



SPHEROS

Roof Hatch, electrical emergency exit hatch

## ▶ Modus Clear Comfort



Hatches / Fans

### Electrical Glass Hatch to the Modus family

MODUS Clear Comfort is the new ECE approved emergency exit ventilator roof hatch member in the Modus family. It has been developed mainly for the city bus market taking into consideration the needs and demands of today. Modus Clear Comfort hatch is digitally controlled and can easily be integrated as a seamless part of the multiplex system in the bus. The roof hatch has a modular build-up offering various end versions of the hatch, all according to what is required. Instead of breaking the glass in an emergency you might want to choose an emergency release function instead – or both?

## ► Modus Clear Comfort

Energy saving and fuel consumption are hot topics in any transport industry – including the bus industry. A/C units consume energy and when that energy can be saved, it is not only a green act towards the nature but for sure a positive thing for the bus operator in terms of fuel savings.

Ventilation and fresh air intake additionally performed by means of roof hatches complements the A/C unit and ventilator use whenever A/C is not necessary.

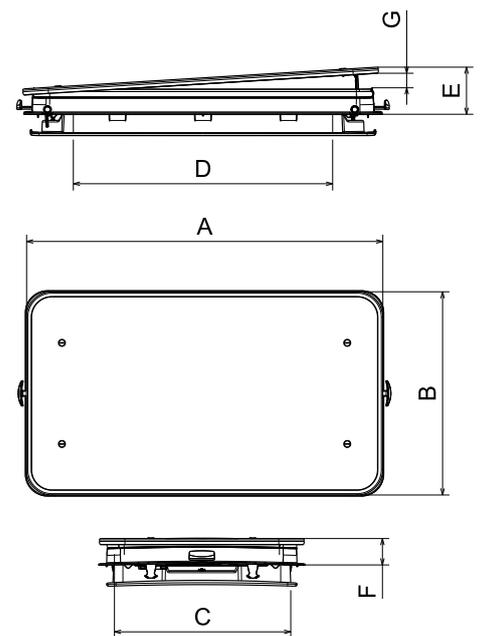
An electric hatch is an investment that pays itself back in no time. Low-floor and low-entry buses require electric remote control function due to the height of the vehicle. An electric hatch opens and closes by a press of a button and closes automatically when the vehicle's ignition is turned off. Modus series hatches have sold worldwide like no hatch before. A glass version now complements the existing program. The glass panel is tempered grey glass with a light transmission of 18 %. Having light through the glass panel brings a spacious feeling to the bus.

The new concept of modular build-up offers a freedom of choice appreciated on the market. Not only can you choose the preferred emergency exit solution, i.e. hammer or emergency release function, or even both, but you can also choose to have the hatch with or without the glass protection.

The electrical Modus hatch can be operated with multiple options: dedicated hatch control system with override function and support for rain sensor, on-off switches, or by integrating the hatch control to the rest of the bus' electrical system (Multiplex).

### Highlights:

- Cut-off size 970 x 530
- Ceiling R > 3000
- Ceiling T = 40 – 86 mm
- Mass basic hatch: 10.2 kg
- Mass inner trim: 1.2 kg
- Glass edge protection: 0.45 kg
- Operating voltage 24 V
- Integrated Digital Control Unit (optional)
- Max 1.6A Fuse 7.5 A
- UN ECE R.10 EMC
- UN ECE R.107 Emergency Exit
- UN ECE R.118 Flammability
- Extremely fast opening and closing
- Maximum ventilation
- Grey tempered glass 18% light transmission
- Easy Multiplex integration
- Glass panel makes the passenger cabin spacious
- Fast mounting by bonding
- Maintenance free
- Also available in manual version



		A	B	C	D	E	F	G
Technical specifications:	Dimensions of Roof opening (mm)	Length of dome	Width of dome	Inner width	Inner length	Height (open)	Height (closed)	Opening
Modus Clear Comfort	970 x 530	1042	599	504±3	802	130	70	60