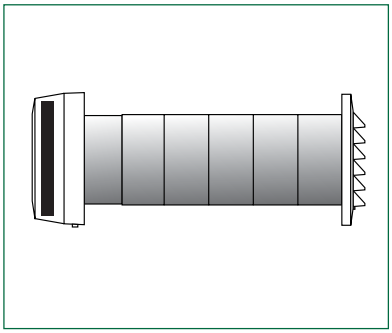
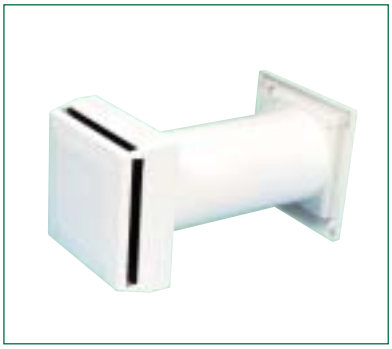
VFLR Fresh air valve





The VFLR valve is a type-approved fresh air valve intended for the continuous ventilation of dwellings in conjunction with natural ventilation or a mechanical exhaust air system. The valve, which is adjustable to a fixed position, is installed on a wall or ceiling in bedrooms, living rooms and other areas which require ventilation.

Quick selection

VFLR with filter type	Valve position	Air flow m^3/s (m^3/h) at pressure drop 2,5 Pa	5 Pa	10 Pa	20 Pa
Standard	4	2,3 (8,3)	3,3 (13,2)	4,6 (16,6)	6,8 (24,5)
	10	4,3 (15,5)	6,0 (21,6)	9,0 (32,4)	13,0 (46,8)
Allergen	4	1,4 (5,0)	2,4 (8,6)	3,9 (14,0)	6,3 (22,7)
	10	1,9 (6,8)	3,0 (10,8)	5,0 (18,0)	8,0 (28,8)

Product facts

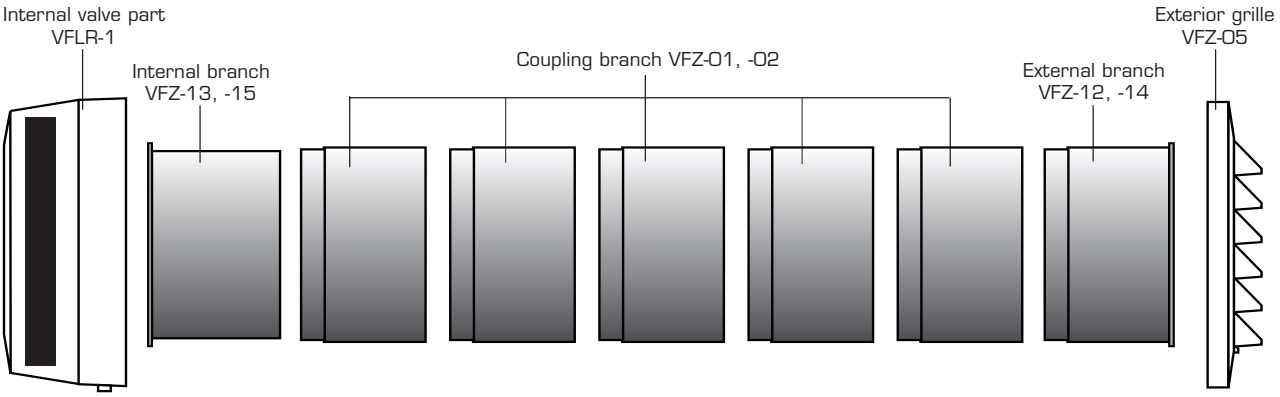
VFLR Fresh air valve

Good technical performance.
Available in four sizes.
Condensation protection.
Simple installation and removal.
Manufactured of ABS plastic.

Product code example

Fresh air valve, standard Ø100 mm
VFLR-0S

Application, construction, maintenance



Application

The VFLR valve is a type-approved fresh air valve intended for the continuous ventilation of dwellings in conjunction with natural ventilation or a mechanical exhaust air system. The valve, which is adjustable to a fixed position, is installed on a wall or ceiling in bedrooms, living rooms and other areas which require ventilation.

