



## News

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### EnOcean wireless standard for healthy climate in the home

WeberHaus, a German-based eco construction company with reference sites throughout the UK and Ireland, is implementing new installation concepts in sustainable homes using EnOcean wireless sensor technology.

WeberHaus is offering four home automation models that can be combined to match specific self-build specifications and requirements.

These include single room and central control of lighting, under floor heating, blinds and window monitoring, door entry security and central monitoring.

Klaus-Dieter Schwendemann, marketing manager of WeberHaus, comments on the substantial benefits of integrating EnOcean technology, saying "the result is very high-quality, intelligent home control with significant value-add in ecological terms".

WeberHaus homes have an extremely low heating requirement and consequently need sensitive means of under floor heating control.

The EnOcean-enabled system consists of solar powered sensors that constantly gauge room temperature through an individually positioned thermostat, which sends commands through the EnOcean system to the receiver on the heating circuit distributor. As the sensors are powered by solar cells no maintenance is required (the energy accumulator is scaled for 60 hours).

Also, the systems' central programming functions make it highly convenient and easy to use. Room temperature control can also be combined with the supervision of windows so that the heating is regulated appropriately if windows are open.

This supervision takes the form of window handles featuring integrated transmitter modules that send a signal to the monitoring centre when they are opened or closed for the convenience of someone leaving the house.

The door entry phone is the central monitoring and control system for home lighting, blinds, windows and doors. Functions include indoor/outdoor communication station with voice or video, depending on customer requirements, all lighting on/off via a central switch, central or group blind open/close, and door/window status. The basis system has an integrated display with 10 LEDs and push buttons, which can be extended to 30, and all functions are freely programmable.

For the customer, this means complete, central control of their home network at a glance. The electrical systems automation model monitors and controls all the blinds, lighting and heating, as well as other energy-efficiency, comfort and security functions. The comfort function includes an automatic timer module for control of blinds and lighting, which is useful for imitating home occupancy while residents are on holiday.

Extra handheld remote controls are obtainable, and switches can be mounted anywhere allowing for flexible room configuration and easy retrofit without any drilling or cabling. For every lighting circuit one receiver is necessary.

These are all ceiling mounted and connectable so it is possible to work with prefabricated cables and distributors. Receivers for the blinds are located in close proximity to the blind motor, either in a housing or distribution box on the outer wall.

All receivers for lighting, blinds and heating require a 230V power supply which enables easy installation and simple connection of more receivers with one electric circuit. Every receiver is equipped with two push buttons and users are able to "teach" a switch to the receiver with no software or training. The wide selection of interoperable EnOcean-enabled products is what really makes attractive installation concepts for the home possible.

To date, home control systems of comparable sophistication have mainly been implemented through EIB automation systems, which incur very high cost and extensive wiring effort. With EnOcean technology, no batteries or wires are required resulting in greater energy efficiency and unlimited flexibility at the lowest investment and operational cost.

In addition to the ecological impacts of battery use, such as unfriendly disposal, a frequent argument used against wireless technologies is the radiation they produce. This is where the extremely short transmission

times of EnOcean radios present a further substantial advantage.

The ECOLOG Institute found the high-frequency fields produced by self-powered EnOcean switches to be a hundred times weaker than those of conventional switches. This means the radiation pulse (electrosmog) dissolves in the air and low-frequency (50/60Hz) electromagnetic emissions are also reduced.

## About WeberHaus

WeberHaus is one of the most successful construction companies. Since its foundation in 1960, the WeberHaus concept has repeatedly set new standards for the construction of modern homes. The proverbial quality of WeberHaus, many innovations, and its systematic focus on customer needs have helped it become a leading company in the industry.

For more information, please visit [www.weberhaus.co.uk](http://www.weberhaus.co.uk)

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