06/09/2019

Optimised room heating with SAUTER ecoHeat Control

The new SAUTER ecoHeat Control regulation strategy is the optimum solution for installation in new room heating systems or retrofitting in existing ones consisting of radiators with thermostatic valves. Flexible and self-learning, ecoHeat Control offers many advantages that facilitate the automation of building heating.
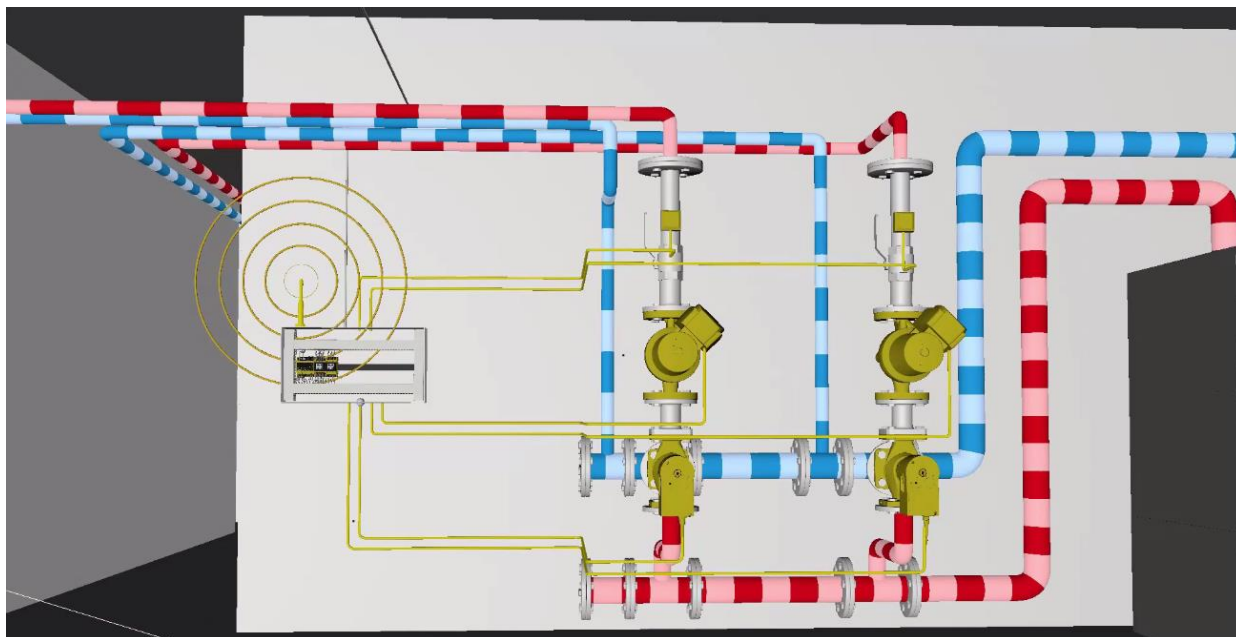
The right temperature at the perfect time

A pleasant temperature inside the building has a positive effect on the well-being and performance of its occupants. This is particularly worthwhile for the owners of office buildings or schools, where productivity and performance are crucial. The aim is to keep the rooms within the building precisely at the desired temperature during the period of use, and to lower the room temperatures outside the period of use to save energy.

This is exactly where ecoHeat Control from SAUTER comes in. It is an intelligent control system that adapts the heat generation within buildings precisely to the current demand. Thanks to the innovative, self-learning system, the energy requirement can be reduced by 15 to 25 per cent compared to conventional systems.

Nowadays, a state-of-the-art, energy-saving control system for the temperature regulation of buildings is indispensable. In order to save energy, the heating systems in office or school buildings are automatically turned down at night and the weekend. This saves energy that would otherwise be wasted unnecessarily. Outside the periods of use, the heating switches to a set-back mode, from which it returns to normal operation in the morning. This intelligent procedure ensures that pleasant room temperatures are maintained during working or school hours.

In a building without ecoHeat Control, the central heating and room thermostats often work against each other. While the central heating system switches to set-back mode and the

rooms should actually cool down, the room thermostats react against this, increasing the flow through the valves of the radiators, with the result that the lower setpoint temperature is not reached in set-back mode. The rooms thus remain too warm at night and the weekend, and too much energy is consumed unnecessarily. This is avoided with the help of ecoHeat.

The ideal climate for every room

In order to maintain a comfortable room temperature, SAUTER offers a suitable solution for retrofitting existing heating systems. ecoHeat Control efficiently combines the measurement of temperatures in reference rooms with optimised heating control.

Wireless temperature sensors are installed in selected rooms. The automation station of the heating control, for example SAUTER modulo 6, processes the measured temperatures. ecoHeat Control automatically calculates the optimum supply temperature and regulates the control valve and the circulation pump on the basis of the measured values and the information from the occupancy plan. There is no longer a need to set a heating curve during commissioning.

A self-learning system

An invaluable advantage of ecoHeat: It adapts to the current conditions on its own. Before school or work finishes, ecoHeat automatically determines the optimum switch-off time and autonomously sets the heating to the desired set-back mode. The system uses an automatic start/stop function to determine the correct switch-on time for the heating so that the desired room temperature is reached when school or work starts again.

Another advantage: It is suitable not only in combination with SAUTER systems, but also for retrofitting heating control systems in buildings with components from other suppliers. Users benefit from this control system in an economical way as ecoHeat enables potential savings of 10 to 25 per cent, and also in an ecological way as optimal energy use is implemented. Combining the ecoHeat strategy with the SAUTER modulo 6 brings even more advantages for the user. The IoT- and cloud-capable modulo 6 automation station can be seamlessly integrated into a building automation system. Thanks to BACnet/IP, several applications such as heating circuit, lighting and window blind control can be implemented simultaneously on one automation station. This is made possible by large memory capacities and a high processing speed.

As the leading provider of solutions for building automation technology in Green Buildings, SAUTER ensures good climate conditions and a sense of well-being in sustainable environments. SAUTER is a specialist in developing, producing and marketing products and systems for energy-efficient total solutions, and offers a comprehensive range of services to ensure the energy-optimised operation of buildings. Our products, solutions and services

enable high energy efficiency throughout the entire life-cycle of a building – from planning and construction through to operation – in office and administrative buildings, research and educational facilities, hospitals, industrial buildings and laboratories, airports, leisure facilities, hotels and data centres. With over 100 years' experience and a track record of technological expertise, SAUTER is a proven system integrator that stands for continuous innovation and Swiss quality. SAUTER provides users and operators with an overview of energy flows and consumption, and therefore of the development of the costs involved.

The SAUTER Group

- Company active worldwide with headquarters in Basel, Switzerland
- Founded in 1910, it is built on more than 100 years of tradition and experience
- With more than 2,300 employees, it is present and active globally
- Complete building management solutions from a single source. Focus: maximum energy efficiency and sustainability
- Investment protection and operational reliability over the entire building life-cycle
- Technology leader in the building automation and system integration sector
- Member of eu.bac, BACnet Interest Group (BIG-EU), BACnet International, EnOcean Alliance
- Excellent references available at www.sauter-controls.com