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### Volumetric flow controller without SCHAKO EasyBus



# Ventilation setup 1

#### Ventilation unit with control of constant pressure

This is the most common setup of ventilation systems. A constant static pressure is controlled. The least favourable point measurement (Pstat.) is captured by the controller, and the ventilation unit is controlled accordingly.

Need-based control is only possible to a limited extent, as only the least favourable point is taken into account.

#### Advantages

• The system pressure is always sufficiently high.

#### Disadvantages

- The energy consumption is relatively high, as the ventilation unit constantly controls the set static pre-pressure.
- High pressure loss of the volumetric flow controllers therefore tends to result.
- Increased noise level with high pressure loss.

Technical changes reserved.

### Volumetric flow controller with **SCHAKO EasyBus**



## Ventilation setup 2

#### Ventilation unit with need-based control

The difference to ventilation systems with control of constant pressure mainly consists in the control behaviour and the controlled variables. The static pressure at the least favourable point is not the reference value for control, but the volumetric flow rate and the damper position of the volumetric flow controllers. The data of all volumetric flow controllers are gathered. These data are used as a basis for need-oriented control.

#### Advantages

- A need-based system pressure saves energy and costs.
- No least favourable point measurement required.

#### **Necessary components**

 VAV components like PIANO and VHP must be controlled using a bus system, e.g. PIANO or VHP with the SCHAKO EasyBus signaling and switching bus system. •



## SCHAKO PIANO

### Quiet, efficient, compact and reliable

The model for success of the PIANO sound-damped volumetric flow controller, which is characterised by its very good insertion loss, minimal flow noise & radiated noise and compact design, has been technically overhauled and further optimised.

The new PIANO model can now also be connected directly to ducts as per DIN EN 1505. The operating range has also been adapted to the requirements of today with flow speeds from 0.7 to 6.5 m/s.

The PIANO volumetric flow controller can be equipped with all common control components.

Using the SCHAKO EasyBus bus system, they can be operated and connected to an efficient system.

The connection of all devices is as simple as the commissioning and therefore saves costs.



## SCHAKO VHPQ

The VHPQ volumetric flow controller with a square design, air-tight and not air-tight is for use in supply and return air systems for constant or variable volumetric flow, room or duct pressure control. The VHPQ features an optimised measuring profile and an expanded operating range starting at 0.8 m/s.



## SCHAKO VHPR

The VHPR volumetric flow controller is the successor model to the VRAR. Just like the VRAR, the VHPR with a round design is for use in supply and return air systems for constant or variable volumetric flow, room or duct pressure control. With an optimised measuring profile and an operating range starting at 0.8 m/s, this volumetric flow controller offers the greatest flexibility among the module groups.

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