

Type TVM



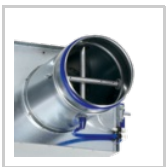
FOR DUAL DUCT SYSTEMS

VAV dual duct terminal units for dual duct systems with variable volume flows in buildings with demanding acoustic requirements

- Individual temperature control for each room or zone
- Highly effective integral attenuator
- Electronic control components for different applications (Compact and Universal)
- Suitable for airflow velocities up to 13 m/s
- Closed blade air leakage to EN 1751, up to class 4
- Casing air leakage to EN 1751, class A

Optional equipment and accessories

- Acoustic cladding for the reduction of case-radiated noise
- Secondary silencer Type TS for the reduction of air-regenerated noise



Application

- VARYCONTROL VAV dual duct terminal units of Type TVM for the supply air control in dual duct variable or constant air volume systems
- Closed-loop volume flow control using an external power supply
- For maximum acoustic and thermal comfort
- Demand-based mixing of cold and warm air
- Shut-off by means of switching (equipment supplied by others)

Special characteristics

- Integral differential pressure sensor with 3 mm measuring holes (resistant to dust and pollution)
- Integral attenuator with at least 26 dB insertion loss at 250 Hz
- Factory set-up or programming and aerodynamic function testing
- Volume flow rate can later be measured and adjusted on site; additional adjustment device may be necessary
- Inspection access for cleaning to VDI 6022

Nominal sizes

- TVM-S: 125, 160, 200
- TVM: 125, 160, 200, 250, 315, 400

Variants

- TVM-S Dual duct unit, 60° spigot arrangement
- TVM-S-D Dual duct unit with acoustic cladding, 60° spigot arrangement
- TVM: Dual duct unit, 90° spigot arrangement
- TVM-D: Dual duct unit with acoustic cladding, 90° spigot arrangement
- Units with acoustic cladding and/or secondary silencer Type TS for very demanding acoustic requirements
- Acoustic cladding cannot be retrofitted

Parts and characteristics

- Ready-to-commission unit which consists of mechanical parts and control components.
- Averaging differential pressure sensors for volume flow rate measurement, one in the cold air spigot and one in the silencer
- Damper blade
- Integral attenuator
- Inspection access
- Factory assembled control components complete with wiring and tubing
- Aerodynamic functional testing on a special test rig prior to shipping of each unit
- Set-up data is given on a label or volume flow rate scale affixed to the unit
- High control accuracy (even with upstream bend $R = 1D$)

Attachments

- Compact controller: Compact unit consisting of controller, differential pressure transducer and actuator
- Universal controller: Controller, differential pressure transducer and actuators for special applications

Accessories

- Lip seals (factory fitted)

Useful additions

- Secondary silencer Type TS

Construction features

- Rectangular casing
- Spigot on the fan end suitable for circular ducts to EN 1506 or EN 13180
- Spigot with groove for lip seal
- Connection on the room end suitable for air duct profiles
- Baffle plate is fitted after the damper blade for optimum aerodynamic performance
- Position of the damper blade indicated externally at shaft extension
- Thermal and acoustic insulation (lining)

Materials and surfaces

- Casing and damper blade made of galvanised sheet steel

- Damper blade seal made of TPE plastic
- Lining is mineral wool
- Differential pressure sensor made of aluminium
- Plastic bearings

Variant with acoustic cladding (-D)

- Acoustic cladding made of galvanised sheet steel
- Lining is mineral wool
- Rubber elements for the insulation of structure-borne noise

Mineral wool

- To EN 13501, fire rating class A1, non-combustible
- RAL quality mark RAL-GZ 388
- Biosoluble and hence hygienically safe according to the German TRGS 905 (Technical Rules for Hazardous Substances) and EU directive 97/69/EG
- Faced with glass fibre fabric as protection against erosion through airflow velocities of up to 20 m/s
- Inert to fungal and bacterial growth

Standards and guidelines

- Hygiene conforms to VDI 6022
- VDI 2083, air cleanliness class 3, and US standard 209E, class 100
- Closed blade air leakage to EN 1751, class 4 (nominal sizes 125 and 160, class 3).
- Nominal sizes 125 and 160 meet the general requirements, nominal sizes 200 – 400 meet the increased requirements of DIN 1946, part 4, with regard to the acceptable closed blade air leakage
- Casing air leakage to EN 1751, class A

Maintenance

- Maintenance-free as construction and materials are not subject to wear

TECHNICAL INFORMATION

Function, Technical data, Quick sizing, Specification text, Order code, Related Products

Variants, Attachments, Dimensions and weight, Product details

Installation details, Basic information and nomenclature

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