



# LONCEL SENSORS NOW AVAILABLE FOR LORAWAN™

www.loncel.com



Rain Gauge



AquaCheck®

Acclima™

THE LONG-RANGE WIDE AREA NETWORK SPECIFICATION KNOWN AS LORAWAN™ IS DESIGNED TO WIRELESSLY CONNECT BATTERY OPERATED 'THINGS' TO THE INTERNET.

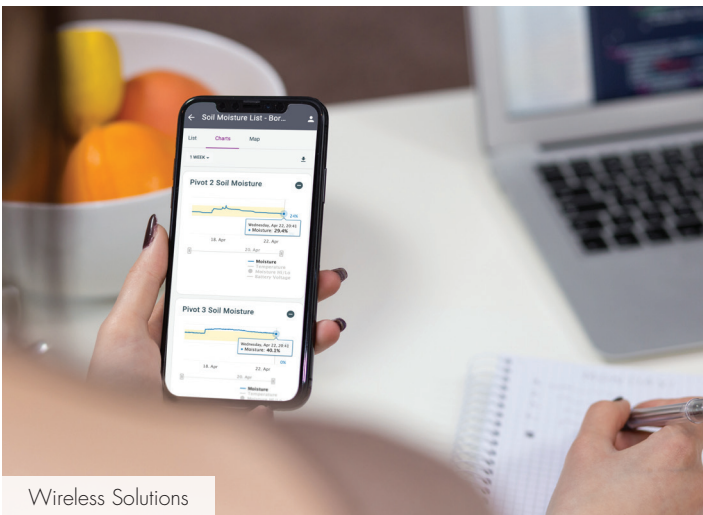
Loncel now supplies a range of sensors, configured for LoRaWAN™ connectivity, including water metering, rain buckets and soil moisture monitoring solutions.

Without the need for a RMU cellular gateway, water metering and soil moisture monitoring solutions connected via LoRaWAN™ feature simple architecture and ease of installation. Low power usage means longer lasting batteries for each sensor.

Operated in New Zealand by Spark, LoRaWAN™ is primarily available in metro areas with options to extend coverage where needed.

And of course, Loncel's proprietary cellular/radio network solution remains fully available for farms without LoRaWAN™ coverage or where a hybrid approach is required; dual connectivity is available for those outlying and/or hilly farms with only partial LoRaWAN™ coverage.

Regardless of which connectivity type is best suited to your farm, Loncel provides a one-stop-shop for smart monitoring solutions enabling you to maximise yields, while simultaneously ensuring sustainable farm practices through the responsible use of water.



Wireless Solutions

SPECIFICATIONS	ACCLIMA TDR-310H™	AQUACHECK®
Data reporting	Soil moisture (0-100% volumetric content) and temperature	
Calibration	Not required	
Measurement methodology	Localised	Localised <sup>1</sup>
Dimensions ( <i>without cable</i> )	208mm x 34mm (diameter)	200m to 1600mm x 32mm
Power supply voltage	3.5 – 15 volts DC	4 – 14 volts DC

<sup>1</sup> Sensor spacing is every 100mm or 200mm model dependant.

## FAQs

### **What is LoRaWAN™?**

The LoRaWAN™ specification is a Low Power Wide Area (LPWA) network protocol designed to wirelessly connect battery operated 'things' to the internet in regional, national or global networks. LoRaWAN™ protocol is optimised for low power consumption and is designed to scale from a single gateway installation up to large global networks with billions of devices.

### **Is LoRaWAN™ available on my farm?**

You can do an initial check to see if the Spark network provides LoRaWAN™ coverage at your address by visiting <https://www.spark.co.nz/shop/mobile/network/#coverageMap>

However, it is important to remember an additional gateway may have been added by a private operator, so you should check with your installer.

### **Is Loncel's proprietary cellular/radio network solution still available?**

Absolutely. Spark has primarily made LoRaWAN™ available in metro areas making it more suitable for industrial monitoring applications. Loncel's proprietary cellular/radio network solution remains available for farms without LoRaWAN™ coverage or for a hybrid approach, using dual connectivity, for those outlying and/or hilly farms with only partial LoRaWAN™ coverage.

### **I already have a Loncel Remote Monitoring Unit (RMU), but no LoRaWAN™ coverage? Can I add additional sensors to the gateway?**

Yes. We will work with your installer to provide you with the most cost-effective solution.

### **Will my online monitoring pages look different with LoRaWAN™?**

No. The user experience and the monitoring information will be identical regardless of the connectivity type. Please note, the website user experience is constantly being improved to be more intuitive with more graphs.

## Water Monitoring

Whether you're irrigating grass or crops, managing and measuring your 'water take' together with the associated compliance requirements is critical. Data is sent to and stored in the cloud and is available via the Loncel website. If required, the water usage data can be sent to the relevant Council for resource consent monitoring purposes.

## Soil Moisture Monitoring

Whether you're growing pasture or crops, understanding soil moisture levels is critical for irrigation decision-making. And that's where we come in with Loncel Soil Moisture Monitoring systems, delivering real-time and historical soil moisture data at your fingertips. Data is sent to and stored in the cloud and is available via the Loncel website.

Two soil moisture sensors are available – the Acclima True TDR-310H Soil Water – Temperature – BEC Sensor and the AquaCheck® sub-surface probe.

*Information for irrigation.*  
**Work smarter, not harder.**

SUPPLIED BY:



For more information about Loncel sensors configured for LoRaWAN™ connectivity

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[www.loncel.com](http://www.loncel.com)