

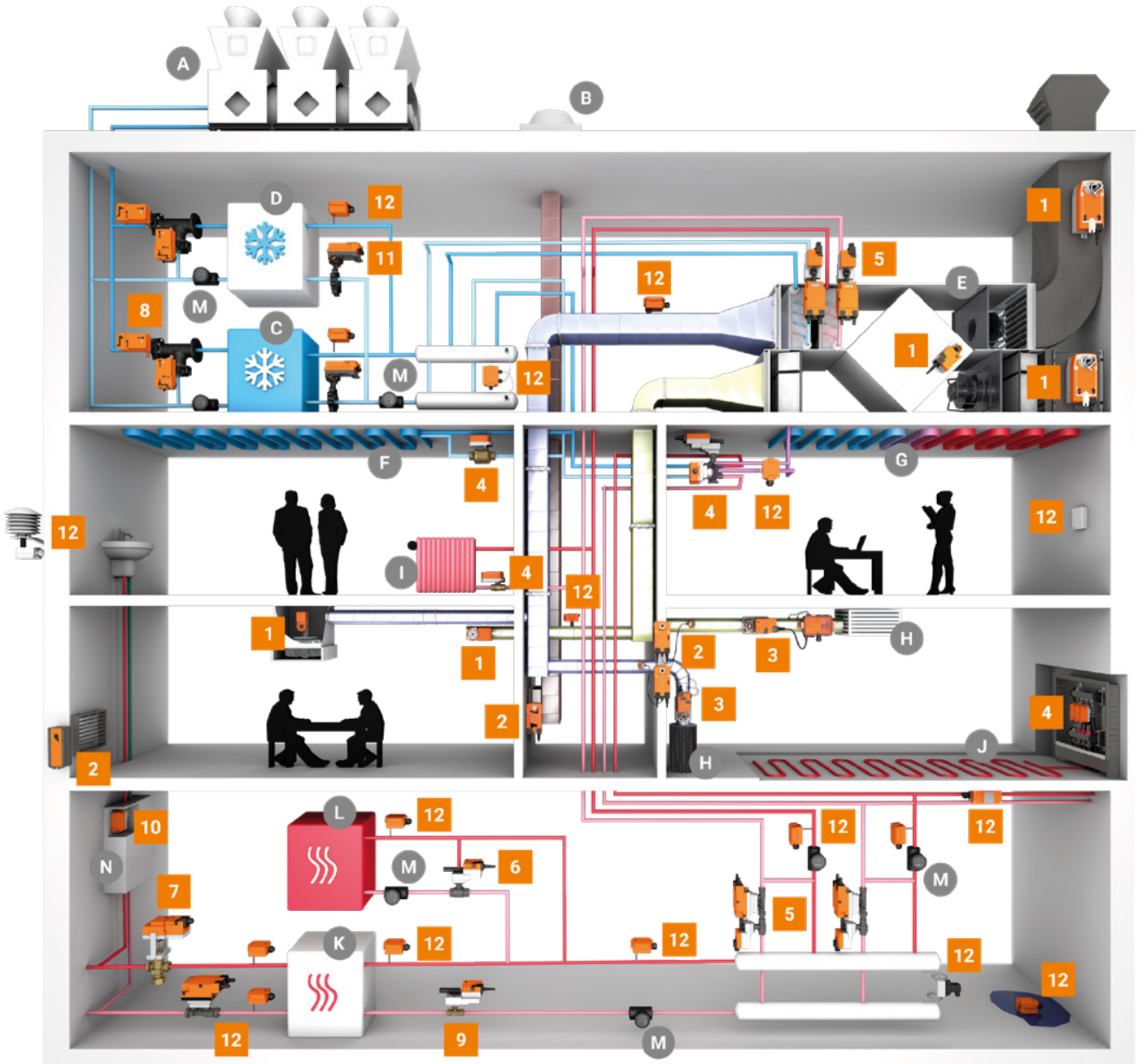


Small devices,
big impact.



The complete product range – 2025

Everything under one roof.



Legend

Overview of Belimo products

1	Air damper actuators
2	Fire protection and smoke control
3	VAV and room solutions
4	Zone valves
5	Pressure-independent characterised control valves
6	Characterised control valves (CCV)
7	Globe valves
8	Control butterfly valves
9	Ball valves
10	Potable water valves
11	Open/close and changeover butterfly valves
12	Sensors and meters

Overview of third-party products

A	Dry cooler, cooling
B	Smoke control fan
C	Chiller
D	Heat exchanger, free cooling
E	Air handling unit
F	Chilled ceiling
G	Heated/chilled ceiling
H	Air diffuser
I	Radiator
J	Floor heating
K	District heating transfer station
L	Heat generator
M	Circulation pump
N	Fresh water station

Actuator, valve and sensor solutions.

Ventilation applications

The world's most comprehensive range of electrical actuator solutions for air dampers of up to 8 m² includes rotary and linear actuators with a wide range of motorisation levels and actuating times. The actuators cover almost all motorisation requirements for the control of air flows in air-conditioning plants, from treatment and distribution to feedback and retreatment. The product range also includes special actuators for indoor and outdoor use in harsh ambient conditions. As the perfect complement to the actuators, Belimo offers a comprehensive product range of sensors for measuring air temperature, humidity and quality. Differential pressure sensors guarantee an accurate filter monitoring to optimally plan the service calls in advance.



Water applications

In addition to motorised butterfly valves and globe valves, Belimo supplies unique, air-bubble tight characterised control valves for the precise control of heating and cooling circuits without energy loss. Pressure-independent characterised control valves always ensure the correct quantity of water thanks to the permanent dynamic balancing; even if there are differential pressure fluctuations and during partial load operation. The forward-looking multifunctional Belimo Energy Valve™ allows monitoring and optimisation of energy flows and MID-approved invoicing of energy consumption. Tight-sealing valves of the Belimo ZoneTight™ product range are the ideal solution for energy-saving, unproblematic room and zone control in tight spaces.



