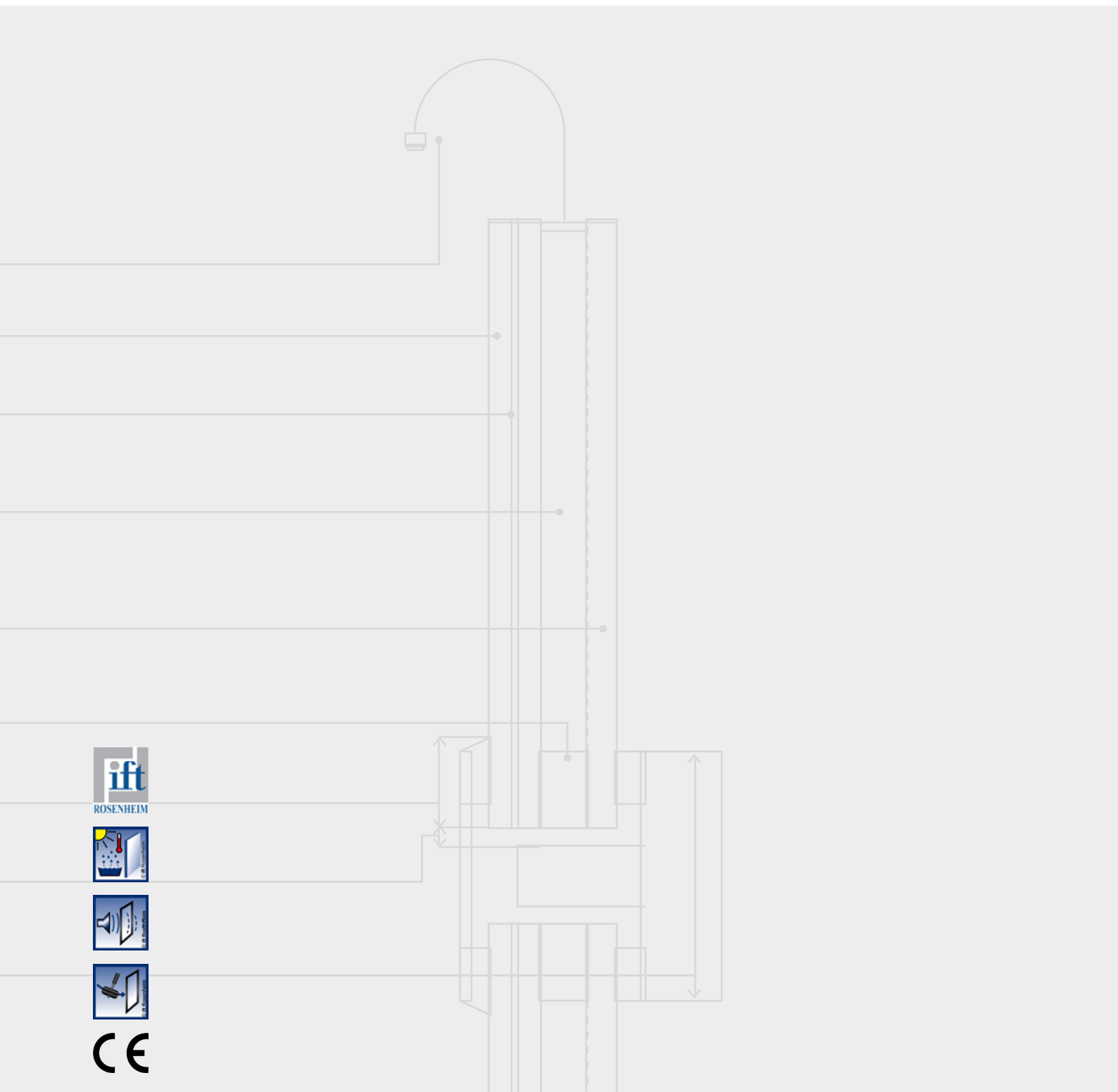


Technical data

ec | smart glass | 2



smart glass 2

UNLEASH YOUR VIEW

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ec | smart glass | 2

ec | smart glass | 2 is a dimmable glazing with variable light and energy transmission.

Range of application

Vertical and horizontal glazing in building construction (windows, façades, overhead, atriums), installation in all common frame materials made of aluminium, wood, wood-aluminium and plastic.

Dynamic selectivity

Since the solar shading of ec | smart glass | 2 is variable, its performance is determined by comparing its light transmission in the light condition with its energy transmission in the tinted condition. The measure for this is the dynamic selectivity $S^* = T_{L, (max)} / g_{(min)}$. Here, ec | smart glass | 2 achieves values above 5.

Sound insulation 2-fold insulation

The standard insulating glass structure with 4 mm inner pane and argon filling achieves the evaluated sound insulation value of R_w 35 dB (according to DIN EN ISO 717-1).

Cable connection

Cable plug connection, that exits at the narrow side (usually at the top) of the insulating glass and is connected to the control system by means of a cable guided in the frame.

Power supply

The control unit ec | modul | requires 24 V DC voltage. The ec | smart glass | 2 pane is operated by low voltage < 5 V.

