

## Smart windows control and communicate

### Electronic monitoring - window opening via app

**Society's increasing demand for safety calls for external building security solutions. For this reason, Winkhaus offers refined technologies for reliable window monitoring. These can also take on important tasks in the smart home system, making them the right solution for a second current trend: intelligent building control.**

The systems provide the right solutions for a multitude of installation situations and tasks. They all operate with locking sensors that are not immediately recognisable from the outside. The innovative systems monitor the windows electronically. The areas of alarm monitoring, climate control and extraction control can be regulated with locking contacts specially developed for the usage area.

The product range includes sensors located on the frame and switched via contact sensors on the window sash. Some of these contact sensors can be integrated into the Winkhaus window fitting so they can differentiate a window that is only ajar from a window that is actually locked. Pure opening monitoring, on the other hand, is achieved with a fixed contact sensor. This works with any fitting and can be used for any window.

### Individually tailored solution

Winkhaus offers wireless technology based on the EnOcean open radio standard and offers a wired solution with Winkhaus activPilot Control. While the wireless contacts are especially recommended for retrofitting because no cables have to be installed, the wired activPilot Control system is recommended for new constructions. Both can be integrated in the building management system via suitable interfaces. The wireless contacts are compatible with the Thermokon actuator and with various gateways for KNX, for example.

### Compatible with smart home solutions

The technique is based on reed contacts with a magnet. The Winkhaus wireless contact transmits data using the EnOcean wireless open radio standard. This means they can already communicate with a multitude of EnOcean-compatible electronic devices.

### Presseinformation

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They can also be integrated into smart home systems such as the wibutler and, since recently, the Somfy Tahoma Box as well. The wireless contacts can then be easily networked with other intelligent components in the house. Then they can be integrated into lighting control and heating control, among other things. This makes it possible, for instance, to set heaters to turn off automatically when the window is open. It is also possible, for instance, to switch on light or sound effects when the window is opened while the residents are away.

### **Wireless technology in two variants**

Winkhaus offers its radio contact technology in two versions: concealed wireless contacts that are not visible when the window is closed and a surface-mounted solution with a solar cell for autarkic operation.

The concealed wireless contacts (FM.V.SW) are certified by the Association of Property Insurers (VdS) for Home Hazard Management Systems (VdS Home). The new generation of concealed wireless contacts offers a number of innovations. An optimised power supply extends the battery service life to five years. The antenna also has a longer radio range. The black housing is water resistant (IP67).

An expert can easily install the fully wireless radio contact in the window. It can also be retrofitted to all conventional wooden or plastic windows with a rebate depth of at least 24 mm - no matter what fitting system is installed. In addition, the wireless contact is now equipped with an LED in the battery compartment. This visually displays a response when switching the EnOcean profiles as well as when sending teach-in telegrams.

### **Opening and closing windows via app**

Windows equipped with this function can be opened and closed remotely via app. This requires the window to contain the Winkhaus activPilot Comfort PADM fitting system in addition to the wireless contact. The fitting drive motor controls the opening of the window.

In addition to standard swing opening, the innovative opening variant that Winkhaus calls 'clopening' can also be actuated. This involves the parallel positioning of the sash to the frame, leaving a 6 mm opening on all sides.

When equipped in this manner, the window provides burglary protection (up to RC2) during the ventilation process. The sash can be closed back up from the clopened position on command. Because this process can also be programmed for user-independent ventilation, the system can be used as an alternative for ventilation systems in accordance with DIN 1946-6(confirmed by the Fraunhofer Institute).

Thanks to its innovative technology, the fitting drive sends an EnOcean wireless protocol. This means that the system can be integrated directly in Homeserver solutions like wibutler. The technology can thus be seamlessly networked with other intelligent systems, including air quality sensors for temperature or CO2. These sensors trigger ventilation whenever it is required. If desired, it can also open to parallel position by itself and close again automatically. In addition, the system can be actuated wirelessly with a hygrostat, e.g. from Gira: If the humidity in the air is too high, the window is "clopened" automatically. Thanks to suitable interfaces, the activPilot PADM fitting system can also be integrated into building control system, such as the heating regulation or alarm monitoring system.

