

An aerial view of the Frankfurt skyline at sunset. The sun is low on the horizon, casting a golden glow over the city. Several prominent skyscrapers are visible, including the Commerzbank Tower and the Main Tower. The sky is filled with soft, orange and yellow clouds.

BELIMO[®]

Small devices,
big impact.

ISH

13. – 17.3.2023
Frankfurt am Main
Hall 10.2
Booth C75

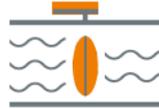
Small devices, **big impact.**



energy
efficiency



building
lifecycle



water
control



air
handling



connectivity &
air flow



room
comfort



indoor air
quality



customised
solutions

Reliable, innovative, and very compact: actuators, valves, sensors and meters from Belimo have a huge impact on heating, ventilation and air-conditioning systems. Field devices perfectly matched to their application optimise air conditioning. Intelligent valves in water circuits increase data transparency and reduce energy consumption. The motorisation of fire dampers and smoke control dampers protects people and

tangible assets. Thanks to the Belimo Cloud and the intelligent integration into higher-level systems, the control and maintenance of buildings can be simplified. Zone valves and actuators, in combination with sensors, optimise room comfort and avoid energy loss. Field devices from Belimo thus generate added value in every phase of the building life cycle, increase comfort, and save energy at the same time.

Comfort

A comfortable room environment is essential for the well-being and productivity of people. This can be precisely controlled with devices from Belimo.

Energy efficiency

The intelligent control of heating, cooling, and ventilation loads makes a significant contribution to the energy efficiency of buildings.

Security

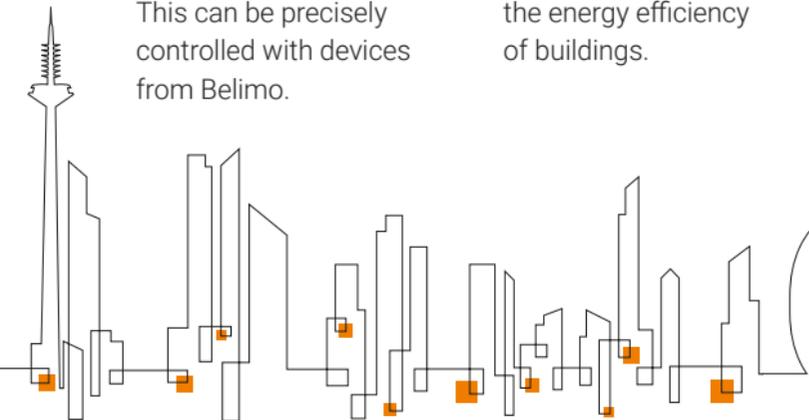
Belimo safety actuators save lives and help minimise damage to buildings and tangible assets.

Installation

Ease of installation and quick commissioning save time.

Maintenance

Low maintenance and good customer service have a big impact on building operations.



CESIM

Comfort
Energy efficiency
Safety
Installation
Maintenance



energy
efficiency

90% of all buildings worldwide could be more energy efficient

«More comfort in buildings with less energy use» – a contradiction or wishful thinking?
HVAC renovation projects are completed every day, providing noticeably better indoor comfort, healthier indoor air and, at the same time, significantly less energy to do so.

Buildings should be optimised where it makes the most sense, namely where around 40% of the energy in a building flows: heating, ventilation, and cooling. Even with a relatively small investment, a system can be made much more efficient without having to renovate the existing system completely.

We will be happy to show you the «sweet spots» of energy efficiency.



Heating and cooling system at the optimum operating point?

A too small temperature spread reduces the efficiency of heating or cooling generation and valves that do not close air-bubble tight waste energy.

Outdated air handling unit?

Inadequate filter monitoring, inefficient heat recovery, and insufficient energy control all have a negative impact on indoor air quality and comfort – and lead to high operating costs.

No demand based zone control?