RetroFIT+ applications

For renovations in existing construction and replacements of older actuators on air dampers, globe valves, and rotary valves, Belimo supplies a comprehensive product range of unique RetroFIT+ motorisation solutions. Their parameters can be set precisely on site to the prevailing requirements. RetroFIT+ globe valve and rotary actuators can be mounted practically on all standard valve types in only a few steps. Handy VAV RetroFIT+ kits with controllers, actuators, and differential pressure pickup devices are available for replacing defective or pneumatic VAV devices. To easily determine the right replacement actuators or sensors, Belimo has developed a RetroFIT+ product replacement tool which determines the suitable actuator using a wide variety of parameters. The tool can be used everywhere – on site or in the office – and features optical character recognition (OCR). The software recognises the actuator labelling and connects the relevant text modules with the RetroFIT+ database.



For every field of application.

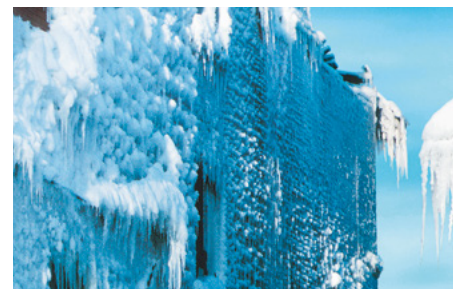
Safety solutions

Fires represent the greatest potential threat to people and tangible assets in buildings. Efficient fire protection saves lives in times of danger, helps minimise property damage and secures the continued operation of companies. The best way to protect against fire and smoke from spreading through ductwork is by using motorised fire dampers to form fire compartments. Smoke control systems with motorised smoke control dampers ensure smoke-free escape and rescue routes.



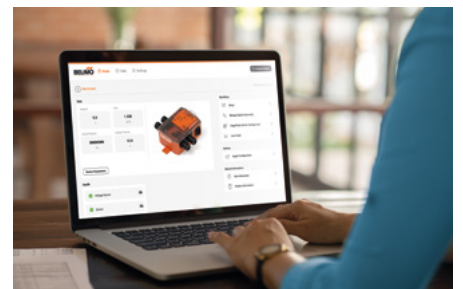
System protection

Fail-safe actuators protect valuable systems from damage caused by ice, water and steam. Particularly in the event of a power supply voltage failure, this actuator product range moves the dampers to the predefined fail-safe position. Depending on the actuator, short power failures can be bridged for up to 10 seconds and the fail-safe positions can be set individually. Unnecessary failures and convenience impairments are thereby prevented.



Bus and system integration

Belimo damper actuators, control valves, sensors, and meters can be easily integrated into intelligent building automation systems. Field devices with an integrated BACnet, Modbus, and KNX interface are available for direct connections. MP actuators can combine up to eight different control devices into one MP-Bus section and connect virtually any supervisory system with significantly reduced wiring costs. IoT actuators communicate via Ethernet and synchronise directly with the Belimo Cloud. Belimo Assistant 2 enables wired and wireless setup, on-site operation, and troubleshooting with smartphones, tablets, and PCs.








Room applications

Used in offices, public buildings, production halls, commercial premises or sensitive operating areas, volumetric flow controllers, actuators and sensors ensure an optimum room climate while consuming minimal levels of energy. They can be used as VAV-Compact or VAV-Universal devices. The latter ensures safe conditioning in room pressure applications. Special, compact VAV control units are available for distribution boxes used in controlled apartment ventilation.






Ventilation applications.

Rotary actuators without fail-safe



Product range	Types/performance classes	Specifications	Applications
	Standard actuators: <ul style="list-style-type: none"> TMC (2 Nm) LM (5 Nm) NM (10 Nm) SM (20 Nm) GM (40 Nm) 	<ul style="list-style-type: none"> With integrated auxiliary switch or potentiometer Identical accessories for all types Connection: Cable (IP54) or terminals (IP20 or IP54) 	Motorisation of air dampers without fail-safe up to 8 m ²
	Compact actuators: <ul style="list-style-type: none"> CM (2 Nm) CM..G (2 Nm, IP66) 	<ul style="list-style-type: none"> Mechanical angle of rotation limitation 0...287.5° or endless rotation Magnetic gearing latch The slimmest actuator of its type Simple mounting 	Motorisation of air dampers without fail-safe up to 0.4 m ² in apartment and schoolroom ventilation systems, underfloor air-conditioning equipment, decentralised sill ventilation units, active heating/chilled beams, etc.
	Simple compact actuator: <ul style="list-style-type: none"> UM (1 Nm, IP20) 	<ul style="list-style-type: none"> Plug-in actuator Mechanical angle-of-rotation limitation 0...287.5° or endless rotation (for form-fit variant) Fast running time of 22 s/90° Sound power level ≤ 35 dB(A) 	Motorisation of air dampers without fail-safe up to 0.2 m ² in apartment and schoolroom ventilation systems, decentralised distribution systems, air outlets, active heating/chilled beams, etc.
	Compact actuator with integrated damper blade: <ul style="list-style-type: none"> CM..D (2 Nm) 	<ul style="list-style-type: none"> Damper diameter 100, 125, 150 and 160 mm Air tight in accordance with DIN EN 1751, Classes 3 and 2 Sound power level ≤ 35 dB(A) Useable up to 1000 Pa max. Running time 58 s/70° 	For installation in round ducts up to DN 160 in apartment ventilation systems, air distribution systems, after-flows, facade equipment, etc.
	Rotary actuator with high torque: <ul style="list-style-type: none"> PMCA (160 Nm) 	<ul style="list-style-type: none"> IP66/67, NEMA 4X, UV protection Configurable running time 30...120 s Integrated auxiliary switches Connection: terminals 	Motorisation of air and special dampers, tunnel dampers, highly airtight dampers, industry applications

Linear actuators without fail-safe


Product range	Types/performance classes	Specifications	Applications
	Standard actuators: <ul style="list-style-type: none"> • LH (150 N) • SH (450 N) 	<ul style="list-style-type: none"> • Gear rod lengths 60, 100, 200 and 300 mm • Mechanical stroke limitation every 20 mm • Adjustable direction of stroke 	Motorisation of control elements up to 3 m ² and a linear movement up to 300 mm for swirl outlets, long range nozzles, mixing units, cabin units, VAV units, etc.
	Compact actuator: <ul style="list-style-type: none"> • CH (125 N) 	<ul style="list-style-type: none"> • Gear rod lengths 40, 60 and 100 mm • Mechanical stroke limitation every 20 mm • Gearbox can be rotated by 90° • Linear unit can be mounted beforehand without actuator 	Motorisation of control elements up to 0.8 m ² and a linear movement up to 100 mm in apartment ventilation systems, swirl outlets, long range nozzles, mixing units, etc.
	Simple compact actuator: <ul style="list-style-type: none"> • UH (50 N) 	<ul style="list-style-type: none"> • Gear rod length 60 mm • Mechanical stroke limitation every 1 mm • Linear unit can be mounted beforehand • Can be used for various installation situations, also thanks to "rotary longitudinal motion" • Sound power level ≤35 dB(A) 	Motorisation of control elements up to 0.2 m ² with linear movement up to 60 mm in apartment ventilation systems, air outlets, active heating/chilled beams, mixing units, etc.

