



Helping to protect UK's water from Legionella with their temperature sensors

Saft's high-energy Li-SOCl₂ primary lithium battery technology chosen by Wavetrend for their monitoring device.

Key benefits for Wavetrend

- A reliable solution for installation in remote places
- A compact solution able to provide daily reports over a long service life
- A superior resistance to atmospheric corrosion

Features of Saft's power solution

- 30-year track record in Li-SOCl₂ primary lithium battery technology
- High energy density cell providing up to five years of reliable autonomous power
- A cell made of premium materials and components, in order to resist harsh conditions



The challenge: Mitigating the risk of legionella in water systems by actively monitoring water temperature in remote locations and over a long service life

The UK has seen a rise in the Legionnaires' disease over the past few years. The disease is caused by Legionella, a bacteria that develops in uncontrolled soil and water environments. It infects the body through inhalation of contaminated water droplets and can cause a potentially fatal form of pneumonia, particularly among the elderly and the infirm. Water management companies turned to Wavetrend, a leading global creator of

Active RFID and Internet of Things (IoT) technologies, to create water temperature monitors to help detect conditions where legionella could occur. The device offers a cost-effective alternative to traditional manual inspection visits by using connected technology to actively monitor hot and cold outflow and by raising alerts on high-risk temperatures that could lead to the spread of the bacterium, enabling quick action to be taken. For the probe to be effective, both the Sigfox and the LoRabased sensors need to be continually on and reporting. They also need to be placed strategically placed, even in far and wide locations, must fit all spaces and sustain a long service life: a challenge for the cell that must offer constant pulse response in challenging conditions, and during 5 vears of service life.

The solution: Saft LS Li-SOCl₂ primary lithium cells.

Wavetrend chose Saft's Li-SOCL LS 17500. A reliable, compact (A format). high energy density cell that was able to meet their difficult size demand. The bobbin construction of the cell makes it particularly suited for both the Sigfox and LoRa-based water temperature monitoring sensors that require very low continuous pulsed currents. LS cells are also able to withstand broad fluctuations of temperature and harsh environments making them ideal for use in remote locations.



Reliability is essential for our IoT solution. Using Saft batteries is the obvious choice for us. It gives us the confidence that we are providing a reliable product that is fit for purpose, giving excellent performance and a long service life.

Roger Biggs, Managing Director at Wavetrend (Europe) Ltd



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