If the room climate is not measured and there is no control as required in the zones and rooms, then this can have a negative effect on the room climate. A lack of automatic hydronic balancing leads to high maintenance costs and unevenly distributed energy in the building.



building
lifecycle

All phases in the building life cycle optimally supported

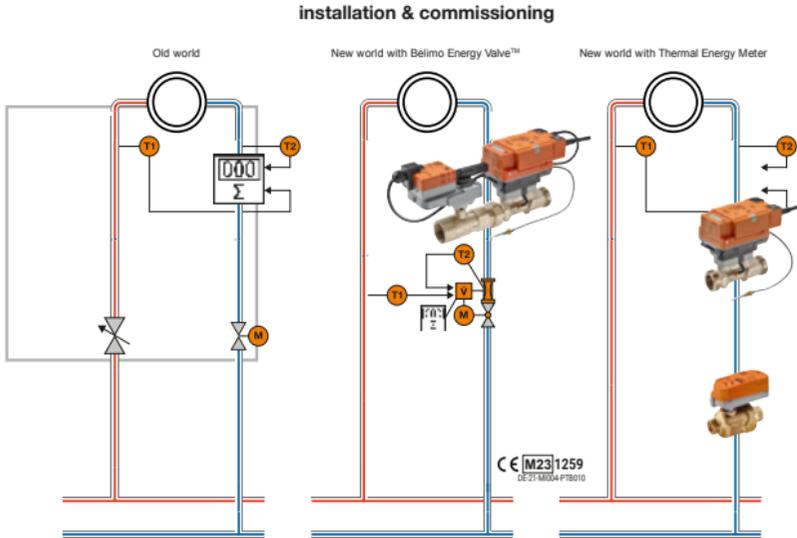
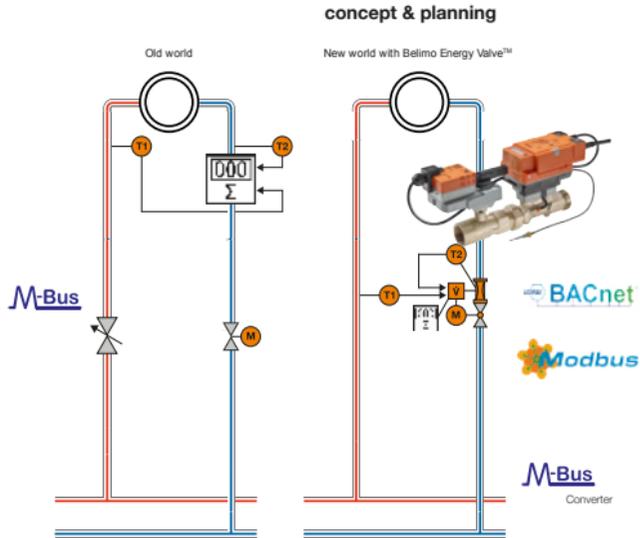
The Belimo Energy Valve™ consists of a 2-way or 3-way characterised control valve, a thermal energy meter with flow sensor and two temperature sensors, and an actuator with integrated logic. Thereby it combines many functions in a single, installation-friendly unit and supports the users in every project phase and in building maintenance. With the latest generation, direct IoT-based cost billing is now also available with just one device.



Thermal energy meter



Belimo Energy Valve™





water
control

Leakage tight water circuits

The unique 2- and 3-way valves and the revolutionary Belimo Energy Valve™ with its integrated sensor ensure balanced and energy-saving water circuits in cooling and heating applications. The 3-way control butterfly valve with selectable equal-percentage or linear characteristic curve can be used for mixing or diverting circuits and is an attractive alternative to conventional globe valves due to its lower weight, compact height, and high degree of flexibility.



