



**Air conditions
under control.**

VAV-Universal – maximum flexibility for increased requirements

Ventilation concepts according to DIN EN 15232 require modern, energy-efficient VAV control concepts and ensure demand-regulated operation from the fan of the air handling unit to the room. Not as much as possible, but as much as necessary. The modular design of the VAV-Universal controller product range with integrated Δp sensor enables the ideal combination of controller and damper motorisation for each VAV, duct pressure and room pressure application.

- Two types of sensor are available. In addition to the well-established dynamic D3 sensor the new M1 membrane sensor is now available.
- The damper actuator product range with plug-and-play function includes rotary actuators, very fast running actuators as well as rotary actuators with fail-safe.
- Integrated NFC interface for simple commissioning and parametrisation using the Belimo Assistant App.

Flexible. Efficient. Universal.

Applications

- Volumetric flow VAV / CAV
- Volumetric flow summation
- Duct pressure
- Room pressure with switchable operating mode, septic / aseptic

Actuator solutions

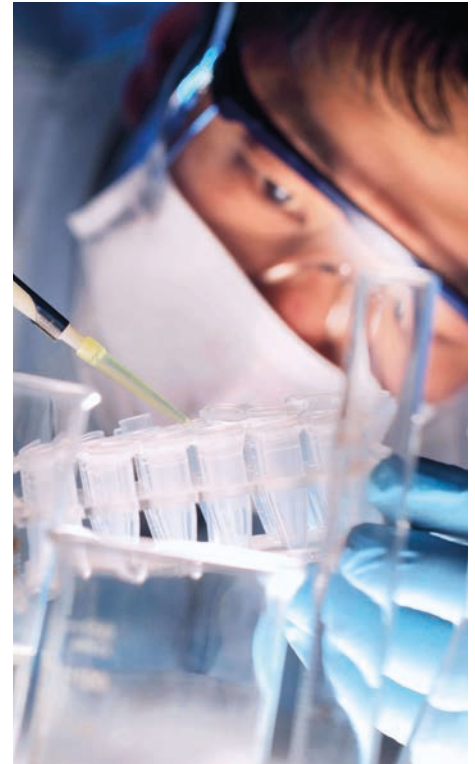
- Rotary actuator
- Safety rotary actuator
- Very fast running rotary actuator
- Very fast running safety rotary actuator

Control

- Conventional control 0...10V / 2...10V
- BACnet and Modbus incl. Hybrid Mode, MP-Bus®
- Can be switched using the Belimo Assistant App

Tools

- Belimo Assistant App (iOS, Android)
- Wireless tool connection via NFC (Bluetooth)
- A PC-based parametrisation tool is available for VAV manufacturers



Applications for protection systems etc. (e. g. for virus protective measures)

Controller units with integrated Δp sensor		Sensors
VRU-D3-BAC	VAV-CAV / duct pressure in the comfort zone	Sensor: D3 – flow, dynamic 0...500 Pa
VRU-M1-BAC	VAV-CAV / duct pressure, polluted air	Sensor: M1 – diaphragm, static 0...600 Pa
VRU-M1R-BAC	Room pressure control	Sensor: M1R – diaphragm, static -75...75 Pa

Actuators		Features
L/N/SM24A-VST	Rotary actuator	5/10/20 Nm, 120 s
LF/NF/SF24A-VST	Mechanical fail-safe	4/10/20 Nm, 120s, spring 20 s
LMQ24A-VST	Very fast running actuators	4 Nm, 2.4 s
NMQ24A-VST	Very fast running actuators	8 Nm, 4 s
NKQ24A-VST	Very fast running actuator, electrical fail-safe	6 Nm, 4 s
SMQ24A-VST	Very fast running actuators	16 Nm, 7 s

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