

Operation: wireless in the Future

Safety/ Wireless-Panel Operating and monitoring machines with cable-connected panels is often confusing, complicated and pose a tripping hazard for the operator. Especially for use in networked production, wireless operating concepts are particularly suited.



Images: Sigmatek

▲ With the wireless HMI panels, precise positioning and operating freedom can be implemented comfortably and efficiently in harsh industrial environments in the future.

In numerous workspaces, the efficient operation of machines, systems and robots is crucial for productivity and quality. At the same time, the demands on automation systems change so quickly that one can hardly keep up. Many machine and system manufacturers therefore increasingly rely on modular applications that can be flexibly adapted. Currently of particular interest: wireless technology combined with Safety.

Their use eliminates tripping hazards and provides operating freedom and Safety. Operating panels are essential components of machines and systems. The Human Machine Interface should support the user in their work as best

possible. Until now, the HMI (Human-Machine Interface) has been permanently connected to the machine. This poses no problem for small uncomplicated machines but for somewhat more complex machines, it is already uneconomical. At the latest, during the interaction between several machines or system components or perhaps even different manufacturers, the terminal is often located in the wrong position.

While the machine operator needs a checking look inside the machine, he should adjust the desired robot position at the same time. While teaching, the arms are suddenly too short and colleagues have to help during the set-up. This inefficiency

costs valuable time. The more often the operator changes position and the longer the system to operate is, the more wireless mobile panels make sense. Thanks to WLAN technology, the mobile panel can provide machine operators with operating freedom like never before. The wireless HMIs also score in robotic applications.

A wireless operating panel, such as the HGW 1033 from SIGMATEK, is always at the right location and makes the system not only more flexible but also less expensive depending on the size and application. With this mobile panel, you can eliminate several stationary operating panels since it is possible to operate multiple machines.

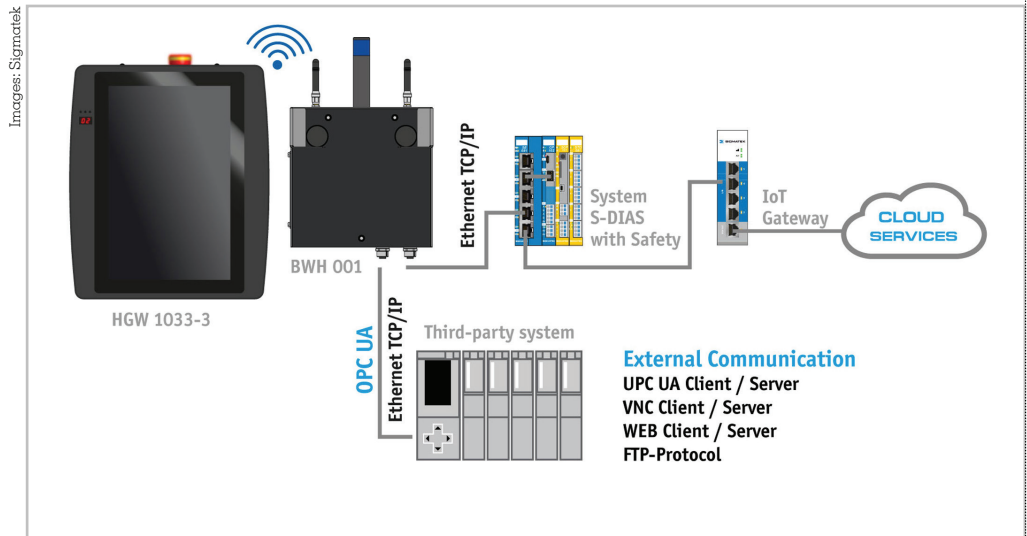
The OPC UA capability provides an additional wireless operating solution, which also communicates with controls from third-party manufacturers and can be integrated into existing systems. Safety is a top priority when operating machines in an industrial environment. Wireless panels must therefore also ensure Safety. With the HGW 1033, Safety functions are available on the panel directly.

Wireless Operation: With Safety at the Right Place

SIGMATEK has recognized the potential of wireless panels and with the HGW family, offers a diversity of models. Manufacturers of automation technology rely on a 2-component system for the wireless operating solution, which consists of the HGW 1033 panel and the BWH 011 base station. Depending on the configuration, the HGW 1033 is equipped with Safety elements, as well as rotary encoders and combined with a high-resolution 10.1" multi-touch display.

The operator can work close to the machine and at the same time, keep the process completely in view. The necessary Safety is provided by an active illuminated emergency stop, key switch and confirmation button. In addition, the three rotary encoders on the front make set-up comfortable and efficient. The operator can thereby keep an eye on the machine or system and operate them almost blindly.

Since multiple processing cells can be operated with one device, a secure 7-segment display for machine identification is integrated. An EDGE2 Technology processor provides the necessary visualization power. The panel is available in portrait as well as landscape format. The BWH 001 base station also serves as gateway with docking and charging functions. Communication with two frequencies (2.4 and 5 GHz) via separate antennas ensures the transmission quality in the direct machine environment.



▲ **Save costs, work economically: With only one panel, multiple machine/system components can be configured and controlled. A wireless operating panel combined with a base station and control forms a consistent total system – also integrable into existing systems.**

Wireless Operating Panels: Smart and Flexible

Many tasks prove to be difficult with cable-connected panels, wireless operating devices are therefore a good



▲ **With the diversity of the wireless HGW operating panel series from SIGMATEK, the right HMI is available for any task – whether in portrait or landscape format, with or without Safety functions and optional rotary encoders.**

option for numerous industries. Consider, for example, installing a robot within a Safety fence. Here, a wireless operating terminal is the better approach since the machine operator can freely move without the risk of tripping.

The same applies to other applications that require high freedom of movement and exact positioning, for example, in medical, logistics or stage technology. The range of movement for mobile machine operation has so far been limited by two factors: the cable length and the Safety required for personnel and machines in harsh industrial environments. With the HGW 1033 wireless operating panel, exactly these problems were cleverly solved. It provides freedom of operation, WLAN data exchange and integrated Safety functions. With a wireless HMI, you can experience the future today.