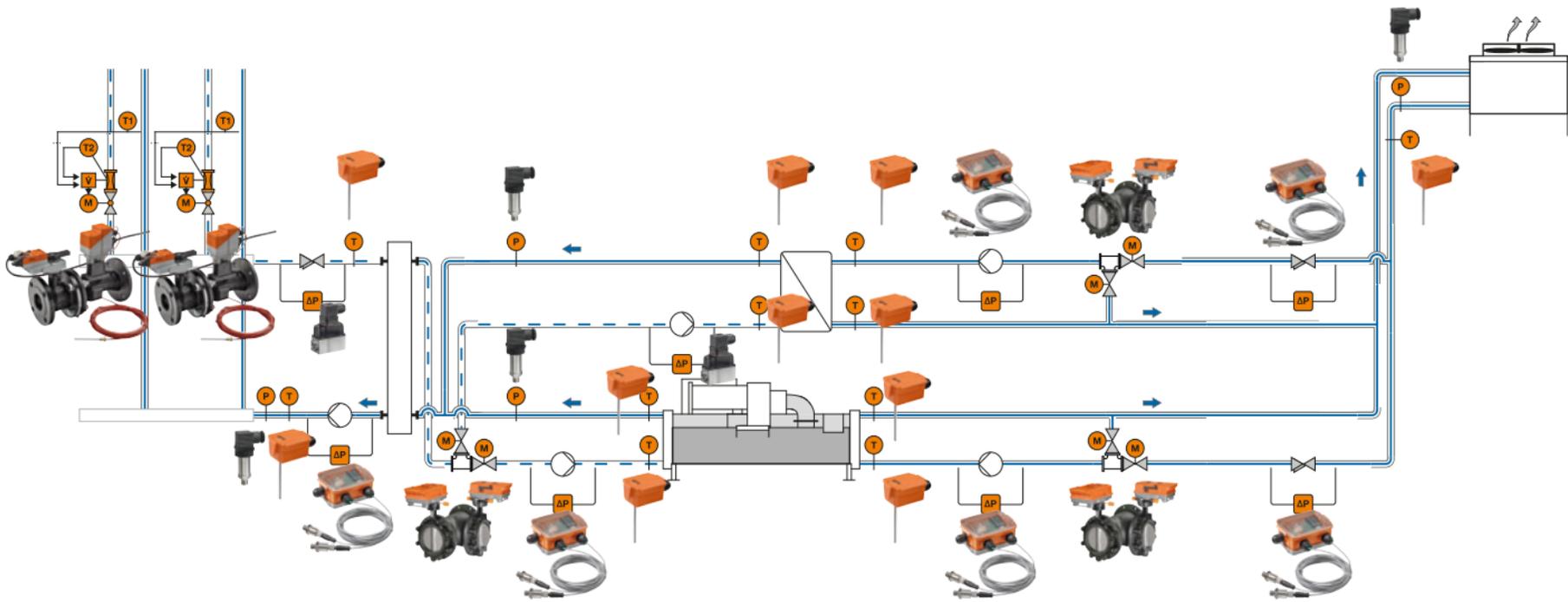
3-way control butterfly valve



Belimo Energy Valve™



Differential pressure sensor water





Perfectly balanced air conditioning

With its wide range of products, Belimo covers practically all applications in air handling units. These field devices can be precisely synchronised with each other and can also be operated, controlled, and monitored in higher-level systems. This increases operational safety and reduces maintenance costs.



