# Self-regulating sound absorbing window ventilator DUCO Ventilation & Sun Control MiniMax SR

## Description

MiniMax SR is a self-regulating, sound absorbing window ventilator developed for transom mounting and 'invisible' mounting on the window frame. The MiniMax SR is optionally fitted with an extended outer cover in case of transom mounting, the ideal solution for use in a curtain wall. The sound absorbing vent is eminently suitable for use in situations where light noise exposure is an issue.

MiniMax SR can very well be combined with DucoMax SR & SkyMax SR sound absorbing vents. MiniMax SR, DucoMax SR and SkyMax SR have the same inside view. The window ventilator and installation height and the way of mounting in case of 'invisible' mounting on the window frame are also identical.

## Version

### Mounting

* Transom mounting.
* 'Invisible' mounting on the window frame (= compact transom mounting).
* Suitable for mounting on wooden, plastic or aluminium windows.

### Self-regulating flap

* The standard self-regulating flap (SR flap) works mechanically. The SR flap ensures that the ventilation volume remains constant with increasing wind, because the SR flap flattens the wind.
* The SR flap responds excellently at a pressure difference from 1 Pa, ensures a constant flow rate, prevents draughts, limits energy loss and limits over-ventilation.

### Vent construction

* The operable aluminium flap ensures a very high level of wind and water tightness.
* The inner profile with invisible perforation is easy to remove, easy to clean and insect-resistant.

### Operation

* Infinitely adjustable.
* With handle, cord or rod.
* The open / closed position is visible from a distance thanks to a green / red indicator.

### Scope of application

* Up to a building height of 40 metres.
* In combination with DucoMax ZR and SkyMax ZR sound absorping vents.
* Avaiable with three different air passages (air slot 10, 15 or 20).

## Material and surface treatment

### Profiles and controllable flap

* Aluminium EN AW-6063 T66
* Finish
  + Natural anodised (15-20 μm) according to Qualanod
  + Polyester powder coated (60-80 μm) according to Qualicoat Seaside type A (specific RAL codes or textured paint on request)
    - DUCO300RAL
    - Duco Anodic Ral (DAR)
    - Bi-color (different colours on the inside and outside, only possible with optional outer cover)

### Coupling pieces, SR flap, end pieces and flap control

* Plastic ABS and Polypropylene

Impact resistant, colourfast and weatherproof

* Finish
  + White / black

### Acoustic material

* Acoustic damping foam 100 kg/m3

## Technical specifications

### U-value

|  |  |  |
| --- | --- | --- |
| Type  MiniMax ZR | U-value in W/m2/K closed position | Inside surface temp factor f |
|  | 2.00 | 0.67 |

According to EN 10077-2

### Ventilation values

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Type  MiniMax ZR | Flow rate (Q) in l/s/m at … | | | | Flow rate (Q) in m3/h/m at … | | | |
| **1 Pa** | **2 Pa** | **10 Pa** | **20 Pa** | **1 Pa** | **2 Pa** | **10 Pa** | **20 Pa** |
| Air slot 10 | 14.7 | 19.2 | 20.7 | 15.7 | 52.9 | 69.3 | 74.6 | 56.5 |
| Air slot 15 | 19.6 | 27.1 | 20.6 | 17.4 | 70.6 | 97.6 | 74.1 | 62.5 |
| Air slot 20 | 23.7 | 39.9 | 32.4 | 28.8 | 85.3 | 143.8 | 116.6 | 103.5 |

According to EN 13141

|  |  |  |
| --- | --- | --- |
| Type  MiniMax ZR | Equivalent area at 1 Pa  in mm2/m | Geometrical free area  in mm2/m |
| Air slot 10 | 18705.8 | 0.0100 |
| Air slot 15 | 24941.0 | 0.0150 |
| Air slot 20 | 30158.3 | 0.0200 |

According to EN 13141

### Sound reduction

|  |  |  |
| --- | --- | --- |
| Type  MiniMax ZR | Dn,e,W (C;Ctr)  in dB | |
| **OPEN position** | **CLOSED position** |
| Air slot 10 | 35 (-1;-4) | - |
| Air slot 15 | 34 (-1;-4) | - |
| Air slot 20 | 33 (-1;-3) | 47 (-1;-3) |

According to EN ISO 717

|  |  |
| --- | --- |
| Water tightness (in closed position) | 1050 Pa |
| Air tightness (in closed position) | 600 Pa |
| Operation | …  Stepless with   * handle * cord * rod |
| Case height | 105 mm (excluding L-profile) |
| Case depth | 115 mm |
| Vent length | … mm  Maximuml 4000 mm under warranty. |
| Split as from flap length | 2000 mm |
| Finish | Sealant, tape and screw down |
| Insect protection | Removable, punched inner profile |

### Transom mounting

|  |  |
| --- | --- |
| Vent height | 155 mm |
| Transom profile | …  21 mm  24 mm  Please contact DUCO for other dimensions. |

### 'Invisible' mounting on the window frame (= compact transom mounting)

|  |  |
| --- | --- |
| Vent height | 145 mm |
| Installation height | 115 mm |

## Standards and certificates

### Standards

DUCO has tested the window ventilator in accordance with the applicable regulations:

* NEN EN 13141-1:2019
* NEN EN 10077-2:2017
* NEN EN 1026:2016
* NEN EN 1027:2016
* NEN EN ISO 717-1:2021

### Certificates

In addition, DUCO has the following attestations and certificates :

* AluEco certificate

Various digital drawings (PDF, DWG, IFC, Revit) are available.

Please consult your regional dealer or the DUCO 'Ventilation & Sun Control' project department for commercial and technical support (mounting instructions, parts lists, calculations, …).