total height of the roller shutter with the box

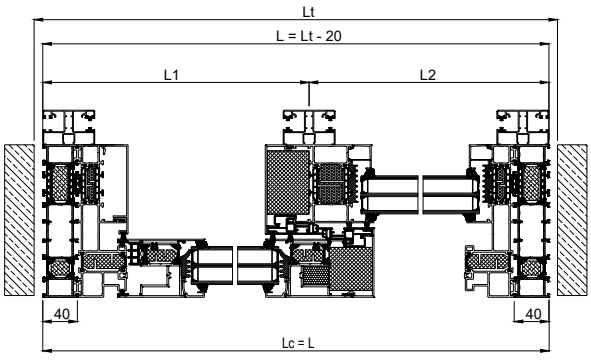
Installation of the Protecta N HST MB-77HS roller shutter





Installation of the Protecta N HST Ultraglide roller shutter



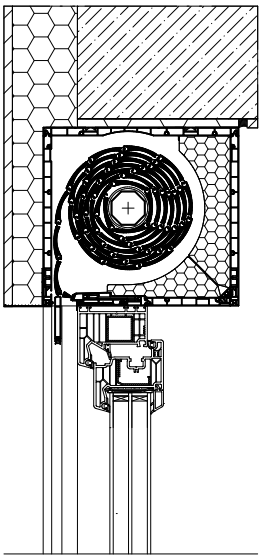


Designations

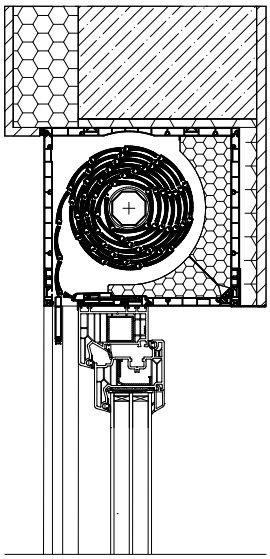
H – structure height
L – structure width
Ht – opening height
Lt – opening width
Hc – box height
Lc – box width
Lct – total width of the box with side covers
Hr – total height of the roller shutter with the box

Protecta N system roller shutter installation methods

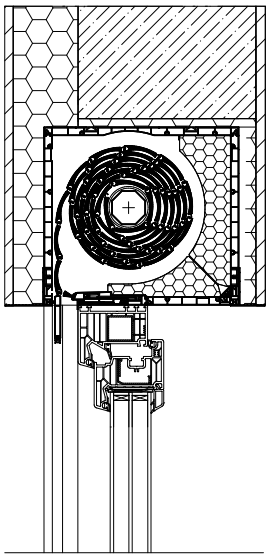
Roller shutter box covered from the outside, access cover from the bottom or front



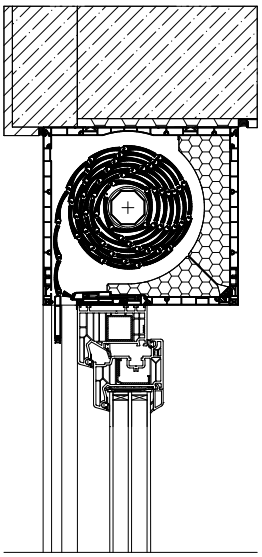
Roller shutter box covered from the inside, access cover from the bottom



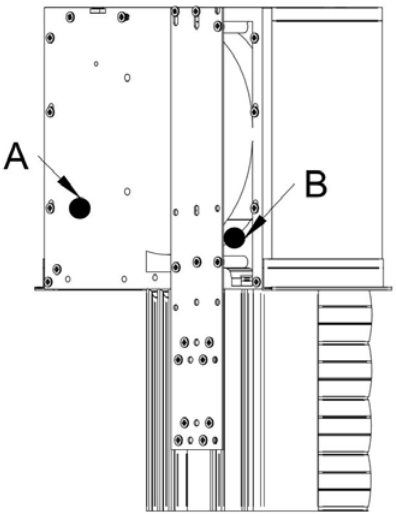
Roller shutter box covered from the outside and inside, access cover from the bottom



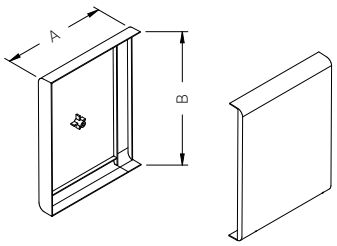
Roller shutter box, fully exposed, access cover from the bottom or front



One of the cable output options, A or B, can be selected



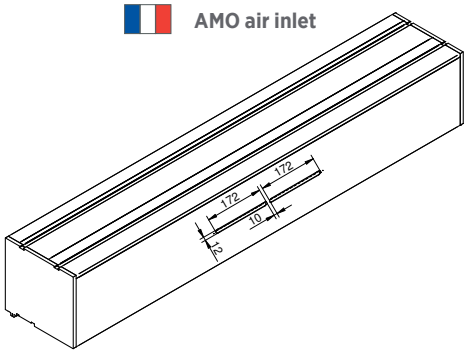
Protecta N top-mounted roller shutter side cover option available



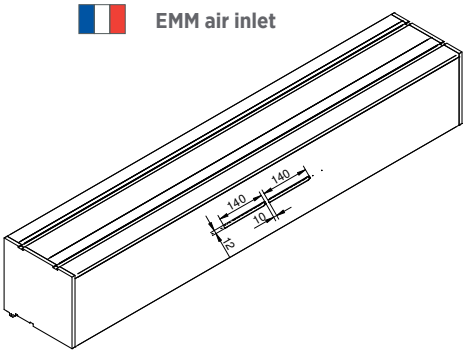
Box size	A [mm]	B [mm]
230/170	136	175
230/210	136	215
255/240	161	245

Milling for air inlets in the roller shutter box

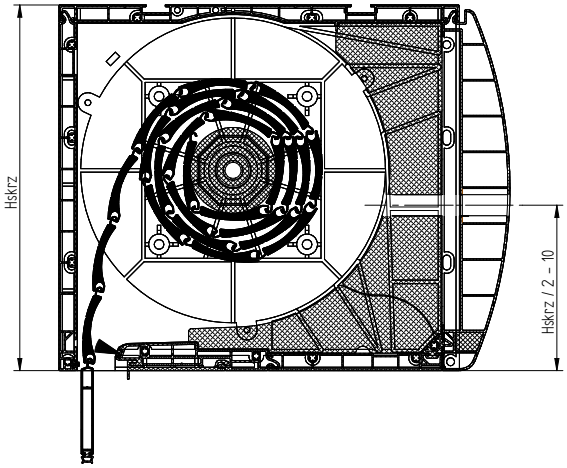
AMO air inlet



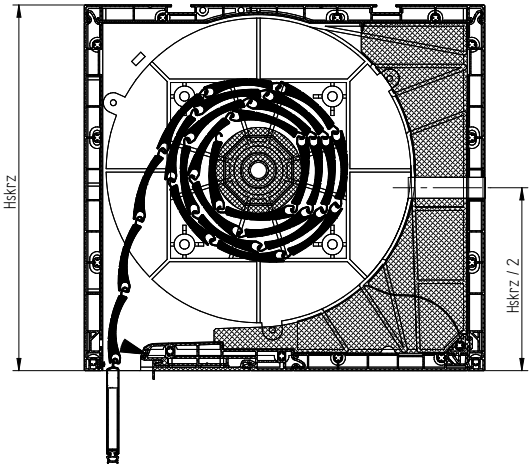
EMM air inlet



Rounded box with an air inlet



Straight box with an air inlet



Colours

CURTAIN	
Standard colours	
Silver	**01**
White	**02**
Grey	**03**
Dark Brown	**08**
Brown	**09**
Anthracite Grey	**23**
Walnut	**28**
Golden Oak	**30**
Beige	**05**
Special colours	
Black	**20**
Light Grey	**31**
Basalt Grey	**33**
Quartz Grey	**34**
Concrete Grey	**35**
Wenge	**36**
Grey Aluminium	**37**
White Pearl Mat*	**40**
Anthracite Grey Pearl Mat*	**43**
Turner Oak*	**49**
Winchester	**52**
Bleached Oak*	**79**
Grey Metallic*	**75**
Green	**13**

END SLAT	
Standard colours	
Silver	**01**
White	**02**
Grey	**03**
Dark Brown	**08**
Brown	**09**
Anthracite Grey	**23**
Walnut	**28**
Golden Oak	**30**
Beige	**05**
Turner Oak	**49**
Turner Oak film coating	**49R**
Special colours	
Black	**20**
Anthracite Grey	**23R**
Walnut	**28R**
Golden Oak	**30R**
Quartz Grey	**34**
White Pearl Mat	**40**
Anthracite Grey Pearl Mat	**43**
Winchester	**52R**
Dark Oak	**53R**
Bleached Oak*	**79R**
Anthracite Quartz F4361014	-
Black Ulti-Matt 47097	-
Woodec Turner Oak Malt	-
Woodec Turner Oak Toffee	-
Anthracite Grey 4365003	-
Dark Grey Silk 4367003	-
Walnut 2178007	-
Winchester 49240	-
Golden Oak 2178001	-
Smooth Basalt Grey 701205083	-
Agate Grey 703805	-
Smooth Basalt Grey 715505083	-
Silver Grey 715505	-
Anthracite Grau Matt F470-6003	-
Natural Oak 3118076	-
Jet Black 4467062	-

