

**ISOLAR**

SOLARLUX<sup>®</sup>

vario

**MORE  
GLASS COMFORT  
WITH THE PUSH OF  
A BUTTON.**

**ISOLAR<sup>®</sup>  
GLAS**

**MEHR AUS GLAS**

# ISOLAR SOLARLUX® VARIOSOLAR – VARIABLE GLASS FOR THE HOUSE OF THE FUTURE.

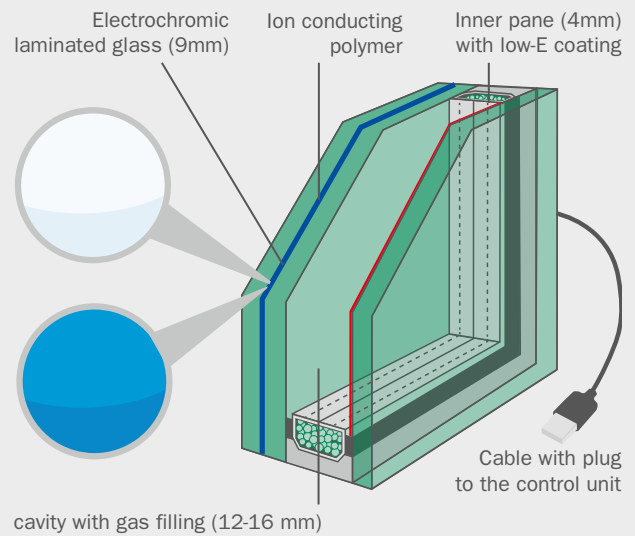
A push of a button is all it takes to turn the glass a bluish colour or make it disappear again. The variable solar protection glass ISOLAR SOLARLUX® variosolar lets you control the amount of light and heat that comes into your space. It can be adapted to changing external conditions as needed. ISOLAR SOLARLUX® variosolar is thus a novel answer to the changing requirements of modern functional insulating glass over the course of a year. The key to the function is the electrochromic effect. A wafer thin coating changes continuously from colourless to blue using a direct electrical voltage activated with the press of a button. ISOLAR SOLARLUX® variosolar lets less light and sunlight pass through and enhances the solar protection function. Less solar radiation relaxes the room climate and cuts cooling costs. Less light passing through can also cut the glare on especially sunny days. Just press the button again and the coating switches back from blue to colourless, allowing ISOLAR SOLARLUX® variosolar to exploit the free solar energy during the dark and cold seasons. The system thus puts the control of the light and heat in your space adjustable in your hands. You decide what makes you comfortable.

## HIGH-TECH FOR LOW ENERGY.

The structure of ISOLAR SOLARLUX® variosolar is like that for solar control insulating glass. The outer pane, however, is replaced by a controllable, electrochromic laminated glass. The laminated glass is equipped with a controller offering five stages of light control or with a dimmer that allows for precise electronic control. The process is silent, but can take several minutes depending on the format. ISOLAR SOLARLUX® variosolar needs to be installed and connected by qualified specialists.

