



IQ8Wireless – Intelligent, Wireless Fire Protection

Wireless Technology: for Flexible Functionality

Starts Where Cables End: Pioneering Fire Protection with IQ8

Wireless technology has established itself as an important addition to conventional wiring in fire protection applications owing to its wide range of possible uses. Structural requirements or aesthetic considerations often necessitate the use of fire detectors with no cable connection, such as in classified historical buildings.

A major advantage of wireless as opposed to wired systems can be found in the freedom to dispense with cable paths altogether and locate wireless detectors and alarm signaling units in any position, subject to the currently valid regulations. As **IQ8**Wireless is fully compatible with EN 54-25 and has VdS approval, its wireless technology is ideal for the upgrading of existing installations.

Museums



Industry



Historic buildings



Senior citizen homes



Wireless



IQ8Wireless enables different **IQ8** generation detectors and alarm signaling units to be connected easily and wirelessly to a fire alarm system.

IQ8Wireless – Intelligent and Wireless Safety

IQ8Wireless enables different **IQ8** generation fire detectors, MCPs and alarm signaling units to be connected easily and wirelessly to a fire alarm system. As a result, entire fire alarm systems can be implemented easily with wireless components and existing systems can be upgraded easily and economically. The expenditure required for lengthy installation and wiring work is simply not required when retrofitting detector installations.

IQ8Wireless fire alarm systems offer the highest levels of safety and flexibility, even under extreme operating conditions. The detector most suitable to the relevant application area is simply connected to the wireless detector base or wireless interface. The location and positioning of the wireless detector is completely open to personal preference (subject to the prevailing guidelines) and a battery life of up to 3 years guarantees low maintenance costs.*

* To ensure that the planning, design and programming of the **IQ8Wireless** components proceeds smoothly, we recommend participation in the ESSER "Wireless systems" training course.

Always Moving Forward – Flexible, Reliable and Cost-Efficient

The **IQ8** Wireless components communicate using a dual band transmission mode. The frequency hopping process employed by the wireless technology ensures an exceptional degree of transmission reliability.

Any interference is automatically counteracted by changing the transmission channels. If a transmission band is blocked and the corresponding wireless components are unable to communicate, a warning is immediately sent and displayed on the fire alarm panel. Secure and reliable wireless connection is thus guaranteed.

The transmission range extends to up to 300 meters outdoors. Transmission ranges in buildings depend on the nature of the building and the operating conditions at the time.

This system is not only an excellent monitoring solution for unused parts of buildings or areas where wiring is impossible, it can also be easily and inexpensively installed as a temporary monitoring system. For example, construction sites and temporary warehouses can be incorporated quickly and cheaply into the existing fire detection and alarm system by using the wireless transponder in independent mode, or by using the wireless gateways in existing loops.

Products



IQ8 Wireless transponder

The wireless transponder functions as a link and communication interface between the wireless communication device and the fire alarm panel. For example, up to 32 wireless detector bases with automatic **IQ8** Quad fire detectors or ten wireless interfaces with **IQ8** MCP can be assigned to a transponder. Independent operation in stand-alone mode is also possible.



IQ8 Wireless gateway

The wireless gateway is a quick and easy way of extending an existing fire alarm system. It can handle up to ten wireless devices (**IQ8** Quad or MCP).

IQ8 Wireless detector base

An automatic **IQ8** Quad series fire detector is installed in the wireless detector base. Batteries can be changed quickly and easily. The tools 8000 programming software supports the straightforward assignment to a wireless transponder or gateway.



IQ8 Wireless interface

A wireless interface is provided to handle the connection of the small and large style **IQ8** MCPs to a wireless transponder or wireless gateway.

