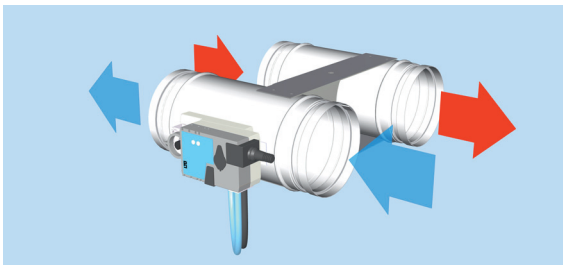
AIR TECH SYSTEMS

Doubled efficiency and maximum precision

Flow rate controllers VRD*active* / VRD*active-s*



Supply and return air safely in hand with only one controller.

- **Cost-saving design** and low wiring expenses thanks to one compact controller being used for both supply and return air
- **Highest precision** of all known measuring systems thanks to LTG map control (System ActiveControl)
- **Manages even lower air speeds** thanks to enhanced differential pressure – available with dynamic or static measuring principle
- **Easy integration** thanks to entryflow-insensitivity and very short installation length
- **High control ratio** 1:10 (air speeds 1...10 m/s)

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Air distribution · Map-controlled flow rate controllers with short casing design VRD*active* and VRD*active-s*, round

Application

For supply pressure-independent control of constant or variable air flows. With two dampers for supply/return air control in parallel air ducts (e.g. hotel rooms). Available both for dynamic and static differential pressure measurement (VRD*active-s*).

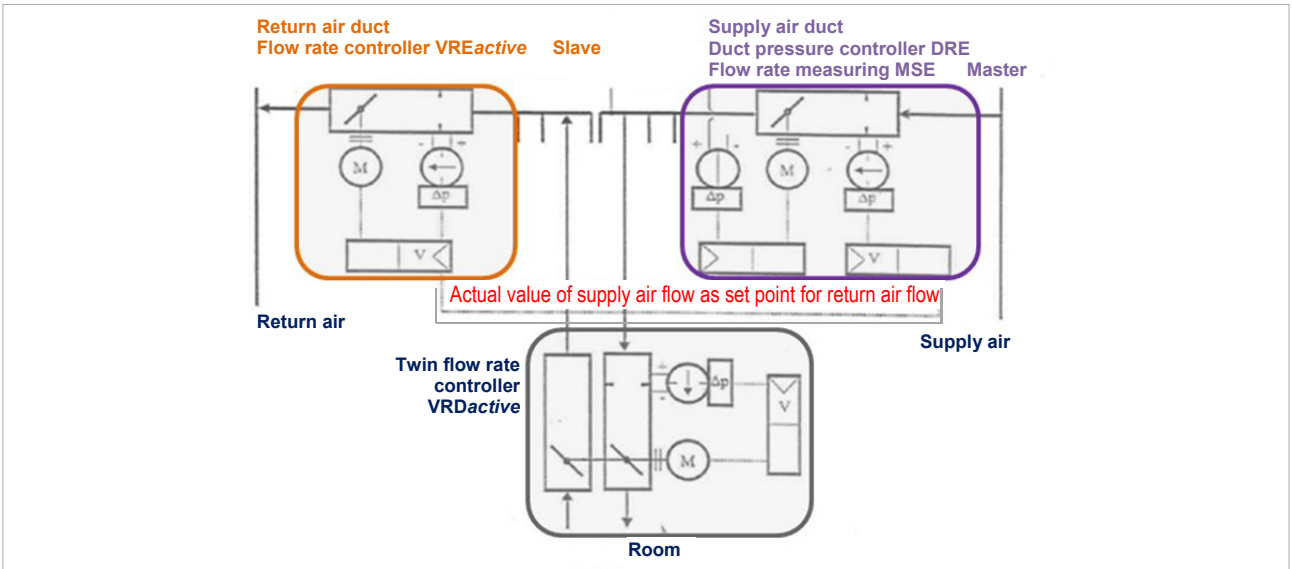
Function

The flow rate controllers VRD*active* and VRD*active-s* work with auxiliary power. The flow rate is measured and controlled based on set values, either on the air inlet side (air inlet side controlled ventilation) or on the air outlet side (air outlet side controlled ventilation). The other non-measured air flow is controlled synchronously because of the rigid mechanical connection between the two dampers. This also ensures safe and complete shut-off.

Characteristics

- Excellent control accuracy
  from ± 5 % (V_{nom}) ... ± 15 % (V_{min}) even in case of unfavourable entry conditions, due to "jet effect".
- Short installation length
  thanks to differential pressure measurement in the damper blade area. Thus, perfect for retrofitting and limited-space installation conditions.
- Low minimum pressure loss
  resulting in energy savings during operation and lower noise generation.
- Very low air leakage rate
  with the shut-off damper acc. to DIN EN 1751 Class 3.
- Sizes
  Ø 100 mm and 125 mm, installation length 195 mm
  Ø 160 mm and 200 mm, installation length 215 mm

Control



Control diagram: Integration of the flow rate controller