Ventilation applications.


Very fast running actuators without fail-safe

Product range	Types/performance classes	Specifications	Applications
	Rotary actuators: <ul style="list-style-type: none"> • LMQ (4 Nm) • NMQ (8 Nm) • SMQ (16 Nm) • NMD (8 Nm, running time 20 s) • SMD (16 Nm, running time 20 s) 	<ul style="list-style-type: none"> • Identical accessories for all types • Very fast running times starting from 2.5 s 	Motorisation of air dampers without fail-safe up to 3.2 m ² for laboratories, clean rooms, hospitals, research institutes, industrial extraction systems, painting and welding plants, etc.
	Linear actuators: <ul style="list-style-type: none"> • LHQ (100 N) • SHQ (200 N) 	<ul style="list-style-type: none"> • Gear rod length 100 mm • Mechanical stroke limitation every 20 mm • Running times starting from 3.5 s / 100 mm 	Motorisation of control elements and slide valves with linear movement up to 100 mm for wood boilers, mixing units, tilt windows, etc.

RobustLine rotary actuators with/without fail-safe for harsh environmental conditions (IP66/67, NEMA 4X)

Product range	Types/performance classes	Specifications	Applications
	<ul style="list-style-type: none"> • NM..P (10 Nm) • SM..P (20 Nm) • NKQ..P (6 Nm, running time 4 s)¹⁾ 	<ul style="list-style-type: none"> • IP66/67, NEMA 4X, UV protection, corrosion resistant • Integrated auxiliary switch or potentiometer Optional for ambient temperatures down to -40 °C: <ul style="list-style-type: none"> • Heating with humidistat • Heating with thermostat 	Motorisation of air dampers with or without fail-safe up to 4 m ² in particularly exposed positions: <ul style="list-style-type: none"> • Protection against aggressive gases, moisture, humidity, high dust and contamination levels • General outdoor applications, kiln drying plants, agriculture, swimming pool installations, greenhouses, etc. • Rooftop ventilation plant rooms

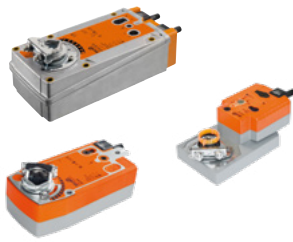


Rotary actuators with/without fail-safe for outdoor applications (IP66/67, NEMA 4X)

Product range	Types/performance classes	Specifications	Applications
	<ul style="list-style-type: none"> • GM..G (40 Nm) • SMQ..G (16 Nm, running time 7 s) • NF..G (10 Nm)¹⁾ • SF..G (20 Nm)¹⁾ • GK..G (40 Nm)¹⁾ 	<ul style="list-style-type: none"> • IP66/67, NEMA 4X, UV protection • Integrated auxiliary switch or potentiometer Optional for ambient temperatures down to -40°C: <ul style="list-style-type: none"> • Heating with humidistat • Heating with thermostat 	Motorisation of air dampers with or without fail-safe up to 8 m ² : <ul style="list-style-type: none"> • Protection against moisture, humidity, high dust and contamination levels • General outdoor applications, greenhouses, etc. • Rooftop ventilation plant rooms


¹⁾ With fail-safe

System protection.

Rotary actuators, fail-safe

Product range	Types/performance classes	Specifications	Applications
	<ul style="list-style-type: none"> • TF (2.5 Nm, IP 42) • LF (4 Nm) • NF (10 Nm)¹⁾ • SF (20 Nm)¹⁾ • EF (30 Nm)²⁾ • GK (40 Nm) 	<ul style="list-style-type: none"> • Automatic closing function in <20 s (GK: 35 s) in the event of voltage interruption • Manual override • Bridging of voltage interruptions of up to 10 s (GK) 	<p>Motorisation of air dampers with fail-safe up to 8 m²</p>
	<p>Compact actuator:</p> <ul style="list-style-type: none"> • CM24K (2 Nm) with SKM230.. (power module) 	<ul style="list-style-type: none"> • External power module: Moves two CM actuators into fail-safe position in <15 s in the event of voltage interruption 	<p>Motorisation of air dampers up to 0.4 m². Particularly suitable for decentralised air-conditioning units, apartment and schoolroom ventilation systems, and with extremely limited space conditions</p>
	<p>Rotary actuator with high torque:</p> <ul style="list-style-type: none"> • PKCA (160 Nm) 	<ul style="list-style-type: none"> • IP66/67, NEMA 4X, UV protection • Configurable running time 30...120 s • Running time fail-safe 30 s • Connection: terminals 	<p>Motorisation of air and special dampers, tunnel dampers, highly airtight dampers, industry applications</p>

Very fast running rotary actuators, fail-safe

Product range	Types/performance classes	Specifications	Applications
	<ul style="list-style-type: none"> • NKQ (6 Nm, running time 4 s) 	<ul style="list-style-type: none"> • Running time fail-safe 4 s • Bridging of voltage interruptions of up to 5 s • Fail-safe position configurable between 0...100 % 	<p>Motorisation of air dampers with fail-safe up to 1.2 m²</p> <ul style="list-style-type: none"> • Laboratory applications • Paint shops • Sensitive working environments

¹⁾ Optional with two integrated auxiliary switches.

²⁾ Optional with two integrated auxiliary switches and with IP66 and UV protection for outdoor applications.

Water applications.