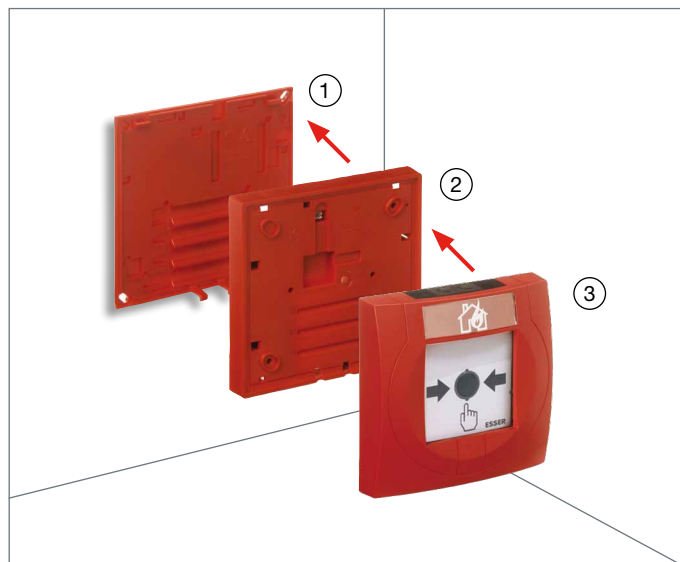
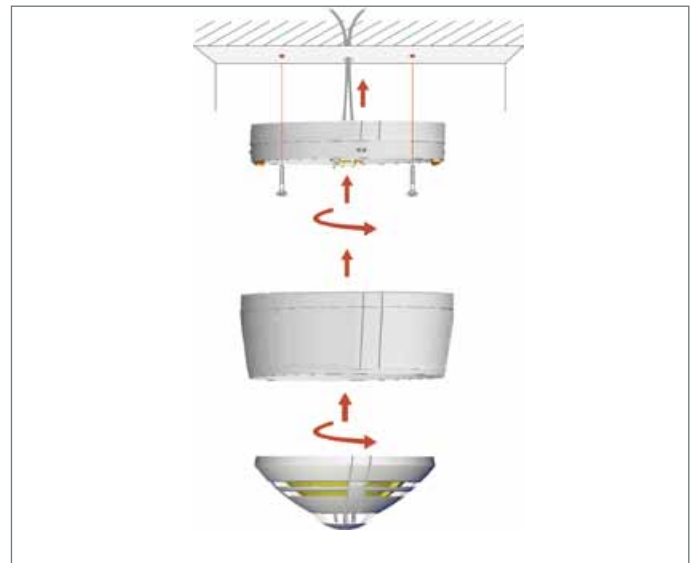


The wireless interface is also used to connect the **IQ8** components with alarm signaling units. This includes all **IQ8** alarm signaling units and the **IQ8** Quad detector with voice alarm, sounder and optical flasher. If the alarm signaling unit is activated using a wireless system, no synchronization takes place.

IQ8Wireless: Systematic Flexibility

IQ8Wireless Detector Base with Fire Detectors

The wireless components of the IQ8Wireless are located in the base on which the respective fire detector is placed. The range of detectors available extends from optical single-criteria detectors to false alarm resistant multiple-criteria detectors. The wireless detector base enables the IQ8Quad detectors TM, TD, O, O²T and OTG to be connected wirelessly to the esserbus®/esserbus®-PLus and integrated via a wireless transponder or gateway into the fire alarm system.



IQ8Wireless Interface with MCPs

Using the wireless interface for MCPs as an interface to the bus system enables the IQ8MCP to be wirelessly connected to the esserbus® or esserbus®-PLus. This option is available for both the large and small style MCPs. The detector housing is available in various colors, the mounting frame and the interface in either white or red. The modular principle provides the greatest degree of configuration flexibility and permits inconspicuous integration into almost every environment.