GUIDE RAILS	
Standard colours	
White	**02**
Dark Brown	**08**
Anthracite Grey	**23R**
Walnut	**28R**
Golden Oak	**30R**
Winchester	**52R**
Dark Oak	**53R**
Special colours	
Dark Grey Silk	**25R**
Basalt Grey	**33R**
Chocolate Brown	**55R**
Silver Grey	**57R**
Anthracite Quartz F4361014	-
Black Ulti-Matt 47097	-
Woodec Turner Oak Malt	-
Woodec Turner Oak Toffee	-
Anthracite Grey 4365003	-
Dark Grey Silk 4367003	-
Walnut 2178007	-
Winchester 49240	-
Golden Oak 2178001	-
Smooth Basalt Grey 701205083	-
Agate Grey 703805	-
Smooth Basalt Grey 715505083	-
Silver Grey 715505	-
Anthracite Grau Matt F470-6003	-
Natural Oak 3118076	-
Jet Black 4467062	-
Green 600505	-
Chocolate Brown 887505	-
White 915205	-
Siena Rosso 49233	-
Sapeli (Mahogany) 2065021	-
Brown Black 851805	-
Basalt Grey 701205	-
Black FN 301900002	-
Light Grey 725105	-

BOX ELEMENTS	
Standard colours	
White	**02**
Dark Brown	**08**
Anthracite Grey	**23R**
Walnut	**28R**
Golden Oak	**30R**
Winchester	**52R**
Dark Oak	**53R**
Special colours	
Anthracite Quartz F4361014	-
Black Ulti-Matt 47097	-
Woodec Turner Oak Malt	-
Woodec Turner Oak Toffee	-
Anthracite Grey 4365003	-
Dark Grey Silk 4367003	-
Walnut 2178007	-
Winchester 49240	-
Golden Oak 2178001	-
Smooth Basalt Grey 701205083	-
Agate Grey 703805	-
Smooth Basalt Grey 715505083	-
Silver Grey 715505	-
Anthracite Grau Matt F470-6003	-
Natural Oak 3118076	-
Jet Black 4467062	-
Green 600505	-
Chocolate Brown 887505	-
White 915205	-
Siena Rosso 49233	-
Sapeli (Mahogany) 2065021	-
Brown Black 851805	-
Basalt Grey 701205	-
Black FN 301900002	-
Light Grey 725105	-
Ivory 101505	-
Quartz Grey 703905	-
Steel Blue 515005	-

END SLAT	
Special colours	
Green 600505	
RAL 9007	
RAL 9006	
RAL 9005	
RAL 7039	
RAL 7023	
RAL 7012	
RAL 8003	
RAL 1013	
RAL 7038	
RAL 7016	
RAL 7024	
RAL 1001	
RAL MODERN GRAPHITE	
RAL 8014	
RAL MODERN BLACK	
RAL ANTHRACITE	
RAL 7047	
RAL 5011	
RAL 7035	
RAL 7037	
RAL 6005	
RAL 7002	
RAL 1034	
RAL 8011	
DB 703	
Chocolate Brown 887505	
White 915205	
Siena Rosso 49233	
Sapeli (Mahogany) 2065021	
Brown Black 851805	
Basalt Grey 701205	
Black FN 301900002	
Light Grey 725105	
Ivory 101505	
Quartz Grey 703905	-
Steel Blue 515005	-
RAL 7042	-
RAL 6009	-

GUIDE RAILS	
Special colours	
Ivory 101505	-
Quartz Grey 703905	-
Steel Blue 515005	-

PLEASE NOTE

Curtain colours marked with the asterisk symbol * are not available with the PA43 curtain.
Guide rail colours include the standard guide rails PPD60/12.

The colour hue of the film coating of roller shutters and window joinery may differ.

Curtain – standard colours



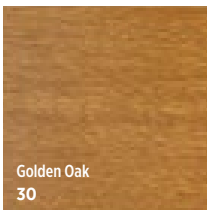




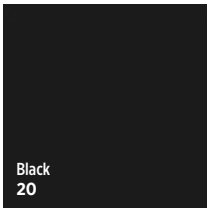








Curtain – special colours

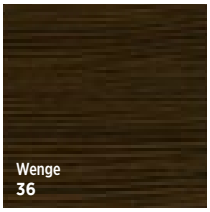












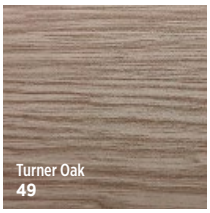


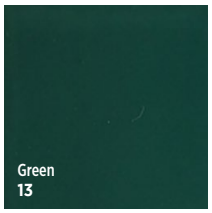
















PROTECTA S ROLLER SHUTTERS

Technical information

The Protecta S roller shutters are a system where the box is made of a special material providing very good thermal characteristics, and it is available in two sizes: 260 x 260mm and 300 x 300mm. The guide rails are made of PVC, while the curtain is made up of profiles from aluminium sheet infilled with freon-free polyurethane foam and finished with an end slat. The curtain sheet is covered with two layers of paint, which improves the curtain's resistance to abrasion, scratches, and the weather conditions.

The Protecta S roller shutters can be installed both in newly built buildings, as well as in renovated buildings when the window joinery is replaced. The roller shutter box is seated on the window using a special adaptation profile, the guide rails are screwed directly to the window frame, and then this combination is installed and anchored as a single structure in the window opening. The height of the window in relation to the window opening should be decreased by the height of the top-mounted roller shutter box. The box structure provides excellent thermal insulation.

Another advantage of this product is the option to choose whether the access cover is mounted from the inside or outside of the room, which is crucial for servicing.



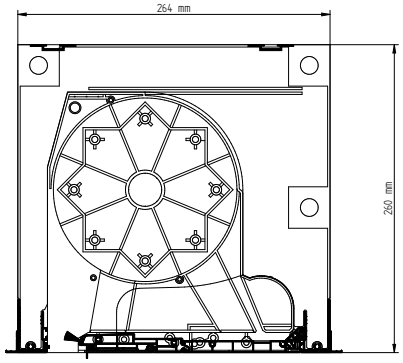
Structure of the Protecta S roller shutter

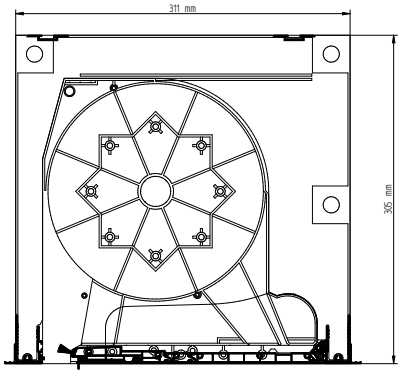
Standard accessories

- 6 non-perforated slats from the top
- soft steel/PVC hangers with felt
- end slat 51 mm high
- end slat conical stoppers 30 mm
- PVC guide rails with a brush seal
- guide rails can be cut at a 5° angle
- installation anchors
- the top end position is set in the power operated version
- rubber cable gland
- tape winder in colour: white / brown

Box sizes – Protecta S roller shutter

260/260 ⋮ 300/300



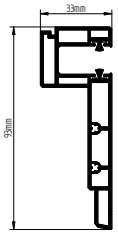


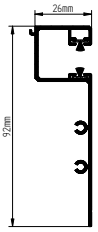
Maximum height including the box for the Protecta S roller shutter [mm]							
Box size	Curtain PA39				Curtain PA43		
	SW40 + WB	**SW40**	**SW60 + WB**	**SW60**	**SW40**	**SW60**	**SW60 + WB**
260	2,930	2,930	2,700	2,510	2,620	2,400	2,530
300	4,590	4,590	4,400	4,200	4,700	4,230	4,400

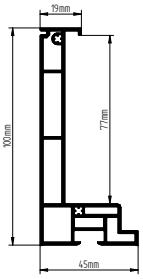
Guide rail types

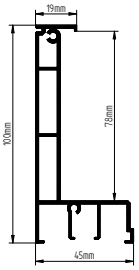
Access cover outside

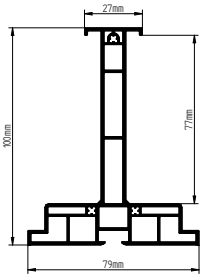
PPRA/12 | **PPARA/12** | **APPRA45** | **APPARA45** | **APPDRA79**



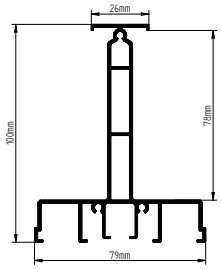






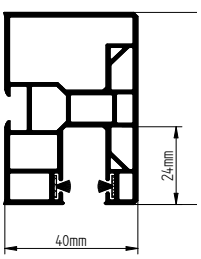


APPDARA79

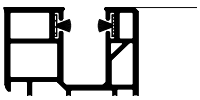


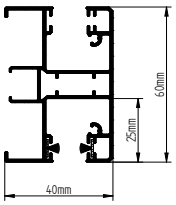
Access cover inside

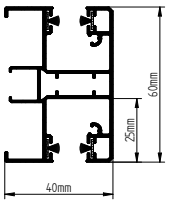
PP60/12 | **PPD60/12** | **PPD-P60/12** | **PPDA60/12** | **PPDA-P60/12**



PPD-P60/12







Curtains

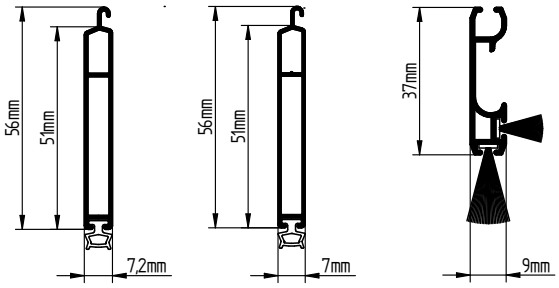
PA 39 | PA 39 | PA 43 | PA 43



	Technical data	
	PA 39	**PA 43**
Slat height	39 mm	43 mm
Weight 1 m²	2.8 kg	2.6 kg
Slats per metre of height	25.6 pieces	23.2 pieces
Max. roller shutter surface	6 m²	9 m²

