SMART HOME – SMART SAUNA.

Everyone's talking about smart homes. Today's newly constructed buildings, just like refurbished old buildings, should be economic, energy efficient and, above all, comfortable. Of course, convenience is also indispensable for an oasis of wellness within your own four walls. Many manufacturers of home bus systems are already promoting the option of using their systems to control sauna cabins. A temperature sensor and a relay are all that's required, as the general consensus goes. This also functions in practice, however when it comes to the simple solutions on offer, no consideration was given to the fact that malfunctions can also occur. And people themselves are a considerable risk to the safety of a sauna, because most sauna fires can be attributed to human error. In order to minimise the risks involved in operating a sauna, specialists from many different areas of expertise joined forces and created the normative basis in the form of the standard EN 60335-2-53 to make using the home sauna safer.

smart sauna – what do I need to observe?

The standard interprets starting up a sauna cabin by remote means as controlling or regulating a device that is located outside the user's range of vision. However, this is usually the case when it comes to smart homes, and is covered by the key word convenience. However, a number of points need to be observed:

There must be a display on the sauna, or the control unit respectively, that indicates that the sauna is operating in "stand-by for remote control" mode and that the heating-up process can start at any moment. The sauna doors must be locked during this period. Should someone open the door while the sauna is set to "stand-by for remote control", then "stand-by" mode must be deactivated automatically, because an object could be unintentionally placed on the sauna heater when the door is opened, and catch fire when the sauna is switched on. The classic case would be a cleaner who leaves a cleaning utensil lying on the sauna heater. Should monitoring the doors not be possible, then a sauna heater can be used that passes the so-called combustion test, which is defined in the aforementioned standard. In general, this is ensured by means of cut-off rocker switches, which are installed in or above the sauna heater. Rear-wall heaters also usually pass the combustion test, which involves placing a towel on the air outlet and in doing so, the temperature below the towel may not exceed 200 °C.

Along with potential human error, the standard also covers every type of technical deficiency and stipulates safety temperature limiters – or STBs for short – safety relays, safety software or electro-mechanical safety circuits to ensure that when a component fails, the sauna does not continue to operate unchecked under any circumstances.

Should the smart home control unit fail to meet the requirements of the standard, then the smart home owner is at risk of the insurance company refusing the cover the damages in the event of a fire.

Sauna heater Concept R © Joel Kernasenko, Location: Sauna und mehr… GmbH

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Which smart sauna solutions does sentiotec offer?

The sauna control units in the **Professional series** include an RS-485 interface in the scope of delivery, which is compatible with all standard home bus systems. In contrast to many other sauna control units available on the market, this one allows all functions and values (temperature, humidity, light, fan, user programs, infrared, etc.) to be accessed directly by means of this interface.

The **Professional series** has been tested by TÜV and satisfies all safety specifications stipulated in the standard. Furthermore, the control unit also boasts one more special feature: Its "ECO function" reduces the power consumption to the necessary minimum during the sauna break – because smart home also stands for energy efficiency.

Sauna control unit Professional B

Sauna control unit Professional C

sentio pronet is a system for everyone who does not have a home bus system of their own, yet still wants to be able to enjoy all the advantages of a smart sauna. **sentio pronet** is a plug & play system that is suitable for the control units in the **Professional series**. **sentio pronet** allows up to two sauna cabins to be controlled directly from an Internet browser. No app needs to be installed – the system functions on all devices using an Internet browser.

The designer sauna heater **Concept R** can be equipped with a **safety switch** that is integrated in the heater, making it indiscernible and allowing the high quality appearance to remain unblemished. The sauna heater is available as a Finnish sauna or as a combination model. Furthermore, the sauna heaters and automatic shutoff have been tested by TÜV.

sentiotec also has a universal, VDE-tested **safety switch** on offer, which can be installed above the sauna heater and is approved for different types of heaters.

The **rear-wall heaters** made by **sentiotec** also satisfy the combustion test, meaning nothing will come between you and worry-free use of your smart sauna.
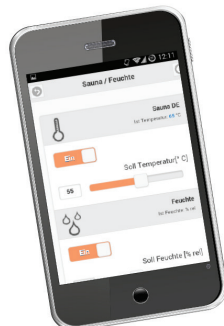

sentio pronet (Web-App)

QR-Code (sentio pronet interface for test purposes)

Safety switch

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