



SPHEROS

Roof Hatch

▶ Roof Hatch MODUS Comfort - electrical Roof Hatches

Safety and Comfort by Spheros



NOVELTY

Modus Comfort Series is the electric extension to the existing roof hatches within the MODUS family. Modus City, Modus Coach, and Modus Cool hatches can now be electrically operated. The new hatches are extremely fast in opening/closing time. These new hatches are also lighter than previous electric hatches and much more robust. Modus Comfort Series Hatches are controlled by the newly developed Digital Hatch Control system DHC.

► Roof Hatch MODUS Comfort

There is an ever growing demand for electrically operated hatches. City buses of today are mainly low-floor buses, which makes it very difficult to operate the roof hatches due to the height of the vehicle. Many of the coach and intercity buses have electric hatches for comfort and control reasons.

Roof Hatch ventilation consumes considerably less energy than an A/C unit. When A/C is not necessarily needed, the driver can use the roof hatches for ventilation and save energy. The driver can do it by a simple push of a button.

An electric hatch gives great comfort and control to the driver. The driver can open or close the hatches as he wants or they can even be integrated to the A/C system through Multiplex. In Multiplex integration the windshield wipers can function as rain sensors and make the hatches close automatically.

The hatches of today can be integrated as part of the Climate Control Concept working together with the A/C unit to optimize the cooling power in the most efficient way. Full Multiplex integration is easy to carry out with today's electric hatches due to their digital interface.

Available versions:

Modus Comfort City – light and robust basic version

Modus Comfort Coach – a hatch with a more integrated appearance

Modus Comfort Cool – a hatch with a 200m³/h integrated ventilator

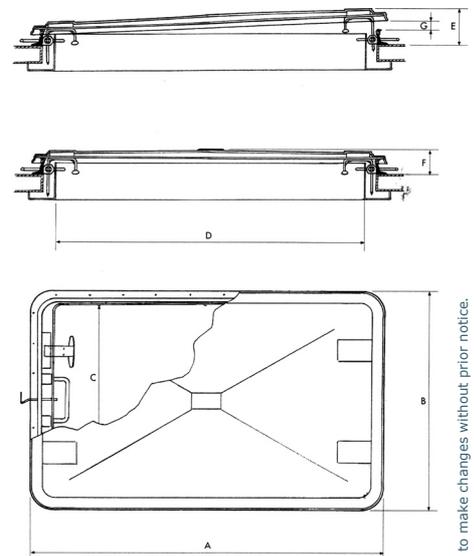
The completely new electric mechanisms are extremely fast and robust. Opening or closing time is about 1 second. Due to new development the hatch is up to 10 % lighter in weight than the previous electric hatches.

Modus Comfort series hatches are operated with a Digital Hatch Control Unit, DHC.

Product Characteristics:

- 2001/85EC emergency exit
- 2004/104EC EMC approved
- Maintenance free
- Easy integration to Multiplex
- Extremely fast opening/closing
- Digital control
- Only 1.4 kg surplus weight to manual versions

Dimensions:



| Technical specifications: | Dimensions of Roof opening (mm) | A Length of dome | B Width of dome | C Inner width | D Inner length | E Height (open) | F Height (closed) | G Opening |
|---------------------------|---------------------------------|---------------------|--------------------|------------------|-------------------|--------------------|----------------------|--------------|
| MODUS COMFORT City | 530 x 970 | 1055 | 605 | 510 | 890 | 147 | 92 | 50 |
| MODUS COMFORT Coach | 530 x 970 | 1055 | 605 | 510 | 890 | 147 | 92 | 50 |
| MODUS COMFORT Cool | 530 x 970 | 1080 | 600 | 510 | 890 | 165 | 115 | 50 |

10/2009 • Due to continuous product development, we reserve the right to make changes without prior notice.