KNX as a subsystem for price-sensitive solutions

KNX offers interesting solutions as a dedicated climate control system

ARCUS-EDS GMBH Berlin Lichtenberg: This is a multiple family house with ten housing units. At an early decision stage the builder decided not to implement a KNX installation. The reason was the cost. The higher level of comfort would have been put on the rent and this was not wanted.

The situation changed partly during the course of the engineering planning. Due to KFW funding according to KFW70, ventilation with heat recovery was necessary in order to meet the KFW70 energy standard. The good thermal insulation and the air-tight outer shell of the building also incurred the risk of damage due to damp. The ventilation should therefore also be controlled by moisture and the room temperature in each room controlled separately. In this case, a conventional installation had no advantages compared to a KNX solution.

The KNX installation was designed as a separate ventilation and heating installation. The power supply comes from one 24 – 32 V DC supply per flat, using the auxiliary voltage wires. A separate power installation for the fan and valve controls was therefore omitted. The fans are controlled via "KNX-Lunos-Control4". The temperature control is carried out per room via room temperature controller "SK30-THC-CO2-PB", on which the fan speeds can also be set individually. The control of the 24 V valves of the floor heating system is implemented via "KNX-Ventil4" devices and the basic settings of the temperature and ventilation profiles are displayed on a 3.5" visualisation panel "Touch-IT Smart". We thus have a compact KNX system with comparable costs to other solutions.

Even if the basic installation is carried out in a conventional manner, the possibility of making use of the strengths of the KNX system can be found in housing construction. The user reactions are very positive. Some parties have already shown interest in extending the possibilities of the KNX installation for remote maintenance and Internet networking.

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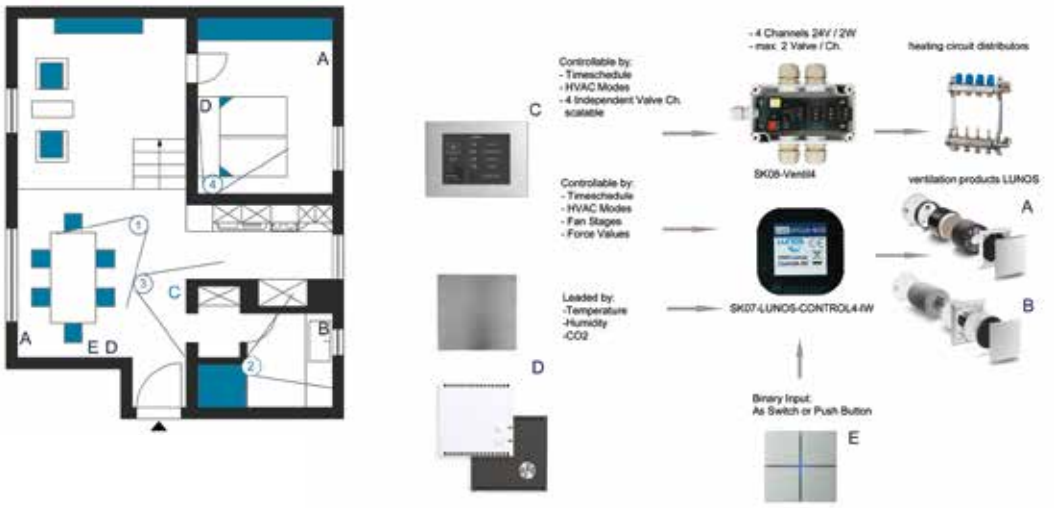

A = LUNOS e² Set • B = RA 15-60 Exhaust • C = Touch-IT / C3 / Smart / NEO •
D = Sensors: temperature, humidity, CO_2, SK30-THC-CO_2 / NEO-THC-CO_2 / E = Various switch systems