End slats

LDG | LDG-E | LDSM MKT



The type of end slats depends on the colour																				
Colour / Slat	**00**	**01**	**02**	**03**	**05**	**08**	**09**	**20**	**23**	**23R**	**28**	**28R**	**30**	**30R**	**34**	**40**	**43**	**52R**	**53R**	**79R**
LDG	x	x	x	x	-	x	x	-	x	x	-	x	-	x	x	x	x	x	x	-
LDG-E	x	-	-	-	-	-	-	x	-	-	x	-	x	-	-	-	-	-	-	x
LDSM MKT	x	x	x	x	x	x	x	-	x	-	-	x	x	x	-	-	-	x	-	-

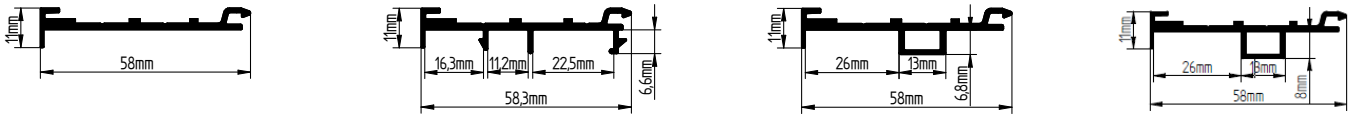
Default roller shutter configuration in Golden Oak and Walnut				
Protecta S RI and RA				
Roller shutter type	**Curtain**	**Guide rails**	**End slat**	**Access cover**
Walnut	Aluprof 28 – varnish	Film coating 2178007	Film coating 2178007	Film coating 2178007
Golden Oak	Aluprof 30 – varnish	Film coating 2178001	Film coating 2178001	Film coating 2178001

WSS reinforcement

Quantity of WSS reinforcement pieces depending on the roller shutter width									
Quantity of WSS reinforcement pieces		pc.	1	2	3	4	5	6	7
Window width	PVC	mm	1,401-2,100	2,101-2,800	2,801-3,500	3,501-4,200	4,201-4,900	4,901-5,600	5,601-6,000
	Aluminium/ wood	mm	1,601-2,400	2,401-3,200	3,201-4,000	4,001-4,800	4,801-5,600	5,601-6,000	-
	Sliding	mm	1,001-1,500	1,501-2,000	2,001-2,500	2,501-3,000	3,001-3,500	3,501-4,000	4,001-4,500

Adaptation profiles

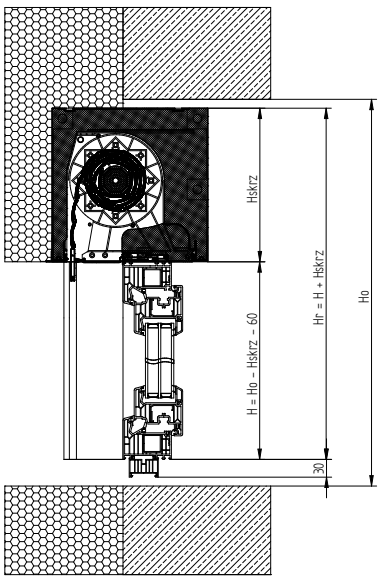
PSA ⋮ **PSAW/6.7** ⋮ **PSAW/6.8** ⋮ **PSAW/8**

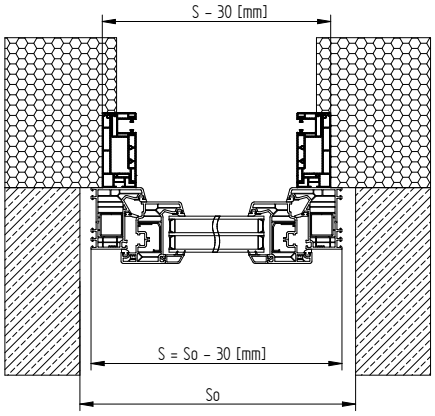


System	Adapter
PRIMO 82 Windows	PSAW/6.7
Primo 82 HST Skymotion	PSAW/6.7
PRIMO 76 Windows	PSAW/6.7
Primo 76 Renovation frame 101.359	PSA
Primo 70 Standard frame	PSAW/6.7
Primo 70 Renovation frames	PSA
Primo 70 Monoblock frames	PSA
Develo	PSAW/6.8
Develo Renovation	PSAW/6.8
Develo HST	PSAW/8

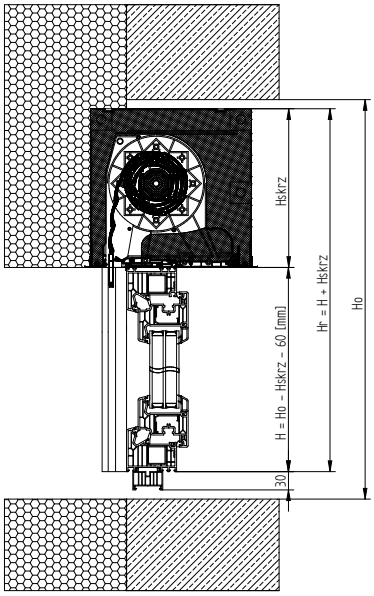
Dimensioning the Protecta S roller shutters

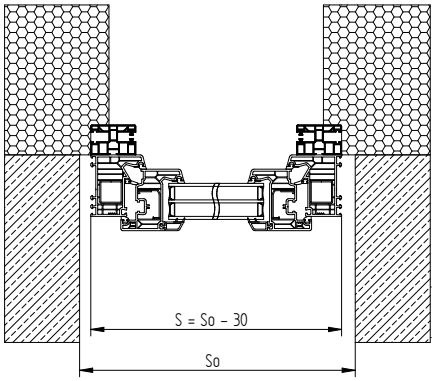
Access cover outside





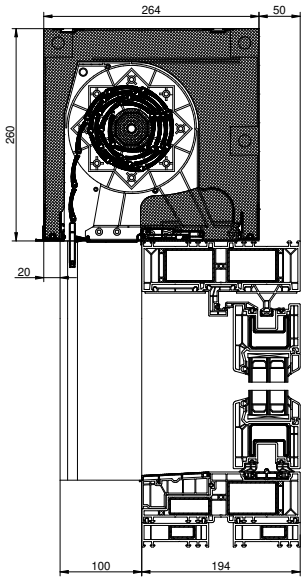
Access cover inside



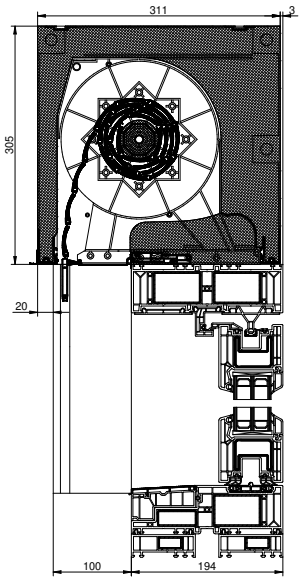


Installation of the Protecta S roller shutter on HST

Protecta S RA 260



Protecta S RA 300



Colours

CURTAIN	
Standard colours	
Silver	**01**
White	**02**
Grey	**03**
Dark Brown	**08**
Brown	**09**
Anthracite Grey	**23**
Walnut	**28**
Golden Oak	**30**
Special colours	
Black	**20**
Light Grey	**31**
Basalt Grey	**33**
Quartz Grey	**34**
Concrete Grey	**35**
Wenge	**36**
Grey Aluminium	**37**
White Pearl Mat*	**40**
Anthracite Grey Pearl Mat*	**43**
Turner Oak*	**49**
Winchester	**52**
Bleached Oak*	**79**
Grey Metallic*	**75**
Green	**13**
Beige	**05**

END SLAT	
Standard colours	
White	**02**
Grey	**03**
Dark Brown	**08**
Brown	**09**
Anthracite Grey	**23**
Walnut	**28**
Golden Oak	**30**
Special colours	
Silver	**01**
Black	**20**
Anthracite Grey	**23R**
Walnut	**28R**
Golden Oak	**30R**
Quartz Grey	**34**
White Pearl Mat	**40**
Anthracite Grey Pearl Mat	**43**
Winchester	**52R**
Dark Oak	**53R**
Bleached Oak*	**79R**
Anthracite Quartz F4361014	-
Black Ulti-Matt 47097	-
Woodec Turner Oak Malt	-
Woodec Turner Oak Toffee	-
Anthracite Grey 4365003	-
Dark Grey Silk 4367003	-
Walnut 2178007	-
Winchester 49240	-
Golden Oak 2178001	-
Smooth Basalt Grey 701205083	-
Agate Grey 703805	-
Smooth Basalt Grey 715505083	-
Silver Grey 715505	-
Anthracite Grau Matt F470-6003	-
Natural Oak 3118076	-
Jet Black 4467062	-
Green 600505	-

RI GUIDE RAILS	
Standard colours	
White	**02**
Dark Brown	**08**
Anthracite Grey	**23R**
Walnut	**28R**
Golden Oak	**30R**
Winchester	**52R**
Dark Oak	**53R**
Special colours	
Dark Grey Silk	**25R**
Basalt Grey	**33R**
Chocolate Brown	**55R**
Silver Grey	**57R**
Anthracite Quartz F4361014	-
Black Ulti-Matt 47097	-
Woodec Turner Oak Malt	-
Woodec Turner Oak Toffee	-
Anthracite Grey 4365003	-
Dark Grey Silk 4367003	-
Walnut 2178007	-
Winchester 49240	-
Golden Oak 2178001	-
Smooth Basalt Grey 701205083	-
Agate Grey 703805	-
Smooth Basalt Grey 715505083	-
Silver Grey 715505	-
Anthracite Grau Matt F470-6003	-
Natural Oak 3118076	-
Jet Black 4467062	-
Green 600505	-
Brown	**09**
Anthracite Grey	**23**
Chocolate Brown 887505	-
White 915205	-
Siena Rosso 49233	-
Sapeli (Mahogany) 2065021	-
Brown Black 851805	-