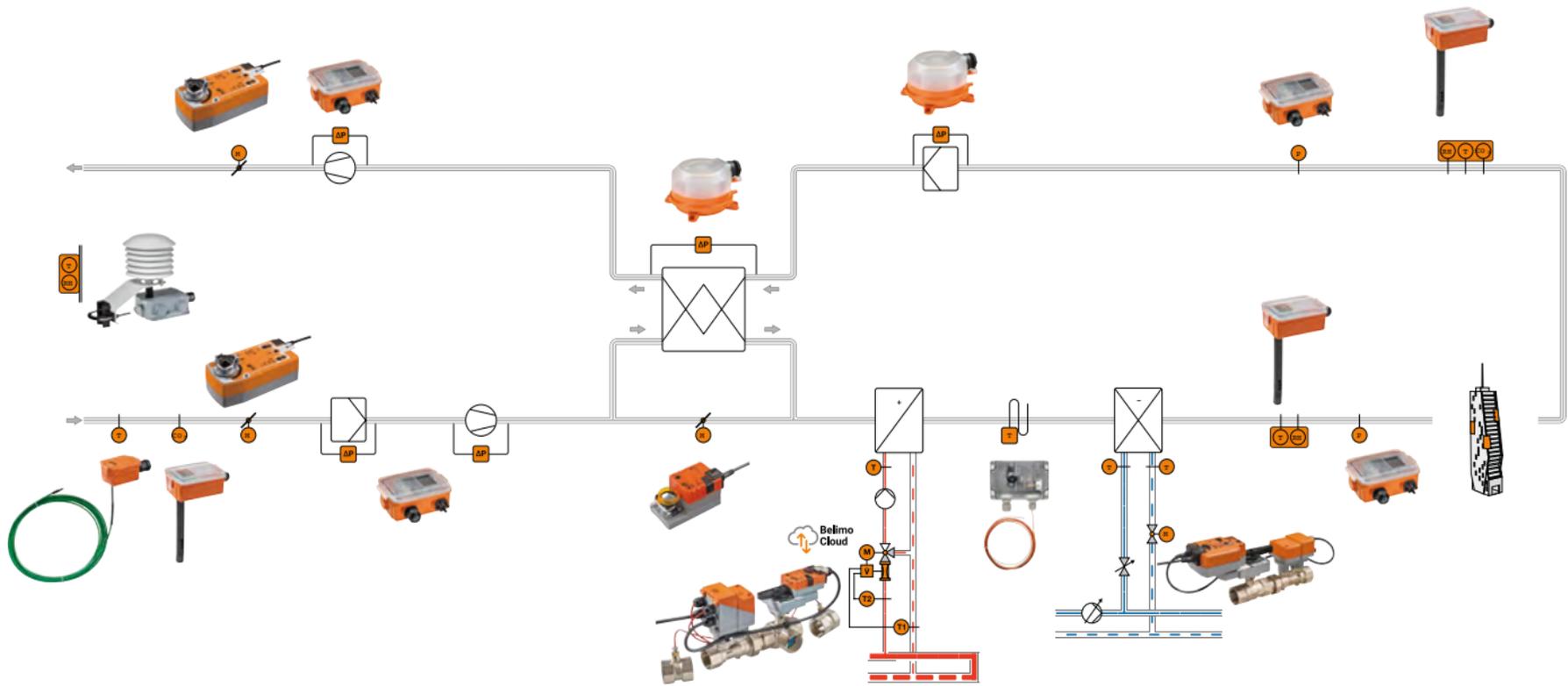
3-way Belimo Energy Valve™



Differential pressure sensor air



Rotary actuator, fail-safe





Intelligent zone control

Extremely space-saving zone solutions, intelligent volumetric flow controller, and precise sensors from Belimo regulate the climate in individual rooms and zones, individually and in an energy-saving manner. This ensures that people feel safe, expensive technical equipment is protected, and operating costs are reduced.



