

## The Acoustic Doppler Velocity Profiling revolution

A worldwide revolution in open channel flow monitoring is happening through the application of Horizontal Acoustic Doppler Current Profiling technology (H-ADCP). The high capital and maintenance costs of operating weir structures in open channel can no longer be justified for many sites. Ecological, fisheries and flood-risk concerns also favour the use of unobtrusive electronic methods instead of hydraulic structures. Clients are also demanding better access to processed flow records in real-time or via the internet.

Isodaq Technology, a division of Hydro-Logic Ltd is at the forefront of the ADCP revolution and has responded to the growing demand for easy-access flow information by developing a dedicated telemetry solution and web-based data reporting systems specifically designed for streamflow monitoring using TRDi's H-ADCP technology.



### Open channel flow monitoring

Hydro-Logic offer integrated low-cost telemetered flow monitoring facilities for applications such as:

- Rivers
- Navigation canals
- Compensation flows
- Aqueducts
- Irrigation canals
- Large urban drains.



### Benefits of our solution

- Low capital cost
- Minimal maintenance
- Velocity index rating method
- Data services and leasing option
- No complex telemetry infrastructure
- Bollard-style equipment enclosure option.



### Isodaq telemetry for ADCP's

A combination of the ChannelMaster H-ADCP linked to our Isodaq Hawk XT telemetry outstation delivers a highly compact and environmentally unobtrusive installation at extremely low capital cost, often for less than £10,000 GBP including all equipment and site costs.

ChannelMaster H-ADCP technology is suitable for measuring depths and velocity in any channel with a minimum depth of approximately 40cm and width in excess of two metres. The system monitors flow by utilising a velocity-index rating approach.

The Hawk XT battery-powered outstation has been specifically designed to use with the ChannelMaster and offers a choice of PSTN, GSM or satellite communication. The in-built data logger captures velocity, depth and temperature readings via the SDI-12 expansion port. The Hawk can also compute flow values for display on-site.

# Low cost telemetry solutions for flow and level monitoring

## Isodaq Hawk XT outstation

A flexible and robust telemetry data logger designed for water and environmental monitoring applications where systems are operated in remote installations often under hostile site conditions. Features include:



- Alarm dial-out capability
- PSTN or GSM
- SDi-12 multi-channel port for 'smart sensors'
- LCD display with local iRDA communications
- Ultra-low power drain with modem sleep mode
- Two-channel standard analogue or digital sensor-card inputs.

## Choice of sensors



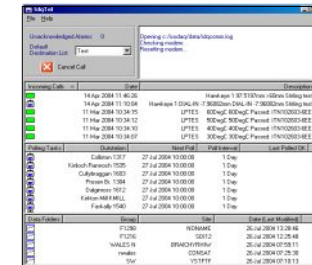
Greenspan Ps700 sensor

Thisle shaft encoder



- Thistle shaft encoders
- Casella and EM raingauges
- Impress or Druck depth pressure sensors
- Greenspan single and multi-parameter sensors.

## IDQTel - polling and alarms (optional)



IDQTel is a software application designed to forward incoming alarms and automatically poll from the Isodaq range of FROG, Hawk and Hawkeye telemetry outstations to mobile phones and email addresses.

## TRDi ChannelMaster H-ADCP flow meter

The ChannelMaster is an affordable horizontal ADCP designed to measure continuous flow and velocity using a two-beam Doppler principle at one elevation in a channel cross-section. It measures with a high degree of accuracy even in difficult conditions such as low velocity or turbulent flood flow.



- Profiling range from 2m to 300m
- Built-in depth and temperature sensors
- Battery-powered system with charging options
- Measures velocity in 1-128 user selectable cells
- Easy to install with minimum maintenance requirements.

## Bollard instrument enclosure (optional)

The roadside bollard instrument enclosure can be used in a number of different situations; it is equally at home in the countryside as on an urban street.



Manufactured from 3mm mild steel and flame retardant UV stabilised medium density polyethylene, this tough enclosure is designed to contain telemetry and monitoring instrumentation. It is remarkably vandal resistant and high security locking options are available.

## FREE Web-data services - timeview

www.timeview.net allows you to manage time-series data using a secure internet server. Viewed by a standard web-browser you log-on to your own secure client



folder where you can store, export or display data using its user-friendly graphing tools. Clients own website or intranet can be customised using this technology for publishing time-series records to a wider audience (e.g. remote staff or the general public).