RI BOX ELEMENTS	
Standard colours	
White	**02**
Dark Brown	**08**
Anthracite Grey	**23R**
Walnut	**28R**
Golden Oak	**30R**
Winchester	**52R**
Dark Oak	**53R**
Special colours	
Anthracite Quartz F4361014	-
Black Ulti-Matt 47097	-
Woodec Turner Oak Malt	-
Woodec Turner Oak Toffee	-
Anthracite Grey 4365003	-
Dark Grey Silk 4367003	-
Walnut 2178007	-
Winchester 49240	-
Golden Oak 2178001	-
Smooth Basalt Grey 701205083	-
Agate Grey 703805	-
Smooth Basalt Grey 715505083	-
Silver Grey 715505	-
Anthracite Grau Matt F470-6003	-
Natural Oak 3118076	-
Jet Black 4467062	-
Green 600505	-
Chocolate Brown 887505	-
White 915205	-
Siena Rosso 49233	-
Sapeli (Mahogany) 2065021	-
Brown Black 851805	-
Basalt Grey 701205	-
Black FN 301900002	-
Light Grey 725105	-
Ivory 101505	-
Quartz Grey 703905	-
Steel Blue 515005	-

END SLAT	
Special colours	
RAL 9007	-
RAL 9006	-
RAL 9005	-
RAL 7039	-
RAL 7023	-
RAL 7012	-
RAL 8003	-
RAL 1013	-
RAL 7038	-
RAL 7016	-
RAL 7024	-
RAL 1001	-
RAL MODERN GRAPHITE	-
RAL 8014	-
RAL MODERN BLACK	-
RAL ANTHRACITE	-
RAL 7047	-
RAL 5011	-
RAL 7035	-
Beige	**05**
Turner Oak	**49**
Turner Oak (film coating)	**49R**
Chocolate Brown 887505	-
White 915205	-
Siena Rosso 49233	-
Sapeli (Mahogany) 2065021	-
Brown Black 851805	-
Basalt Grey 701205	-
Black FN 301900002	-
Light Grey 725105	-
Ivory 101505	-
RAL 7035	-
RAL 7037	-
RAL 6005	-
RAL 7002	-
RAL 1034	-
RAL 8011	-
DB 703	-
Quartz Grey 703905	-
Steel Blue 515005	-
RAL 7042	-
RAL 6009	-

RI GUIDE RAILS	
Special colours	
Basalt Grey 701205	-
Black FN 301900002	-
Light Grey 725105	-
Ivory 101505	-
Quartz Grey 703905	-
Steel Blue 515005	-

RA GUIDE RAILS	
Standard colours	
White	**02**
Dark Brown	**08**
Anthracite Grey	**23R**
Walnut	**28R**
Golden Oak	**30R**
Dark Grey Silk	**25R**
Walnut	**28**
Golden Oak	**30**
Basalt Grey	**33R**
Winchester	**52R**
Dark Oak	**53R**
Chocolate Brown	**55R**
Silver Grey	**57R**
RAL 9007	-
RAL 9006	-
RAL 9005	-
RAL 7039	-
RAL 7023	-
RAL 7012	-
RAL 8003	-
RAL 1013	-
RAL 7038	-
RAL 7016	-
RAL 7024	-
RAL 1001	-
RAL Modern Graphite	-
RAL 8014	-
RAL Modern Black	-
RAL Anthracite	-
RAL 7047	-
RAL 5011	-
RAL 7035	-
RAL 7037	-
RAL 6005	-
RAL 7002	-
RAL 1034	-
RAL 8011	-
RAL DB703	-
Anthracite Quartz F4361014	-

Black Ulti-Matt 47097	-
Woodec Turner Oak Malt F470-3001	-
Woodec Turner Oak Toffee F470-3004	-
Anthracite Grey 4365003	-
Dark Grey Silk 4367003	-
Walnut 2178007	-
Winchester 49240	-
Golden Oak 2178001	-
Smooth Basalt Grey 701205083	-
Agate Grey 703805	-
Smooth Basalt Grey 715505083	-
Silver Grey 715505	-
Anthracite Grau Matt F470-6003	-
Natural Oak 3118076	-
Jet Black 4467062	-
Green 600505	-
Chocolate Brown 887505	-
White 915205	-
Siena Rosso 49233	-
Sapeli (Mahogany) 2065021	-
Brown Black 851805	-
Basalt Grey 701205	-
Black FN 301900002	-
Light Grey 725105	-
Ivory 101505	-
Quartz Grey 703905	-
Steel Blue 515005	-
RAL 7042	-
RAL 6009	-

RA BOX ELEMENTS	
Standard colours	
White	**02**
Dark Brown	**08**
Anthracite Grey	**23R**
Walnut	**28R**
Golden Oak	**30R**
RAL 9007	
RAL 9006	
RAL 9005	
RAL 7039	
RAL 7023	
RAL 7012	
RAL 8003	
RAL 1013	
RAL 7038	
RAL 7016	
RAL 7024	
RAL 1001	
RAL Modern Graphite	-
RAL 8014	-
RAL Modern Black	-
RAL Anthracite	-
RAL 7047	-
RAL 5011	-
RAL 7035	-
RAL 7037	-
RAL 6005	-
RAL 7002	-
RAL 1034	-
RAL 8011	-
RAL DB703	-
Anthracite Quartz F4361014	-
Black Ulti-Matt 47097	-
Woodec Turner Oak Malt F470-3001	-
Woodec Turner Oak Toffee F470-3004	-
Anthracite Grey 4365003	-
Dark Grey Silk 4367003	-
Walnut 2178007	-
Winchester 49240	-
Golden Oak 2178001	-

Smooth Basalt Grey 701205083	-
Agate Grey 703805	-
Smooth Basalt Grey 715505083	-
Silver Grey 715505	-
Anthracite Grau Matt F470-6003	-
Natural Oak 3118076	-
Jet Black 4467062	-
Green 600505	-
Chocolate Brown 887505	-
White 915205	-
Siena Rosso 49233	-
Sapeli (Mahogany) 2065021	-
Brown Black 851805	-
Basalt Grey 701205	-
Black FN 301900002	-
Light Grey 725105	-
Ivory 101505	-
Quartz Grey 703905	-
Steel Blue 515005	-
RAL 7042	-
RAL 6009	-

PLEASE NOTE

Curtain colours marked with the asterisk symbol * are not available with the PA43 curtain.
Guide rail colours include the standard guide rails PPD60/12.

The colour hue of the film coating of roller shutters and window joinery may differ.

Curtain – standard colours



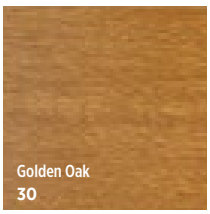












Curtain – special colours

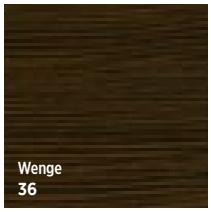












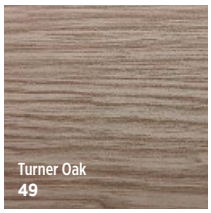


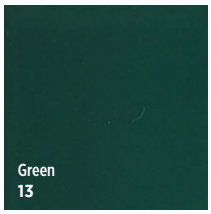
















Somfy automatic operating units



Somfy Solus 2PA

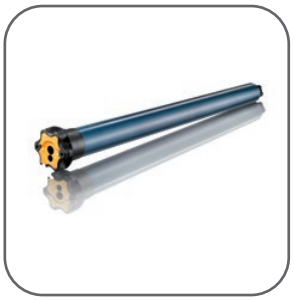
Wired motor with mechanical limit switches, controlled with a pushbutton switch. Limit switch position is adjusted with hex key knobs. Motor cable: 4 x 0.75 mm².



Somfy Solus P&P VVF

Wired motor with obstacle detection, which – thanks to the Plug & Play feature – enables automatic determination of the direction of rotation and adjustment of the limit positions. The detection feature operates while closing and when an obstacle is detected in the clear opening of the roller shutter. The motor features frost protection. Pushbutton switch control. Motor cable: 4 x 0.75 mm².

The Somfy Lock To Play self-locking hangers must be used.



Somfy Oximo io

Wireless motor with obstacle detection, automatic limit switches, and the io-homecontrol® technology. Integrated electronic system enables constant electronic torque control. The detection feature operates while closing and when an obstacle is detected in the clear opening of the roller shutter. The motor features frost protection. Two-way feedback function, making it possible to control the device status in real time. Motor cable: 3 x 0.75 mm².

The Somfy Lock To Play self-locking hangers must be used.



Somfy RS100 io

Wireless motor featuring the io-homecontrol® technology, provides automatic detection of the direction of rotation, as well as automatic or fixed adjustment of the limit positions. A special feature of the RS 100 drive is the option to operate in a discrete mode, as well as soft start and stop. Two-way feedback function, making it possible to control the device status in real time. Motor cable: 2 x 0.75 mm².

Somfy Lock To Play self-locking hangers must be used.