Belimo ZoneTight™

Product range	Valves	Actuators	Applications
	Internal thread (QCV): <ul style="list-style-type: none"> C2..Q-.. (2-way, characterised control valve) C3..Q-.. (3-way, changeover ball valve) 	<ul style="list-style-type: none"> Rotary actuators: CQ series With fail-safe: CQK series Fast running actuators (15 s): CQD and CQKD series 	Cold and warm water: <ul style="list-style-type: none"> Nominal diameter DN 15/20/(25) Permissible operating pressure 1600 kPa Fan coils Cooling ceilings Zone air heaters / air coolers Floor heaters Radiators
	External thread (QCV): <ul style="list-style-type: none"> C4..Q-.. (2-way, characterised control valve) C5..Q-.. (3-way, changeover ball valve) 		
	Internal thread (PIQCV): <ul style="list-style-type: none"> C2..QP(T)-.. (2-way, pressure-independent zone valve) 		
	Internal thread (PIFLV): <ul style="list-style-type: none"> C2..QFL-.. / R225FL-.. (2-way, flow limiter valve) 	<ul style="list-style-type: none"> Open/close rotary actuators: CQ24A (-MPL/-BAC)¹⁾ 	Chilled water: <ul style="list-style-type: none"> Cooling ceilings Fan coils
	Internal thread: <ul style="list-style-type: none"> R30...-B.. (6-way, characterised control valve) 	<ul style="list-style-type: none"> Rotary actuators: CQ24A-SR (-MPL/-BAC), LR24A-SR (-MP/-MOD/-KNX), NR24A-SR (-MP/-MOD/-KNX) 	Cold and warm water: <ul style="list-style-type: none"> Nominal diameters DN 15/20/(25) Permissible operating pressure 1600 kPa Modulating control of combined heating/cooling elements
	Internal thread (6-way, EPIV): <ul style="list-style-type: none"> EP..R-R6+BAC²⁾ 	<ul style="list-style-type: none"> Integrated actuator Electronic flow measurement Permanent hydronic balancing 	
	Supply/return: internal thread 1" Zone: External thread 3/4" Eurocone: <ul style="list-style-type: none"> EM-ECQ-..F (2...12 zones) 	<ul style="list-style-type: none"> Rotary actuators: CQ series With fail-safe: CQK series 	Cold and warm water: <ul style="list-style-type: none"> 2...12 zones Permissible operating pressure 600 kPa Stainless steel

¹⁾ R225FL-.. is motorised with LR..A (only open/close permissible).



²⁾ The EP..R-R6+BAC valve types will be replaced over the course of the year by the new EP..R6+BAC types.

Pressure-independent characterised control valves


Product range	Valves	Actuators	Applications
	Internal thread (Belimo Energy Valve™, 2-way, DN 15...50): <ul style="list-style-type: none"> • EV..R2+BAC • EV..R2+KBAC • EV..R2+MID 	<ul style="list-style-type: none"> • Integrated monitoring and recording function • Electronic flow measurement • Permanent hydronic balancing • DN 15...50 with MID approval • Power control • Glycol Monitoring • Connection to the Belimo Cloud • Fail-safe: KBAC 	Balancing, measuring, controlling, shutting off and energy monitoring with a single valve unit: <ul style="list-style-type: none"> • Flow V'_{max} 0.11...45 l/s • Nominal diameters DN 15...150 • Permissible pressure 1600 kPa
	Flange (Belimo Energy Valve™, 2-way, DN 65...150): <ul style="list-style-type: none"> • EV..F+BAC • EV..F+KBAC 		
	Internal thread (Belimo Energy Valve™, 3-way, DN 15...50): <ul style="list-style-type: none"> • EV..R3+BAC 	<ul style="list-style-type: none"> • Integrated monitoring and recording function • Electronic flow measurement • Permanent hydronic balancing • Power control • Connection to the Belimo Cloud 	Creates system transparency in 3-way applications: <ul style="list-style-type: none"> • Flow V'_{max} (A-AB) 0.11...4.8 l/s • Nominal diameters DN 15...50 • Permissible pressure 1600 kPa
	Internal thread (EPIV, 2-way, DN 15...50): <ul style="list-style-type: none"> • EP..R2+BAC • EP..R2+KBAC 		
	Flange (EPIV, 2-way, DN 65...150): <ul style="list-style-type: none"> • EP..F+MP • EP..F+KMP • EP..F+MOD 	<ul style="list-style-type: none"> • Integrated actuator • Electronic flow measurement • Permanent hydronic balancing • Glycol Monitoring • Fail-safe: KBAC/KMP 	Balancing, measuring, controlling and shutting off with a single valve unit: <ul style="list-style-type: none"> • Flow V'_{max} 0.11...45 l/s • Nominal diameters DN 15...150 • Permissible pressure 1600 kPa

Water applications.


Characterised control valves

Product range	Valves	Actuators	Applications
	Internal thread: <ul style="list-style-type: none"> • R2..-S.. (2-way) • R3..-S.. (3-way) 	<ul style="list-style-type: none"> • Rotary actuators: TR, LR, NR, SR series • With fail-safe: TRF, LRF, NRF, SRF series • Fast runners: TRC, LRC, NRC, SRC series • Very fast running actuators from 2.5 s: LRQ-, NRQ-, SRQ series 	Cold and warm water: <ul style="list-style-type: none"> • Nominal diameters DN 15...50 • Permissible pressure 1600 kPa
	External thread: <ul style="list-style-type: none"> • R4.. (2-way) • R5.. (3-way) 		
External thread (high temperatures): <ul style="list-style-type: none"> • R4..D (2-way) 	District heating, cold and hot water: <ul style="list-style-type: none"> • Nominal diameters DN 10...20 • Permissible pressure 2700 kPa 		
 Flange: <ul style="list-style-type: none"> • R6..W...S8 (2-way, PN 16) 	Cold and warm water: <ul style="list-style-type: none"> • Nominal diameters DN 65...150 • Permissible pressure 1600 kPa 		


Control, shut-off and changeover valves for outdoor applications

Product range	Valves	Actuators	Applications
	Internal thread: <ul style="list-style-type: none"> • R2.. (2-way) • R3.. (3-way) 	<ul style="list-style-type: none"> • Rotary actuators: SR..P series IP66/67 	Cold and hot water applications in IP66/67 environment: <ul style="list-style-type: none"> • Nominal diameters DN 15...50 • Permissible pressure 1600 kPa
	External thread: <ul style="list-style-type: none"> • R4.. (2-way) • R5.. (3-way) 		




