iRIS 350FX

IP multi-channel Datalogger

Data Acquisition | Hydrology | Groundwater | Flood | Water Quality

General Description

KISTERS' IP datalogger iRIS 350FX has been designed and constructed for **use in harsh outdoor and industrial environments**. It is **compact, cost effective and easily configured**, with support for a wide range of instrumentation. The communication slots support wireless 3G modem, Iridium satellite, ethernet, RS232, SDI-12 and modbus slave protocol for SCADA. An integral wireless modem provides network connectivtiy.

Configuration & Data Download

iRIS 350FX is configured locally via RS232 connection using KISTERS' **free-of-charge iLink software** (Windows, Android). iLink is used to configure and check monitored values and to download data from the iRIS 350FX. The optional HydroTel™ telemetry software can be used for remote configuration and downloading.

Options for data access / download

- Direct RS232 connection e.g. laptop, data radio or bluetooth adaptor
- FTP file transfer (up to 2 pre-configured locations)
- IP based packet transfer (TCP/UDP)
- SMS text back (current sensor values)
- Voice annunciation (iRIS 350FXV only)

Applications

The iRIS 350FX is especially suitable for

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

Features

- Aluminium die-cast housing
- IP67
- Low power consumption, battery operated, solar chargeable (optional solar panel available)
- Up to 20 virtual sensors
- 40 alarms that can be assigned to any virtual sensor
- Non-volatile memory
- Security: Configurable with a pin-code to prevent unauthorized access to information
- Small graphics LCD display and 4 button keypad for viewing general and sensor information, running totals, etc.

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Technical Specifications

Digital Input/Output	– 4 x digital I/O channels (configurable) – 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	– 4 analogue Inputs: uni-polar, 16 bit resolution, 30 V DC surge-protection – Input ranges: 0-1.25 V, 0-2.5 V and 0-5 V – Internal 100 Ω sink resistors allow use of input current (0/4-20 mA). – 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	– Non-isolated DTE RS232 at 1200-115200 bps (default 38400 bps) – Wireless 3G modem or a custom comms module on PCB Rev 1.2+ – SDI12 instrumentation port, complies with SDI12 V1.3 – Serial VGA camera proprietary connection (3.3 V CMOS levels)
Power Supply	– Internal/external 12 V rechargeable SLA battery, integral charger 15-30 V DC input, optional: solar panel (easily pluggable without additional regulator) – Lowest power mode current 3 mA – Over voltage and reverse polarity protected with self-resetting fuse – Voltage of battery and charger input: monitored, logged, displayed, alarmed
Data Storage: Flash Memory	– Total 16 MB, of which 8 MB allocated to logged data/stored images (1,084,576 samples), or audio file storage for up to two languages (iRIS 350FXV only) – Typical autonomy: 2 parameters logged every 15 minutes and battery voltage logged hourly will give almost 12 years of storage.
Status LEDs	– 1 tri-colour LED for overall operational state – 8 LEDs for status of communication devices (I/O status and communication activity)
Real-time Clock / Calendar	High accuracy, backed by on-board lithium battery to prevent loss of date/time
Environmental Conditions	– Enclosure: IP67, die-cast aluminium alloy, hard grey paint finish, neoprene gasket – Operating temperature: -10 °C to +70 °C (14 °F to +158 °F) – Storage temperature: -30 °C to +85 °C (-22 °F to +185 °F)
Size (WxHxD) and Mass	160 x 130 x 70 mm (6.29 in x 5.11 in x 2.75 in); 1.3 kg (2.86 lb) incl. internal SLA battery
Conformity / Compliance	RoHS, FCC, CE (WEEE pending)

Software: iLink & HydroTel™

Reseller

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