# Application Report
# Flow Sensors

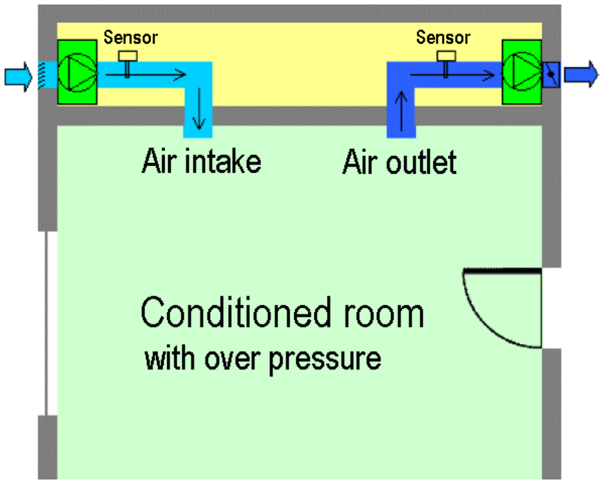
## *Ventilation control*

### Description of the application:

A printing room is ventilated in that way, that a continuous over-pressure is created in order that no dusty air may intrude from neighbour rooms.

For this purpose as well the air inlet as also the exhaust air have their separate ventilator each having it's own control.

The measurement of the volume flow in air intake and exhaust air are separately measured with a **SCHMIDT® air flow sensor SS 20.01**. The volume flow control is done using a Siemens S7 PLC, which also includes the algorythm to lenearize the output signal of the SS 20.01.




### Advantage of this solution:

Stable and continous flow rate not disturbed by sudden pressure losses as caused by door opening. Integrated control for humidity and temperature.

### Function of the Sensor:

Measuring of the air velocity of air inlet and exhaust air.
(measuring range 0,1 to 20 m/s)

### Sensor type used:

SS 20.01
160 mm

### Location of the Sensor:

In the air duct between air intake with filter and ventilator.

### Branch:

HVAC

### Reason to choose a SCHMIDT Sensor:

- ☑ Large turn down ratio of air velocity
- ☑ Highly precise measurements with high repeatability
- ☑ Quick response time, fitting well to control characteristic.

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