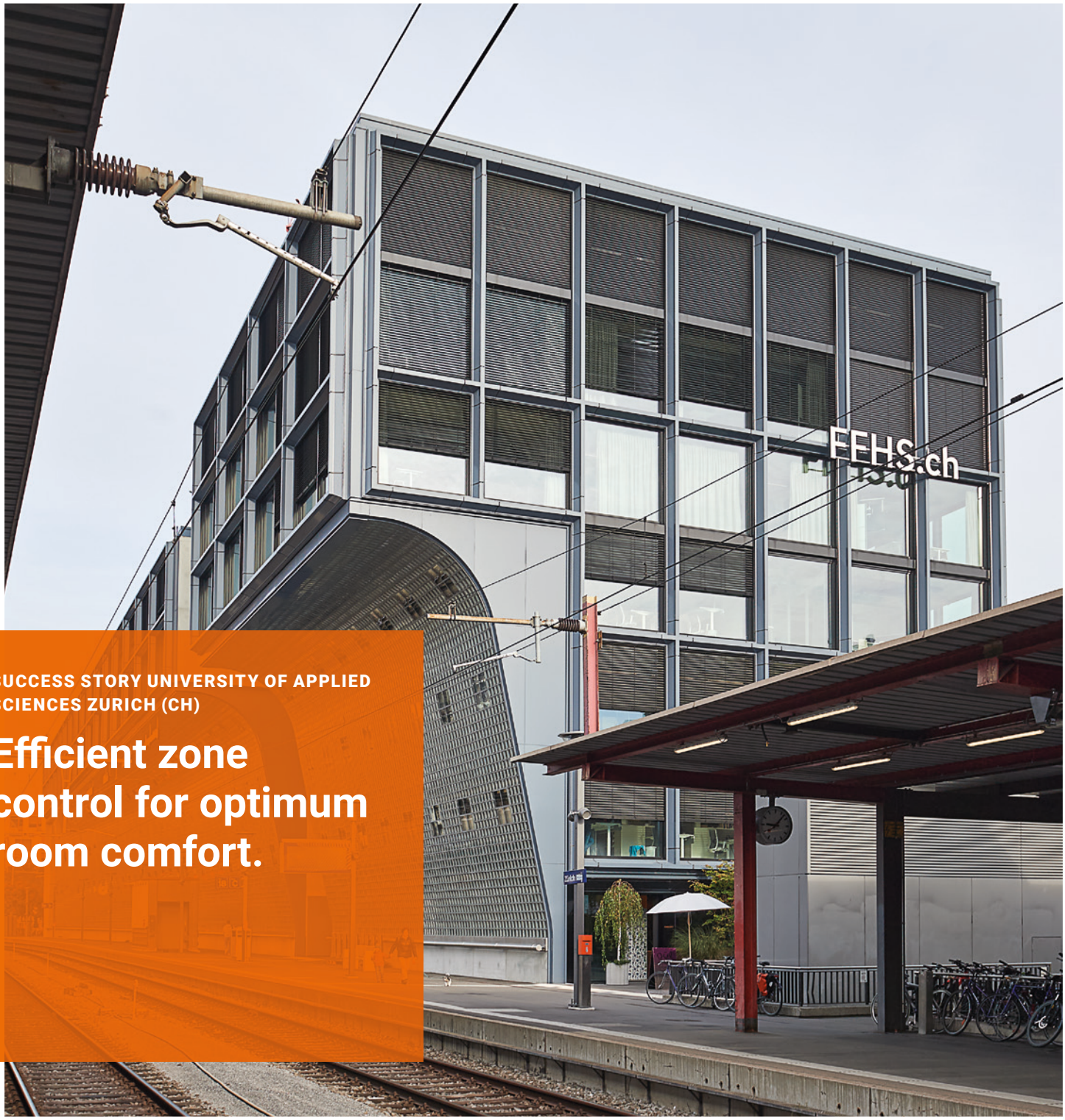


SUCCESS STORY UNIVERSITY OF APPLIED SCIENCES ZURICH (CH)

Efficient zone control for optimum room comfort.

Modern learning under ideal conditions.

The Swiss Distance University of Applied Sciences (FFHS) is the leading e-university in the country and offers around 2,800 students flexible study programmes that allow students to study whenever and wherever they like. Its location at Zurich's main railway station, which was expanded in 2021, has a total area of 6,600 m² and includes 40 classrooms, around 50 workstations, and seven meeting rooms. The modern facilities not only offer FFHS students and faculty space to learn, work and teach, but can also be rented for external teaching events.

