

Easy retrofits

The Hotel Blesius Garten uses thermostatic radiator valves from Micropelt to lower its heating costs. The energy-efficient solution works with EnOcean wireless technology and is especially suitable for existing buildings. By Denis Bittner, Application Engineer, Technical Support, Micropelt GmbH

Historic buildings add atmosphere to our cities. However, old buildings also consume a great deal of heating energy – approximately 200 kWh per m² according to Fraunhofer Allianz Bau. This is a key factor when it comes to making operating costs economical.

Historic ambiance consumes too much energy

The Hotel Blesius Garten was also facing these challenges. The family-run, 4-star hotel is located in Trier, Germany, near the Imperial Baths. The hotel's 60 rooms and restaurant are housed in a historic building that preserves a sense of stylish elegance. However, the older structure was less energy-efficient, especially when it came to heating.

With decorative wooden grates covering the radiator nooks, guests and staff could not access the hand wheels and thermostat knobs. As a result, the room temperature could be adjusted only via the inlet temperature and a simple time profile for lowering the heat at night. All rooms were warm while the heat was on, even if they were not occupied.

Immediate impact in 20 rooms

In early December 2014, the hotel therefore installed an individual room control system and equipped 20 rooms on the first floor with Micropelt thermostatic valves. The building automation system with self-powered, wireless thermostatic radiator valves from Micropelt is an easily upgradable, energy-efficient solution for existing buildings. The individual room control system can cut heating costs by as much as 30%, depending on the extent to which the building has been renovated. This type of building control system requires little investment. It can be installed in just a few hours without any construction work.

Ready for operation in fewer than 8 hours

The Hotel Blesius Garten continued to operate throughout the installation work. It took just 2.5 hours to mount and train the 20 thermostatic valves and 5 hours to program the KNX system for central control.

Comfortable heating according to the guest's needs

The radiators are now turned off when a room is unoccupied. The reception staff turns on the radiator in the room via the central control shortly before the guest is

expected to arrive in order to reach the target temperature of 20 °C. The control system's savings potential became quickly apparent.

Individual heating without maintenance

Every radiator in 20 rooms can now be controlled individually with a room controller and the Micropelt thermostatic valves. The temperature can be adjusted flexibly, depending on whether the room is occupied and according to the guest's heating needs. Since the Micropelt thermostatic valves use energy harvesting, there is no need to change batteries, which would be made particularly difficult by the radiator cladding.

Saving heating costs throughout the hotel

Klaus Tonkaboni, the managing director of the Hotel Blesius Garten, was so pleased with the benefits of the individual control system with Micropelt thermostatic valves that the installation will now be extended to the rest of the hotel. "We were skeptical at first, but our concerns quickly evaporated. We can save a lot of money once everything is finished," is his assessment.

www.micropelt.com/itrv.php
<http://elektro-bloeck.de>





At a glance

Benefits of the individual room control system with Micropelt thermostatic valves

- Can be installed quickly, a single morning is all it takes
- No construction work needed (wireless operation); hotel operations can continue without restrictions
- Compatible with a wide range of room control systems, due to the EnOcean protocol
- Building automation system with radiator control is easy to install; creates a new business field for many electricians
- Low investment; pays for itself quickly; immediately lowers heating costs for hotel operators

Large photo: Hotel Blesius Garten. Elektro Bloeck from Trier, with Mark Dort as the project manager, planned and installed the hotel's building automation system.

Left: The radiator nook in a hotel room with a Micropelt thermostatic radiator valve.

Right: A facade that matches the decor conceals both the radiator and the thermostatic valve, which now automatically controls the radiator according to the guest's individual needs and based on room occupancy.