Somfy RS100 io Hybrid

Motor featuring 2 control options – wired and wireless. It can be controlled with an io controller or with a regular roller shutter switch. The motor provides automatic detection of the direction of rotation, as well as automatic or fixed adjustment of the limit positions. A special feature of the RS 100 drive is the option to operate in a discrete mode, as well as soft start and stop. Two-way feedback function, making it possible to control the device status in real time. Motor cable: 4 x 0.75 mm².

The Somfy Lock To Play self-locking hangers must be used.



Somfy RS100 Solar io

The RS100 Solar io combines the advantages of our traditional drives with solar power supply: Quiet operation, smart home ready drive unit, reliability. Wireless motor featuring the io-homecontrol® technology, provides automatic detection of the direction of rotation, as well as automatic or fixed adjustment of the limit positions. A special feature of the RS 100 drive is the option to operate in a discrete mode, as well as soft start and stop. Two-way feedback function, making it possible to control the device status in real time. The motor kit includes a 2.5 W solar panel for 6 Nm and 10 Nm motors, and a 5.8 W panel for the 15 Nm motor. Panel service life > 20 years. Another component of the motor kit is a 2,200 mAh battery, which allows the roller shutter to operate without sunlight for 45 days. The battery is installed inside the box. Battery service life > 8 years.

The Somfy Lock To Play self-locking hangers must be used.



Protecta Connected

Thanks to the WIŚNIOWSKI Connected smart roller shutter control system, you gain the option to automatically close the shutters after dusk and open them at sunrise, based on location data. You can create custom schedules and trigger actions at specific times of the day. Additionally, our solutions enable control of roller shutter groups, making it possible to open or close all shutters at once with a single gesture. Local control via buttons and remote control via the WIŚNIOWSKI app are both available.

io-homecontrol® control units



TaHoma Switch

One system to control it all

With the TaHoma Switch, you can control the devices at your home with your smartphone, tablet or computer. A clear interface and an intuitive system make it a system that is easy to use for anyone. Additional, immediate feedback gives you certainty that the tasks were performed properly and no obstacles were encountered. The TaHoma system also makes it possible to connect alarm systems, cameras, window opening sensors, and motion sensors. All these devices can be activated manually or automatically. You can freely activate them using individual scenarios, such as “open all roller shutters”, “lighting on” or “arm the alarm”, which effectively scares away potential intruders. The application pushes a notification to your smartphone each time an intruder is present in your home.

- The central control unit is compatible with almost 300 Somfy product types.
- Roller shutters
- Blinds and shutters
- Pergolas and awnings
- Gates, garage doors and door locks
- Lighting and smart sockets
- Cameras and alarms
- Heating
- Sensors
- Music and voice assistants

This exceptionally simple and intuitive system allows you to create 40 scenarios for over 200 home devices! You can freely modify each scenario and launch it whenever you want or on scheduled days and times. Do it all at a tap of a button on your smartphone, tablet or laptop.

Central control unit dimensions: (length x width x height): 110 x 71.25 x 28.13 mm



Situo 1 io

1-channel portable remote with individual, group, and central operation. The “UP” button for opening the roller shutter, “DOWN” for closing, “MY” for stopping the current movement or activating the comfortable position. The kit includes a wall bracket for flexible installation. Available in the following colours: Pure.



Situo 5 io

5-channel portable remote with individual, group, and central operation. The “UP” button for opening the roller shutter, “DOWN” for closing, “MY” for stopping the current movement, activating the comfortable position or choosing the channel. LED showing the transmission status and battery level. The kit includes a wall bracket for flexible installation. Available in the following colours: Pure.



Ysia Patio

A simple, intuitive, high-quality 16-channel io remote control for terrace applications, including roller shutter operation – designed for the most advanced users. The remote enables individual or group control of products, features a screen that is readable both in bright sunlight and at night (automatic brightness adjustment), and provides feedback on low battery and successful command transmission. The easy-to-use, ergonomic rotary controller ensures excellent control over all devices and enables precise management of natural light entering the home. Available in Pure and Anthracite colours.



Amy 1 io

Wall-mounted transmitter for controlling a single io device or one group of io devices, based on temperature measurement from an integrated sensor. A LED indicator provides feedback when commands are sent and displays battery status. Set includes: Amy transmitter, frame, batteries. Available in Pure colour.



Amy 1 RS100 io

Wall-mounted transmitter for controlling a single io device or one group of io devices. Enables device automation via TaHoma thanks to an integrated temperature sensor. Version with a silent-mode switch for the drive unit. The “my” button allows the device to be set to a previously configured favourite position. A LED indicator provides feedback when commands are sent and displays battery status. Set includes: Amy transmitter, frame, batteries. Available in Pure colour.



Amy 1 A/M Modes io

Wall-mounted transmitter for controlling a single io device or one group of io devices. Enables device automation via TaHoma thanks to an integrated temperature sensor. Version dedicated for operating blinds/roller shutters in an automatic or manual mode. The “my” button allows the device to be set to a previously configured favourite position. The indoor temperature sensor, compatible with the TaHoma ecosystem, enables easy creation of advanced scenarios. A LED indicator provides feedback when commands are sent and displays battery status. Set includes: Amy transmitter, frame, batteries. Available in Pure colour



Amy 2 Modes io

Wall-mounted transmitter for controlling two io devices or two groups of io devices. Designed for controlling all types of shading system drives. Does not include a built-in temperature sensor. A LED indicator provides feedback when commands are sent and displays battery status. The “my” button allows the device to be set to a previously configured favourite position. Set includes: Amy transmitter, frame, batteries. Available in Pure colour.



Amy 4 Modes io

Wall-mounted transmitter for controlling four io devices or four groups of io devices. Designed for controlling all types of shading system drives. Does not include a built-in temperature sensor. A LED indicator provides feedback when commands are sent and displays battery status. The “my” button allows the device to be set to a previously configured favourite position. Set includes: Amy transmitter, frame, batteries. Available in Pure colour.



Chronis io

1-channel programmer timer. It can program a maximum of 4 individual opening and closing times for all days of the week. Easy to read, large display with a bright, light blue backlight. Automatic summer and winter time change. The Cosmic feature makes it possible to close the roller shutters at dusk. Wireless programmer, battery-powered.

Wired control



Smoove Uno WT

A single switch without impulse maintenance for manual control of a wired drive unit or a wired drive unit with obstacle detection. Control with up–stop–down buttons.



Smoove Duo WT

A double switch without impulse maintenance for manual control of two independent wired drive units or wired drive units with obstacle detection. Control with up–stop–down buttons.



Chronis Smoove Uno

Programmer timer. Large backlit display for easy menu-based control and programming using a text display. Day and week program, possibility to program individual opening and closing times for each day of the week and for the entire week. Cosmic feature for evenings. Available in the following colours: Pure with a Pure frame, Black.



Somfy Smoove frames

For use with all Smoove series remotes and programmers.

WIŚNIOWSKI equipment



WIŚNIOWSKI AM35 wired motor

WIŚNIOWSKI AM35 series wired motor for controlling roller shutters. It features mechanical limit switches, 6 Nm torque, and a 4 x 0.75 mm² cable.



WIŚNIOWSKI AM45 wired motor

WIŚNIOWSKI AM45 series wired motor for controlling roller shutters. It features electronic limit switches and is available with torque ratings of 6 Nm, 10 Nm or 20 Nm. It also features obstacle detection and frost protection, as well as a 4 x 0.75 mm² cable.



WIŚNIOWSKI AM45 radio motor

WIŚNIOWSKI AM45 series radio motor for controlling roller shutters. It features electronic limit switches, is available with torque ratings of 6 Nm, 10 Nm or 20 Nm, and can be controlled using the WIŚNIOWSKI Connected app. It also features obstacle detection and frost protection, as well as a 3 x 0.75 mm² cable.



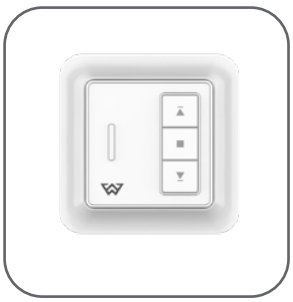
AC127-01

Single-channel remote control for controlling roller shutters with a radio drive unit. Enables control of one device or one group of devices simultaneously. Available in white.



AC127-16

16-channel remote control for operating up to sixteen devices or groups of devices with a drive unit with integrated radio control. Available in white.



AC133-01

Single-channel wall-mounted transmitter for controlling one device or one group of devices, with a range of up to 200 m in open terrain. Available in white.

ALUPROF accessories



1-channel DC1600 remote

1-channel portable remote activates 1 device or automated group. Up to 200 m range in open and 35 m in closed spaces. Supports devices such as: the DC1690 and DC318 flush-mounted switches, the DC315 wall-mounted transmitter, the DC73A radio control unit, and the AL-RSP02 flush-mounted radio controller.



15-channel DC1602 remote

15-channel portable remote activates 15 devices or automated groups. Up to 200 m range in open and 35 m in closed spaces. Supports devices such as: the DC1690 and DC318 flush-mounted switches, the DC315 wall-mounted transmitter, the DC73A radio control unit, and the AL-RSP02 flush-mounted radio controller.



DC1670 1-channel wall-mounted transmitter

1-channel wall-mounted transmitter activates 1 device or automated group. Up to 200 m range in open and 35 m in closed spaces. Supports devices such as: the DC1690 and DC318 flush-mounted switches, the DC315 wall-mounted transmitter, the DC73A radio control unit, and the AL-RSP02 flush-mounted radio controller.



DC1671 2-channel wall-mounted transmitter

2-channel wall-mounted transmitter activates 2 devices or automated groups. Up to 200 m range in open and 35 m in closed spaces. Supports devices such as: the DC1690 and DC318 flush-mounted switches, the DC315 wall-mounted transmitter, the DC73A radio control unit, and the AL-RSP02 flush-mounted radio controller.