Open/close and changeover valves

Product range	Valves	Actuators	Applications
	Internal thread: <ul style="list-style-type: none"> • R2.. (2-way) • R3..(BL) (3-way) 	<ul style="list-style-type: none"> • Rotary actuators: TR, LR, NR, SR series • With fail-safe: TRF, LRF, NRF, SRF series • Fast runners: TRC, LRC, NRC, SRC series • Very fast running actuators from 2.5 s: LRQ-, NRQ-, SRQ series 	Cold and hot water, shut-off and changeover function: <ul style="list-style-type: none"> • Nominal diameters DN 15...50 • Permissible pressure 1600 kPa
	External thread: <ul style="list-style-type: none"> • R4.. (2-way) • R5.. (3-way) 		


Potable water valves

Product range	Valves	Actuators	Applications
	<ul style="list-style-type: none"> C215QPW-N / R2..PW-.. <p>Certified by ACS, DVGW, ÖVGW and WRAS</p>	<ul style="list-style-type: none"> Rotary actuators: CQ, LR, NR, SR series With fail-safe: CQK, LRF, NRF, SRF series Fast running actuators: CQD, LRC, NRC, SRC series 	<p>Potable water:</p> <ul style="list-style-type: none"> Nominal diameters DN 15...50 Open/close applications

Globe valves

Product range	Valves	Actuators	Applications
	<p>Internal thread:</p> <ul style="list-style-type: none"> H2..S-.. (2-way) H3..S-.. (3-way) 	<ul style="list-style-type: none"> Default globe valve actuators: LV..A (15 mm), NV..A, SV..A (20 mm), EV..A, RV..A (40 mm) Fail-safe globe valve actuators: NVK..A, SVK..A (20 mm), AVK..A (32 mm) Fast runners: LVC..A (15 mm), NVC..A, SVC..A (20 mm), EVC..A (40 mm) Large stroke actuators: GV (65 mm) 	<p>Cold and warm water:</p> <ul style="list-style-type: none"> Nominal diameters DN 15...50 Permissible pressure 1600 kPa Permissible pressure 2500 kPa
	<p>External thread:</p> <ul style="list-style-type: none"> H4..B (2-way) H5..B (3-way) 		
	<p>Flange:</p> <ul style="list-style-type: none"> H6..N / H7..N (2- / 3-way, PN 16) H6..S(P) / H7..S (2- / 3-way, PN 16) ¹⁾ H6..W.. / H7..W.. (2- / 3-way, PN 16), DN 200 / 250 <p>Additional flange versions:</p> <ul style="list-style-type: none"> H6..R / H7..R (2- / 3-way, PN 6) H6..X.. / H7..X.. (2- / 3-way, PN 25) 		
			<p>Cold and warm water:</p> <ul style="list-style-type: none"> Nominal diameters DN 15...100 Permissible pressure 600 kPa Permissible pressure 2500 kPa









Butterfly valves

Product range	Valves	Actuators	Applications
	<p>Flange PN 6/10/16:</p> <ul style="list-style-type: none"> D6..N (2-way) D6..NL (2-way) D6..W (2-way) D6..WL (2-way) D7.. (3-way) 	<ul style="list-style-type: none"> Rotary actuators: SR-5, SR..P-5, GR-5, GR-7, JR, PR, and SY series With fail-safe: SRF-5, GRK-5, and PRK series <p>Optional:</p> <ul style="list-style-type: none"> Heating with humidistat/thermostat Integrated auxiliary switch or potentiometer 	<p>Shutting off, switching, controlling and mixing cold and warm water:</p> <ul style="list-style-type: none"> Nominal diameters DN 25...700 (2-way) Nominal diameters DN 100...300 (3-way)


¹⁾ Hot water and steam

Sensors and meters.






Temperature

Product range	Types	Properties	Applications
	Outdoor: • 01UT • 22UT	<ul style="list-style-type: none"> • Sensor-dependent measuring ranges –50...160°C • Active sensors with eight selectable temperature ranges 	For measurement of outdoor temperature or for room solutions with increased requirements, e.g., in cold stores and greenhouses as well as in production halls and warehouses
	Duct/immersion: • 01DT • 22DT • 01PT	<ul style="list-style-type: none"> • Sensor-dependent measuring ranges –50...160°C • Active sensors with eight selectable temperature ranges • Suitable for air and water applications • Probe length: 50...450 mm 	For measuring the temperature in the duct. In connection with a thermowell made of brass or stainless steel also suitable for liquid fluids
	Duct average temperature: • 01MT • 22MT	<ul style="list-style-type: none"> • Sensor-dependent measuring ranges –50...160°C • Active sensors with eight selectable temperature ranges • Passive sensors with Pt1000 • Probe length: 3 m / 6 m 	Duct average temperature sensor for air handling units or larger ducts with layer formation
	Pipe contact: • 01ST • 01HT • 22HT	<ul style="list-style-type: none"> • Active and passive contact temperature sensors for pipe applications • Sensor-dependent measuring ranges –50...160°C • Metal probe or spring-loaded brass pin guarantees fast reaction times 	Contact temperature sensors for heating systems and solar collectors, passive and active
	Cable: • 01CT • 22CT	<ul style="list-style-type: none"> • Cable temperature sensor, active and passive • Sensor-dependent measuring ranges –50...160°C • Probe length: 50...200 mm • Cable length 2 m 	For temperature measurement in the gaseous fluids used in heating, ventilation and air-conditioning systems. With stainless steel probe. Immersion temperature sensor in combination with a thermowell
	Frost monitor: • 01ATS • 20DTS	<p>01ATS</p> <ul style="list-style-type: none"> • Output: switch • Manual or automatic reset • Capillary tube length: 3 m / 6 m <p>20DTS</p> <ul style="list-style-type: none"> • Modulating output 0...10 V (valve control) • Output: switch • Capillary tube length: 2 m / 6 m 	Frost detection for air handling units downstream from the air heater
	Temperature monitor: • 01HT-101CA	<ul style="list-style-type: none"> • 30...90°C • Probe length: 1 m • Automatic reset 	For monitoring the temperature in heat generation systems, underfloor heating or in other applications of HVAC technology
	Safety temperature limiter STB: • EXT-J-...	<ul style="list-style-type: none"> • 50...80 °C • 70...130°C • Probe length: 1 m • Manual reset 	For monitoring the temperature in heat generation systems, underfloor heating or in other applications of HVAC technology