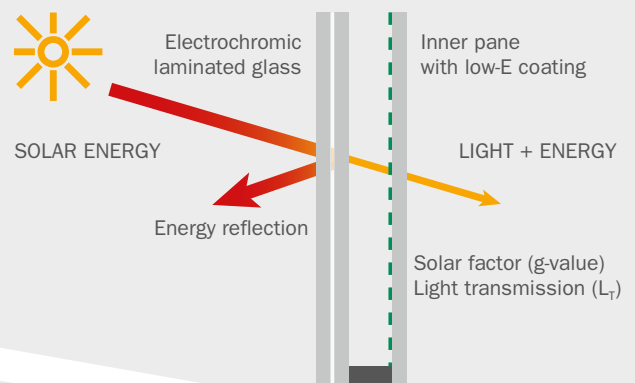


## CONSTRUCTION ISOLAR SOLARLUX® VARIOSOLAR

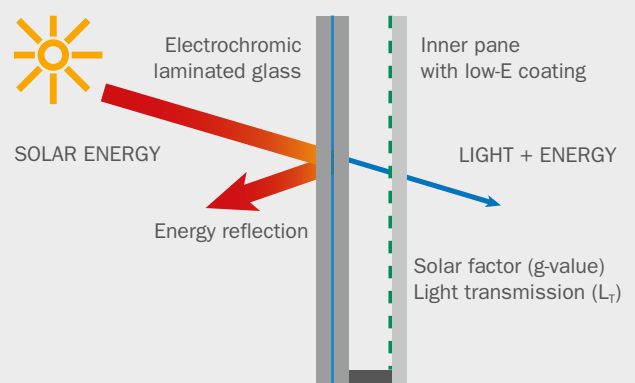


## FUNCTIONALITY ISOLAR SOLARLUX® VARIOSOLAR

### OUTSIDE PANE LIGHT



### OUTSIDE PANE DIMMED





Central building of the university Lüneburg, built with: ISOLAR SOLARLUX® variosolar ///

## ISOLAR SOLARLUX® VARIO

### ISOLAR SOLARLUX® VARIOSOLAR

Glass type	Glass assembly	U <sub>g</sub> (DIN EN 673) in W/m <sup>2</sup> K	Light transmission*) (DIN EN 410) in % (±2)	Solar factor*) g-value (DIN EN 410) in % (±2)	Light reflexion*) (DIN EN 410) in % (±2)	Sound insulation (DIN EN ISO 140-3/717-1) R <sub>w</sub> in dB	Thick- ness **) in mm	Weight**) in kg/m <sup>2</sup>				
									Outside	Cavity 1	Center	Cavity 2
variosolar	//	9 VG 16	:4			1,1	56-10	42-10	11-7	35	29	32
variosolar	///	9 VG 14	:4	14	:4 <sup>2)</sup>	0,6	51-9	36-8	13-7	-	41	42

### ISOLAR SOLARLUX® VARIODIRECT

variorect	// Typ: E, ME	6	27-29	:6			1,2	80	62	-	-	39/41	30
variorect	// Typ: F	6	27-29	:6			1,2	80	62	-	-	39/41	30
variorect	// Typ: W	6	27	:6			1,2	80	62	-	-	39	30

There are suitable balustrade elements for use as cold or warm panels available for all ISOLAR SOLARLUX solar protection insulating glass. Almost all ISOLAR functional glasses can be produced as ISOLAR UVR (insulating glass with UV-resistant edge seal) for exterior, profileless structural glazing. Since ISOLAR SOLARLUX variosolar has a variable sunscreen, its performance is based on the comparison of its light transmission in the fully translucent state with the energy transmission in the fully coloured state. ISOLAR SOLARLUX variosolar only needs electrical energy to change the amount of light that passes through. Max. dimensions found on the current price list. Further ISOLAR SOLARLUX types are available on request. ISOLAR SOLARLUX variorect: Type E+ME: raise/lower/turn; Type W: turn (overhead); Type F: rigid slat system. Glass thickness and max. dimensions on request for custom solutions.

<sup>2)</sup> Additional low-E coating on third pane; middle pane is tempered single-pane safety glass.

\*) The specified functional values were determined according to the relevant applicable test standards as well as the legal regulations according to the required and described test dimensions and conditions.

Deviating formats and combinations such as adjustments to glass thickness for structural reasons may result in changes to the individual values. The values refer exclusively to glass elements.

The values for components depend significantly on the frame construction.

\*\*) Tolerance depending on type. The U<sub>g</sub> values are calculated according to DIN EN 673 for vertical installation. Due to the tolerances of the input variables, a deviation from the calculated value of up to 0.1 W/m<sup>2</sup>K is possible.

Please also note our technical data sheet!

The types and values listed above are based on the information for the ISOLAR® product brochure as of 01/2019. Please check for updates!

