

Retrofitting of Existing Buildings: Without cables with KNX RF

The lighting system has to be modernized; the heating system has to be equipped with more energy efficient controls; and miscellaneous safety and comfort function shall be integrated. The building owner demands a central operation in the building and remote monitoring. The installation shall prevent elaborate wiring.

The solution

The EGB Falk Beger and the Sporleder Elektro Technik GmbH see an ideal solution based on KNX RF. They decided on the modular and centrally operated System Synco Living by Siemens. The apartment station is fully operational and connected via TP with KNX at the same time.

Implementation

- To control the heating system wireless controllers and battery powered actuators from the Synco Living System were used.
- The room temperature control is performed by radio temperature sensors Synco Living or cable-bound room controller by Jung.
- KNX remote control hand devices meet the demand for mobile and flexible operation.
- An Agfeo KNX telephone system serves as connection point between KNX and the telecommunication system.
- Central functions are performed by a Jung Facility Pilot with touch visualization.

Features

The central home system Synco Living offers the following possibilities:

- Absence button, central off switch
- Light scenes, depending on choice
- Operation of roll shutters
- Lighting system, switching and dimming
- Setting of room temperature
- Automatization with timer function

The actuators of the heating system are controlled by the central home system. It also processes radio signals from smoke detectors and window contact switches. The Agfeo system telephone offers switching possibilities and forwards error messages, e.g. to a mobile phone. Weather data like outside air temperature and air pressure can be displayed by the radio frequency central home system and by the facility pilot. The visualization offers menu pages for all functions.

Advantages

KNX-RF components offer the most installer friendly solution for retrofit work. This allows a cost effective approach for residential dwellings, hotels, museums, offices and buildings under historical preservation to include modern functions for comfort, safety and economy.

System Integrator:

EGB Falk Beger

09633 Halsbrücke

Tel./Phone: +49 3731 300 97 27

www.egb-beger.de

Sporleder Elektro Technik GmbH

30453 Hannover

Tel./Phone: +49 511 213 33 22

www.wohnen-mit-funktionen.de

Figure:



KNX Association is the creator and owner of the **KNX** technology – the worldwide STANDARD for all applications in home and building control, ranging from lighting and shutter control to various security systems, heating, ventilation, air conditioning, monitoring, alarming, water control, energy management, metering as well as household appliances, audio and lots more. **KNX** is the worldwide STANDARD for home and building control with a single, manufacturer independent design and commissioning tool (ETS), with a complete set of supported communication media (TP, PL, RF and IP) as well as a complete set of supported configuration modes (system and easy modes). **KNX** is approved as a European (CENELEC EN 50090 and CEN EN 13321-1) and an International standard (ISO/IEC 14543-3). This standard is based upon more than 18 years of experience in the market including its predecessors, EIB, EHS and BatiBUS. Over 140 member companies worldwide from different application domains have almost 7000 **KNX** certified product groups in their catalogues. The **KNX** Association has partnership agreements with more than 30,000 installer companies in 80 countries.

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For more information / material please contact:

heinz.lux@knx.org

Pictures can be downloaded at:

<http://www.knx.org/knx/knx-projects/knx-international-projects/>