

RF CO₂ switch (surface-mounted)

Description

The Vasco ventilation unit is expandable with a wireless CO₂ (RF) switch, except for the D150 Compact and Energy Plus models, with which it is not compatible. This switch offers the possibility to choose between fixed air flow rate or demand-controlled operation based on measured CO₂ concentration, ensuring optimal indoor climate and energy-efficient ventilation. The ventilation unit only responds to correctly paired RF switches.

General Features

- Lower right control area
- Status LED top left:
 - Lights up after operation
 - Displays communication feedback and status of the ventilation unit
- Identification LED at top right:
 - Shows the current position of the ventilation unit

Pairing options

- Support for pairing up to 3 ventilation units at one or more controls
- Ability to pair up to 20 RF switches (CO₂, RH or 3-position) to one ventilation unit

Communication

- Wireless RF communication with the ventilation unit
- Radio frequency signal: 868.3 MHz

Power and consumption

- External power supply: 1×230V + N
- Maximum consumption: 4 VA

Measurement and operating data

- Operating temperature: 0 - 40°C
- Measuring range CO₂: 400 - 2000 ppm
- Measuring tolerance: ±40 ppm + 2% of measured value at 20°C

Physical properties

- Dimensions (l x w x h): 92 x 23 x 92 mm
- Housing: plastic
- Protection class: IP30
- Mounting: surface-mounted wall mounting (screw fixing)



Control area










Technical data

In the Eco and Comfort modes, the RF CO₂ switch continuously measures the CO₂ level in the room. Every 10 minutes, or when there is a change of ≥100 ppm, the measured value is sent to the ventilation unit.

Additionally, the switch sends a desired airflow rate (0–100%) every 3 minutes, where 0% corresponds to the minimum and 100% to the set maximum airflow rate.

If the set maximum exceeds 70% of the ventilation unit’s maximum airflow rate, 100% is limited to 70% to prevent noise disturbance.

Symbol	Function	Description
	Ventilation 1	Ventilate at 25% of the maximum set air flow.
	Ventilation 2	Ventilate at 50% of the maximum set air flow.
	Ventilation 3	Ventilate at 100% of the maximum set air flow.
	Eco	The ventilation unit is modulatively controlled to automatically regulate the CO ₂ concentration in the relevant room to a target value of 950 ppm, ensuring a healthy and comfortable indoor climate.
	Comfort	The ventilation unit automatically regulates the CO ₂ concentration to 800 ppm, ensuring a healthy and comfortable indoor environment with optimal air quality.
	Activating	To register an additional RF CO ₂ switch, briefly de-energise the ventilation unit and switch it on again. The unit searches for new switches for 10 minutes. Press and hold the control area at the bottom right for 3 seconds until all LEDs flash and release. Upon successful pairing, the top left LED flashes green twice and an LED on the right lights up to indicate the current state.
	Deactivating	Briefly de-energise the switch by snapping it out and back into the base plate. Ventilation units can be disconnected for 10 minutes. Press and hold the control area at the bottom right for 10 seconds until all LEDs light green for the second time and release. For multiple coupled units, all couplings are removed. The switch LED lights red four times to confirm the disconnection.

Error codes + LED feedback

LED feedback	Description
Green	The requested communication is correctly communicated.
Red	Problem with the communication.
2x red	Problem with the ventilation unit.
3x red	Problem with the measurement of CO ₂
4x red	Switch not connected to a ventilation unit.

Installation

Always install the RF CO₂ switch (surface-mounted) in an easily accessible location in the room where you wish to control the CO₂ concentration. Always provide a 230 V power supply at the selector.

Step 1: Remove the selector.



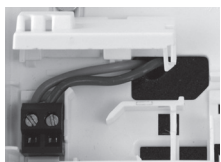
Step 2: Screw the base plate onto the wall.



Step 3: Open the cover on the base plate to reveal the electrical connections.



Step 4: Connect the 230 V power supply to the connectors.



Step 5: Replace the cap on the switch.