# ISOLAR SOLARLUX® VARIODIRECT – PLANNING AND DESIGNING WITH LIGHT AND SHADOWS.

The economical use of energy begins with the planning of each building. Blinds allow for an efficient use of light and shade. They can be used in an ideal way for shading and to protect against glare. Depending on the position of the slats, the incidental light can be deflected or used to illuminate the space. An integration in ISOLAR® glass makes ISOLAR SOLARLUX® variodirect with internal blinds a solar protection system with extensive additional benefits.

## SUN PROTECTION AND DAYLIGHT À LA CARTE.

Because they are located between the panes, the slats are durably protected against dirt and dust and any mechanical disturbance. They are also completely maintenance-free and work in any weather conditions. The installation of ISOLAR SOLARLUX® variodirect as a complete system makes any further blinds superfluous. Depending on the design and motor type, ISOLAR SOLARLUX® variodirect can be integrated into any environment specified by the individual building design.

The solar protection in insulating glass places high demands on blinds and insulating glass technology. More than 50 years of insulating glass experience in the ISOLAR® Group as well as blinds from leading manufacturers of sun protection technology are the right solution. Following planning guidelines and quality assurance at all stages of production, together with the installation and the connection to the building services by qualified specialist companies for a perfect and permanent function of the solar protection system in the insulating glass.

Depending on the motor type and installation, ISOLAR SOLARLUX® variodirect is available in four versions:

**Type E:** with electric motor, continuous raising and lowering, rotating and turning for window and façade.

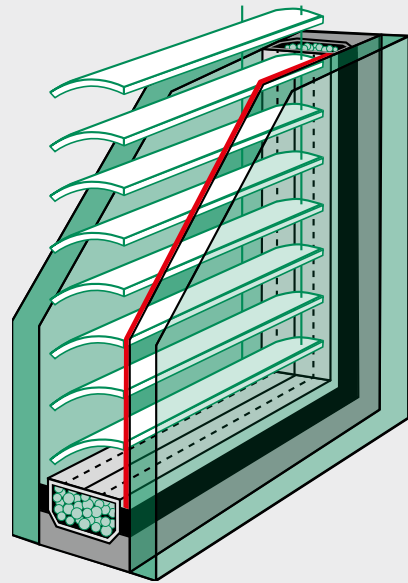
**Type ME:** with mechanical motor for continuous raising and lowering, rotating and turning for vertical installation.

**Type W:** with electric motor for continuous raising and lowering, rotating and turning for window, façade and skylights.

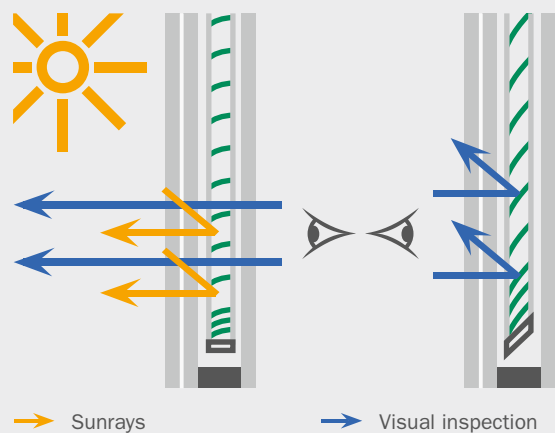
**Type F:** with individually aligned fixed slats for continuous sun and glare protection in skylights and the façade.



## CONSTRUCTION ISOLAR SOLARLUX® VARIODIRECT



## FUNCTIONALITY ISOLAR SOLARLUX® VARIODIRECT



## THE ADVANTAGES OF ISOLAR SOLARLUX® VARIODIRECT:

- sun protection and thermal insulation in one system
- change throughout the day to cut glare and ensure privacy
- make optimal use of daylight
- complete system without structural changes
- works in any wind and weather
- replaces external blinds and awnings
- use indoor spaces as you wish at any time of the day
- maintenance-free and safe from dirt and dust
- permanently protected against mechanical damage
- can be combined with multifunctional insulating glass (e.g. shatterproof)

By cleverly choosing the glass structure and using the appropriate coatings, ISOLAR SOLARLUX® variodirect can be combined with numerous options for modern functional insulating glass.