Air quality




Product range	Types	Properties	Applications
	Duct: <ul style="list-style-type: none"> • 22DC • 22DTC • 22DTM • 22DCV • 22DCM • 22DCK 	<ul style="list-style-type: none"> • Wide range of combined multi sensors for CO₂, humidity, temperature and VOC • Dual-channel CO₂ sensor based on NDIR technology 	Dual-channel self-calibration technology enables the use of Belimo CO ₂ sensors in all buildings and applications, even where the ABC (Automatic Background Calibration) method cannot be used

Humidity


Product range	Types	Properties	Applications
	Outdoor: <ul style="list-style-type: none"> • 22UTH 	<ul style="list-style-type: none"> • Multi sensors for relative and absolute humidity, temperature, enthalpy, dew point and condensation • 0...100% RH • Four selectable temperature measuring ranges • Output signals: 0...10 V, Modbus RTU, BACnet MS/TP 	<ul style="list-style-type: none"> • Sensors for temperature/ humidity for outdoor use or room solutions with increased requirements, e.g. in cold stores and greenhouses as well as in production halls and warehouses • Option: weather protection
	Duct: <ul style="list-style-type: none"> • 22DTH 	<ul style="list-style-type: none"> • Output signals: 0...5 V, 0...10 V, Modbus RTU, BACnet MS/TP • Probe length: 140 mm / 270 mm • 0...100% RH • Four selectable temperature measuring ranges 	<ul style="list-style-type: none"> • Active sensor for measuring the relative or absolute humidity and temperature in duct applications
	Duct humidistat: <ul style="list-style-type: none"> • 01DH 	<ul style="list-style-type: none"> • 15...95% RH • Probe length: 156 mm • Adjustable switch range • Output signal: switch • Temperature compensation 	<ul style="list-style-type: none"> • Duct humidistat for switching or controlling fans, drying units and humidifiers. Installation in a duct or on a wall
	Condensation: <ul style="list-style-type: none"> • 22HH • 22HTH 	<ul style="list-style-type: none"> • With signal LED and relay contact for connecting to controller and display systems • Output signal: switch 	<ul style="list-style-type: none"> • For detection of condensation on chilled surfaces (e.g. chilled beams) • Option: external sensor
	Leakage: <ul style="list-style-type: none"> • 22HL 	<ul style="list-style-type: none"> • With signal LED and relay contact for connecting to controller and display systems • Output signal: switch 	<ul style="list-style-type: none"> • For detection of liquid leakage from tanks, false floors, false ceilings or rooms, etc.

Sensors and Meters.




Pressure

Product range	Types	Properties	Applications
	Duct: • 22ADP	<ul style="list-style-type: none"> Differential pressure sensor air Sensor-dependent pressure ranges –150...7000 Pa Selectable pressure ranges Auto-zero LCD display Two independent measuring systems in the same housing Output signal 0...5 V / 0...10 V / 4...20 mA, Modbus RTU, BACnet MS/TP 	<ul style="list-style-type: none"> Measurement and monitoring of the differential pressure of air Air filter monitoring Suitable for pressure control of fans
	Duct: • 01APS	<ul style="list-style-type: none"> Differential pressure switch air Sensor-dependent pressure ranges 20...5000 Pa Output signal: switch (1x SPDT) Setpoint adjustment and automatic reset function 	Typical application in HVAC systems for monitoring filters or fan V-belts
	Pipe: • 22WP • 22WDP • 22PDP	<ul style="list-style-type: none"> Pressure sensor for liquid fluids WP: Pressure sensors for various pressure ranges: 4, 6, 10, 16, 25 bar WDP: Differential pressure sensors for various pressure ranges: 1, 2.5, 4, 6 bar 22PDP: Differential pressure sensors for various pressure ranges: 5, 10, 35 bar, output signal active, display 	Pressure and differential pressure sensor for water and refrigerant



Flow

Product range	Types	Properties	Applications
	Pipe connection: • DN 15...50 with thread • DN 65...150 with flange	<p>Flow measurement with automatic glycol compensation</p> <ul style="list-style-type: none"> 0.42, 0.78, 1.38, 2.16, 3.00, 5.76 l/s 9.60, 13.60, 24.00, 37.50, 54.00 l/s 	Flow measurement of water and water-glycol mixtures

Room units


Product range	Types	Properties	Applications
	Room sensors: • 01RT • 22RT	<ul style="list-style-type: none"> • Passive/active • Temperature range: 0...50 °C • CO₂: 0...2000 ppm • Humidity: 0...100% 	<ul style="list-style-type: none"> • Measurement of room temperature, CO₂ and humidity • Display of indoor air quality by means of an LED (22RT)
	Room operating unit: • P-01RT	<ul style="list-style-type: none"> • Passive • Temperature range: 0...50 °C 	<ul style="list-style-type: none"> • Measurement of room temperature incl. setpoint adjustment
	Room operating unit: • P-22RT	<ul style="list-style-type: none"> • Active • Operation per ePaper touch display or via Smartphone (Belimo Display App) • Temperature, CO₂, humidity • 0...10 V, MP-Bus, Modbus, BACnet 	<ul style="list-style-type: none"> • Measurement of room temperature, CO₂ and humidity • Setting the setpoint for temperature and fan stage • Display of indoor air quality by means of an LED

Thermal energy meter


Product range	Types	Properties	Applications
	Thermal energy meter MID • 22PEM	<ul style="list-style-type: none"> • Meets the requirements of EN 1434, and has type approval according to the European Measuring Instruments Directive 2014/32/EU (MI-004) • Approved as a heat meter 	<ul style="list-style-type: none"> • For direct energy cost billing with a calibrated meter
	Thermal energy meter standard • 22PE	<ul style="list-style-type: none"> • Automatic glycol compensation 	<ul style="list-style-type: none"> • For recording thermal energy for interior operational purposes and when glycol compensation is required

Room and system solutions.


