ISODAQ TECHNOLOGY

FROG RX GSM/GPRS telemetry logger
Ideal for hydrometric applications

The FROG RX GSM/GPRS telemetry logger is the latest addition to our existing range of 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 at remote sites often under hostile environmental conditions. FROG RX shares the same proven hardware and software platform with all other Isodaq devices e.g. Hawk and Hawkeye.

Ideal for hydrometric sites

FROG RX is an rugged IP68 field telemetry device with a difference - designed for hydrometrists by hydrometrists for rapid deployment at minimum cost. The device can be easily installed inside 100mm tubes, strapped onto poles/piezometers or fitted inside ground-level meter-boxes with no other secondary enclosure required. FROG RX is ideal as a low cost outstation for generating alarms for heavy rainfall, river/urban flooding, borehole level or water quality/pollution alerts.

Remote monitoring and alarm applications

- River & tidal level/quality
- Reservoir & lake level/quality
- Borehole level & quality
- Open channel flow
- Water supply pressure/ flow
- Flood warning

- Rainfall intensity alarms
- Barometric pressure
- Wind speed
- Mini-weather station (SDI12)
- Water quality probes (SDI12)
- Pollution warning

Typical sensor inputs and applications

Digital or Analogue input options:-

Casella, EM & MPS Raingauges
(Digital tip-event count)

Vaisala & Gill Instruments weather transmitters
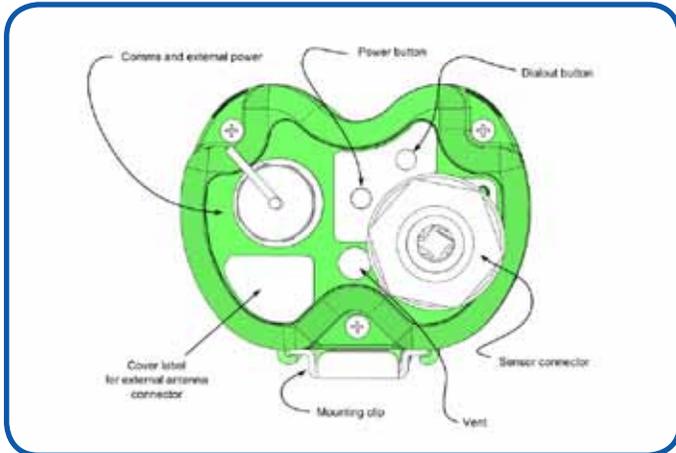*(multi-channel input via SDI12)*

Impress depth level pressure sensors
(input via 4-20ma or SDI12,includes temp)

In-Situ & Ponsel range of water quality sensors and level-loggers
(input via 4-20ma or SDI12)

MACE & Nivus Ultrasonic flow-meters
(input via 4-20ma or SDI12)

FROG GSM/GPRS telemetry logger

Key features

- Ultra-low power battery operated for remote, harsh environments.
- Hydrometric sensors include tipping-bucket raingauge, mini-weather station and depth level pressure sensors.
- Sealed to IP68 to withstand temporary submersion.
- Single-input connection for up-to 8 channel logging.
- Internal breather-bag allows venting for pressure sensors.
- Internal field replaceable battery packs, plus external 12 V battery option.

Accuracy and storage

- Secure data storage in flash memory eliminates data loss if battery fails.
- Storage capacity 29760 16 bit readings; oldest data is overwritten when full
- 16-bit resolution and accuracy available with selected high quality sensors.

Software options

- **Harvest Windows** - licence-free for configuration and on-site data collection using portable or tablet PC.
- **Pocket Harvest** - for Windows Mobile PDAs including ruggedised Juniper Archer PDA.
- **IDQTel** Windows software - autopolling scheduled data collection and alarm forwarding for small networks.
- **Timeview Virtual Appliance Server** - autopolling scheduled data collection and alarm forwarding for large networks.
- **Timeview.net** secure web-site data hosting, graphics display and file download application, with automatic data collection/alarm forwarding option via GPRS with annual subscription.

Battery options

FROG's battery power options make it the ideal choice for both low and high-priority applications e.g flood warning. Battery options include an internally fitted Alkaline or Lithium battery pack, both field replaceable, plus a link to an external 12 V lead-acid battery.
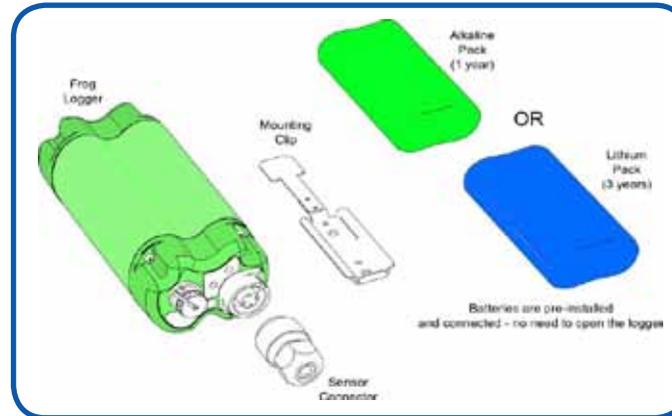
Min. 5 year life with ultra-low battery power management techniques to extend battery life for many applications using Isodaq's 'check-in' data collection mode, particularly effective when combined with low-cost GPRS 'always-on' protocols.

Unlimited life with external rechargeable 12V lead-acid battery fitted to a solar or wind trickle-charging system.

Logging strategies

- Strategies - Periodic, frequency pulse count, event.
- Log intervals - User-specified from 10 secs to12 hrs. 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

- Internal GSM/GPRS modem (800/900/1800/1900 Mhz)
- Antennae options - internal or socket for external ant.
- Local serial port connector for PCs or PDAs
- End-to-end dial-out button to test comms before/after installation with GSM signal test kit available for surveys
- DNP3 open-protocol for integration with existing SCADA telemetry servers used by utilities.
- Device profile documentation available for DNP3; potential for OPC Server integration
- Alarm functionality suitable for flood and pollution warningup to 4 no. set-points per channel, hysteresis function; storm rainfall intensity alarms.
- Low-cost GPRS SIM option for automatic data collection using Timeview Telemetry data hosting web-site.

Enclosure options
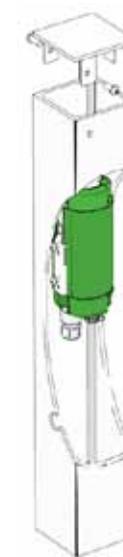
- Easy riverside installation option within GRP 100mm sq. box-section stilling-tube enclosure.
- Combine box section stilling-tube with gaugeboard via self-adhesive label.
- Space for water-level dipping in 100mm tube without removal.
- Fits inside 100mm borehole tube.
- Strap to 50mm piezometer tube.
- Fix to wall or enclosure back-plate.
- Fit inside ground-level meter-box.