The recommended position is high up on the wall and preferably close to a radiator. This position provides for mixing of the outdoor air with the warm convection flow, so that optimum comfort is achieved. In a floor heating system, the valve is placed high on a wall and not close to a window, because of the cold radiation through the window which can give rise to cold downdraughts. The lower damper is closed with air direction plugs.

The valve is designed for the greatest flexibility and has a detachable valve branch, which makes it suitable for installation on old valve fittings, airing panels, etc. In certain cases a cover plate will be required to conceal the existing opening. These are available in two sizes, both with prepared fixing holes for the valve.

The valve's large capacity, 8.8 l/s at 10 Pa, means that it conforms to the standard requirement for parents' bedrooms. The valve is also available in a special noise-reducing version, VFLR-0-DB.

Construction

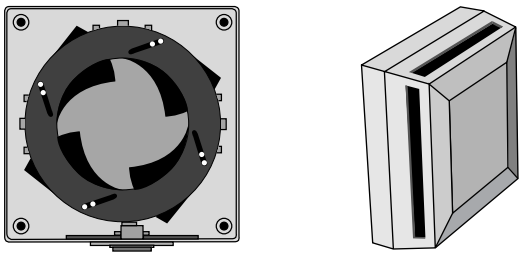
The valve is supplied complete with a wall penetration and an exterior grille.

The wall penetration consists of two branches, one internal and two external, and five coupling pipes.

The coupling pipes fit directly on the external branch and are connected to one another with a push-in adapter. The internal branch, which fits inside the coupling pipe, is 60 mm long and thus provides a telescopic function of ca. 55 mm. Each coupling pipe extends for 50 mm, which means that there is no need to cut any pipes.

The internal valve part and the exterior grille fit onto the branchs with a spring catch.

The internal valve part is provided with condensation protection and a filter as well as a precision damper for continuous adjustment of the flow. The damper is actuated by a control situated on the under side of the valve, although it can also be controlled with a cord (adaptation for handicapped persons). The cord is supplied as standard but is not fitted.



Control mechanism in VFLR valve.

The distribution pattern can be changed by fitting air direction plugs (included) in the air gap of the cover.

The valve is also adjustable, and a scale above the control, as well as an adjustment diagram in the installation instructions, are provided for this purpose.

When adjusting to give a fixed flow, the control knob is removed and replaced with a locking plate to prevent resetting of the damper.

The noise-reducing version VFLR-0-DB has different wall penetration compared with standard. This consists of a sound-absorbing pipe, two cover plates and two shortened branchs.

The sound absorbing pipe is easy to cut to the right length with an ordinary knife. The standard pipe length is 400 mm, and longer pipes can be supplied to order.

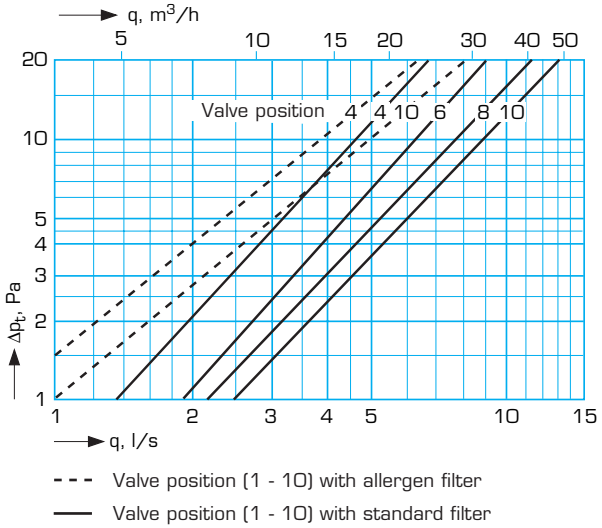
Noise attenuating valve VFLR-0-DB.

Maintenance

The valve is easy to clean, and no tools are required. The cover is pulled straight off, and the filter comes with it. This is then easy to remove and wash and replace. It is important to clean continuously or to replace the filter as required, to be certain of maintaining the air supply and good air quality.

