

## INNOVATIVE TECHNOLOGY IN THE HOSPITAL: THE MICROSENS SMART SENSOR



In modern healthcare, the efficiency of rooms and the quality of patient care are crucial. Imagine a hospital that is not only energy-optimized, but also offers precise control of room air, temperature and lighting. This scenario becomes a reality through the use of the MICROSENS Smart Sensor, which is revolutionizing the hospital industry.

### Networking for maximum efficiency

This pioneering technology is implemented in the hospital. Each patient room is connected via a state-of-the-art fiber optic network with FTTO switches that has been working reliably for years. This network supplies both patients and medical staff with essential data and monitors medical devices. It also ensures that Wi-Fi antennas are operating effectively to provide a seamless internet connection.



## Automated registration and data processing

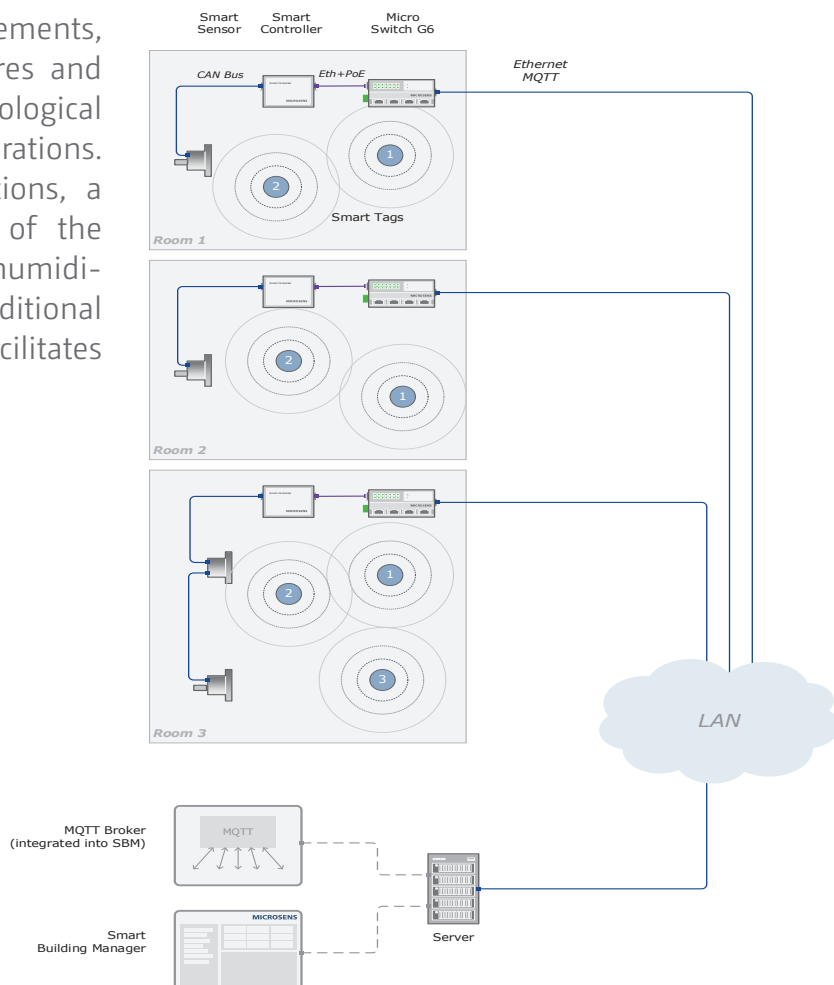
A key feature of the MICROSENS Smart Sensor is the automatic registration of hospital equipment, such as beds and medical devices that require regular sterilization or maintenance. In conjunction with a powerful data network, these devices can be monitored in real time, significantly increasing efficiency in hospital operations. Another outstanding feature is the wireless recording of vital data, such as blood sugar levels. This data is transmitted securely via the internal network and analyzed using artificial intelligence. If necessary, medical professionals can be informed in a targeted manner, enabling a quick and precise response to changes in the patient's state of health.

## Compliance with new regulations for energy optimization

With increasing energy efficiency requirements, growing patient expectations, cost pressures and staff shortages, it is crucial that technological advances are integrated into ongoing operations. To meet the new energy saving regulations, a multi-sensor is installed in each room of the hospital to measure temperature and humidity. Thanks to the internal interfaces, no additional cabling is required for this, which facilitates implementation during ongoing operations.

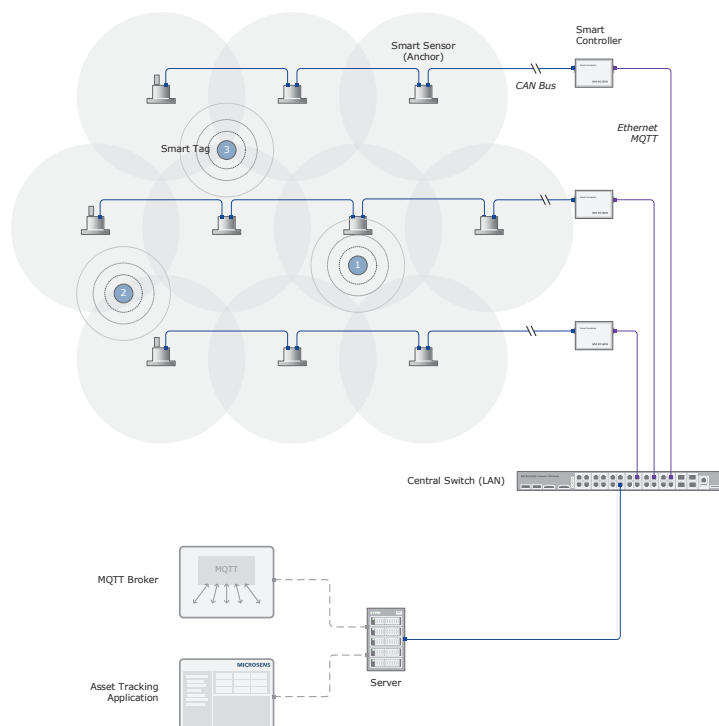
## Multifunctional sensor technology for better indoor air

The MICROSENS Smart Sensor can not only measure temperature and humidity, but also motion, CO<sub>2</sub> values, air quality and brightness. The collected data is securely transmitted to the network via MQTT and is used to optimize ventilation, heating, air conditioning and lighting. This not only improves patient comfort, but also helps to reduce energy consumption.



## Intelligent solutions through Bluetooth Beacon technology

Another innovative aspect of the sensor is the integrated Bluetooth beacon technology. This enables indoor navigation and the localization of medical devices and patient beds. In addition, bodysensors, such as blood glucose meters, can be detected over a distance of several meters. This functionality helps the hospital to use AI to optimize targeted measures with to optimize and initiate targeted measures with and initiate them.



## Conclusion

The MICROSENS Smart Sensor is a decisive step into the future of hospital management. Thanks to the combination of intelligent sensor technology, powerful data processing, and seamless networking, patient care is revolutionized and at the same time the operation of the hospital more efficient and more sustainable. The hospital demonstrates how modern technology can not only improve healthcare, but also makes it future-proof.