Ensuring an optimal indoor climate is essential for the concentration and performance of students and teachers at the FFHS. To achieve this, modern heating and cooling systems were installed in the new building and equipped with Belimo components. Additional Belimo products were used in the building's fire protection system. The systems were planned by Jakob Forrer AG and installed by Hälg AG.

BUILDING TYPE
Educational Building

PROJECT
Building Conversion

TRADES
Heating/cooling systems, ventilation systems, fire protection

PRODUCTS
6-way characterised control valves, pressure-independent, 6-way characterised control valves, fire damper actuators

BELIMO

Simplified installation and commissioning with customised solutions.

Belimo components were installed in heating, cooling and ventilation systems in the building's basic configuration in 2016. As a result, different butterfly valves and globe valves were used in the heat generation of the building. Various damper actuators and pressure-independent characterised control valves from Belimo can be found in the indoor air devices of the basic configuration. The latter are also used in the main cooling distribution system in the basement of the building. 62 Belimo volumetric flow controllers also ensure the supply of the correct air quantities.

Electronic pressure-independent characterised control valves (EPIV) in a ventilation unit

Since the original plan was to use the building exclusively for offices, the HVAC systems had to be converted to meet the needs of the FFHS Zurich.

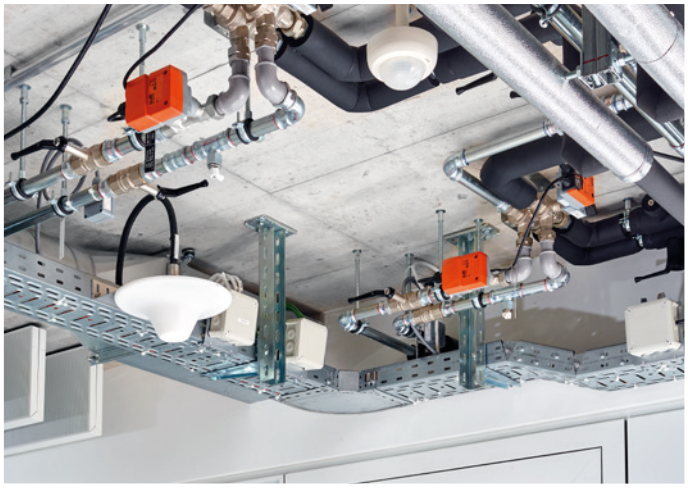
For the different rooms of the FFHS, single-room control was implemented with floor distribution in a 4-pipe system. The rooms are air-conditioned by means of ceiling sails and ventilated with the help of slot diffusers. 170 pressure-independent 6-way zone valves from Belimo were used for single-room control in training rooms, offices, common areas, meeting rooms, think tanks and IT rooms. Installation of the corresponding field devices posed a major challenge, as the premises have fixed minimum room heights and thus offered only constrained installation options. All field devices were factory labelled to ensure that they would be installed in their correct locations. Furthermore, the devices were parameterised by Belimo prior to delivery, which enabled the valves to be commissioned quickly despite the challenging installation conditions.

«We primarily plan with Belimo field devices and, in addition to their high quality, appreciate the excellent support.»

Roman Vette
Consulting engineer, Jakob Forrer AG

Damper actuator for ventilation control in the basic configuration

Single-room control of multi-purpose rooms was carried out using nine pressure-independent 6-way control valves from Belimo. Heating/cooling changeover was implemented with the aid of nine 6-way zone valves. Here, too, all units were labelled and parameterised in advance for quick and simple installation and commissioning. This enabled the total of more than 200 field devices to be distributed and installed with no errors in less than two hours after delivery.



Electronic pressure-independent 6-way characterised control valves (6-way EPIV) with flow sensors in the corridor

Electronic pressure-independent characterised control valves (EPIV) for the radiant heating and cooling ceiling in one of the training rooms

Fire dampers were used for the entrance area of the university building to ensure safe extinguishing and evacuation in case of fire. The fire dampers were equipped by the manufacturer (Original Equipment Manufacturer, OEM) with damper actuators from Belimo, which were connected to a bus system.

Proven Belimo quality.

«We rely on Belimo field devices in most of our projects,» says Roman Vette of Jakob Forrer AG. As consulting engineer, he justifies this decision with the always impressive quality of the products in addition to the service and consulting that Belimo offers. «By tagging the field devices at the factory, we not only saved an enormous amount of time, but were also able to install every single device in its correct place. That was brilliant.»

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

EN – 11.2022 – Subject to technical modifications

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