DC1675 1-channel wall-mounted transmitter, programmer timer

1-channel wall-mounted transmitter activates 1 device or automated group. Can program custom opening and closing hours for roller shutters. Up to 200 m range in open and 35 m in closed spaces. Supports devices such as: the DC1690 and DC318 flush-mounted switches, the DC315 wall-mounted transmitter, the DC73A radio control unit, and the AL-RSP02 flush-mounted radio controller.



DC1676 5-channel wall-mounted transmitter, programmer timer

5-channel wall-mounted transmitter activates 5 devices or automated groups. Can program custom opening and closing hours for roller shutters. Up to 200 m range in open and 35 m in closed spaces. Supports devices such as: the DC1690 and DC318 flush-mounted switches, the DC315 wall-mounted transmitter, the DC73A radio control unit, and the AL-RSP02 flush-mounted radio controller.



DC1690 1-channel flush-mounted switch with built-in wireless

Universal flush-mounted switch (with or without impulse maintenance), activates 1 motor. With a built-in wireless central control unit and compatible with DC series transmitters.



DC73A wireless central control unit (installed in the box)

For installation in roller shutter boxes from 165 mm. Accepts one drive with power up to 400 W. Compatible with wired motors, provides wireless transmission for a wired motor.



AL-RSP02 flush-mounted wireless controller

Flush-mounted wireless central control unit for controlling a single drive. Installed in a standard flush-mounted box, compatible with all DC series transmitters.



DC 318

The DC 318 flush-mounted switch with a built-in radio receiver (universal with or without impulse maintenance) activates one device. It has a built-in wireless central control unit and is compatible with the DC series transmitters (excluding DC115B).



DC 315

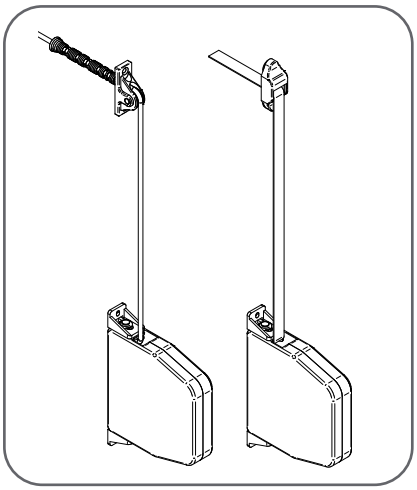
The DC 320 wall-mounted transmitter activates 1 automation device (group); range up to 200 m in open spaces and up to 35 m indoors.



DC 920

The DC 920 portable transmitter – timer with an LCD display. Activates 5 automation devices (groups). Custom opening and closing hours can be programmed. Range up to 200 m in open spaces, up to 35 m indoors. Supports devices such as: the DC1690 and DC318 flush-mounted switches, the DC315 wall-mounted transmitter, the DC73A radio control unit, and the AL-RSP02 flush-mounted radio controller. Supports devices such as: the DC1690 and DC318 flush-mounted switches, the DC315 wall-mounted transmitter, the DC73A radio control unit, and the AL-RSP02 flush-mounted radio controller.

Accessories



Cord/tape winder

Winding mechanism for controlling external shutters manually. For roller shutters with a surface area up to 3.5 m^2. Available in white and brown.

Cord

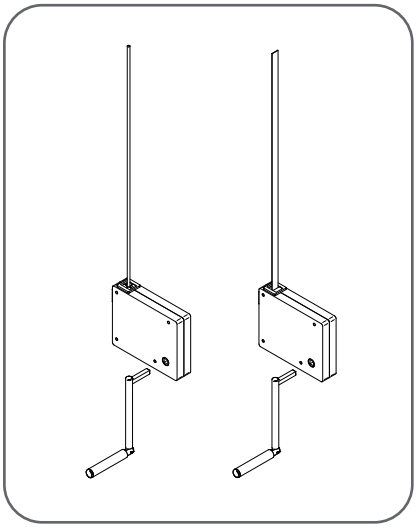
Diameter 4.5 mm, a cord winder accessory. Available in white and brown.

Tape

Width 14 mm, a tape winder accessory. Available in grey and brown.

PLEASE NOTE

In single-leaf windows, the winder is recommended to be mounted on the handle side. If manual roller shutter operation is selected on the hinge side, we recommend installing the winder on the wall or the reveal. If wall or reveal installation is not possible, we recommend adding a minimum 30 mm window widening and specifying the roller shutter as a separate item – installation on the production line is not possible.



Crank winder – cord/tape

Winding mechanism for controlling external shutters manually. Includes a winder housing, Mignon crank, and a plate for fixing the winder. For roller shutters with a surface area up to 5 m^2. Available in white and brown.

PLEASE NOTE

In single-leaf windows, the winder is recommended to be mounted on the handle side.

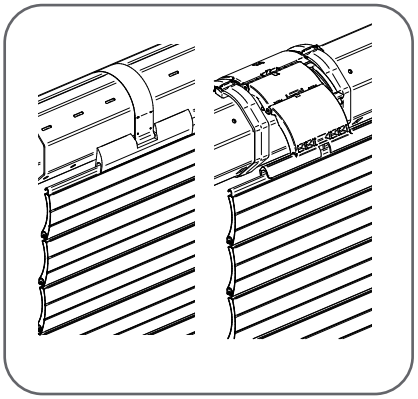


Cardan joint with a hook

The crank is the drive component of the ANR mechanism installed inside the roller shutter box. When the crank is rotated, torque is transferred to the winding tube, causing the curtain to roll up or down. Available in versions operable at a 45° or 90° angle. The Cardan joint is finished with a hook.

Cardan joint with an eyelet

The crank is the drive component of the ANR mechanism installed inside the roller shutter box. When the crank is rotated, torque is transferred to the winding tube, causing the curtain to roll up or down. Available in versions operable at a 45° or 90° angle. The Cardan joint is finished with an eyelet and operated with a crank with a hook.



Hanger

Standard roller shutter curtain hanger, steel with a PVC inlet and felt lining. Felt provides additional protection from scratching the curtain, which can occur when the curtain is wound on the winding tube.

Lock To Play locking hanger

Hard hanger paired with motors with obstacle detection. When an obstacle occurs in the path of the curtain, it improves the curtain's resistance to damage. The slats in the lower end position are stiffened and locked, which prevents the roller shutter from making noise in the wind. The locker is seated on two snap rings and does not require the use of installation tools.

Wind load resistance class in accordance with PN-EN13659

POLAND

Terrain categories:

0 – Sea or coastal areas with wind flowing over the open sea
I – Lakes or flat and horizontal area with negligible vegetation and no obstacles
II – Areas with low vegetation such as grass, with or without a few free-standing obstacles (trees, buildings) with a distance between them of at least 20 times their height
III – Area with regular overgrowth or buildings or isolated obstacles with a gap of no more than 20 obstacle heights (e.g. villages, periurban areas, sustainable forests etc.)
IV – Urban areas where at least 15% of the surface area is covered with buildings with an average height of over 15 m



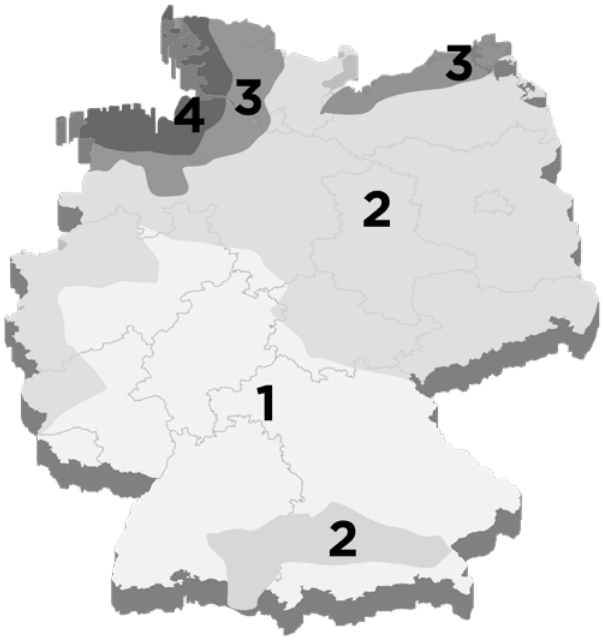
Wind speeds (PN-EN 1991-1-4)	
Wind zone	V_k (m/s)
I	22
II	26
III	22

Assignment of roller shutter wind load resistance classes to the wind load zones in Poland																
Criterion		**Roller shutter installation height on a building**														
Terrain category	Require-ments	**up to 9 m**			**9 to 18 m**			**18 to 28 m**			**28 to 50 m**			**50 to 100 m**		
		Wind zone			Wind zone			Wind zone			Wind zone			Wind zone		
		I	**II**	**III**	**I**	**II**	**III**	**I**	**II**	**III**	**I**	**II**	**III**	**I**	**II**	**III**
0	Wind load resistance class	3	4	3	4	4	4	4	4	4	4	5	4	4	5	4
I		3	4	3	3	4	3	4	4	4	4	4	4	4	5	4
II		2	3	2	3	4	3	3	4	3	4	4	4	4	5	4
III		2	3	2	3	3	3	3	4	3	3	4	3	4	4	4
IV		1	2	1	2	3	2	2	3	2	3	4	3	3	4	3

GERMANY

Terrain categories:

