



## DMR MODULO CONSTANT VOLUME DAMPER

AIR MANAGEMENT SYSTEMS

### PRODUCT PROPERTIES

#### Constant Airflow Regulator multi-airflow

The DMR Modulo regulates to an adjustable airflow. One code corresponds to several airflow setting options. The DMR MODULO incorporates a rotating ring for a tool-free airflow setting.

7 diameters (mm): 80, 100, 125, 150, 160, 200 and 250.

- Best constant airflow regulation thanks to the silicone membrane (avoids clogging).
- Optimum silent operation (no mechanical clatter or other noise interference due to variations in pressure).

#### Airflow accuracy

+/- 5 m<sup>3</sup>/h for nominal flow ≤ 50 m<sup>3</sup>/h.

+/- 10% for nominal flow > 50 m<sup>3</sup>/h.

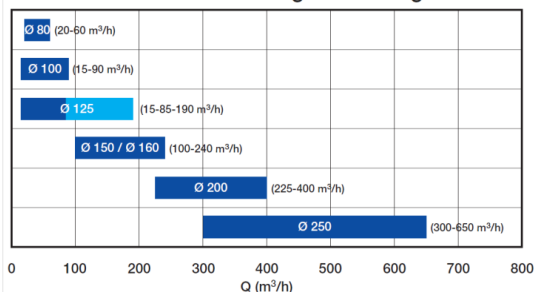
#### Operating differential pressure range:

Standard range: 50 - 250 Pa.

#### Temperature range of use:

-10 to 60°C.

MR Modulo - Setting airflow range

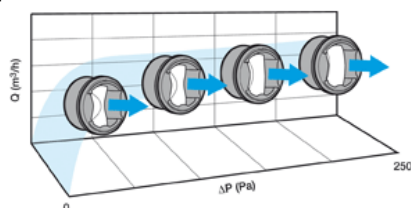


### Principle

#### Operating

They fit easily into a part of the circular ductwork to maintain constant and reliable airflow within a wide range of differential pressure (50 - 250 Pa) for the standard version and for the high-pressure version (150 - 650 Pa).

Its flexible membrane inflates and deflates according to the difference in pressure between the upstream and downstream flow, thus modifying the airflow. This principle of operation guarantees constant airflow regardless of the pressure variations in the ductwork.



#### LIABILITY:

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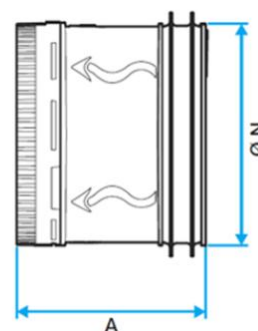
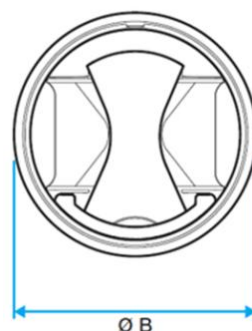
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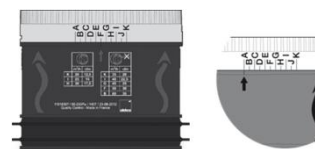
### Dimensions - weight

Ø Duct (mm)	ØN (mm)	ØB (mm)	A (mm)	W (kg)
080	76	85	65	0.07
100	92	105	70	0.11
125	116	132	70	0.17
125	116	132	110	0.22
150	147	153	118	0.30
160	153	167	118	0.34
200	190	210	144	0.65
250	238	262	179	1.20



The following information is indicated directly on the product:

- Airflow direction
- Diameter in mm and inch
- Operating differential pressure range
- Product code
- Traceability data
- Quality control
- The airflow setting range correlation table (in m<sup>3</sup>/h and cfm).



### The right balance in aeraulic networks

Modern constructions need to be airtight in order to be energy efficient.

In addition to thermal comfort (heating or cooling) air-conditioning systems are now specifically sized to guarantee a supply of fresh air into the building for health purposes (notably in terms of oxygen content).

Therefore it is increasingly important to ensure that operating airflows correspond to the ones calculated for the HVAC system sizing (air balancing).

Correct air balancing is key to a properly commissioned HVAC system and to avoid side effects generated by over-ventilation (noise, high temperatures, high energy consumption) or by under-ventilation (deteriorated air quality and uncomfortably cold temperatures...)



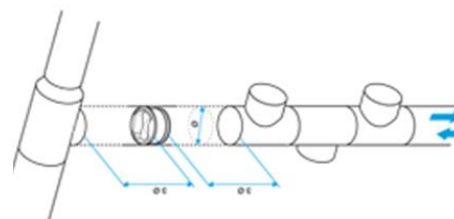


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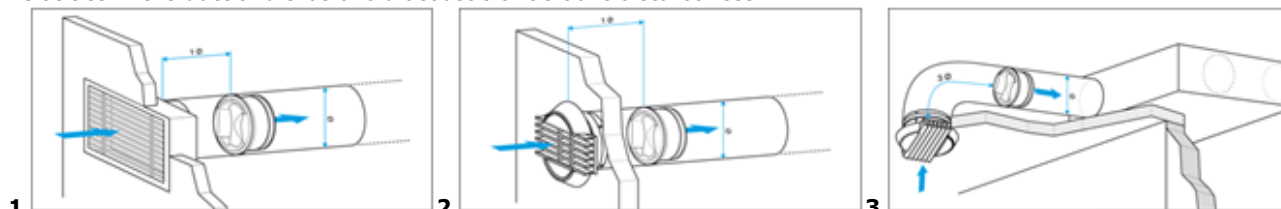
### Typical applications

