

## Cost comparison **KNX, Homematic, Loxone, LCN**, conventional in the example of a single-family house

We are often asked which of the smart home systems KNX, Homematic, Loxone or LCN is best and cheapest. To answer this question, we have made a cost comparison, in which we have also listed the conventional electrical installation. A regular single-family house from our references, which we built and calculated with different house bus systems, serves as the basis for this. We have compared the four most common house bus systems and conventional electrical installations.

These systems are:

- KNX / EIB
- Homematic IP radio
- Loxone
- LCN
- conventional electrical installation

We plan, integrate and program all systems. We can therefore make a neutral comparison of all systems.

### Material list

The complete material list with internet prices can be found in the PDF "Comparison of KNX LCN Loxone Homematic and conventional electrical installation". An excerpt is shown below, which compares the costs of the house bus systems.



	KNX	Homematic IP	Loxone	LCN	conventional
1 x basic system	637 €	229 €	699 €	987 €	–
18 x lights dimmable	784 €	1.108 €	1.029 €	857 €	430 €
15 x switchable lights	348 €	774 €	499 €	387 €	185 €
8 x switchable socket outlets	198 €	479 €	499 €	193 €	99 €
25 x switches	3.207 €	0* €	258 €	3.662 €	187 €
17 x room thermostat	0 €	0 <sup>2</sup> €	0 <sup>2</sup> €	0 <sup>2</sup> €	994 €
17 x heating circuit distributors	404 €	1.359 €	499 €	581 €	–
19 x blinds	601 €	1.613 €	1.497 €	975 €	434 €
1 x weather station	364 €	179 €	491 €	924 €	776 €
5 x presence detectors	435 €	299 €	470 €	346 €	468 €
	<b>6.981 €</b>	<b>6.044 €</b>	<b>8.266 €</b>	<b>8.908 €</b>	<b>3.144 €</b>

\* \* Buttons are included in "Lights can be switched" and "Blinds", \*<sup>2</sup> Thermostats are already integrated in the buttons

KNX. Loxone is far behind, in third place. Therefore, the most expensive system in our comparison is the LCN system. When compared, the high costs of the buttons are striking. It is noticeable here that buttons with a display are listed in the KNX system.

With Homematic, on other hand, you receive push-button with normal rockers, which is known from older houses. With Loxone and LCN, here are "smarter" buttons available, but without a display. However, the manufacturers do not offer any buttons with a display. If we were to select buttons WITHOUT a display for KNX, the costs would be reduced by around € 500.

In principle, we are convinced of Homematic, mainly because of its reliability and high range. Nevertheless, we always recommend using wired solutions for new buildings.

#### **Comparable to conventional electrical installations?**

Of course, conventional electrical installation is even cheaper than Homematic. The costs are around 50% of the costs of Homematic. But it should be obvious to everyone that a comparison between conventional technology and BUS technology purposeful, as it would be comparing a bicycle to a car. Yes, you can achieve your goal

with both. But you need a lot longer with the cheap bike, you can transport less and you can't take other people with you. It is therefore clear that a comparison between conventional electrical installations and house bus systems is not expedient either.

#### **Conclusion**

Our personal conclusion is that we - whenever possible - prefer KNX in new buildings to Homematic, LCN or Loxone. That doesn't mean that the other systems have no reason to exist. However, KNX is an extremely robust, cost-effective system with a large number of manufacturers and therefore designs. ■