

■ The top solution for barrier-free automatic operation: Integrated PIR sensor

Optimal fan control in toilets and sanitary facilities with industrial and private use for example, in hostels, hotels, offices, etc.

- Helios offers the ideal solution: ELS-VP is fitted with a PIR as standard; the fan starts automatically when a person enters the room. The electrical connection is direct to the power supply without need for a switch.

- ELS-VP with motion sensor ventilates automatically as required when entering the room.

- An integrated PIR sensor registers the presence of people and switches on the unit. The unit operates for 15 minutes. If a movement in the room is detected within that time, the operation time is extended respectively.

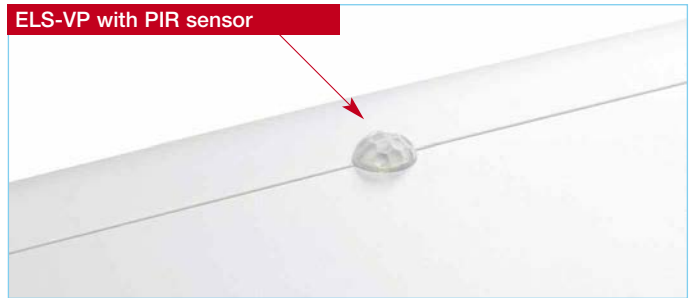
- When leaving the room, there is a run-on time of 15 minutes.

- Ideally the fan should be fitted so the movement in the room is always detected, so position is important and the PIR sensor should not be hindered by obstructions.

Typical use: Barrier-free, automatic ventilation without using a switch.

Control: PIR controlled.

ELS-VP with PIR sensor



PIR sensor



■ ELS-VF automatic moisture progression system is far superior to conventional humidity switches and prevents the build-up of damp on the walls, ceiling and equipment. It guarantees a healthy climate without mould and bad smells with minimal energy consumption.

■ Advanced electronics

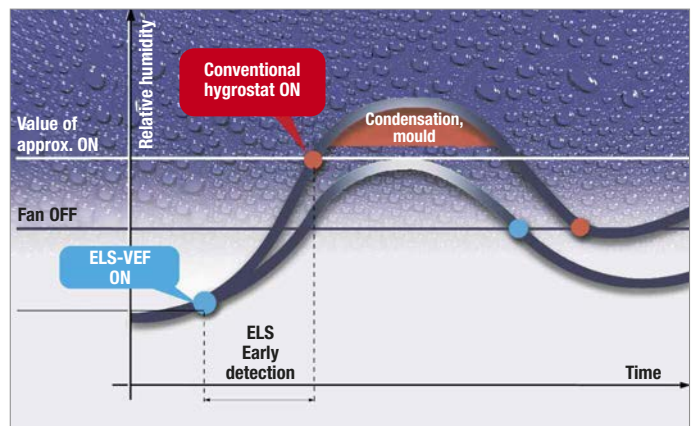
ELS-VFs are equipped with fully-automatic, moisture-dependent controls. The microprocessor-controlled electronics detect two forms of moisture increase:

- Given a normal increase in moisture over time (e.g. washing, drying, temperature drops), the fan switches on when the defined setpoint is reached and runs until the moisture in the room air has dropped by approximately 10%, but at least for the duration of the defined overrun.
- In the case of a rapid increase in moisture (e.g. due to showering, bathing), the ventilator turns on before the defined limit value is reached to get rid of the excess moisture in the room as effectively and quickly as possible. This prevents mirrors or walls from suffering from moisture and damp damage and the comfortable range in the room (40-70%

relative humidity) is quickly restored. As soon as the relative humidity has fallen by 10%, but not before the end of the pre-set overrun time, the fan turns off.

- In the case of extended, excessive moisture increases (e.g. storms in summer, damp washing in the room) if air circulation is insufficient as the intake air openings are too small or closed, the fan turns off automatically after two hours of continuous operation. In these cases, the control has identified that further ventilation will not lower the humidity. Depending on the further moisture progression, the fan will start automatically within the next 2 to 6 hours to once again reduce humidity by around 10%. This control behaviour is repeated until humidity has fallen to the desired level.

The moisture progression system automatically adjusts itself to achieve optimal humidity reduction while expending the minimum amount of energy.



- **Typical use:** For ventilation of humidity polluted rooms (e.g. bathroom, kitchen).
- **Control:** Barrier-free automatic operation, on the humidity levels.

- Supply air is necessary so that humid air can be extracted by the fan.