0 – Sea or coastal areas with wind flowing over the open sea
I – Lakes or flat and horizontal area with negligible vegetation and no obstacles
II – Areas with low vegetation such as grass, with or without a few free-standing obstacles (trees, buildings) with a distance between them of at least 20 times their height
III – Area with regular overgrowth or buildings or isolated obstacles with a gap of no more than 20 obstacle heights (e.g. villages, periurban areas, sustainable forests etc.)
IV – Urban areas where at least 15% of the surface area is covered with buildings with an average height of over 15 m
V – Urban areas where at least 15% of the surface area is covered with buildings with an average height of over 15 m



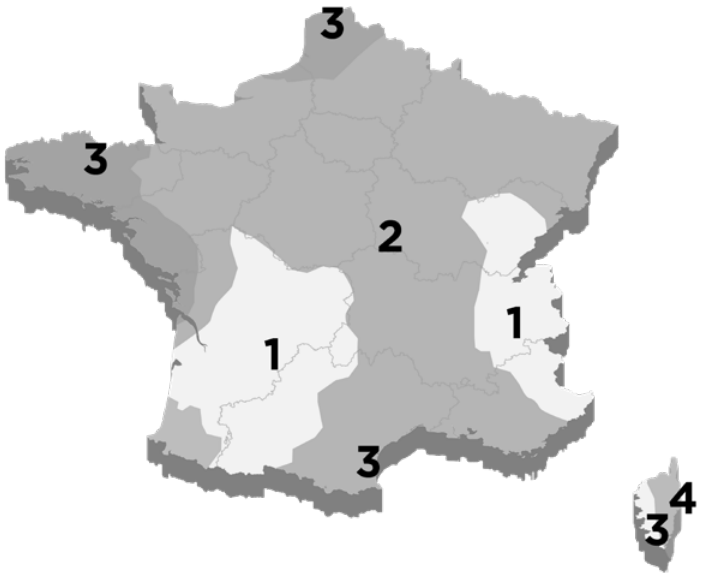
Wind speeds (PN-EN 1991-1-4)	
Wind zone	V_k (m/s)
I	22.5
II	25
III	27.5
IV	30

Assignment of roller shutter wind load resistance classes to the wind load zones in Germany																							
Criterion		**Roller shutter installation height on a building**																					
Terrain category	Require-ments	**up to 9 m**				**9 to 18 m**				**18 to 28 m**				**28 to 50 m**				**50 to 100 m**			
		Wind zone				Wind zone				Wind zone				Wind zone				Wind zone			
		I	**II**	**III**	**IV**	**I**	**II**	**III**	**IV**	**I**	**II**	**III**	**IV**	**I**	**II**	**III**	**IV**	**I**	**II**	**III**	**IV**
0	Wind load re-sistance class	3	4	4	5	4	4	4	5	4	4	5	5	4	4	5	5	4	5	5	5
I		3	4	4	4	4	4	4	5	4	4	5	5	4	4	5	5	4	5	5	5
II		3	3	4	4	3	4	4	4	4	4	4	5	4	4	5	5	4	5	5	5
III		2	2	3	3	3	4	4	3	3	4	4	3	4	4	4	5	4	4	5	5
IV		1	1	2	2	2	2	3	3	2	3	3	4	3	3	4	4	3	4	4	5

FRANCE

Terrain categories:

0 – Sea or coastal areas with wind flowing over the open sea
I – Lakes or flat and horizontal area with negligible vegetation and no obstacles
II – Areas with low vegetation such as grass, with or without a few free-standing obstacles (trees, buildings) with a distance between them of at least 20 times their height
IIIa – Rural area with fences / hedges, vineyards, scattered homes
IIIb – Urbanized or industrial areas; thick groves; orchards
IV – Urban areas where at least 15% of the surface area is covered with buildings with an average height of over 15 m



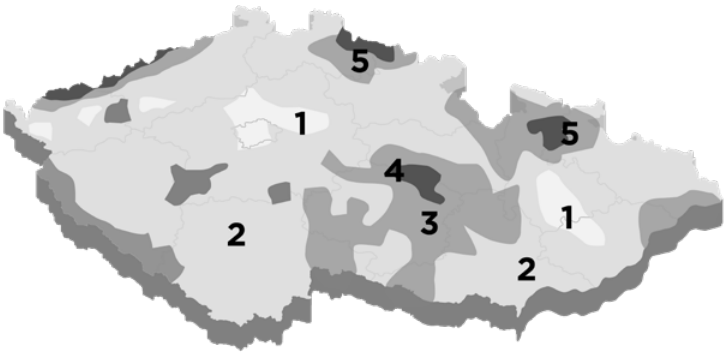
Wind speeds (PN-EN 1991-1-4)					
Wind zone		Metropolitan France	Wind zone		Oversea departments
I	V_k (m/s)	22	Guade-loupe	V_k (m/s)	36
II		24	Guyana		17
III		26	Martiniq-ue		32
IV		28	Mayotte		30
			Réunion		34

Assignment of roller shutter wind load resistance classes to the wind load zones in France																					
Criterion		**Roller shutter installation height on a building**																			
Terrain category	Require-ments	**up to 9 m**				**9 to 18 m**				**18 to 28 m**				**28 to 50 m**				**50 to 100 m**			
		Wind zone				Wind zone				Wind zone				Wind zone				Wind zone			
		I	**II**	**III**	**IV**	**I**	**II**	**III**	**IV**	**I**	**II**	**III**	**IV**	**I**	**II**	**III**	**IV**	**I**	**II**	**III**	**IV**
0	Wind load re-sistance class	3	4	4	4	4	4	4	4	4	4	4	5	4	4	5	5	4	4	5	5
II		3	3	4	4	3	4	4	4	3	4	4	4	4	4	4	5	4	4	5	5
IIIa		2	2	3	3	3	3	3	4	3	3	4	4	3	4	4	4	4	4	4	5
IIIb		1	2	2	2	2	2	3	3	2	3	3	4	3	3	4	4	3	4	4	4
IV		1	1	2	2	1	2	2	3	2	2	3	3	2	3	3	4	3	4	4	4

CZECH REPUBLIC

Terrain categories:

0 – Sea or coastal areas with wind flowing over the open sea
I – Lakes or flat and horizontal area with negligible vegetation and no obstacles
II – Areas with low vegetation such as grass, with or without a few free-standing obstacles (trees, buildings) with a distance between them of at least 20 times their height
III – Area with regular overgrowth or buildings or isolated obstacles with a gap of no more than 20 obstacle heights (e.g. villages, periurban areas, sustainable forests etc.)
IV – Urban areas where at least 15% of the surface area is covered with buildings with an average height of over 15 m
V – Urban areas where at least 15% of the surface area is covered with buildings with an average height of over 15 m



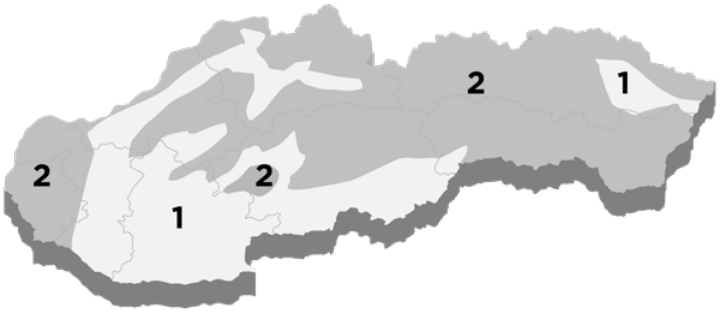
Wind speeds (PN-EN 1991-1-4)	
Wind zone	V_k (m/s)
I	22.5
II	25
III	27.5
IV	30
V	36

Assignment of roller shutter wind load resistance classes to the wind load zones in the Czech Republic																										
Criterion		**Roller shutter installation height on a building**																								
Terrain category	Requirements	**up to 9 m**					**9 to 18 m**					**18 to 28 m**					**28 to 50 m**					**50 to 100 m**				
		Wind zone					Wind zone					Wind zone					Wind zone					Wind zone				
		I	**II**	**III**	**IV**	**V**	**I**	**II**	**III**	**IV**	**V**	**I**	**II**	**III**	**IV**	**V**	**I**	**II**	**III**	**IV**	**V**	**I**	**II**	**III**	**IV**	**V**
I	Wind load resistance class	3	4	4	4	5	4	4	4	5	5	4	4	5	5	6	4	4	5	5	6	4	5	5	5	6
II		3	3	4	4	5	3	4	4	4	5	4	4	4	5	5	4	4	5	5	6	4	4	5	5	6
III		2	2	3	3	4	3	3	4	4	5	3	3	4	4	5	3	4	4	5	5	4	4	5	5	6
IV		3	4	4	4	5	4	4	4	5	5	4	4	5	5	6	4	4	5	5	6	4	5	5	5	6

SLOVAKIA

Terrain categories:

0 – Sea or coastal areas with wind flowing over the open sea
I – Lakes or flat and horizontal area with negligible vegetation and no obstacles
II – Areas with low vegetation such as grass, with or without a few free-standing obstacles (trees, buildings) with a distance between them of at least 20 times their height
III – Area with regular overgrowth or buildings or isolated obstacles with a gap of no more than 20 obstacle heights (e.g. villages, periurban areas, sustainable forests etc.)
IV – Urban areas where at least 15% of the surface area is covered with buildings with an average height of over 15 m



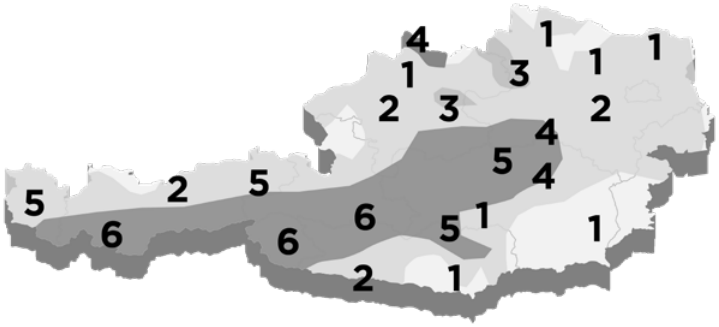
Wind speeds (PN-EN 1991-1-4)	
Wind zone	V_k (m/s)
I	24
II	26
III	30
IV	33