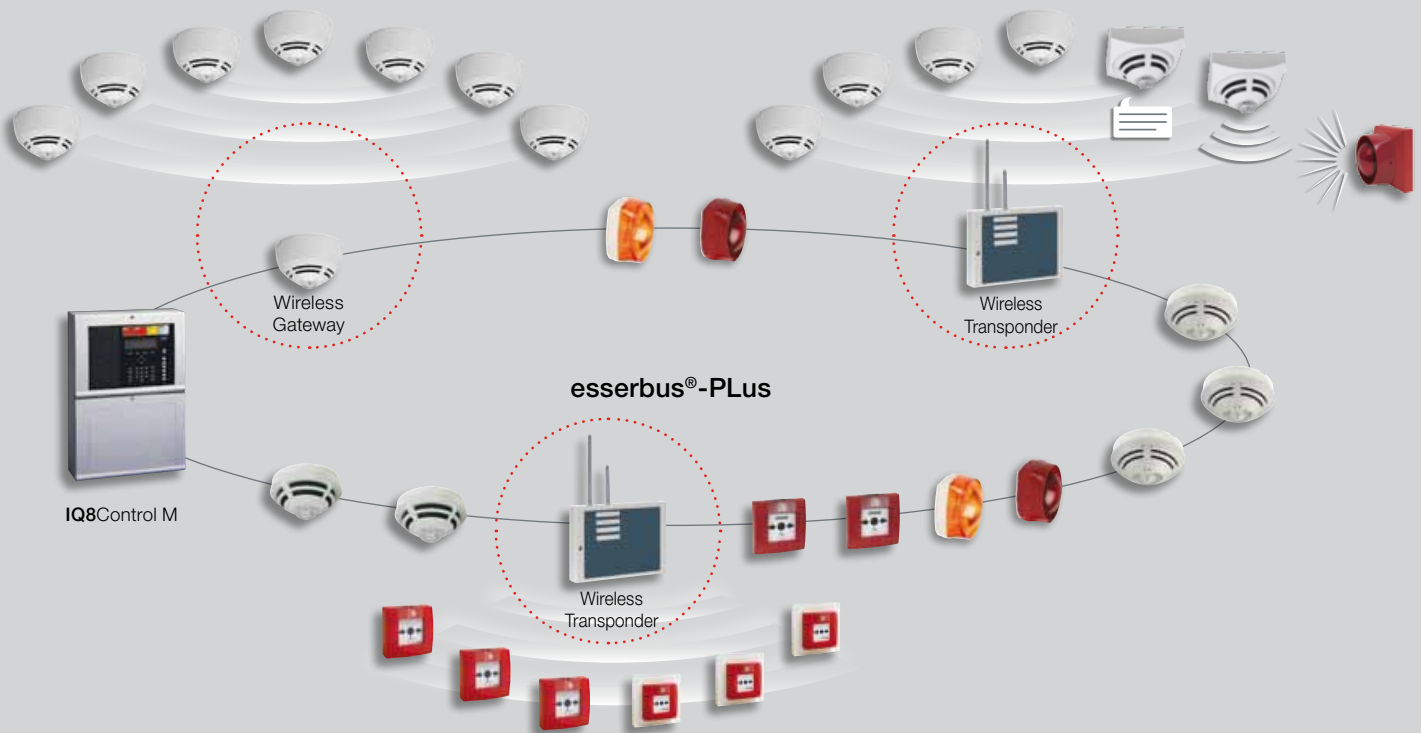
IQ8Wireless Interface with Alarm Signaling Units

Another example of the universal applicability of the wireless interface is demonstrated by the option that enables it to wirelessly connect IQ8 alarm signaling units and IQ8Quad detectors with voice alarm, sounder and optical flasher to the esserbus®.

In such cases, the corresponding mounting frame is used in addition to the detector/alarm signaling unit and wireless interface. Integration in the esserbus® is then carried out via the IQ8Wireless transponder or the IQ8Wireless gateway. Up to ten alarm signaling units – with voice alarm, sounder or optical flasher – can operate as fully-addressable bus devices on each wireless transponder or wireless gateway.



Wireless and Simple: the System Connection



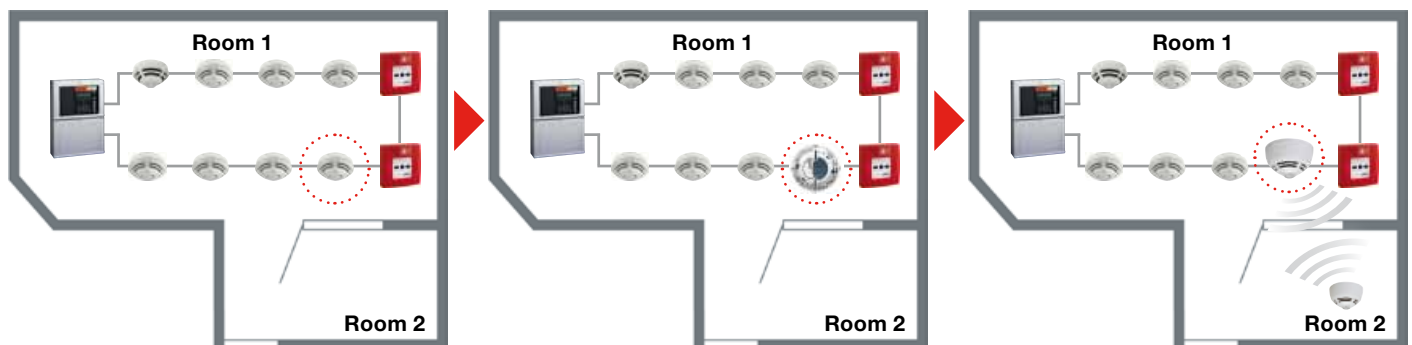
Wireless Gateway

The wireless gateway acts as a transponder between the installed base and detector and, as no tools are required, is a quick and easy way of extending an existing fire alarm system. The detector already in the base is simply taken out and replaced by the IQ8Wireless gateway. Commissioning of the wireless gateway and the other wireless communication devices is a simple matter with the tools 8000 software.

