

## The Hawk XT telemetry logger with SDI-12 port

The Isodaq Hawk XT telemetry logger is part of the range of flexible and robust data logging and telemetry solutions manufactured by Isodaq Technology, a division of Hydro-logic Ltd.

All Isodaq products are designed for water and environmental monitoring applications where systems are operated in remote installations often under hostile site conditions.

The Hawk XT is a robust telemetry data logger specifically designed for installation and use under hostile site conditions. It has long battery life from a large pack of internal alkaline cells and can take external power.

Applications include:

- Abstraction and effluent measurement
- Environmental investigations
- Flood warning and control
- Groundwater and water resource studies
- Urban pollution management.



### Continuous measurement and alarms from:

- River level
- Open channel flow
- Discharge overflow
- Groundwater level
- Supply meter consumption
- Wind speed
- Rainfall and weather
- Tank fluid level
- Water quality
- Temperature
- Pump status
- Barometric pressure

### Sensors suitable for using with the Hawk XT

The Hawk XT includes two-channels (analogue or digital) which are user configurable via a plug-in "C" sensor card which enables the following types of sensors to be connected :

- Thermistors
- Anemometers
- Tipping bucket rain gauge
- Incremental shaft encoders
- 4-20mA transmitters (pictured)

A multi-channel SDI-12 port is also included for the connection of 'smart' sensors such as:

#### Depth Level

- GEMS
- Impress
- OTT



#### Velocity and Flow

- MACE
- Teledyne RD1
- YSI Sontek



#### Water Quality

- Greenspan
- YSI
- Ponsel
- Analite



#### Weather

- Vaisala



# Hawk XT Telemetry Data Logger



## The Hawk XT telemetry data logger

MODEL	CHANNELS	W x H x D	IP RATING	MATERIAL
Hawk XT	2 + SDI-12	160 x 240 x 90	IP65	Polycarbonate

ENCLOSURE dimensions for all loggers within the Isodaq range  
(All dimensions include gland allowance of 30mm)

## Input types with sensor cards

CARD	APPLICATION	SENSOR TYPE
C21	Rainfall recording, wind speed, Meter reading or frequency input	Tipping bucket raingauge, anemometer flow
C22	Water level	Electricity or gas meters with pulsed output
C23	Voltage, wind direction	Incremental shaft encoder
C24	Current loop	Wind vane
C25	Fluid depth / level	4-20mA loop inputs
C26	Voltage AC current	Pressure transmitter (mA), ultrasonic (24V)
C27	Temperature	DC current clamp
C31	Turbidity	Thermistor probe
C32	Anemometer	4-20mA input 12V power
		Frequency input



## Accuracy and storage

Analog accuracy 0.1% full scale. Flash memory data storage to ensure reliability. Total storage capacity 29760 16-bit readings. Oldest data is overwritten when logger is full so the most recent data is always stored.

## Logging strategies

Strategies:

- Periodic logging
- Frequency pulse rate count
- Event logging - pulse timing.

User-specified from ten seconds to four hours. Data is stored at 'cardinal points' as per specified interval (e.g. 15 minutes logging at 00:00. 00:15. 00:30. 00:45 etc).

## Communications

Local RS232 communications are built-in. Remote data collection uses a range of internal modems. There is automatic daily check-in with data transfer, and modem time switching for polled operation also supported. Supported modems are:

**PSTN** - Public Switched Telephone Network

**GSM** - Cellular Mobile Network (quad band)

**GPRS** - General Packet Radio Service

All modems are designed for low-power battery operation. Battery life will depend on sensor type and call frequency monitoring alarm dial-outs. Logger only, non-modem version available.

DNP3 and Modbus protocols supported as standard.

## Alarm features

Up to four set points per channel (each high, low or return to normal), hysteresis and filtering.

Rainfall intensity alarm with configurable integration and suppression periods.

Sampler control relay option. Low battery alarm.

Alarm dial-out supports two alarm handlers (each with two numbers; multiple retries per number). Direct SMS from logger on alarms.

## Software

Hawk XT configuration and manual data collection is via Harvest for Windows platforms or PocketHarvest for Pocket PC, including the rugged Archer hand-held.

IDQTel and the FEP6 provide fully automatic data collection and alarm forwarding.

Web-based data collection via [www.timeview.net](http://www.timeview.net) allows you to view remote data on a secure website.

## Battery

Field replaceable high capacity Alkaline D cells fitted internally. Connection for external 12V lead acid battery.

## Options

- **Hawk XT** - no modem
- **Hawk XT GSM** - internal GSM/GPRS modem
- **Hawk XT PSTN** - internal PSTN modem
- **Hawk XTn** no-display option available with all modem options
- Enclosure mounted hi-gain or external antenna for GSM/GPRS
- **HBH** Breather for level sensors.