Technical data, dimensions, installation examples

Technical data



Capacity at 10 Pa:	VFLR	VFLR-O-DB
Max open, position 10:	8,8 l/s	8,8 l/s
50% open, position 5:	5,4 l/s	5,4 l/s
Hole:	Ø105 mm	Ø150 mm
Max wall thickness:	350 mm[1)]	400 mm[2)]

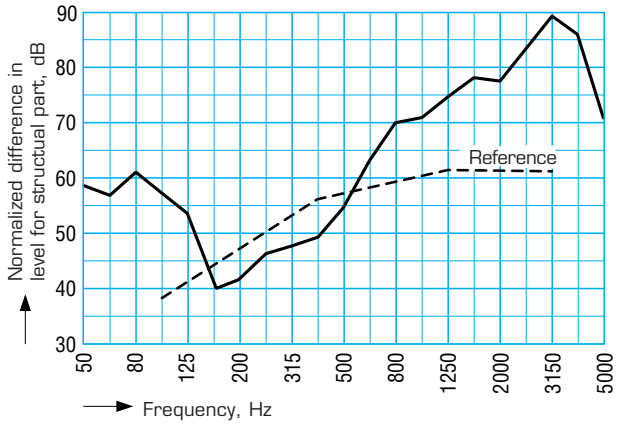
[1)] For thicker walls, extend with an additional coupling pipe.
[2)] Standard. For thicker walls, contact the factory.

Material and colour

Material: ABS plastic
Colour: White, RAL 9010

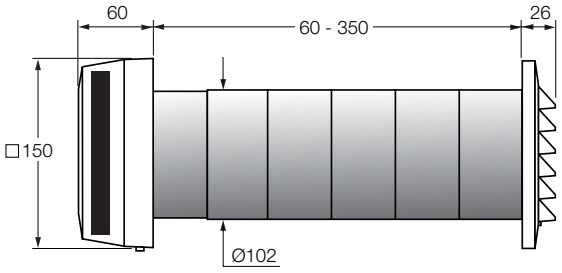
Noise data VFLR-O-DB

Noise reduction with fully open valve and 400 mm wall. Measurement in accordance with ISO 140-10. Normalized difference in level for structural part, calculated for 10 m².

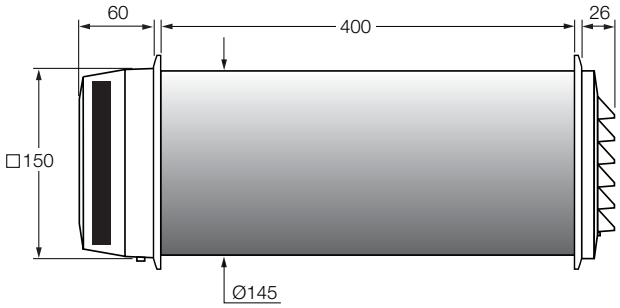


$D_{n,e,w}$:	47 dB	Octave band	50 - 5000 Hz
$D_{n,e,w,8}$:	47 dB	Total variation:	27,1 dB
(C;Ctr):	(–1; –4)	Max deviation:	6,7 dB
(C;Ctr):	(0; –0)	Frequency:	400 Hz

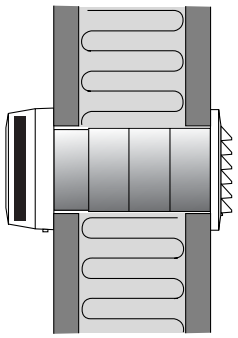
Dimensions VFLR

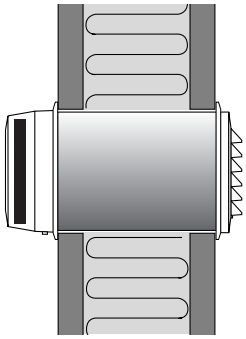


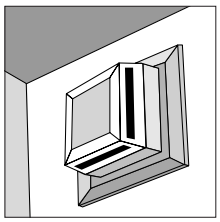
Mått VFLR-O-DB

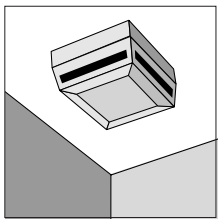


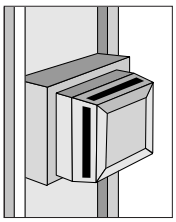
Monteringsexempel


Valve VFLR in a wall.


