Rigid duct

EHV-P
EHV-P, Humidity-controlled extraction fitting with PIR sensor

EHV is especially suitable for extraction in bathrooms and environments that require increased airflow when there are high humidity levels in the room.

Principles of operation

The EHV valve is mounted on the duct (vertically in the wall, horizontally in the ceiling or in a sloping wall). The valve can be mounted using a metal firestop plate (FPP) if needed. FPP also acts as fire protection for duct systems in accordance with DS428 (Fire-technical measures for ventilation units).

Product description

The EHV extraction unit provides intelligent control of extract air according to need. The resulting system both provides optimum energy consumption and helps to create a better indoor climate.

Application

EHV is especially suitable for bathrooms and environments that require increased airflow when there are high humidity levels in the room.

The EXHAUSTO EHV extraction unit has a patented humidity control, which uses forced airflow when humidity increases. The unit self-adjusts to normal airflow as humidity decreases. The patented humidity control mechanism is mechanically actuated and requires no power supply or battery. However, models with forced extraction, via an external signal or motion sensor, will require power supply, via a battery or transformer.

The unit is permanently set to force air when relative humidity reaches 40%. The unit's damper is made of two parts. One half of the damper can be adjusted for six basic levels of airflow. The other half of the damper provides extra forced air. The total airflow is the sum of the basic and the forced airflow.

All EHV valves consist of two damper plates, one permanently fixed for basic ventilation (can be set in positions 0 to 5) and one variable plate controlled by the relative humidity. The humidity-controlled damper plate will start to open at 40% RH and will be fully open at 85% RH.

Installation

Mount the EHV valve to the wall or ceiling duct with a metal fire protection panel (FPP) which simultaneously protects the duct system in accordance with DS428 (Technical measures for fire protection of ventilation systems).

Reference arguments

Humidity-controlled air extraction unit overridden by an integral PIR sensor. The PIR sensor must be activated via movement twice, with a maximum of one minute's interval, in order to make the contact. When contact is made in the PIR sensor, the valve will open the humidity section to max. When the contact is broken, the damper plate will close again after 20 minutes - unless the humidity is so high that this damper section remains partly open.

Features at a glance:
- Humidity-controlled forced extraction
- Forced extraction via motion sensor
- Battery supply 2x1.5 Volt AAA batteries (life approx. 2 years)
- Option for replacing batteries with 12VAC power supply, EHV Supply Card
- Adjustable basic airflow
- White ABS plastic RAL9003

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Main characteristics
• EHV is registered in the database for construction products that can be used in Nordic Swan Ecolabelled construction.

Accessories

Désignations	Variants
Filter for EHV valve	EHV-GF
FPP, mounting plate for EHV	FPP
FPP, mounting plate incl. 125 mm spigot for EHV	FPP-100
FPP, mounting plate incl. 100 mm spigot for EHV	FPP-125
EHV-SUPPLYCARD, battery insert for EHV	EHV-SUPPLYCARD
EHVSUPPLYTRAFO, Transformer for EHV-SUPPLYCARD	EHVSUPPLYTRAFO
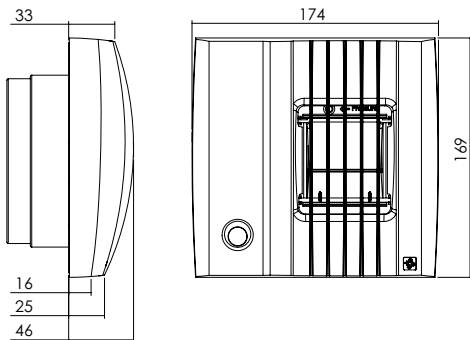
Installation

The damper is factory-set to position 0, which is min. airflow.

Moving the damper position down allows a higher airflow.
Each separate step increases airflow by approx10 m3/h (maximum = 50 m3/h)

Panel for fitting to another type of duct opening:
> Rectangular from 67 x 75 mm up to 75 x 67 mm
> Circular from Ø88 up to Ø100

Panel includes spigot with rubber seal for airtight fitting in a Ø100 mm duct.

Remove the white locking pin

Use it to fix the «humidity-sensitive airflow» in the minimum position (see illustration).

Tip: Use your fingers to push the humidity-sensitive bar in order to close the motor-driven damper.

Panel includes spigot with rubber seal for airtight fitting in a Ø125 mm duct

Register the pressure by fitting a manometer as shown on the illustration.

Look up the initial adjustment diagram in guidance 3004062 (link at right).

Use the registered value to locate the pressure and airflow in relation to the fixed damper position (0-5).
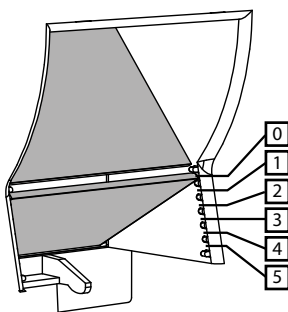
Setting basic airflow

The fixed damper can be set to six different positions:

> To change the required airflow
> To adjust to the available pressure

The damper is set manually and locked using the supplied locking-pin in order to avoid the damper setting being changed by accident, e.g. during cleaning.

The damper is factory-set to position 0, which is min. airflow.

Moving the damper position down allows a higher airflow.
Each separate step increases airflow by 10 m3/h (maximum = 50 m3/h)

FPP
Panel for fitting to another type of duct opening:
> Rectangular 67 x 75 mm up to 75 x 67 mm
> Round from Ø88 up to Ø100

FPP100
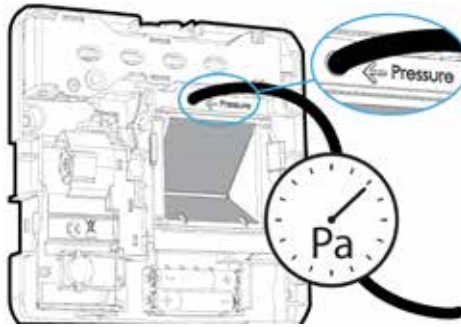Panel includes spigot with rubber seal for airtight fitting in a Ø100 mm duct.

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FPP125
Panel includes spigot with rubber seal for airtight
fitting in a Ø125 mm duct.

Balancing the valve in relation to desired airflow step 1:

Remove the white locking pin

Use it to fix the «humidity-sensitive airflow» in the minimum position (see illustration).

Tip: Use your fingers to push the humidity-sensitive bar in order to close the motor-driven damper.

Balancing the valve in relation to desired airflow step 2:

Register the pressure by fitting a manometer as shown on the illustration.

Look up the initial adjustment diagram in guidance 3004058 (link on right).

Use the registered value to locate the pressure and airflow in relation to the fixed damper position (0-5).

Curve

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