Energy consumption

An ec | smart glass | 2 pane only requires electrical energy for the switching process. The switching process takes approx. 15 – 20 minutes. The power consumption per pane and switching process is approx. 2 W/m². The control system has a connected load of max. 10 W.

Framing

ec | smart glass | 2 is suitable for common frame profiles, preferably with dry glazing. In case of wet sealing, silicone must not be used. For alternative sealants see ec | smart glass | 2 Glazing Guideline. Version with frameless system structural glazing or with weather protection joint also available on request.

Standard structure 2-fold insulation

Insulating glass structure (29 mm), consisting of electrochromic laminated glass (9 mm) on the outside, space between the panes (16 mm), black stainless-steel spacers, heat-insulating coated pane made of float glass (4 mm) on the inside.

Standard structure 3-fold insulation

Insulating glass structure (41 mm), consisting of electrochromic laminated glass (9mm) on the outside, space between the panes (12 mm), black stainless-steel spacers, heat-insulating coated pane (4 mm), space between the panes (12 mm), black stainless-steel spacers, heat-insulating coated pane made of float glass (4 mm) on the inside.

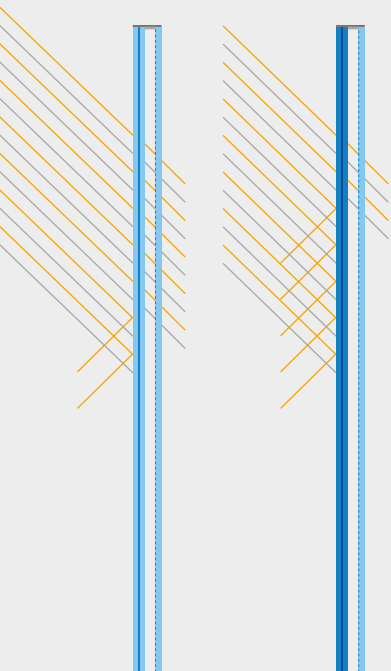
Visual quality, switching behaviour

Statements on the optical quality of ec | smart glass | 2 glazing can be found in the ec | smart glass | 2 guideline for assessing the visual quality of ec | smart glass | 2 glazing, which you can download from our website under Guidelines and Instructions or obtain from us on request.

Glazing channel

The plug connection on the insulating glass requires a rebate area height of 5 mm, the glazing channel is at least 16 mm. **Please note:** The frame construction must be selected so that it, including the sealing lip, covers the edge seal / glazing rebate height of the insulating glass (spacer tolerances ± 2 mm).

Energetic values

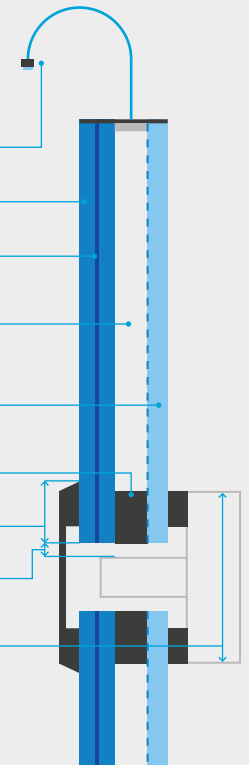


solar energy: heat light

undimmed	
light reflection:	11 %
total energy transmittance:	42 %
light transmission:	56 % (TV)
dimmed	
light reflection:	7 %
total energy transmittance:	10 %
light transmission:	10 % (TV)

Structure ec | smart glass | 2

- exit cable with plug connection
- electrochromic laminated pane (9 mm)
- conductive polymer film
- Space between the panes filled with gas (12 – 16 mm)
- counterpane (4 mm) with thermal insulating coating
- spacer (standard colour: black)
- glazing channel 16 mm
- glazing groove 5 mm
- minimum width transom/mullion system: ≥ 50 mm



Pane size	from 400 × 400 mm to 1350 × 3300 mm
Weight	32 kg/m ² for 2-fold, 43 kg/m ² for 3-fold standard structure ins.
Frame system	compatible with standard frame profiles
Pane shape	Rectangles and models according to catalogue
Time from the brightest to the most intensive colouring	approx. 20 minutes
Supply voltage of the control unit ec modul	24 V
Electrical power to change the setting	approx. 2 W/m ²

Condition of the electrochromic glass	Light transmission T _v [%] according to DIN EN 410	Total energy transmittance g-value [%] acc. to DIN EN 410	Ug-value Ug [W/m ² K] acc. to DIN EN 673	Light reflection outside R _L [%] acc. to DIN EN 410	UV radiation transmission T _{UV} [%] acc. to DIN EN 410	Dynamic selectivity S* = T _{vmax} /g _{min}
2- fold insulating glass (standard) structure EC9/16/4^{1,2}						
light	56	42	1,1	11	3	5,6
dark	10	10	1,1	7	1	5,6
3- fold insulating glass (standard) structure EC9/12/4/12/4^{1,2}						
light	51	36	0,5 ³	13	2	6,4
dark	9	8	0,5 ³	7	1	6,4

¹ counterpane/intermediate pane CG Premium 2 ² Deviating values apply for other combinations ³ With krypton gas filling