iRIS 270

Wireless IP-Capable Datalogger

Data Acquisition | Hydrology | Groundwater | Flood | Water Quality

General Description

The iRIS 270 is the perfect marriage of the proven iRIS design legacy with a future-proof architecture. It is **compact, cost effective, ruggedized, IP-capable and easily configured** - and due to its dual telemetry slots the iRIS 270 extends the telemetry options and the range of pluggable devices.

The **dual telemetry slots support wireless 4G/3G modem, Iridium satellite, ethernet, and RS232/RS485**. They can be used to provide for communication redundancy: for example two cellular modules each with a different SIM card from independent ISP providers or a communications device connected via RS232/RS485 paired with an Iridium satellite module.

The iRIS 270's **WiFi hotspot enables access to the device wirelessly** using KISTERS **free-of-charge iLink software** (Windows). With a max. range of 80 m in clear line of sight (and a strong signal from the connected device), the user can edit settings while reading the staff gauge on the riverbank, doing a stream flow gauging, or sitting in his car in rainy conditions. iLink helps configuring the logger, checking settings and calibrations for QA/QC, performing **real-time diagnostics** to resolve technical issues, and downloading data. The optional HydroTel™ software can be used for remote configuration and data downloading.

Main Features

iRIS 270 in short

- Dual-comms option
- Modem: built in 4G with 3G fallback
- Aluminium die-cast housing
- IP66
- Low power consumption
- Battery operated and solar chargeable
- Up to 50 virtual sensors
- Non-volatile memory
- Local wireless configuration and data download

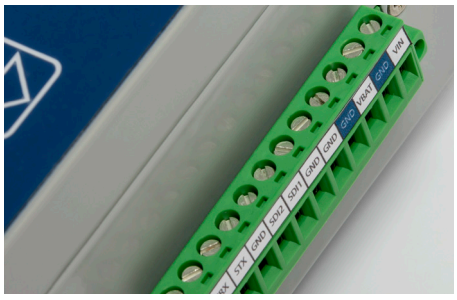
Further features

- Small graphics LCD display and 5 button keypad for viewing general and sensor information, running totals, etc.
- Calibrations, firmware upgrades and service and maintenance records stored in allocated non-volatile memory

Applications

The iRIS 270 is especially suitable for

- Data Acquisition
- Hydrometric Stations
- Automatic Weather Stations
- Environmental Monitoring
- Agrometeorological Monitoring

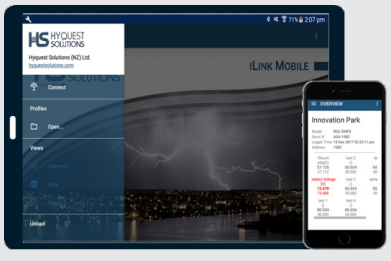


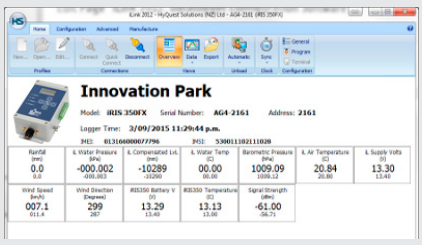
KISTERS

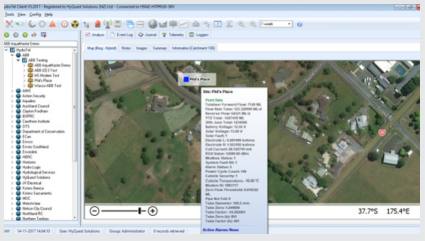
Technical Specifications

Digital Input/Output	– 1 digital I/O channel, 1 digital output channel, 2 digital input channels – Inputs: clean contact to 0 V or 3.6-12 V DC referenced to GND – Outputs: switched 12 V or open-drain sinking to 0 V, both limited to 100 mA
Analogue Input/Output	– 2 analogue inputs: uni-polar, 16 bit resolution, 30 V DC surge-protection – Input ranges: 0-0.1 V, 0-2.5 V, 0-5 V, 0-30 V – Internal 100 Ω sink resistors allow use of input current (0/4-20mA). – 1 analogue (excitation) output for energizing passive instruments (e.g. potentiometer type wind vanes) or alternatively for sending a derived analogue signal to other equipment, selectable as 0-5 V or 4-20 mA
Communications	– Dual telemetry slots for wireless 4G/3G modem, Iridium satellite, ethernet, RS232/RS485 – Non-isolated 2-wire half-duplex RS232/RS485 sensor port – SDI12 instrumentation port (two terminals), complies with SDI12 V1.3 – Wi-Fi
Power Supply	– External 12 V SLA or 11.1 V Li-Ion battery, integral charger 10-30 V DC input, optional: solar panel – Lowest power mode current 7 mA – Over voltage and reverse polarity protected with self-resetting fuse – Voltage of battery and charger input: monitored, logged, displayed, alarmed – Vin cable length max. 3 m
Data Storage: Flash Memory	– Total 32 MB, of which 16 MB allocated to logged data/stored images (1,398,101 samples) – Typical autonomy: 2 parameters logged every 15 minutes and battery voltage logged hourly will give almost 10 years of storage.
Status LEDs	– 1 LED for overall operational state – 3 LEDs for status of communication devices (comms1, comms2, Wi-Fi)
Real-time Clock	High accuracy, backed by on-board lithium battery to prevent loss of date/time
Environmental Conditions	– Enclosure: IP66, die-cast aluminium alloy, hard grey paint finish, neoprene gasket – Operating temperature: -40 °C to +70 °C (-40 °F to +158 °F) – Storage temperature: -40 °C to +85 °C (-40 °F to +185 °F)
Size (WxHxD) and Mass	130 x 220 x 75 mm (5.12 in x 8.66 in x 2.95 in); 1.4 kg (3.09 lb)
Conformity / Compliance	RoHS, FCC, CE (WEEE pending)

Software: iLink & HydroTel™







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