

BAY ADVANCE CONTROL SYSTEM

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A versatile solution for the control of flood bay irrigation, the Bay Advance Control System schedules and controls flood irrigation in multiple bays using the RainWAN LoRa module. This module reports when flood irrigation reaches field levels, so bays automatically close field valves at the correct time. This ensures runoff is reduced and irrigation kept to optimum levels. The controller features a web interface, which means the system can be monitored and managed remotely.

Features

- Mains or solar power options available
- Solar powered RainWAN field bollards for moisture measurements
- Utlilises RainWAN wireless network for valve control
- Controller is supplied in an IP67 pole or wall mount enclosure
- Web interface for configuration and monitoring
- Cellular communications to controller
- Up to 6 concurrently irrigating bays – each bay assigned an order number and the program will operate set number of concurrent bays following order
- Rugged field bollard to prevent damage from cattle.

How it works

The controller is programmed to start irrigation shift on a time-based schedule, or manually via the web interface.

Empty Bay – Sensor Dry

The bay supply valve / gate is activated via a RainWAN node and the irrigation begins.



Flooding Bay – Sensor Wet

Once the moisture sensor detects floodwater a 'stop' command is sent to the controller and the bay supply valve / gate is turned off.



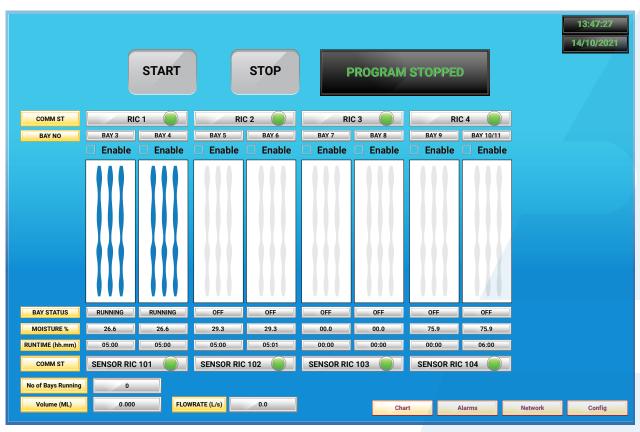
Flooded Bay – Sensor Wet

The Irrigation schedule is now stopped, allowing the bay to flood without overfilling. The irrigation controller has stopped the watering schedule on time and will not reopen the bay valve / gate until the next scheduled irrigation event, or a manual start.



If the sensor does not detect floodwater by a maximum time, the bay valve / gate is closed to prevent potential of excessive irrigation on sensor failure.

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RainWAN Bay Control Units



The entire RainWAN product was designed and developed locally in Western Australia, including circuit boards, firmware, enclosure, solar panels and mounting. The RainWAN field control node is a standard product developed by Aquamonix to remotely control irrigation solenoid valves. The use of these nodes greatly reduces the amount of field wiring required.

RainWAN Field Moisture Nodes

RainWAN node retrieves data from a moisture probe and transmit this to the main control unit. The main control unit then uses this moisture data control irrigation events without over watering.

Integration of proven, heavy duty moisture sensors into the RainWAN node provides reliable moisture reading for the Bay Advance System. The RainWAN node is installed inside a heavy duty, cattle proof bollard.

About Aquamonix

Aquamonix provides innovative products and services to assist businesses and communities in monitoring critical water resources, managing environmental compliance and mastering remote infrastructure. We are a major supplier of flowmeters, water quality sensors, remote telemetry systems and control solutions for the Australian irrigation market. We are the only Australian manufacturer of full bore flowmeters and have an installed base of more than 40,000 sites and over 40 years of experience in the industry.



Contact Aquamonix | aquamonix.com.au | T: 1300 797 246

New South Wales 268 Milperra Road Milperra NSW 2214 T: +61 2 8710 4040 Victoria T: 1300 797 346 Western Australia 92 Furniss Road Landsdale WA 6065 T: +61 8 9477 1188

Queensland

29 Lathe Street Virginia QLD 4014 T: +617 3608 7889