Legionella Prevention and Control

LoRa enabled smart building management solutions by FactoryLab help businesses and individuals measure and analyse various aspects in commercial and industrial buildings.

Why?
Legionella prevention is an important aspect of building management to upkeep the standard of living for individuals in domestic and industrial areas.

How?
FactoryLab’s legionella protection solution allows you to clip on sensors on water pipes to start measuring the temperature of hot water. This can help prevent legionella by maintaining optimal temperature and preventing the bacteria from developing. The data can be viewed and analysed for be used for keeping the living standards high.

Applications
- Water temperature optimization
- Legionella prevention
- Smart building maintenance

LoRa based sensing and management.
The “Long Range Wide Area Network” (LoRaWan) is a specification for a telecom network and is suitable for long-range communication with low power. With LoRa, all kinds of things can talk to the Internet without having to use 3G or Wi-Fi. The major advantages of LoRa are the low power consumption and low costs. It is most suitable for simple and event triggered data exchange data exchange.
Legionella Prevention and Control

General
Processor: 32-Bit ARM Cortex M0
LoRa Radio: SX1272
On-board internal antenna

Dimensions
Including sensor - 36 x 23 x 150 mm
Excluding sensor - 36 x 23 x 109 mm

Environment
Temperature: -25 to +70 °C
Humidity: 5 to 95%
Housing: Plastic
Ingress Protection: IP65

Communication
LoRaWAN: 868 / 915 MHz

Power Requirements
Internal: Non-rechargeable 3.0V
(Battery lifetime - 3 years)*
Optional 5V external power supply

Power Consumption
Deep sleep mode: < 4µA
0.1 sec transmission mode 20mA

Connections
Thermistor 1x (temperature sensor)
Digital inputs: 2x
Analog Inputs: 1x 4-20mA + 1x 0-10V

Temperature Sensor
Tasseron TSB Clip on sensor
Type 0A** - 10K NTC Thermistor
Accuracy NTC B3977 - 3%@60°C

Plug and Play LoRa solution
Ready to use LoRa enabled legionella control solution. Just clip on to any water pipe and start reading temperature data.

Advanced Data collection and analysis
View, save and analyse all the data in form of graphs and tables to perform predictive maintenance and control.

Compact and easy to set up
The built in battery and antenna make it an ideal solution to install in small spaces like inside walls and radiators. Adjustable clamp size for use on any water pipe.

Ultra Low power
LoRa based long range solution with an ultra low power system which can function seamlessly for over 3 years on a single coin cell battery with a sleep current < 4µA.