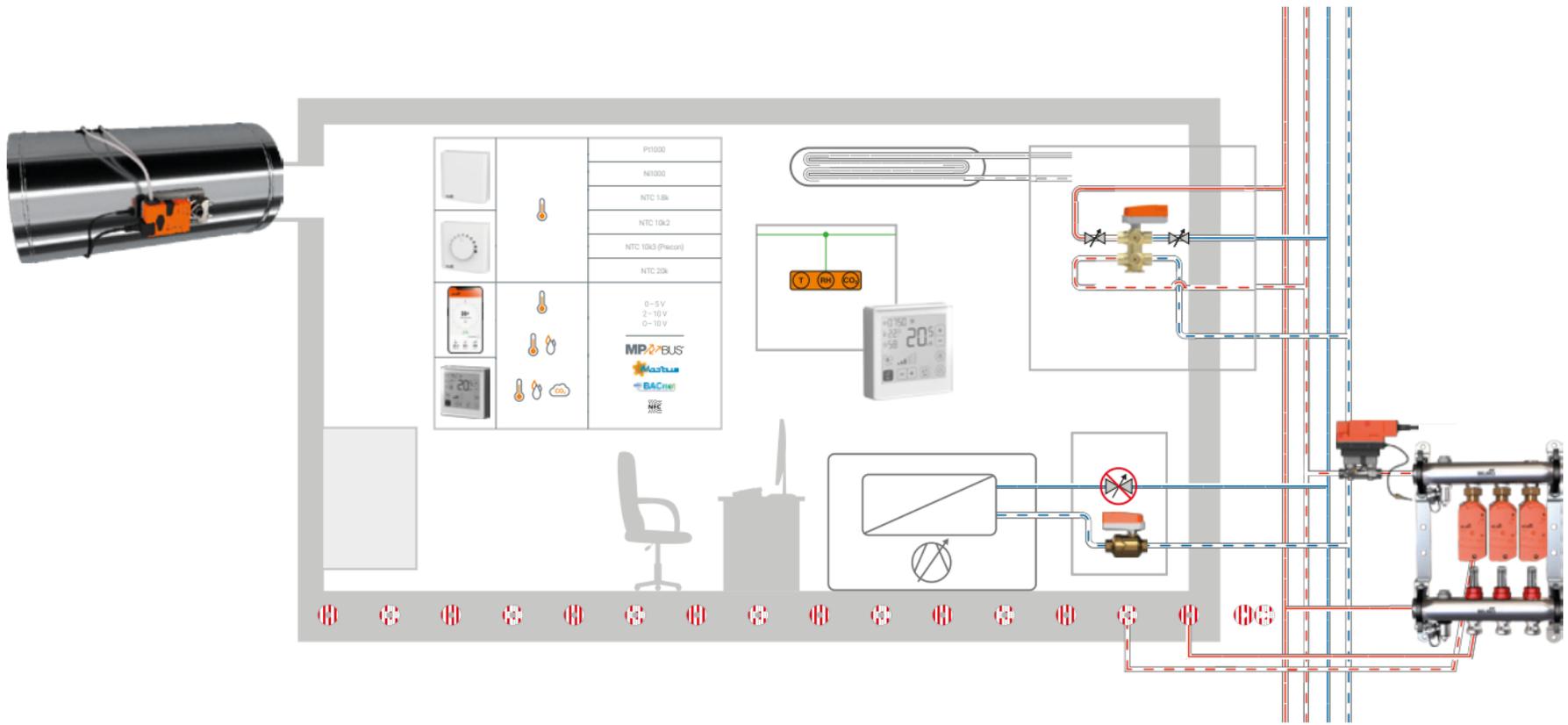
3-zone energy manifold



Volumetric flow controller
VAV-Compact



Room operating unit
CO₂ / humidity / temperature





connectivity &
air flow

Simplified control and more efficient maintenance through integration

The VAV-Universal controller from Belimo ensures a balanced climate in rooms and zones. All actuators, valves and sensors can easily be integrated into higher-level systems. Combined BACnet and Modbus-capable field devices support the hybrid mode. They can be monitored and parametrised with wired service tools or Belimo apps.

Belimo ZoneEase™ VAV is an innovative VAV solution. It offers commissioning support via the Belimo Cloud, improved user experience, as well as reduced project complexity and downtime. At the same time, it increases connectivity, data transparency, and cost efficiency.



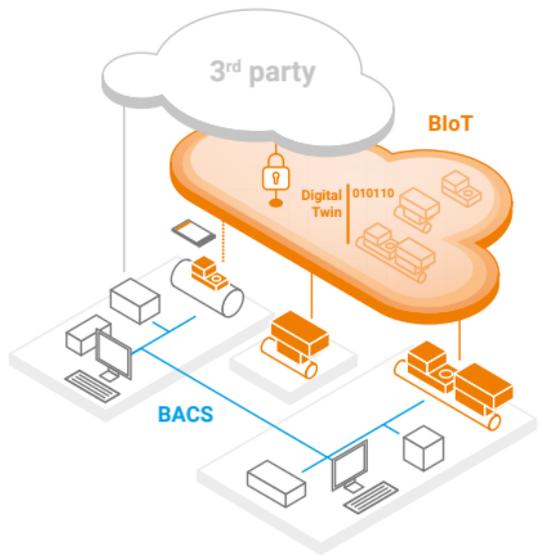
VAV-Universal with
rotary actuator



Duct sensor
CO₂ / humidity / temperature



2-way butterfly valve with
rotary actuator

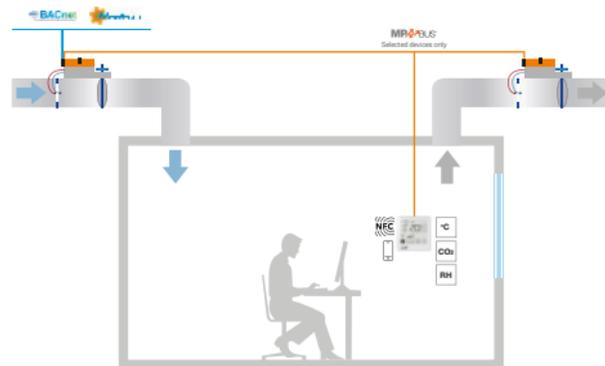
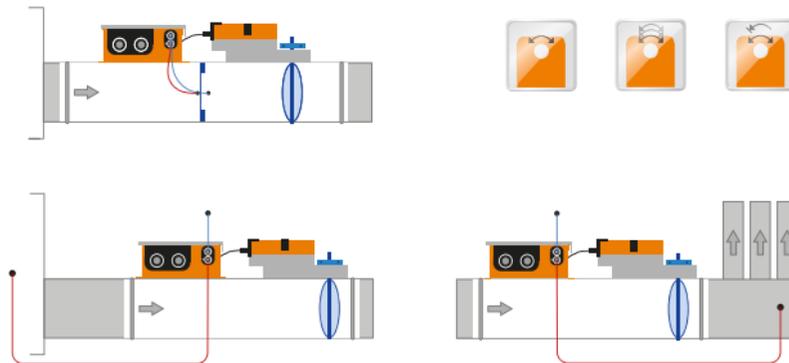


