

# Andel FloodAlert®

## Cost-effective early flood warning system

### Ideal for surface water flood events not covered by the Environment Agency flood warning service

- Cost-effective, real-time local flood alert system
- Easy to install and set up
- Robust and reliable system
- FloodAlert® sensor sends SMS and email alerts to give you time to take evasive action to protect your property
- Live monitoring on a cloud-based portal, via any device with internet connectivity
- Tracks surface water levels for up to 15km from a gateway
- Can communicate with an unlimited number of designated users
- Three alert levels, tailored to each installation
- Communication via a low-power LoRaWAN network
- Multiple FloodAlert® posts can interconnect to form a network for flooding hotspots.

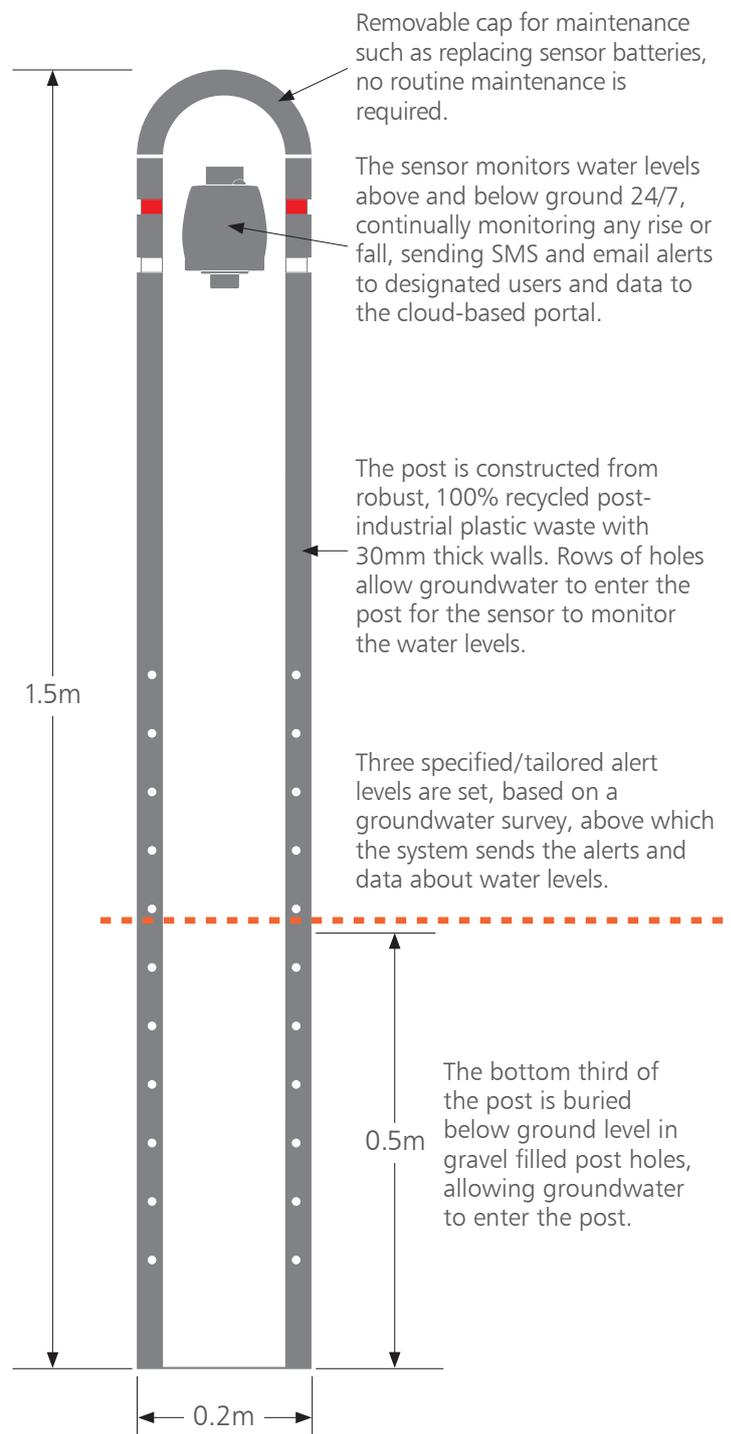


Andel FloodAlert® Ultrasonic LoRaWAN Sensor is a battery operated water level sensor with integrated LoRaWAN radio. CE Conformance and RoHS Compliant. 24/7 monitoring with up to 15km range.

Andel FloodAlert® posts are constructed from durable 100% recycled post-industrial plastic waste. Available in grey or brown with reflective red and white strips, the posts are robust and easy to install.



### FloodAlert® sensor and post



# Andel FloodAlert®

## Cost-effective, advance flood warning system

Andel FloodAlert® is the ideal early warning system for single and multiple properties at risk of flooding through rising groundwater. FloodAlert® posts can be strategically positioned to give maximum warning to allow for evasive action.

Easy to install and set up, the posts transmit warnings and real-time monitoring of water levels to a cloud-based portal, accessible from any internet enabled device, with no necessity for special software.

Andel FloodAlert® uses a robust, ultrasonic LoRaWAN level sensor and integrated radio, encased in a recycled, watertight and shatter-resistant outer casing, ensuring consistent reliability.

The posts can be installed up to 15 kilometres from the gateway in some cases and each gateway can connect to an unlimited number of users.

## Easy installation and set-up

Andel FloodAlert® posts are buried in 0.5m post holes and back-filled with gravel to allow groundwater to enter the post through the rows of holes – so the groundwater level can be monitored by the sensor.

In many cases a single Andel FloodAlert® post will suffice, however a number of posts can also be deployed to protect a larger risk area and multiple properties.

## Alarm levels

Depending on ground conditions and following a groundwater survey, three alarm levels will be programmed into the system. Each time an alarm level threshold is breached, the designated property owner/s will receive email and SMS warnings.

## Gateway

Users will be supplied with LoRaWAN gateway hardware and software as part of the network, receiving data from FloodAlert® posts and transferring the data to the cloud-based monitoring software. Indoor and outdoor options are available, specifications vary depending on installation.

## Web portal

The web portal is available via any web browser and provides real-time live data to show current water levels, up to the last 30 days of water levels and information about signal strength, temperature and battery life – all displayed in a graphic format.



## TECHNICAL INFORMATION – LoRaWAN SENSOR

Operating temperature	-20°C to +50°C (-4°F to +122°F)
Humidity range	15% - 95%
Altitude range	<2Km (<6,000') above sea level
Radio standard	Supports LoRaWAN 1.0.2 compliant 125/250 KHz bands.
Frequency	868MHz nominal
Output power	Up to +14dBm (25mW) (as measured into the internal antenna on the PCB; internal antenna gain = -3dB typ)
Gauge type	Ultrasonic
Ultrasonic range	>12cm to <400cm (>5" to <155")
Ultrasonic signal diversion	30°
Ultrasonic resolution	±1cm (±0.5")
Accuracy	Typically ±2cm (±1")
Battery type	3.6V Li-SOCl <sub>2</sub> Size 2/3AA
Expected battery life	Typically 12 Years from activation

Andel provides consultation, design, manufacturing, installation and support services for four key specialist areas: LEAK DETECTION, FUEL AND OIL STORAGE MAINTENANCE AND COMPLIANCE, INTERCEPTOR AND DRAINAGE MAINTENANCE and FLOOD DEFENCE.

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