



WIRELESS TECHNOLOGY IN TREATMENT PLANTS

Wireless connection of sensor technology of any kind

Application

In treatment plants, careful monitoring of relevant parameters is essential for effective wastewater treatment. The company Endress +Hauser recommends DATAEAGLE in treatment plants where they successfully install radio systems in the control unit for transmitting measuring data.

Challenges

For ensuring a better monitoring of a treatment plant, measuring values of several locations of the plant must be collected. However, due to the extensive outdoor areas it is extremely elaborate and expensive to establish a wired sensor network of measurement points far away from each other. At a swing bridge at the aeration basin installing a cable connection is even impossible. Moreover, no further inputs were available at the control unit.

Solution

Sensors, fittings and transducers were installed at the required locations. For transmitting measuring values the **DATAEAGLE 3703** radio modules of were installed, transmitting data transparently like a cable using PROFIBUS DP and up to 1.5 Mbit/s. Thanks to the applied 2.4 GHz Bluetooth technology with frequency hopping, measuring data always finds a free transmission channel.

Result

The benefits of the radio path are a better process control thanks to additional measuring values and above all time saving for employees since they are not required to carry out these measurements by hand. Further measurement parameters may be added without much effort and employees monitor the system at any time using a signal system.

Since 2013, the system has been running trouble-free and reliably.



1. **DATAEAGLE** Slave in exterior use.



2. **DATAEAGLE** Master in the control cabinet directly at the clarification tank.



"Industrial Radio systems have been installed successfully in waste water treatment plants for many years."

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