INFOTEXT

We take architectural glass a step ahead.

OKA*FLEX* Flexible Light Control

Variable radiation, flexible use of space – OKA*FLEX* lets you precisely control daylight. The heat-protective glazing with integrated louvres offers as much sun protection as required and as much daylight as possible. Of course, you can also alter the antidazzle and privacy screening – by lifting, lowering and turning for wall types, and by turning the louvres for roof types.

- g value up to 8 % can be realised (closed louvres), dependent on the louvre colour, louvre setting and location of the sun (refer to table for the physical properties data)
- U_g value best case 1.1 W/(m^2K) (closed louvres)
- manual or electrical operation
- control with flexible group size

Louvres

Width 15 mm, different colours (table with technical light properties of the surfaces), thickness 0.23 mm, can be fitted as concave or convex (dependent on the focus of the requirements concerning antidazzle, light directing function).

Ladder cord

12 x 18.5 mm, UV-resistant, consisting of 100% high-strength, meshed polyester thread, thermally fixed, double ridged.
Colour: White with white louvres, grey with silver louvres.

Hoist cord

D = 1.0 mm, UV-resistant, consisting of 100% high-strength, bound polyester thread.
Colour: White with white louvres, grey with silver louvres.

Drive

A precision motor built in to the top rail with a 4-stage planetary gear train. The motor is driven with 24 Volt DC voltage and has a rated output of 6 Watt. The control is carried out by means of a dual core cable (cable cross-section in accordance with the cable lengths and loss of output).

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Physical properties data

Table with g values dependent on two types of louvre, their angle of adjustment and the height of the sun.

Louvre colour no. 2901

Angle of incidence	Horizontal louvre		Louvre in 45° position		Louvre closed	
	T_v	g	T_v	g	T_v	g
0°	0.74	0.58	0.28	0.33	0.05	0.12
30°	0.42	0.44	0.11	0.19	0.03	0.08
60°	0.16	0.28	0.03	0.08	0.02	0.08

Louvre colour no. 2902

Angle of incidence	Horizontal louvre		Louvre in 45° position		Louvre closed	
	T_v	g	T_v	g	T_v	g
0°	0.74	0.58	0.24	0.26	0.05	0.11
30°	0.41	0.38	0.11	0.17	0.03	0.09
60°	0.15	0.22	0.06	0.12	0.02	0.08

The specified total solar energy transmittance values apply for white 15 mm louvres, with a soft thermal control coating on surface # 3. The U_g value reaches 1.1 W/(m^2K), depending on the louver position, cavity and filler gas.

Legend and related values:

	unit	standard	technical term
U	W/(m^2K)	DIN EN 673 DIN EN 674	Thermal transmittance, (ΔT=10°C)
TSET	%	DIN EN 410	Total solar energy transmittance or solar heat gain coefficient
T_v	%	DIN EN 410	Light transmission (direct/hemispheric)
R_w	dB	DIN EN 20140	Sound reduction coefficient
F_c	%	DIN 4108	Reduction factor of a solar control system, F_c=TSET/$TSET_{reference}$
SC	%	GANA Manual	Shading coefficient, SC=TSET/0.86

The above data is approximate data. It is based on measurements of recognized test institutes and calculations derived from these measurements.
At the moment, not all suppliers have adapted their key data to the currently applicable regulations. When making comparisons, please pay attention to the relevant manufacturer's notes. On the basis of the old standards, total solar energy transmittances as well as shading coefficient values are each 1-3% lower.

Lower U-values can only be achieved in combination with thermal control gases (Kr, Ar). If thermal control gases are used, a gastight perimeter seal is required. It must be protected against solar radiation by means of covering profiles or a black edge screen print and is normally not compatible with jointing silicone.

Degree of reflection for the available louvres:

Louvre colour	$r_{dh, vis}$	$r_{diffus, vis}$	$r_{dd, vis}$	$r_{dh, sol}$	$r_{diffus,sol}$	$r_{dd,sol}$
2901: silver	0.59	0.44	0.15	0.61	0.44	0.17
2902: white	0.81	0.77	0.04	0.70	0.66	0.04
2903: matt white	0.74	0.72	0.02	0.64	0.62	0.02
2906: concave side, silver, convex side retroreflective (RAL 7030)	0.66	0.46	0.2	0.67	0.46	0.21

Legend and associated dimensions:

$r_{dh, vis}$ the direct-hemispherical degree of light reflection

$r_{diffus, vis}$ diffused degree of light reflection

$r_{dd, vis}$ the direct-direct degree of light reflection or the aligned-aligned degree of light reflection

$r_{dh, sol}$ the direct-hemispherical degree of radiation reflection or the direct hemispherical degree of solar reflection

$r_{diffus,sol}$ the diffused degree of radiation reflection

$r_{dd,sol}$ the direct-direct degree of radiation reflection or the aligned-aligned degree of solar reflection

Dimensions and installation

Type	SZR (mm)	min. width (mm)	max. width (mm)	min. Height (mm)	max. Height (mm)	Comments / restrictions
Facade	27/29	500	3000	250	3000	• Min. surface 0.13 m² • Max. surface 7.50 m² • Height > 1500 mm required Width > 750 mm
Roof	27	500	2000	400	1500	• Min. surface 0.20 m² • Max. surface 2.25 m² • Also 0° when horizontal • Only turning the louvres

Types of glass and coatings

- TVG, if required also ESG or VSG

- Thermal protection coating or sun protection coating
- Coatings change the light, radiation and thermal technical behaviour of the insulated glass structure. The properties of the louvres can always also be seen.

Control

- Optional 1-channel radio remote control or 8-channel radio remote control
- Optional group control, bus connection
- Optional sun monitor control module and light sensor

Operation

- Lift and lower the louvres by pressing the button in the respective direction. Turn the louvres by lighting tapping the button in the desired direction. The button is marked with directional arrows. When reaching the upper or lower end position, the limit switch that is built in to the top rail automatically switches off the drive.