BACnet

Modbus

KNX

MP27BUS





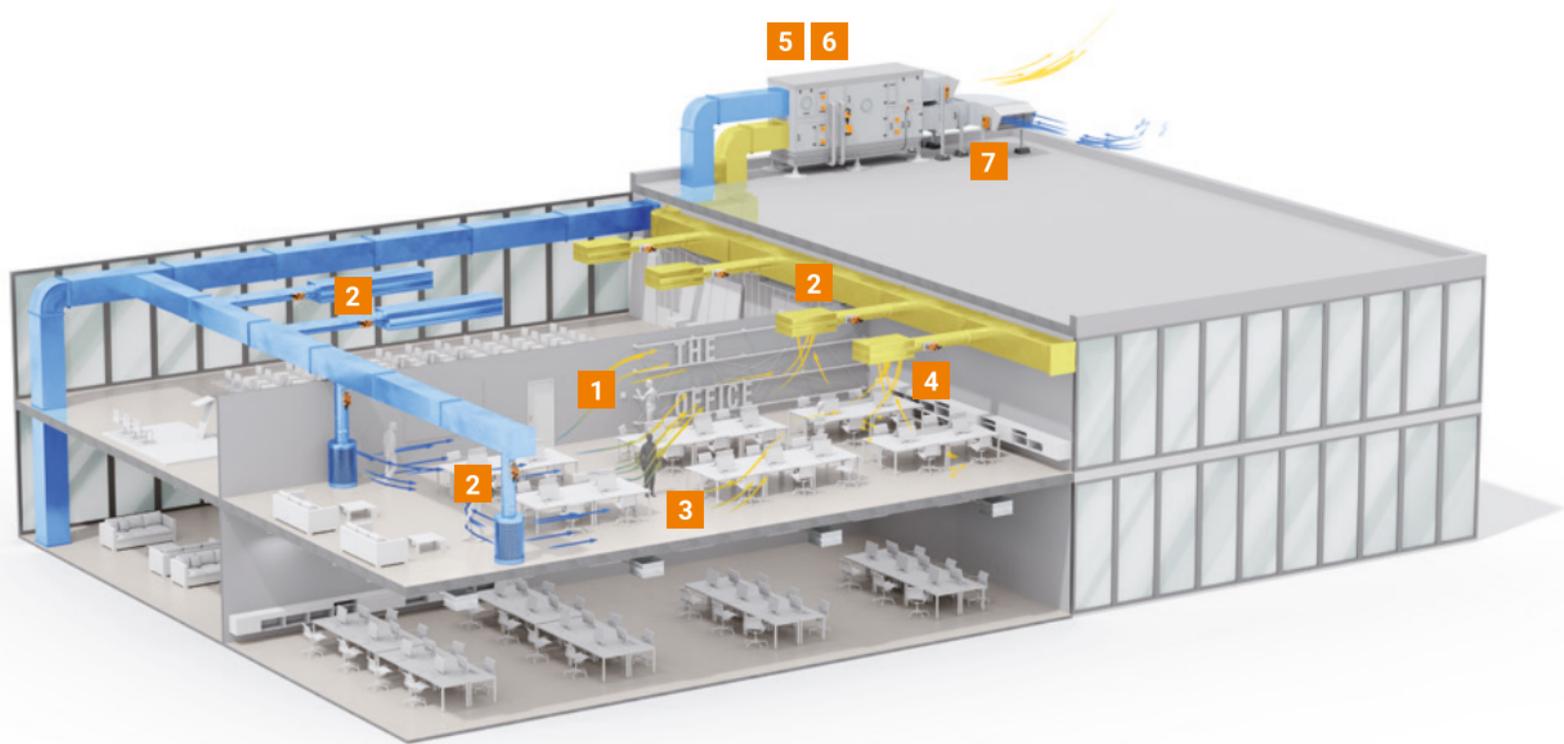
indoor air
quality

Healthy indoor air is essential

On average, people spend about 90% of their lives indoors and breathe in around 12,000 litres of air every day. However, building occupants and operators know very little about the air quality at their premises. Belimo interviewed consulting engineers and experts in the ventilation sector around the world to identify the priorities when aspiring to create a healthy indoor air environment in a building. Seven essential factors for ensuring healthy indoor air in non-residential buildings have emerged.

