

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.