# CLEAR BENEFITS WITH ISOLAR® GLAS.

ISOLAR® GLAS is the insulating glass brand of the ISOLAR® GLAS group. It stands for continually high quality and a high level of safety in product application. This is guaranteed by a comprehensive, three-stage quality system: It includes our own factory production control of manufacturing companies as well as external monitoring by the ISOLAR® GLAS group and independent bodies.

As one of the biggest associations of independent manufacturers of insulating glass in Europe, the ISOLAR® GLAS group is made up of companies in thirteen different countries. Thanks to close cooperation within the group, customers always have an ISOLAR® GLAS partner nearby, who can offer their support as a highly-competent service provider with a comprehensive range of consulting services.

Every member of the ISOLAR® GLAS group specializes in the manufacture and processing of flat glass. This means they can demonstrate an extraordinarily wide range of products for the sector. In addition, they can produce bespoke solutions for individual projects in ISOLAR® GLAS quality. The portfolio contains ten product groups, covering the various functional areas, whose properties can be combined with each other.

## EVERYTHING AT A CLEAR GLANCE:

- High-quality products, complete range
- Quality control via internal and external monitoring
- Advisory expertise in all aspects of glass
- Flexibility of a medium-sized organisation
- Decentralised structure, short lead times



Heat insulation



Sound reduction



Solar control



Fall protection



Safety glass



Fire protection



Bird protection



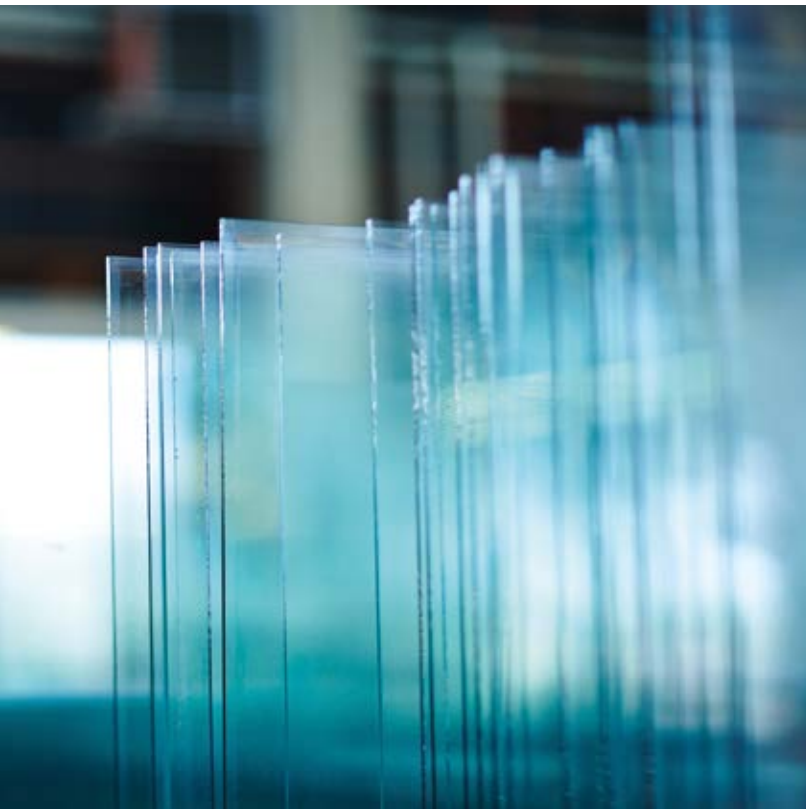
Vacuum heat technology



Light optimisation



Aesthetic design



WE'LL BE HAPPY TO ADVISE YOU.

The ISOLAR® GLAS group is your competent partner when it comes to glass.

We turn your requests into clear solutions. Just ask us.

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The ISOLAR® partner in your area can be found at:  
[www.isolar.de](http://www.isolar.de)

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Errors, mistakes and changes cannot be excluded.  
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