

New smart buildings on French HAGER production site

Integration of SAUTER BACnet/IP-KNX controllers and HAGER KNX devices

FR. SAUTER AG A specialist in electrical installation since 1955, Hager Group nowadays is a worldwide leading supplier of solutions and services for electrical installations in residential, commercial and industrial buildings. Hager Group is present with 28 production sites around the globe, and customers in more than 120 countries. The largest industrial site in the group – situated in Obernai (France) – is constantly on course for expansion. Since last year the new Hager FORUM provides a 6,500 m² open, collaborative space, where visitors can meet and exchange with Hager Group.

In 2016 two Hager office buildings were renewed and refurbished. SAUTER, in this case Sauter Régulation S.A.S., took over the challenge of this project. The SAUTER room controller “ecos504” and his bigger brother “ecos505” are BACnet Building Controllers for energy-efficient integration of all systems. Their digital communication features (BACnet / KNX / DALI / SMI / EnOcean) seamlessly combine automatic lighting and sun protection with room climate control. The KNX / TP-1 interface allows KNX touch panels, KNX actuators and sensors to be interlinked directly into the programmable BACnet / IP room controller. With the supported “KNX tunnelling” KNX devices are parameterised with ETS without additional KNX bus couplers. Used as a BACnet / IP-KNX gateway, the room controllers integrate KNX networks into the building and energy management system.

The Hager usage scenario was to link up the KNX protocol into the new building management system of the office buildings. The Hager WKT510 room units are directly joined onto the BACnet / IP layer via the SAUTER room automation station “EY-RC 504”, without passing through third-party gateways.

With its special know-how in technical integration, namely the mastery of communication protocols, SAUTER was persuasive again. An identical BACnet / IP – KNX integration had already been set up successfully in the Obernai Management Meeting Room.

The implemented HVAC solution is managed by SAUTER EY-modulo 5 technology: modular, fast and universal. Modular automation stations, of the type “modu525”, are used for climate control and ventilation – additionally equipped with user-oriented touchscreen control. The communication modules moduCom integrate systems and products from other manufacturers based on field-bus protocols such as Modbus or M-Bus such as the installed thermal energy meters.



EY-RC 504, Room automation station, ecos504



Room device Hager WKT510



Hager Forum in Obernai

The room automation stations “ecos504” are used for the control of chilled / heated ceilings with dew point monitor. The ceiling management is in dynamic switching mode: 6-way ball valves – B2KL – set up changeovers or steady control of heating / cooling circuits in a 4-pipe system; together with dynamic 2-way valves of the types VFL and VDL powered by 0–10 V servo motors. Supervision is carried out via SAUTER novaPro Enterprise – 20,000 variables are being monitored.

When planning demand-led room automation for energy-efficient building automation systems, the modular SAUTER solutions offer numerous flexible interaction implementations for astonishing smart possibilities.

Last but not least, a smart energy management also had to be established. The integration of meters into the SAUTER EMS software with around 300 variables is now monitored online and reported automatically.

With the simple and seamless but efficient BACnet / KNX architecture, SAUTER and Hager devices realised hand-in-hand a new generation of smart buildings with a comfortable room climate and minimum energy consumption on the Hager production site in France.

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