

Increased convenience, a better working atmosphere, optimum energy efficiency.

All-inclusive.

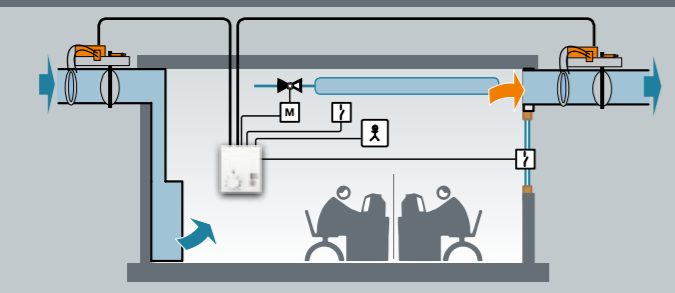
Controlled room and zone ventilation.
The complete product range.

Compact or universal –
air volume control with Belimo.

VAV-Compact for convenient solutions

Individual room comfort

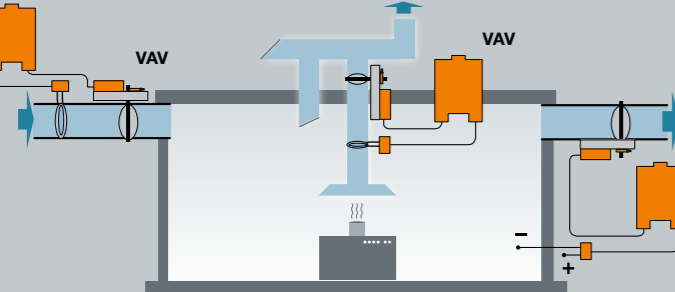
- Wide range of potential applications
- Adjustable to each application
- Demand-based single-room application
- Operation with Fan Optimiser system



VAV-Universal with VRP-M controller and fast-running actuators for sensitive working areas

Instant pure air

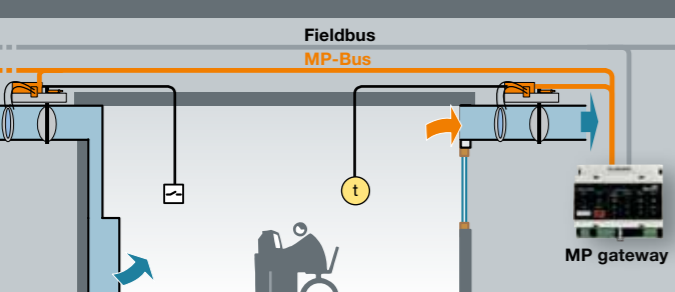
- Extraction of polluted air
- Ready-to-connect control system for maximum safety
- Integration in MP-Bus® network
- Volumetric flow or pressure control



VAV-Compact with bus connection

Intelligent simplicity

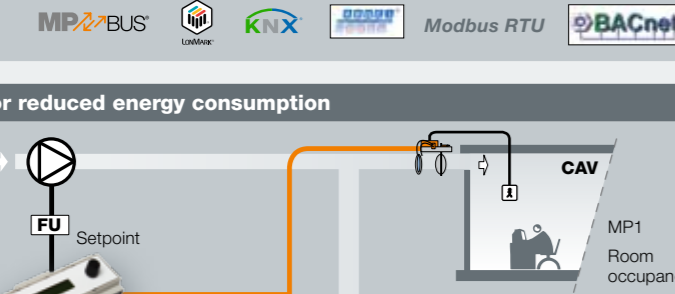
- System connection to DDC controller with MP interface via MP-Bus®
- Integration in higher-level systems such as LonWorks®, Konnex, Ethernet TCP/IP, Profibus DP, Modbus RTU etc. via MP gateway
- Convenient, cost-efficient wiring
- Maximum flexibility in new, retrofitted, converted or renovated buildings



VAV-Compact with Belimo Fan Optimiser system for reduced energy consumption

Up to 50% fan energy saving

- Optimised consumption and operating costs
- Reduced flow noise thanks to lower supply pressure in the air duct system
- Reduced wiring expenses thanks to MP-Bus® network





- 5 5 year warranty
- On site around the globe
- A complete range of products from one source
- Tested quality
- Short delivery times
- Comprehensive support

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	Latvia		
	Lebanon		

Belimo worldwide: www.belimo.com



The cost-efficient way to controlled room climate.

Human health, well-being and work performance are crucially influenced by room climate. Belimo room and system solutions – a complete range of products for cost-efficient motorisation and control of zones and single rooms – are proven in numerous installations all over the world.

VAV-Compact – efficient room control with a single unit

Actuator, controller and sensor in one unit – VAV-Compact provides an economical solution for variable and constant air volume control systems in office buildings, hotels, hospitals, etc. Special rotary actuators with a torque of 5 or 10 Nm and linear actuators with 150 Nm can be supplied for a wide range of VAV/CAV unit sizes and types. VAV-Compact controllers can be controlled conventionally, via LonWorks®, MODBUS or via the Belimo MP-Bus®. The MP types can be integrated in a higher-level system – together with one sensor per device – either via a DDC controller with an MP interface or by means of a gateway. The fans can be incorporated in an MP-Bus® based Belimo Fan Optimiser system to facilitate cost-optimised control according to demand.

VAV-Universal – flexibility in problematic environments

The ready-to-connect VAV-Universal range encompasses rotary and safety actuators as well as controllers with dynamic and static pressure sensors. These devices can be finely tuned to the exact requirements in industry, trade and public buildings. Digital, self-adaptive VRP-M controllers interact with fast-running actuators in laboratories or production areas with a severely polluted room atmosphere to assure an instant supply of fresh air. Depending on what is chosen, the control systems can be integrated in a higher-level fieldbus and equipped – directly or over the MP-Bus® – with the Belimo Fan Optimiser to cut fan energy consumption by up to 50%.