The seven essentials:

- 1** Continuous and reliable measurement, display, and monitoring of IAQ
- 2** Accurate amount of air to the zone and controlled removal of polluted air
- 3** Well-designed air dilution and airflow patterns
- 4** Active pressurisation of building envelope and spaces
- 5** Correct temperature and humidity control
- 6** Effective filtration
- 7** Proper amount of outdoor air





Custom-made products – less effort, more profit

Shortage of skilled labour? Belimo has the solution. Many challenges in planning and on the construction site are difficult to solve with standard products. That's why Belimo offers customised solutions, such as an actuator with the right cable length, the matching connector plug, and the necessary parametrisation. Another offer includes pre-mounted assemblies of pipe parts, sensors, connections, and other individually requested components. And if specific connection parts are required, these can be custom-made by the Belimo RetroFIT Team.



Piping package



Special RetroFIT

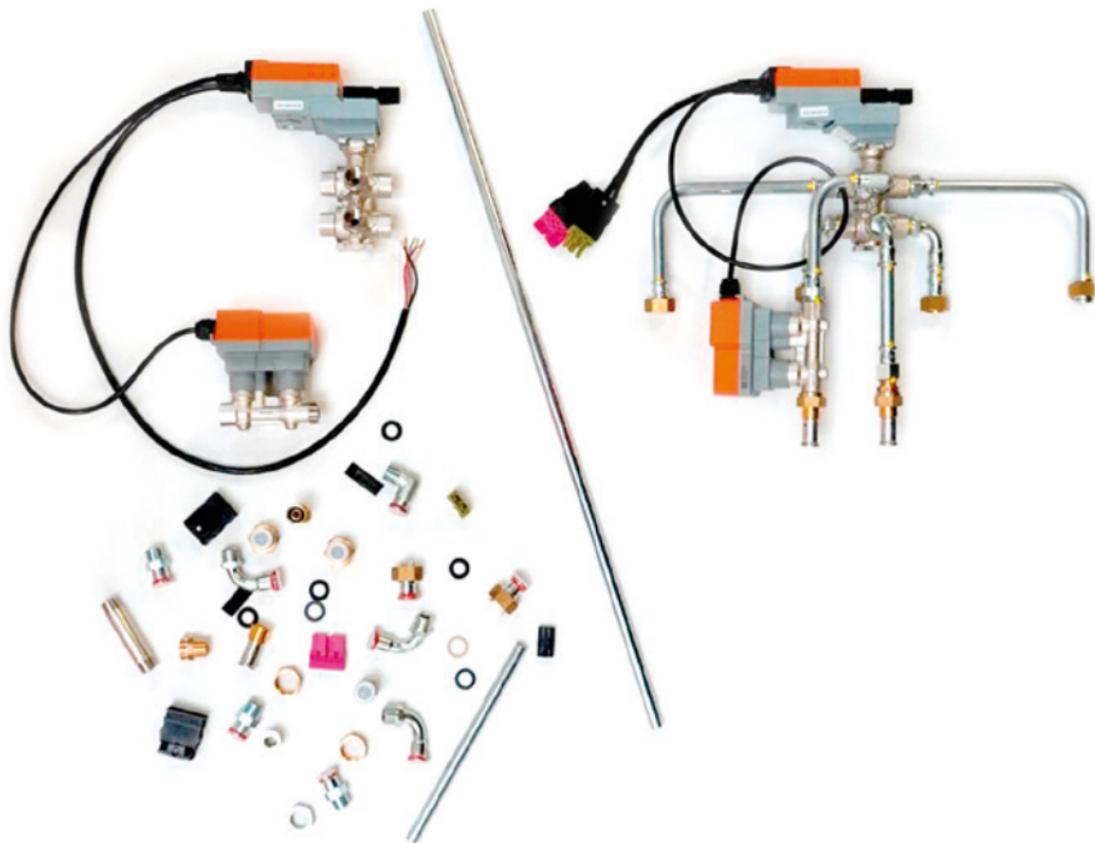


Room sensor branded

4 good reasons for design-to-order solutions from Belimo

- Save up to 80% of time at the building site
- Fewer errors during installation and commissioning
- «Plug and Play» – no electrician necessary
- Factory tested, no leakage at the site

We offer a «complete carefree package» for your application.



All inclusive.



5-year warranty



Tested quality



On site around the globe



Short delivery times



Complete product range



Comprehensive support

www.belimo.de

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