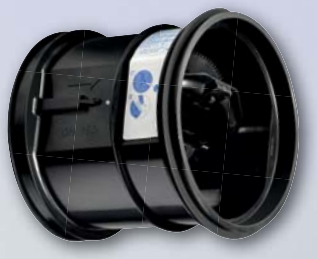
TROX® TECHNIK
The art of handling air

Control units

▶Simple. Precise. Efficient. ▶▶

Control units LVC, TZ-/TA-Silenzio and VFL



▶ The art of handling air ▶▶

Ventilation and air conditioning systems must fulfil complex and demanding requirements. With decades of experience and international expertise, TROX provides the know-how for monitoring and controlling the ventilation and air conditioning in all kinds of internal spaces including complete laboratories with fume cupboard and room control and areas with clean room technology or potentially explosive atmospheres. TROX control units and systems distinguish themselves by their quality, easy commissioning and precise function. It is not surprising, then, that more than 63,000 LABCONTROL volume flow controllers have been installed worldwide.

TROX VARYCONTROL VAV terminal units are control units for supply air and extract air systems. They work with an external power supply and can be used for controlling, restricting, or shutting off the airflow in room air conditioning systems. Depending on their construction the units can meet even the most demanding acoustic requirements; different materials and surface finishes are also available.

TROX CONSTANTFLOW volume flow controllers are mechanical self-powered units for the control of supply air or extract air in constant air volume systems. The controllers work basically without an external power supply. For special applications they can be fitted with actuators.

▶ LVC VAV terminal unit ▶▶

For universal application.
This compact VAV terminal unit is now available with both Easy and Compact controllers. As the name suggests, the Easy controllers are easy to use, with potentiometers for flow rate setting. The Compact controllers are tamper-proof since flow rate adjusting requires an adjustment device; integration with a bus system (MP) is simple. Due to the unique measurement principle the LVC is suitable even for unfavourable upstream conditions without a straight upstream section.

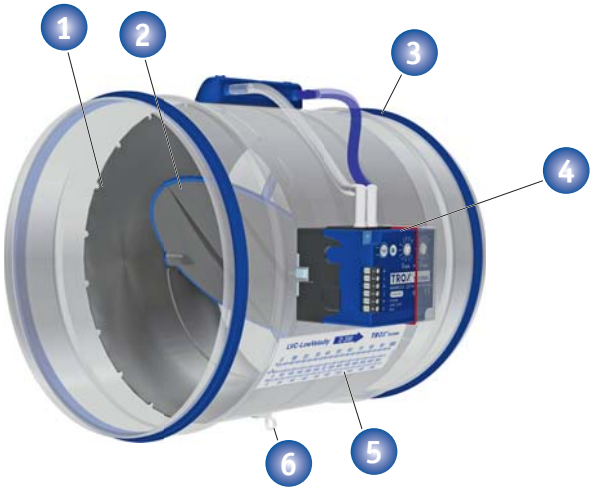
- New measurement principle, optimised for low airflow velocities from 118.11 to 1181.1 fpm
- No straight upstream section required
- Compact construction, only 12.2 in. long
- Optimised for low differential pressures from 0.12 to 1.2 in. w.g.
- Closed blade air leakage to EN 1751, class 3; casing air leakage to EN 1751, class C
- Tamper-proof Compact variant, can be integrated with a bus system

Circular

16.95 - 635.66 l/s

Δp 0.12 – 1.2 in.w.g. (2.41 in. w.g. max.)

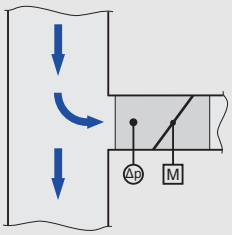
ø 4.92 – 9.84 in.



The Easy variant

1. *Plastic nozzle*
2. *Damper blade*
3. *Lip seal*
4. *Easy controller*
5. *Sticker with volume flow rate scale*
6. *Wire clamping bracket*

