

A purple icon depicting a water tap with a single drop of water falling from it, and a thermometer to its right, indicating temperature measurement.

Technology designed
to **save lives!**



L8 RTS (remote temperature sensing)

The modern solution for legionella monitoring

Our legionella monitoring system is the market leading designed-for-purpose option, which combines our unique sensor and gateway with a super-efficient, easy-to-manage dashboard resulting in significant time and financial savings.

L8 RTS is the logical solution to enhance legionella testing and compliance.

Simple

Affordable

Effective

**Enhances
compliance**

Gemini L8 RTS

Using the L8Log platform, the L8 RTS is a real-time digital monitoring system created specifically to operate as part of an effective proactive legionella control scheme, comprising the following:

S1 Temperature Sensors

Retrofitted to outlets throughout building, including sentinel points (3min install per unit). These waterproof units constantly monitor temperature, have a 10 year battery life and can transmit up to 22km*. Sensors take a temperature reading on a 3hr cycle, with an additional reading recorded if the system detects a change in compliant status within the cycle (Max 16, minimum 8 temperatures within 24hrs).



G1 IoT Gateway

A powerful gateway with intelligent innovations like theft alerts and battery backup. Once installed to a mains socket, these collect data from connected S1 devices and transmit securely to the web-portal.

L8 Log

Purpose developed online portal to manage the critical data generated by the system. L8Log exceeds the criteria in the HSE ACoP L8 'Legionnaires' disease. The control of legionella bacteria in water systems.



* Line of site distance quoted

L8 online logbook

L8 forms a complete digital version of the logbook

Weekly emailed reports

Identify little used outlets in real-time from data gathered. Automatically email recommendations & targeted weekly flushing lists to key people

Continual temperature monitoring

Track trends through smart monitoring

Automatic alerts

Emailed alerts let key individuals know immediately of any issues e.g. significant non-compliance/temp changes or sensor damage/theft/low battery

Features & Benefits

Time, money, carbon, energy & water savings

Reduced visits to site from contractor staff

therefore minimising disruption to site facilities management & reducing H&S risk on the site

Environment

Reduces carbon footprint for site operations. System is largely battery powered (with up to 10yr+ battery life)

Time

Reduce administrative & reporting tasks associated with temperature control

Additional benefits during COVID – 19

- ✓ **Identify legionella risk** - identify little used outlets in real-time during a period when water use will fluctuate with changes in occupancy
- ✓ **Reduced infection risk** - Minimise foot traffic on sites by installing monitors
- ✓ **Continuity of compliance** - System will not be impacted by staff sickness



LBlog reduces time spent on Legionella Control by 48% for NHS Trust

This particular NHS Trust has a mixed healthcare property portfolio, including 17 hospital sites, providing a variety of services to around 384,000 people in South West Wales.

The estates team faced significant challenges in taking manual temperature monitoring for legionella on their sites. These included:

- Significant time spent by skilled M&E staff manually taking temperatures reduced time available for planned and preventative maintenance.
- Frequent disruption to patients and staff caused by intrusive visits to take temperatures in sensitive areas.
- Data obtained during manual temperature visits was of limited use in assessing overall trends.
- Significant administrative burden to collate, assess and record temperature monitoring data and records.



The LBlog remote temperature monitoring system was very quick and easy to install and offered immediate benefits. The weekly reports help us identify non-compliant and little used outlets in real-time, as well as giving back considerable engineer time for other essential maintenance. The online logbook is simple to use, and following the successful installation at one of our large Mental Health Units we are confident that this system will achieve similar benefits at our other sites. The staff are extremely professional, helpful and proficient in what they do. As a result of this success, we intend to expand this system in the New Year across our estates.



Clients Estate Manger

Q. How does the sensor work?

The S1 sensor utilises a digital thermistor to record the temperature of the pipework/water, and transmits this in real time to the G1 gateway, via LoRa, Wi-Fi or Bluetooth. The gateway then communicates with the L8Log dashboard using Sigfox or LTE networks, but can also utilise LoRa, Wi-Fi and Bluetooth.

Q. How often is a temperature recorded?

Sensors take a temperature reading every 3 hours, with an additional reading taken if the system detects a change in the compliant status within the cycle (Max 16, min 8 temperatures within 24hrs).

Q. How does the L8Log system know when a temperature is compliant or not?

The S1 smart sensors use clever algorithms to pick out compliant temperatures, in line with the requirements of ACoP L8 i.e. within the timescales required for hot and cold systems.

Q. Are there any power requirements?

Only the G1 gateway requires a permanent mains power supply. Power consumption is ultra-low. The S1 sensors are battery powered.

Q. Is it compliant with ACoP L8?

Yes it is. HSG274 Part 2 (para. 2.53) discusses the use of BMS for temperature monitoring, and an independent review of the system has been undertaken to back this up. When used correctly as part of a legionella prevention scheme, the system is designed to ensure compliance is maintained, and even enhanced.

Q. What is the tolerance of the sensors, and do they need to be calibrated?

The sensors are accurate to $\pm 1\%$, and the system is designed with a tolerance of $\pm 2^{\circ}\text{C}$, to take into account temperature losses/gains through pipework. The sensors go through a 3 step calibration process at point of manufacture, meaning no further calibrations are required (calibration certificate available).

Q. What is the range of the sensors and gateways?

The S1 sensor has up to a 22km line of sight range. This however will obviously not be the case within a building. However, one gateway should be able to receive information from sensors throughout a typical building. In some cases, one gateway could also connect to sensors in multiple buildings if in close proximity. The fabric of the building(s) is a factor to consider.

Q. How is the data reported to the user?

The L8Log dashboard provides real time information for all the locations being monitored. A comprehensive report is automatically generated on a weekly basis, which provides information on the overall compliance for the site being monitored, as well as highlighting those locations that have failed compliance, with greater detail provided and actions recommended.

Q. How long will the battery last?

The S1 sensor's battery has a life of up to 10 years in real time monitoring. The L8Log dashboard is automatically notified if there is a fault with the battery or if it needs replacing.