Liquid Level Monitoring

Enables early flood warnings by remotely monitoring water body levels

FarSite↗
COMMUNICATIONS

OneTemp - Australia

1300 768 887

sales@onetemp.com.au

www.onetemp.com.au/liquinet

Culvert Left	Fill level	8%
Culvert Right	Fill level	7%
Gully 1	Fill level	51%
Gully 2	Fill level	51%
Gully 3	Fill level	100%
Gully 4	Fill level	46%
Gully 5	Fill level	56%
Gully 6	Fill level	64%

Overview

Liquinet provides a reliable and affordable way to remotely monitor liquid levels of a variety of systems. The solution enables those reported water levels to be used in a variety of useful ways.

The solution can be used with the majority of liquid monitoring scenarios. For example for water storage systems to warn when resource levels are running low and need to be refilled, or with drainage systems to warn when of a potential flood event.

The Liquinet solution is comprised of an ultrasonic fill level sensor a web based management platform and APIs to share data with 3rd party solutions.

Main Features

Proven & Reliable Sensing

At the heart of the Liquinet solution is the nPod, an industry proven sensor that has been deployed since 2014 in various applications and is now its 3rd refinement.

We continually develop the nPod to ensure that Liquinet provides the most reliable, accurate and useful data to the users of the system.

Waterproof & Rugged

The nPod has been custom designed by FarSite to be strong and waterproof in the hardest environments. The IP67 rated enclosure means the nPod is ideal for use in wet environments and will continue to work after being submerged in a flood event.

Flexible Install Barrel

nPod's unique moveable sensor barrel makes installation into a variety of situations quick and easy. Simply select the optimum location, adjust the sensors barrel to point at the spot to be measured then lock it into place.

The nPod can be mounted on the underside of drains or bridges, onto vertical walls and onto angled surfaces with ease.

5yr Warranty

All our nPods come with a 5yr warranty so you can rest assured that FarSite is providing the highest quality product. Terms and conditions apply.

Web Based Platform

The Liquinet Hub is accessible online without installing any software. The Hub enables a quick assessment of water levels across the area by using a variety of views and filters. It enables remote configuration of nPods and creation of automated alerts.

With three levels of user it can be used by various staff for viewing only or in depth management.

Comprehensive Warning System

Built into the nPod and Hub is the automated and responsive alerts feature that enables important data to be prioritised at a sensor level and then quickly dispatched to staff by the platform.

Alerts can be triggered by a variety of parameters such as water level above or below a defined value, temperature, vibration, breakdown in communications and many more. Alerts can be sent to users of the Liquinet system by email, Hub alert, text or WeChat.

Full Historical Record

Liquinet securely stores all of the collected data from each nPod for viewing in a historical graph.

This powerful tool enables deep analysis of flood events or water usage which has been a valuable tool to Liquinet users to date.

System Health Checks

FarSite are well known for excellent attention to detail and a fast pragmatic approach to technical support.

For your piece of mind all Liquinet systems are monitored by FarSite's automated tools too seek out errors and anomalies, this is all part of the Liquinet service. Our experienced support engineers review possible issues and if they think it's a problem will contact you about it with a suggested action, most issues can be compensated for with an altered configuration so a trip to that location is often not necessary.

Users can also themselves configure alerts in the Hub to be notified if a sensor stops reporting in and other unusual events so the system tell you if it detects an issue saving time and keeping the system working optimally.

Future Proof Solution

All components of the Liquinet solution are being continually enhanced and developed by our in-house team. nPod's installed in the field can be updated over the air to the take advantage of new features, techniques and fixes and the Hub will be kept up to date. nPod is available with a variety of communication options to ensure a future proof options is available for your area.

netBin nPod technical specifications

Fill measurement sensor	Dual high sensitivity 40KHz ultrasonic sensor
Variable angle sensor housing	135° range lockable by 2 discrete grub screws
Depth range	3cm - 4.0m (up to 6m with long range sensor) Accuracy +/- 2cm
Temperature sensor	Reports temperature
Enclosure	Ingress Protection Rating IP67
Material	ABS Polycarbonate
Fixing	2 x M6 security bolts
Dimensions	140 x 122 x 46 mm excluding fixing mounts
Weight	Approx 440g
Operating temperature range	-30°C to +80°C
Battery life	10+ years
Communications options	GPRS(2G), 3G, NB-IoT, LTE Cat M1
Approvals and compliance	CE, FCC, RoHS2, REACH, WEEE

nPod Key Features

- Dual ultrasonic sensors to enable close range monitoring and up to 4.0m distance.
- Variable angle barrel to enable flexible mounting for both horizontal and vertical options
- Variable power ultrasonic sensors with multi-echo return analysis enables the nPod to perform accurately in small gulleys and wide-open spaces.
- Temperature compensated distance readings
- Waterproof to IP67
- Rugged 4mm thick ABS polycarbonate case designed for the harshest environments
- Reliable and secure communications using GPRS, 3G, NB-IoT or LTE-M1.
- Long battery life
- Easy install with brackets available if needed
- Automatic adjustments of update frequency based on water levels.
- 3rd refinement of an industry proven sensor that has been deployed since 2014.

Liquinet Case study

The Problem

Whiston Lane in Knowsley has suffered a major flood event in December 2017 caused by intense and prolonged rainfall. Investigations were carried out and further monitoring was needed so the FarSite flood level monitoring system was selected and installed.

The Outcome

During the last 9 months of monitoring a number of near flood events occurred where levels past the alert level.
However in June 2019 the water levels surpassed the alarm level and the council were able to respond. Flood sacks were issued to residents and a pump was prepared should the level continue to rise. On this occasion the level started to fall a few hours later and the teams stood down

The Solution

Liquinet's Flood warning system monitors the water level inside drainage gulley's, culverts and under low bridges. As water levels raise past set thresholds our nPods immediately connect to the management platform so that warning messages can be sent by email, text or WeChat to the relevant teams
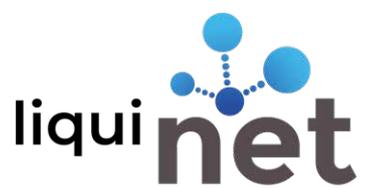
"With proactive decisions we were able to avert any possible danger to the properties in the area. In doing so it also regained the trust of the residents in Knowsley"

Alan Williams, Business Deployment Manager, KaarbonTech

All trademarks and registered trademarks are acknowledged.
Changes are periodically made to the information herein; these changes will be incorporated into new editions of the publication. FarSite Communications may make improvements and/or changes in the products and/or programs described in this publication at any time.