High control accuracy even in case of unfavourable upstream conditions



▶ TZ-/TA-Silenzio VAV terminal units ▶▶

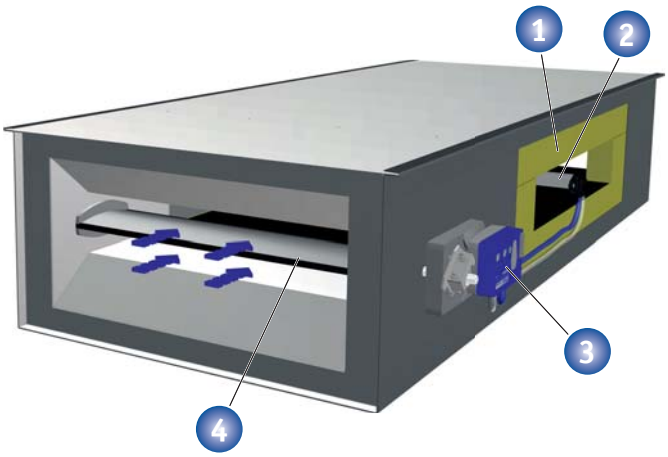
Whisper quiet operation due to sound attenuator.
The VAV terminal units of Types TZ-Silenzio and TA-Silenzio have been developed for use in buildings with very demanding acoustic requirements and low airflow velocities. They are suitable for the control of supply air (TZ-Silenzio) or extract air (TA-Silenzio).

- VAV terminal units in five nominal sizes
- Highly effective integral attenuator
- Optimised for airflow velocities of 137.8 to 1181.1 fpm
- High control accuracy even in case of unfavourable upstream conditions
- Compact construction with rectangular connections on both ends
- Electronic control components for different applications (Easy, Compact and Universal)
- Closed blade air leakage to EN 1751, class 4; casing air leakage to EN 1751, class B
- Large volume flow rate control range: approx. 10 – 100%of the nominal volume flow rate

Rectangular

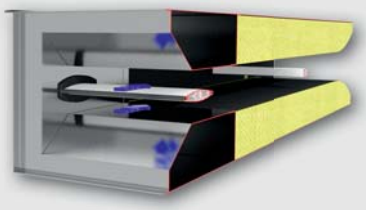
63.57 - 1778.86 cfm

Nominal sizes: 5 to 15



1. *Integral attenuator*
2. *Sensor tube*
3. *Control components*
4. *Damper blade*

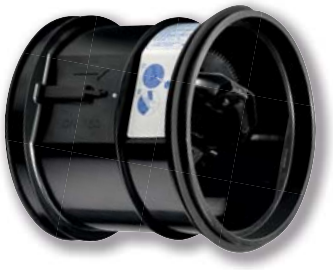
Integral attenuator for the most demanding acoustic requirements



▶ VFL Volume flow rate limiter ▶▶

New serrated edge reduces air-regenerated noise.
This proven TROX CAV controller has been acoustically optimised by a new serrated blade edge and generally improved in detail. Due to the new design the scale for setting the volume flow rate can be completely covered. The VFL volume flow limiter can be used wherever constant volume flows must be maintained.

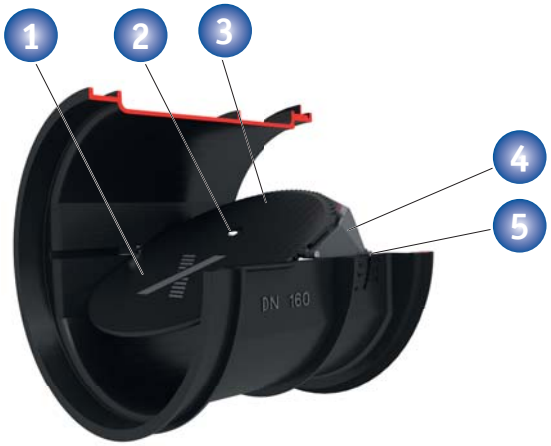
- Simple and quick fitting and commissioning on site
- Multi-level volume flow rate setpoints for each nominal size
- Precise and simple setting of volume flow rates using a scale
- Best accuracy among controllers for insertion
- Suitable for low airflow velocities from 0.8 m/s
- Any installation orientation; maintenance-free
- Volume flow rate setting range:
  < 20 to 100% of the nominal volume flow rate
- Volume flow rate accuracy:
  approx. ± 10% of the nominal volume flow rate
- Differential pressure range: 0.12 – 1.2 in. w.g.
- Operating temperature: 50 – 122 °F



Circular

8.48 - 529.72 cfm

ø 3.15 - 9.84 in.



1. *Damper blade*
2. *Bellows inlet*
3. *Bellows*
4. *Crossbar*
5. *Volume flow rate setting scale*

Set, seal, insert, done!

The new sticker on the limiter states the setpoint values (in l/s, m³/h and cfm) and seals the volume flow rate setting scale.

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