Wireless Transponder

The wireless transponder is designed for use as a ring bus device and for stand-alone operation with local alarm signaling and status indication. Up to 32 wireless communication devices can be assigned to the transponder. It can also be connected to intruder alarm and building management systems.

Simplicity itself: the wireless extension of a fire alarm system



In our example a fire alarm system with several IQ8Quad detectors is already installed in room 1.

A temporary fire alarm system is now required for room 2. An IQ8Quad detector is simply taken out of the existing system and a wireless gateway inserted in the now free standard detector base.

One or more IQ8Wireless detectors are now installed in room 2 and operated as bus devices via the wireless gateway.

Safe, Application-Optimized and Quick Commissioning with tools 8000

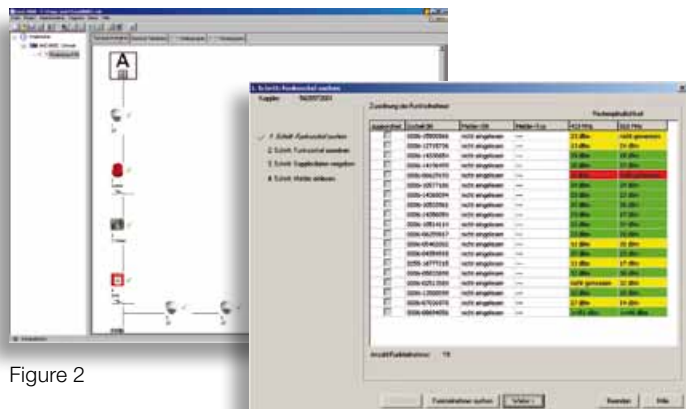


Figure 2

Figure 1

Tools 8000 does everything: from measuring the field strength through to commissioning of the IQ8Wireless components

The three colors (Figure 1) indicate the intensity of the prevailing local field strength. Green means that the field strength is within the recommended bandwidth. Yellow recommends

that the location of the wireless components in the building should be changed. Red means that the wireless components are not receiving a wireless signal, or only a very weak one, and that they should be moved to another location to ensure trouble-free operation. In addition to the color coding, the absolute values in dB per meter are also shown.

During commissioning (Figure 2), the wireless components are read once and assigned to the wireless transponder/wireless gateway. Components that have already been assigned will no longer be detected by other wireless transponders/wireless gateways in the building. This prevents potential communication conflicts. Information about the types of wireless component (for example O²T or OTG detectors) is then taken from the wireless transponder/gateway and shown correctly in the topology by tools 8000. Once assigned to a group in tools 8000, the IQ8 wireless component can then be addressed and is known to the IQ8Control fire alarm panel as a valid bus device.

References



Neersen Castle, Willich



objectflor Art und Design Belag GmbH, Cologne



Messe Frankfurt

Innovative Fire Protection in Baroque Styles

One of the most beautiful town halls in Germany, Neersen Castle is home to the Administrative and Cultural Center of the town of Willich. As visible fire protection wiring would not have satisfied the protection of historic buildings stipulations, Neersen opted for IQ8Wireless. Sixty wireless detectors were added to the ESSER fire alarm system that had been previously installed.

Wireless, Safe Warehousing

objectflor Art und Design Belag GmbH in Cologne is one of Europe's leading providers of flexible floor coverings. The high-rack storage building operated by the company is pro-

tected by ESSER wireless detectors. The eight meter high aluminum mobile racking is subjected to constant movement. The use of 84 IQ8Wireless detectors renders conventional wiring superfluous and makes adherence to the fire protection conditions laid down by the authorities simpler.

Flexible Protection for Versatile Trade Fair Concepts

The IQ8Wireless system provides reliable fire protection for the ever-changing stands at Messe Frankfurt. It was first used during IAA 2005. The fact that wireless technology meant that every type of fire detector could be used as required played a decisive role in the award of the order.

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Part No. 795802.G0
April 2011
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