#### Airflow stabilization for a ventilation or air-conditioning ductwork section



#### Exhaust airflow stabilization.

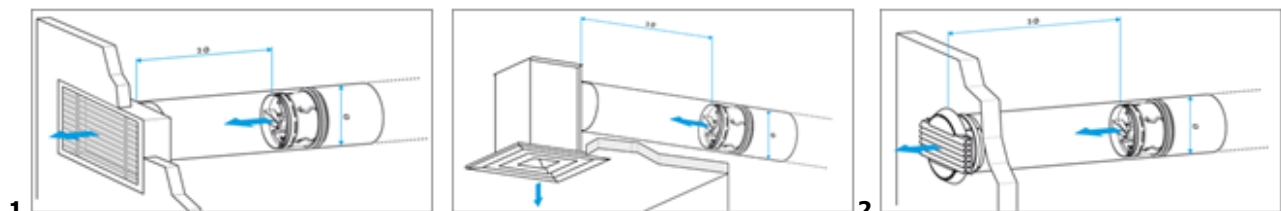
In air extraction, we recommend a 1-diameter distance between the terminal and the DMR to allow homogenization of air velocities in the duct and thus avoid acoustic or aerodynamic disturbances.



- 1/ DMR installed after a supply plenum box
- 2/ DMR installed after a BIM-type grille
- 3/ DMR installed before a fan coil

#### Supply airflow stabilisation.

In air supply, we also recommend a distance of 3 diameters between the terminal and the DMR to allow homogenization of the air velocities in the duct and thus avoid acoustic or aerodynamic disturbances.

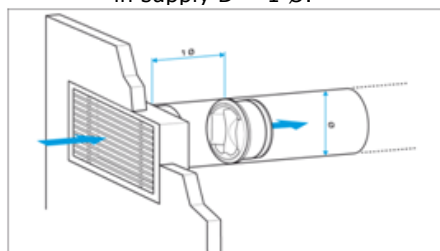


- 1/ DMR installed before a supply plenum box
- 2/ DMR installed before a BIM-type grille

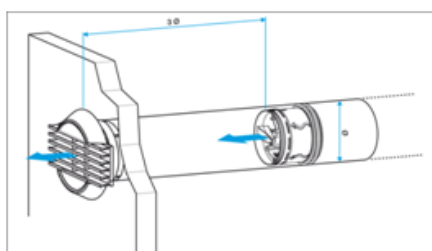
### IMPLEMENTATION

DMR Modulo will push-fit into circular ducts in close proximity to a take-off or a terminal.

- Observe the installation direction (corresponding to airflow) directly indicated with an arrow on the MR.
- Can be mounted either horizontally or vertically. There is no recommendation regarding the positioning of the membrane.
- In order to avoid acoustic and aerodynamic interference it is recommended to respect a minimal distance between the DMR and the terminal (grille / diffuser / inlet):
  - in extraction  $D = 3 \text{ } \varnothing$ ,
  - in supply  $D = 1 \text{ } \varnothing$ .



In extraction



In supply

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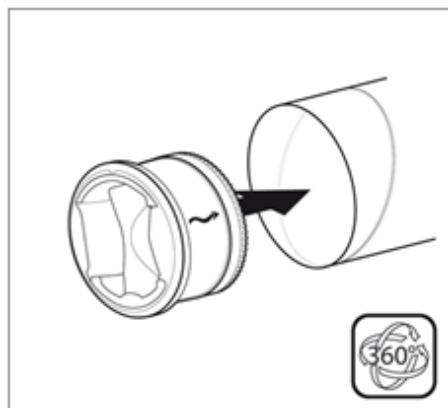
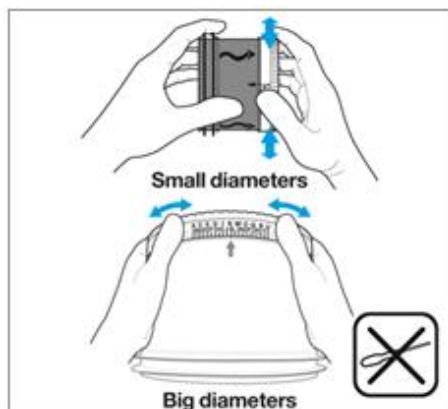




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### DMR Modulo installation



#### 1. **Adjust the airflow setting**

Rotate the adjustment ring for a tool-free airflow setting until the desired airflow is reached.

#### 2. **Position the MR Modulo**

Introduce the DMR in the duct according to the arrow showing the airflow direction. Minimum straight upstream and downstream distances must be observed.

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