VAV-Compact controller¹⁾

Product range	Types/performance classes	Specifications	Applications
	Rotary actuators: <ul style="list-style-type: none"> • LMV (5 Nm) • NMV (10 Nm) • SMV (20 Nm) Linear actuator: <ul style="list-style-type: none"> • LHV (150 N) 	<ul style="list-style-type: none"> • Compact unit with sensor, controller and actuator • Integration in MP-Bus, BACnet, Modbus or KNX networks • Depending on the type, available with dynamic or static sensor 	Control of ventilation and air-conditioning VAV and CAV units in volumetric flow systems with uncontaminated or contaminated supply/extract air

CMV system for living space solutions²⁾

Product range	Types/nominal diameters	Specifications	Applications
	<ul style="list-style-type: none"> • CMV-100-MP (DN 100) • CMV-125-MP (DN 125) • CMV-150-MP (DN 150) • CMV-160-MP (DN 160) 	<ul style="list-style-type: none"> • Compact unit with sensor, controller, actuator and damper blade • Integration in MP-Bus networks 	Only for use in the controlled apartment ventilation


VAV-Universal solutions¹⁾

Product range	Types/performance classes	Specifications	Applications
	VAV-Universal controller: <ul style="list-style-type: none"> • VRU-D3-BAC with flow sensor 0...500 Pa • VRU-M1-BAC with static sensor 0...600 Pa • VRU-M1-BAC with static sensor -75...75 Pa Actuators: <ul style="list-style-type: none"> • LM/NM/SM24A-VST (5...20 Nm) • LMQ/NMQ24A-VST (very fast running actuator 4/8 Nm) • LF/NF/SF24A-VST (fail-safe 4...20 Nm) • NKQ24A-VST (fail-safe 6 Nm) 	<ul style="list-style-type: none"> • Controller with integrated sensor • Plug connection between the controller and actuator • Conventional control 0...10 V / 2...10 V • Integration in MP-Bus, BACnet, or Modbus networks 	<ul style="list-style-type: none"> • Volumetric flow VAV / CAV • Volumetric flow summation • Duct and room pressure
		<ul style="list-style-type: none"> • Plug connection • Running times starting from 2.5 s 	Use with VAV-Universal controller


¹⁾ Deliveries exclusively to manufacturers of VAV units (except for communication and control units).

²⁾ Deliveries exclusively to manufacturers of apparatus for apartment ventilation.

Room controller system solutions


Product range	Types/performance classes	Specifications	Applications
	<p>Controllers:</p> <ul style="list-style-type: none"> • CR24 (room controller) • CRA24 (controller for apartments) • CRK24 (controller for 6-way characterised control valve) <p>Positioners:</p> <ul style="list-style-type: none"> • CRP24 	<ul style="list-style-type: none"> • Complete solution • Energy-efficient (eu.bac-certified) • Tool plug on the unit 	<ul style="list-style-type: none"> • Individual room controls in comfort zone • Setpoint specification

ZoneEase™ VAV zone control


Product range	Types/performance classes	Specifications	Applications
	<p>Rotary actuators:</p> <ul style="list-style-type: none"> • LMV (5 Nm) • NMV (10 Nm) <p>Room operating units:</p> <ul style="list-style-type: none"> • P-22RT 	<ul style="list-style-type: none"> • Compact unit with sensor, controller and actuator • Commissioning and operation via Belimo ZoneEase VAV App • Integration in Modbus and BACnet • Option with three digital outputs • Pre-programmed applications • Room operating unit with ePaper touch display or virtual display (via Belimo Display App) • Digital input • Configurable access rights 	<ul style="list-style-type: none"> • Control of IAQ (indoor air quality – CO₂) • Control of temperature and IAQ • Control of volumetric flow • Control of electrical and water reheaters and fans (version with digital outputs only) and communicative water reheaters (using CQ series rotary actuator) • For measuring and adapting the room climate (room temperature, CO₂ and humidity) • Interface for commissioning of the entire ventilation-side zone control

RetroFIT+ Applications.



RetroFIT+ ventilation applications: Actuators without fail-safe

Product range	Types/performance classes	Specifications	Applications
	<ul style="list-style-type: none"> • LM24A-MP-TP (5 Nm) • NM24A-MP-TP (10 Nm) • SM24A-MP-TP (20 Nm) • GM24A-MP-TP (40 Nm) • SM24A-MA (20 Nm, 4...20 mA) • LH24A-MP60-TP • LH24A-MP100-TP • LH24A-MP200-TP • LH24A-MP300-TP 	<ul style="list-style-type: none"> • Freely configurable and optimally adjustable for matching the application • Identical accessories such as auxiliary switches and potentiometers for all rotary actuators • Identical accessories such as rotary support and coupling pieces for all linear actuators • TP (terminal protected) connection: terminals IP54 	<p>Replacement of the motorisation of air dampers and slide valves without fail-safe up to 8 m²</p>


RetroFIT+ VAV

Product range	Types	Specifications	Applications
	<ul style="list-style-type: none"> • Set with VAV-Compact 	<p>Set solution for round VAV units with differential pressure sensor and complete installation set</p>	<p>Replacement of VAV actuator and control components with small and medium retrofits</p>

RetroFIT+ water applications: Globe valve actuators



Product range	Valves	Actuators	Applications
	For globe valves from various manufacturers	With universal valve adapter: <ul style="list-style-type: none"> • LV..A..-RE (500 N, 20 mm) • NV..A..-RE (1,000 N, 20 mm) • SV..A..-RE (1,500 N, 20 mm) • SVL..A..-RE (1,500 N, 50 mm) • AVK..A..-RE (2,000 N, 32 mm) • EV..A..-RE (2,500 N, 50 mm) • RV..A..-RE (4,500 N, 50 mm) Short stroke globe actuators with adapter for Siemens or Cazzaniga valves: <ul style="list-style-type: none"> • NRDVX.. (500 N, 5.5 mm) 	Motorisation of globe valves with nominal diameters DN 15...250
	For globe valves from various manufacturers: <ul style="list-style-type: none"> • Actuator interface M30x1.5 • Max. lifting force 150 N • 2.5...6.5 mm stroke modulating adjustable (smaller stroke with open/close actuators) 	<ul style="list-style-type: none"> • Adapter actuators: CV series • With fail-safe: CVK series 	Motorisation of globe valves with nominal diameters DN 15...32