Convenient room air solutions for working and public areas.



VAV-Compact							
	LMV-D3-MP	NMV-D3-MP	LHV-D3-MP	LMV-D3LON	NMV-D3LON	LMV-D3-MOD	NMV-D3-MOD
Applications	Comfort	Comfort	Comfort	Comfort	Comfort	Comfort	Comfort
VAV / CAV control	•	•	•	•	•	•	•
Actuators							
Torque/positioning force	5 Nm	10 Nm	150 N	5 Nm	10 Nm	5 Nm	10 Nm
Running time	variable	variable	variable	variable	variable	variable	variable
Supply/Inputs							
AC/DC 24 V	•	•	•	•	•	•	•
Sensor integration (bus operation only)	•	•	•	•	•	•	•
Control							
0/2...10 V	•	•	•		•		
Via contacts (CAV)	•	•	•				
MP-Bus®	•	•	•				
LonWorks®				•	•		
Modbus RTU						•	•
Operation							
Service socket for connecting tool	•	•	•	•	•	•	•
Pressure sensor							
0...450 Pa, dynamic integrated	•	•	•	•	•	•	•
Accessories / Type							
Room temperature controller / CR24..	•	•	•				
Fan Optimiser / COU24-A-MP	•	•	•				
MP gateways / UK24BAC, UK24EIB, UK24LON, UK24MOD	•	•	•				
PC-Tool / MFT-P	•	•	•	•	•	•	•
Service tool / ZTH-GEN	•	•	•	•	•	•	•

Process air applications for sensitive working areas.



VAV-Universal				
	Industrial	Laboratory	Industrial	Laboratory
Applications				
VAV / CAV control	•	•		
Duct / room pressure			•	•
Actuators				
4 Nm, 2.5 s fast-running		•		•
8 Nm, 4 s fast-running		•		•
10 Nm, 150 s	•	(*)	•	(*)
20 Nm, 200...300 s / 20 s spring return	•	(*)	•	(*)
Supply/Inputs				
AC/DC 24 V	•	•	•	•
Sensor integration (bus operation only)	•	•	•	•
Control				
0/2...10 V	•	•	•	•
Via contacts (CAV)	•	•	•	•
MP-Bus®	•	•	•	•
Operation				
Service socket for connecting tool	•	•	•	•
Pressure sensors				
0...100 Pa, static	•	•	•	•
0...300 Pa, static	•	•	•	•
0...600 Pa, static	•	•	•	•
0...600 Pa, dynamic	•		•	
Accessories / Type				
Room temperature controller / CR24..	•	•		
Fan Optimiser / COU24-A-MP	•	•		
MP gateways / UK24BAC, UK24EIB, UK24LON, UK24MOD	•	•	•	•
PC-Tool / VRP-M Tool	•	•	•	•
Service tool / ZTH-GEN	•	•	•	•

Room air and safety applications for trade and industry.



VAV-Universal						
	Comfort	Industrial	Comfort	Industrial	Comfort	Industrial
Applications						
VAV / CAV control	•	•	•	•		
Duct / room pressure					•	•
Actuators						
5 Nm, 150 s	•	•	•	•	•	•
10 Nm, 150 s	•	•	•	•	•	•
20 Nm, 150 s	•	•	•	•	•	•
4 Nm, 120 s / 20 s spring return	•	•	•	•	•	•
20 Nm, 200...300 s / 20 s spring return	•	•	•	•	•	•
Supply						
AC/DC 24 V	•	•	•	•	•	•
Control						
0/2...10 V	•	•	(*)	(*)	(*)	(*)
Via contacts (CAV)	•	•	•	•	•	•
Operation						
Service socket for connecting tool	•	•				
Pressure sensors						
0...100 Pa, static			•	•	•	•
0...300 Pa, static			•	•	•	•
0...600 Pa, static			•	•	•	•
0...300 Pa, dynamic integrated	•	•				
Accessories						
Room temperature controller	•	•	•	•		
Service tool	•	•				

(*) 2...10 V only

Product range overview. Volumetric flow and pressure control.

Function	VAV-Compact			VAV-Universal	
	LON types	MOD types	MP types	VRP-M system solutions	Universal range
Sensors		Modbus RTU	MP-BUS®	VFP... VFD3	VFP...
Controllers			LMV-D3-MP NMV-D3-MP	VRP-M	VRD3 VRP VRP-STP
Actuators	LMV-D3LON NMV-D3LON	LMV-D3-MOD NMV-D3-MOD	LHV-D3-MP	LMQ24A-SRV-ST NMQ24A-SRV-ST NM24A-V-ST SF24A-V-ST with emergency control function	LM24A-V NM24A-V SM24A-V LF24-V with emergency control function
Bus integration				MP-BUS® In fieldbus systems via MP gateway. LonWorks®: UK24LON gateway Konnex: UK24EIB gateway Modbus RTU: UK24MOD gateway BACnet: UK24BAC gateway	
Fan optimisation via MP-Bus				MP-BUS® Fan Optimiser COU24-A-MP	
Service tool	ZTH-GEN				
Parameterisation and service software	PC-Tool MFT-P				
Room controller	CR24... CRA24...				
Positioner	CRP24... SG...				

Note: Separate documentation for the VAV-Compact LON version, MOD version, VRP-M system solution, VAV-Universal, CR24, CRA24, CRP24 single-room controllers, COU24-A-MP Fan Optimiser, tools and interfaces can be found on the Internet at www.belimo.eu