

# **Network Management**

# Wastewater Network Management

HMG Water Solutions are the sole UK distributor for iJinus, the innovative global leaders in Intelligent Networks for both the Natural Water and Wastewater Networks.

The basis of the wastewater network management is a series of modular data loggers that can be connected to various sensors to supply network information on a retrospective or live basis. The sensors and data loggers are a mixture of fixed location hardwired equipment, relocatable wireless equipment, or temporary area measurement.



The iJinus Intelligent Network System can be used along the whole wastewater network to identify various network operational information;

- Rainfall measurement
- Level measurement / Water height
- Pressure readings
- Overflow detectors
- Flow velocity measurement (both low and high velocity available)
- Valve / Pump Operation / Non-return valve operation
- Hydrogen Sulphide Gas
- Water quality sensors
  - o pH / Redox / Temperature
  - o Conductivity / Salinity / Temperature
  - o Induction Conductivity / Salinity / Temperature
  - o Redox potential / Temperature
  - Dissolved Oxygen / Temperature
  - o Turbidity NTU-SS / Temperature

The information from the sensors can be remotely collected by radio connection, collected at a central hub, or sent via wireless mobile telecommunications transmitted via 3G or 4G for remote monitoring. The system is supported by a series of network software platforms to make it simple and easy to use.

- Avelour is the simple wireless configuration software
- > IJITRACK is a simple software platform to view and analyse the sensor data
- > WIJI software is a simple app that can be used to access real-time notifications and alerts.











#### Rainfall measurement

Simple way to remotely monitor rainfall in fixed or temporary locations.

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#### Level measurement / Water height

The system has a range of level measurement loggers depending upon the environment. There is an acoustic imaging level sensor (LNU06) specifically designed for the harshest of environments. There is an ultrasonic level sensor (CNU06) for hardwired environments and there is the pressure type level sensor (CNR / CNRT / VLI)



### **Temperature reading**

The CNRT is a wireless pressure sensor that can measure both the level of the wastewater and its temperature.



#### **Overflow detectors**

The system has overflow sensors that can detect when there is waste discharge from a network. They use the patented CapAir® Technology which means it keeps working when the network becomes clogged. Both wireless (LSC) and wired (DSC) versions available.



## Flow velocity measurement (both low and high velocity available)

The acoustic imaging sensor (LNU06) can also be used to measure the wastewater flow. The Doppler (VB-V) velocity sensor is perfect for measuring very low velocities, while the VLI sensor uses the digital doppler to measure standard velocities with a pressure sensor for height measurement.



## Valve /Pump Operation / Non-return valve operation

The clamp on ammeters can be used to identify on/off contact for remote valves and autonomous pumps. There is also a two-axis inclinometer for a wide range of application, in particular for monitoring valve operation.



# **Hydrogen Sulphide Gas**

A sensor that measures the Prescence of H2S gas in a range of 0 to 2000 ppm with a resolution of 1ppm



#### Water quality sensors

This sensor is a physico-chemical data logger that can be used to monitor several water qualities.

pH / Redox / Temperature
Conductivity / Salinity / Temperature
Induction Conductivity / Salinity / Temperature
Redox potential / Temperature
Dissolved Oxygen / Temperature
Turbidity NTU-SS / Temperature