Assignment of roller shutter wind load resistance classes to the wind load zones in Slovakia																				
Criterion		**Roller shutter installation height on a building**																		
Terrain category	Requirements	**up to 9 m**				**9 to 18 m**				**18 to 28 m**				**28 to 50 m**				**50 to 100 m**			
		Wind zone				Wind zone				Wind zone				Wind zone				Wind zone			
		I	**II**	**III**	**IV**	**I**	**II**	**III**	**IV**	**I**	**II**	**III**	**IV**	**I**	**II**	**III**	**IV**	**I**	**II**	**III**	**IV**
I	Wind load resistance class	1	2	2	3	2	2	3	4	3	3	4	4	3	4	4	4	4	4	5	5
II		3	4	4	4	4	4	4	5	4	4	5	5	4	4	5	5	4	5	5	6
III		2	3	3	4	3	3	4	4	3	4	4	5	4	4	5	5	4	4	5	5
IV		1	2	2	3	2	2	3	4	3	3	4	4	3	4	4	4	4	4	5	5

AUSTRIA

Terrain categories:

0 – Sea or coastal areas with wind flowing over the open sea
I – Lakes or flat and horizontal area with negligible vegetation and no obstacles
II – Areas with low vegetation such as grass, with or without a few free-standing obstacles (trees, buildings) with a distance between them of at least 20 times their height
III – Area with regular overgrowth or buildings or isolated obstacles with a gap of no more than 20 obstacle heights (e.g. villages, periurban areas, sustainable forests etc.)
IV – Urban areas where at least 15% of the surface area is covered with buildings with an average height of over 15 m



Wind speeds (PN-EN 1991-1-4)	
Wind zone	V_k (m/s)
I	24.2
II	27.5
III	30.8
IV	37.4
V	44
VI	50.6

Assignment of roller shutter wind load resistance classes to the wind load zones in Austria

Criterion		Roller shutter installation height on a building																													
Terrain category	Require-ments	up to 9 m						9 to 18 m						18 to 28 m						28 to 50 m						50 to 100 m					
		Wind zone						Wind zone						Wind zone						Wind zone						Wind zone					
		I	II	III	IV	V	VI	I	II	III	IV	V	VI	I	II	III	IV	V	VI	I	II	III	IV	V	VI	I	II	III	IV	V	V
II	Wind load resistance class	3	4	4	5	5	6	3	4	4	5	6	6	4	4	4	5	6	6	4	4	5	6	6	6	4	5	5	6	6	
III		2	3	4	4	5	6	3	4	4	5	5	6	3	4	4	5	6	6	4	4	5	5	6	6	4	4	5	6	6	
IV		1	2	3	4	4	5	2	3	3	4	5	5	2	3	4	4	5	6	3	4	4	5	6	6	4	4	5	5	6	

PLEASE NOTE

These tables apply to areas situated up to 300 m above sea level and roller shutter installation at the height of up to 100 m. All other cases have to be considered on an individual basis.

Roller shutter resistance classes to wind load							
Class	0	1	2	3	4	5	6
Reference test pressure **p** (N/m^2)	< 50	50	70	100	170	270	400
Safe test pressure **1.5 p** (N/m^2)	< 75	75	100	150	250	400	600

Maximum roller shutter widths in accordance with the classes of resistance to wind load

Max. roller shutter width including guide rails in mm for the PA39	Wind load resistance class in accordance with PN-EN13659					
	1	2	3	4	5	6
for guide rails: PP53, PP53/ODS/20, PK53, PK53/120, PPD79, PPD79/ODS, PPD79/ODS/20, PPDMO79	<=3,200	<=2,900	<=2,500	<=2,100	<=1,800	<=1,600
for guide rails: PP68	<=3,900	<=3,400	<=2,900	<=2,300	<=2,000	<=1,900
for guide rails: PP60/12; PPD60/12; PPDA60/12; PPD-P60/12; PPDA-P60/12	<=3,300	<=3,000	<=2,600	<=2,200	-	-
for guide rails: PPRA/12, PPMRA/12, PPARA/12, PPMARA/12	<=3,000	<=2,600	<=2,300	<=2,000	-	-

Max. roller shutter width including guide rails in mm for the PA43	Wind load resistance class in accordance with PN-EN13659					
	1	2	3	4	5	6
for guide rails: PP53, PP53/ODS/20, PK53, PK53/120, PPD79, PPD79/ODS, PPD79/ODS/20, PPDMO79	<=3,300	<=3,000	<=2,600	<=2,200	<=1,900	<=1,600
for guide rails: PP68	<=3,900	<=3,400	<=3,000	<=2,400	<=2,100	<=1,800
for guide rails: PP60/12; PPD60/12; PPDA60/12; PPD-P60/12; PPDA-P60/12	<=3,300	<=3,000	<=2,600	<=2,200	-	-
for guide rails: PPRA/12, PPMRA/12, PPARA/12, PPMARA/12	<=2,900	<=2,600	<=2,300	<=2,000	-	-

Max. roller shutter width including guide rails in mm for the BP41R-0	Wind load resistance class in accordance with PN-EN13659					
	1	2	3	4	5	6
for guide rails: PP53, PP53/ODS/20, PK53, PK53/120, PPD79, PPD79/ODS, PPD79/ODS/20, PPDMO79	-	<=2,800	<=2,600	<=2,600	<=2,600	<=2,600
for guide rails: PP68	-	-	<=2,800	<=2,600	<=2,200	<=1,800

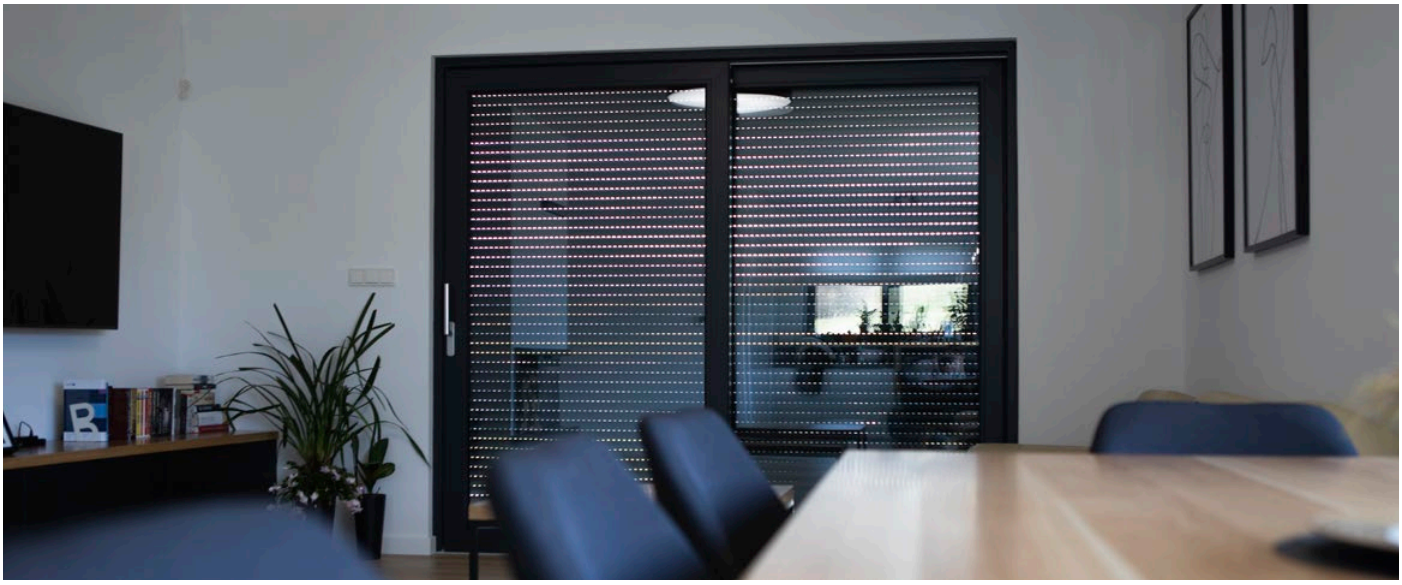
Max. roller shutter width including guide rails in mm for the BP41R-0 + MKT	Wind load resistance class in accordance with PN-EN13659		
	4	5	6
for guide rails: PPDO53, PPDO79	<=1,700	<=1,700	<=1,600

Max. roller shutter width including guide rails in mm for the PA39 + MKT	Wind load resistance class in accordance with PN-EN13659		
	4	5	6
for guide rails: PPDO53, PPDO79	<=1,700	<=1,700	<=1,600
for guide rails: PPDMW-; PPDMW-P-; PPDAMW-; PPDAMW-P; PPMO 60/12	<=1,700	<=1,700	<=1,600

Max. roller shutter width including guide rails in mm for the PA43 + MKT	Wind load resistance class in accordance with PN-EN13659		
	4	5	6
for guide rails: PPDO53, PPDO79	<=1,700	<=1,700	<=1,600
for guide rails: PPDMW-; PPDMW-P-; PPDAMW-; PPDAMW-P; PPMO 60/12	<=1,700	<=1,700	<=1,600



Protecta P roller shutters, nut brown colour (28).



Protecta P roller shutter, anthracite grey colour (23).

WIŚNIOWSKI

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