RetroFIT+ water applications: Rotary valve actuators


Product range	Valves	Actuators	Applications
	For rotary valves from various manufacturers: <ul style="list-style-type: none"> • Ball valves • Butterfly Valves • Mixing valve A check of the required torque must be made.	<ul style="list-style-type: none"> • Rotary actuators HT.., SR..-R, GR..-R, JR, PR (up to 160 Nm) with adapter (square, flat head, wedge groove, etc.) • With fail-safe: SRF-R, GRK-R, PRK (up to 160 Nm) with adapter (square, flat head, wedge groove) • SY rotary actuator with adapter: 400...3500 Nm 	Motorisation of mixing valves and valves with: <ul style="list-style-type: none"> • Interface ISO 5211: F03/F04/F05/F07 or F10 • 12 mm round shaft Up to nominal diameter DN 700 and other designs on request

Safety solutions.

Motorisation solutions for fire and smoke protection dampers

Product range	Types	Specifications	Applications
	Actuators ¹⁾ : <ul style="list-style-type: none"> • BFL (4 / 3 Nm) • BFN (9 / 7 Nm) • BF (18 / 12 Nm) 	<ul style="list-style-type: none"> • Steel gearbox with Safety Position Lock™ function • Form fit • Two auxiliary switches • Halogen-free cables • Low current consumption in stand-by mode • Thermoelectric tripping device (function-protected) • Fulfils specific requirements from EN 15650 	Motorisation of fire and smoke dampers
	Communication and power supply unit: <ul style="list-style-type: none"> • BKN230-24-MOD 	<ul style="list-style-type: none"> • Connector socket for actuator • Status LED • Connection for additional smoke switching contact • Watchdog function 	Control and monitoring of various protocols: <ul style="list-style-type: none"> • Modbus • BACnet

Motorisation solutions for smoke control dampers

Product range	Types	Specifications	Applications
	Actuators ²⁾ : <ul style="list-style-type: none"> • BEN (15 Nm) • BEE (25 Nm) • BE (40 Nm) 	<ul style="list-style-type: none"> • Steel gearbox, form fit • Two auxiliary switches • Halogen-free cables • Low current consumption in stand-by mode • 1-wire and 2-wire control • High holding torque • Fulfils specific requirements from EN 12101-8 	Motorisation of smoke control dampers in powered smoke control systems

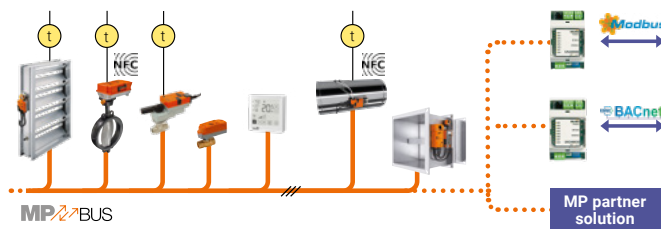
¹⁾ The fire damper actuators are supplied exclusively to damper manufacturers.

²⁾ The smoke control damper actuators are supplied exclusively to damper manufacturers.

Bus and system integration.

Belimo MP-Bus

Product range

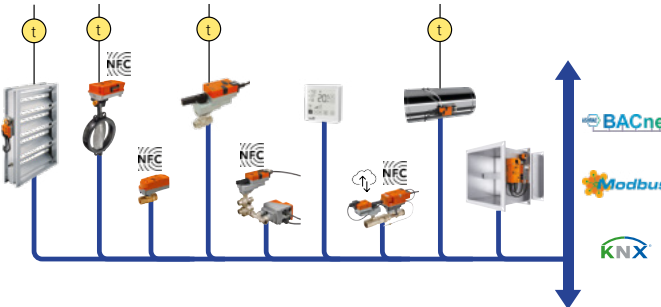


Applications

- Single-client/multi-server bus system, specially developed by Belimo for HVAC actuators and sensors
- Up to eight different control devices or sensors can be combined and connected to a supervisory field bus system (BACnet, Modbus, KNX, etc.)
- One sensor can be connected per actuator
- Either the Belimo gateways (UK24BAC, UK24MOD) or gateways and DDC controllers from other manufacturers can be used as the MP client

BACnet, Modbus and KNX

Product range



Applications

BACnet/Modbus field devices

- Actuators or sensors with an RS-485 interface can be connected directly to BACnet MS/TP or Modbus RTU
- Actuators with Ethernet interface can be connected directly to BACnet/IP or Modbus TCP. At the same time a connection with the Belimo Cloud is possible
- The analogue control can be monitored and overridden via Bus in hybrid operation
- Up to two sensors can be connected for each actuator

KNX actuators

- Actuators can be connected directly to KNX (S-mode)
- One sensor can be connected per actuator

BloT

Product range



Applications

- Actuators with Ethernet interface can optionally exchange operating and setting data with Belimo Cloud
- The monitoring and optimisation of the devices are made through a central access point
- Open Client-API for the connection to specific Cloud solutions

Belimo Assistant 2

Tool



Specifications

- The right tool for every job
- Enables wired and wireless setup, on-site operation and troubleshooting of damper actuators, control valves, sensors, and meters using smartphones, tablets and PC
- Offers quick and convenient access to field devices, even in de-energised state

All inclusive.

Belimo is the global market leader in the development, production, and sales of field devices for the energy-efficient control of heating, ventilation and air-conditioning systems. The focus of our core business is on damper actuators, control valves, sensors and meters.

Always focusing on customer value, we deliver more than only products. We offer you the complete product range for the regulation and control of HVAC systems from a single source. At the same time, we rely on tested Swiss quality with a five-year warranty. Our worldwide representatives in over 80 countries guarantee short delivery times and comprehensive support through the entire product life. Belimo does indeed include everything.

The "small" Belimo devices have a big impact on comfort, energy efficiency, safety, installation and maintenance.

In short: Small devices, big impact.



5-year warranty



On site around the globe



Complete product range



Tested quality



Short delivery times



Comprehensive support

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