## Water Monitoring

### In-Situ Cellular Network Telemetry Systems

In-Situ's economical and secure wireless systems easily interface with In-Situ instrumentation providing real-time data from remote sites. Each cellular network helps to control project costs by minimizing travel time and allows data access anywhere, anytime.

#### **BENEFITS**

- Built for extended deployments
- · Streamline data collection when interfaced with HydroVu Data Services
- Compatible for Pulse Input
- Real-time parameter alerts
- Low-maintenance
- Internal barometric sensor compensates pressure automatically
- Data logging and data transmission (direct read or wireless)
- Available with high speed 3G GSM (AT&T) guad band wireless configuration

#### **TELEMETRY SYSTEMS**

#### Tube 300R **Telemetry System**

In-well cellular telemetry system capable of sending data from a single instrument.

#### Features:

- 5+ year battery pack
- · Fits in 2" well casing and low-profile
- IP68 Rating
- · Connects up to 5 instruments with a Troll Hub (sold separately)

#### **Tube 300S Telemetry System**

Solar powered telemetry system capable of sending data from a single instrument.

#### Features:

- Integrated solar panels with rechargeable battery
- IP65 Rating
- Connects to 1 instrument



#### **SYSTEMS INCLUDE:**

- Selected Tube & Cube System
- Stub Antenna
- **Optional Non-Vented or Vented Twist Lock** Connector
- Lithium Battery Pack
- 512 MB SD Card Data Loss Protection
- Quick Start Guide

#### **OPTIONAL ACCESSORIES**

- HydroVu Data Services with cellular service, SIM Card, and Cloud Visualization
- Hanger Kit for Tube 300R
- Rugged Cable Splitter (vented or nonvented)
- TROLL Net Hub connects up to 5 instruments with Tube 300 models only



#### **Cube 300R Telemetry System**

capable of sending data from up to five instruments.

#### Features:

- 5+ year battery pack
- IP65 Rating
- · Connects up to 5 instruments



#### **Cube 300S Telemetry System**

Solar powered telemetry system capable of sending data from up to five instruments.

#### Features:

- Integrated solar panels with rechargeable battery
- IP65 Rating
- · Connects up to 5 instruments

### CALL GEOTECH TODAY (800) 833-7958

**Geotech Environmental Equipment, Inc.** 2650 East 40th Avenue • Denver, Colorado 80205 (303) 320-4764 • (800) 833-7958 • FAX (303) 322-7242 email: sales@geotechenv.com website: www.geotechenv.com

## Compact telemetry system

# geotech

## Water Monitoring

## In-Situ Cellular Network Telemetry Systems

#### **SPECIFICATIONS**

General	Tube 300R	Tube 300S	Cube 300R	Cube 300S
Operating Ranges <sup>1</sup>	Temp: -20-70°C (-4-158°F) Humidity: 95% max. n.c.	Temp: -20-70°C (-4-158°F) Humidity: 95% max. n.c.	Temp: -20-70°C (-4-158°F) Humidity: 95% max. n.c.	Temp: -20-70°C (-4-158°F) Humidity: 95% max. n.c.
Diameter, Maximum	Tube: 5 cm (1.97 in.) Top cap: 5.2 cm (2.05 in.)	Tube: 7 cm (2.75 in.) Top cap: 7.5 cm (2.95 in.) (with solar panel)	NA	NA
Dimensions	Length: 48 cm (18.9 in.)	Length: 48 cm (18.9 in.)	20 x 18 x 8.5 cm (7.87 x 7.1 x 3.35 in.)	36 x 24 x 13 cm (14.2 x 9.4 x 5.1in.)
Weight with Battery	1730 g (3.81 lbs.)	1670 g (3.68 lbs.)	1345 g (2.965 lbs.)	3100 g (6.83 lbs.)
Materials	Stainless steel	Methacrylate, 5 mm thick	GW PLAST 75	GW PLAST 75
Ratings	IP68 (cannot operate submerged)	IP65	IP65	IP65
<b>Power</b> Internal Battery	Battery Lithium 10.8V/19000 mAh	Solar panels integrated NiCd 7.2V/1400 mAh	Battery Lithium 10.8V/19000 mAh	Solar panels integrated NiCd 7.2V/1400 mAh
Connectors	1 twist-lock connector	1 twist-lock connector	5 twist-lock connectors	5 twist-lock connectors
Operation Time	Up to 5 years when logging every 10 min. and uploading data 1/day	Solar panel power: Unlimited, depending on sunlight exposure and programmed activities	Up to 5 years when logging every 10 min. and uploading data 1/day	Solar panel power: Unlimited, depending on sunlight exposure and programmed activities
Common Specs				·
Sensor Compatibility	Aqua TROLL® 100/200 Data Loggers; Aqua TROLL 400 Multiparameter Instrument; Aqua TROLL 600 Multiparameter Sonde, BaroTROLL® Data Logger; Level TROLL 400/500/700/700H Data Loggers; Rugged Troll 200; RDO Pro-X			
<b>Communication</b> Antenna	GSM quad band — 850, 900, 1800, 1900 MHz (capable of GPRS, SMS, email, and FTP); 2G available SMA connector with stud antenna or optional external antenna for Tube 300R			
<b>Data Access/Storage</b> Data Access Data Storage Data Format	Via email or FTP; via cable; and real-time via GSM/GPRS direct call or HydroVu data services SD Flash memory, 512 MB (not replaceable) CSV file			
Programming Programming Mode Operation Mode	<ul> <li>Through ANT tool communication software, via cable, or remotely via landline or GSM modem</li> <li>Through communication software tool via direct connection to a PC or remotely though GSM modem or landline modem.</li> <li>1. Up to 8 programmable events/day; data transmission; or SMS transmission</li> <li>2. Automatic data logging (reading interval: 1 minute to 24 hours)</li> <li>3. Alarm transmission (SMS)</li> <li>4. Data logging and batch transmission of stored data. Connect up to 5 probes and log all available (includes data from internal barometric pressure sensor).</li> </ul>			
Interfaces Serial Interfaces	RS232 or RS485 software selectable (with automatic RS232 switching when a PC connection is detected)			
<b>Alarm Capability</b> Capacity Sources SMS limits	The unit can generate an alarm if tilted or disconnected; if exceeds critical temperature values or parameters threshold values; or if battery levels reach critical. Via SMS. 2 recipients Up to 8 alarm sources Can be programmed			
Real-time Clock/Calendar	Built-in			
Sensors	Built-in barometric pressure sensor included with non-vented systems, which automates barometric pressure compensation for non-vented water level sensors. Built-in temperature sensor			
Warranty	1 year			
Notes	*Refer to Alarms section in manual. Alarm sources: reset, temperature, tilt sensor, data send failure, low battery, probe reading out of range, tamper, log memory full or error, and probe reading error. Specifications subject to change without notice.			

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