Valve VFLR-O-DB in a wall.


Valve with cover plate on old fitting.


Valve as exhaust air device.


Valve on noise box in airing panel.

Accessories

Cover plates, an insect grille, allergen filter (EU3) and storm guard are available as accessories.

The allergen filter is installed instead of the standard filter where there is a need for better filtered air.

The storm guard is used where a high wind effect is likely for geographical reasons, to prevent excessive ventilation.

Distribution patterns, product code, accessories

Distribution patterns VFLR

As can be seen from the illustrations below, the valve can cope with up to 8 l/s free of draughts even at –20 °C. The shaded areas denote air movements over 0.15 m/s.

Fig 1 illustrates the case with –20 °C outdoor temperature, +20 °C room temperature and a flow of 8 l/s. The radiator effect is 750 W.

Fig 2 illustrates the case with ±0 °C outdoor temperature, +20 °C room temperature and a flow of 8 l/s. The radiator effect is 400 W.

Fig 3 and 4 illustrate flow patterns from the front when the valve goes under with the respective right gap closed, ±0 °C outdoor temperature, +20 °C room temperature and a flow of 6 l/s. The radiator effect is 400W.

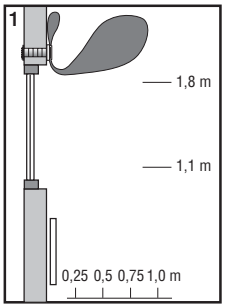


Fig 1. From the side.

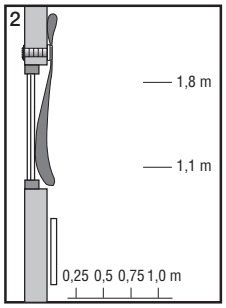


Fig 2. From the side.

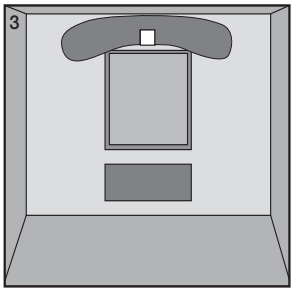


Fig 3. Lower gap closed.

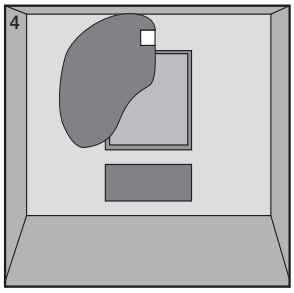


Fig 4. Right gap closed.

Descriptive text

Fresh air valve VFLR manufactured by Fläkt Woods, for wall mounting. Type-approved fresh air valve for wall mounting, designed for continuous ventilation of dwellings. Positioned in areas such as bedrooms, living rooms or sitting rooms. The valve is continuously adjustable and the distribution pattern can be varied.

Product code

Fresh air valve, standard Ø100 mm **VFLR-0**
Complete with wall penetration and exterior grille.

Fresh air valve, noise-reducing Ø100 mm **VFLR-0-DB**
Complete with noise-reducing wall penetration and exterior grille and two cover plates.

Internal valve part without accessories **VFLR-1**

Accessories

Coupling pipe, Ø102 x 50 mm	**VFZ-01**
Coupling pipe, Ø 85 x 75 mm	**VFZ-02**
Cover plate, 180 x 180 mm	**VFZ-03**
Cover plate, 205 x 225 mm	**VFZ-04**
Exterior grille, 150 x 110	**VFZ-05**
Insect grille (fits in exterior grille)	**VFZ-06**
Standard filter R 020	**VFZ-07**
Allergen filter G3, EU 3 (replaces standard filter)	**VFZ-08**
Acoustic mat (installed in wall penetration)	**VFZ-09**
Storm guard Ø98 x 74 mm	**VFZ-10**
Storm guard 80 x 74 mm	**VFZ-11**
External branch Ø100 mm	**VFZ-12**
Internal branch Ø100 mm	**VFZ-13**
External branch Ø80 mm	**VFZ-14**
Internal branch Ø80 mm	**VFZ-15**