TROX UK Ltd.

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TROX R TECHNIK The art of handling air

10th January, 2020

Two requirements met with one solution: Clever volume flow rate measurement even with low airflow velocities

The requirement to save energy often leads to the installation of larger air handling units, which in turn results in lower airflow velocities. It is, therefore, necessary to change the measurement principle in order to measure even very small volume flows. Another issue often encountered at the installation site is space, or the lack of it. This is why development efforts have to aim at products that are fairly easy and safe to install and provide good measurement results.

With these goals in mind, TROX has developed a new measurement method and a new type of damper blade, for which a patent application has already been filed. This damper blade is part of the new VAV terminal unit, Type TVE.

Type TVE VAV terminal units apply a new measurement principle as the volume flow rate is measured not with a probe or sensor, but by means of the damper blade itself. This innovative design allows for a reduction in length and helps to ensure precise measurement results even in the case of unfavourable upstream conditions; with dynamic measurement, this is even independent of the airflow direction.

Advantages at a glance:

- Works perfectly even with unfavourable upstream conditions
- The relation between the damper blade position and differential pressure is stored as a characteristic relationship in the controller
- Higher measurement accuracy even with low airflow velocities from 0.5 m/s
- Nominal sizes of 100, 125, 160, 200, 250 mm
- Volume flow rates of 14 m³/h to 2300 m³/h (4 l/s to 640 l/s)
- Volume flow rate range of 1:25
- Choice of static or dynamic transducer
- Available with Easy controller, Compact controller or Modbus RTU variant for connection to the central BMS
- Airflow direction is not critical if dynamic measurement is used
- A release button on the control component allows for easy replacement

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The new VAV terminal unit, Type TVE, applies a new volume flow rate measurement principle and requires no measuring probe.

A patent application has been filed for the TVE damper blade.

- ENDS -

TROX is a global leader in the development, manufacture and sale of components, units and systems for the ventilation and air conditioning of rooms. With 27 subsidiary companies in 25 countries on 5 continents, 14 production facilities, and importers and representatives, TROX is present in over 70 countries. The TROX GROUP currently has nearly 4,000 employees and generates revenues of roughly 500 million Euros.

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