

DEPTH – Battery-Solar

Non-Contact Water-Level Monitoring System for Stormwater Infrastructure

Component Images



Data Acquisition Computer, Battery, Solar Panel & Stand-Alone Pole



UT Sensor with Manhole Mounting Bracket

Wireless (cellular) Data Transmission

- Cat-M1 cellular (2G, 3G, 4G LTE compatible)

Power

DEPTH Computer & Power Supply:

- Voltage – 12 VDC
- Battery Pack with Solar-Panel Recharge
- Stainless Steel Mounting Bracket
- Stand-Alone Galvanized Steel Pole (drive-in base)

Water-Level (UT) Sensor:

- Input Voltage Range – 12 V DC
- Output: 4-20 mA (resolution 1 mA)
- Current Consumption: 28-22 mA

Exposure Allowance & Compliance

- FCC and RoHS
- DEPTH Computer & Battery Enclosure – IP67
- Integral Cellular Antenna in IP67 Enclosure
- UT Sensor – Submersible (IP 68 / NEMA 6P)
- UT Sensor Connection Cable (IP 68 / NEMA 6P)
- Direct-Bury Cabling (computer to sensor)

Specifications & Mounting

- Measurement Range: 4.9” to 9.8 ft (dBi3)
11.8” to 19.7 ft (dBi6)
- Frequency: 125 kHz (dBi3)
75 kHz (dBi6)
- Beam Angle: < 10 deg (dBi3)
< 10 deg (dBi6)
- Accuracy: 0.08” (dBi3)
0.2” (dBi6)
- Resolution: 0.04” (dBi3)
0.08” (dBi6)
- Power to Sensor Supplied by DEPTH Computer
- Sensor Connection Cable Suitable for Direct Bury or within Conduit
- UT Sensor Mounted in “Pendant Mode” using Powder Coated Mild Steel Bracket Supplied by P4.
- DEPTH Computer Mounted in Manhole Riser

Features



Nationwide cellular connectivity

Water-Level & Flow Depth Measurements for:



- Open-Channel Flow Systems
- Non-Pressurized Flow Systems (gravity)
- Below-Ground Vault Systems



Browser-based dashboard (viewing and data download – subscription fee). Advanced notice of potential problems. Data visualization. Data-driven maintenance notification.



Water-level monitoring system to complement other P4 sensor systems (synchronized data)

Maintenance (low to zero)

- Modular Plug-and-Play (sensor, computer, battery, solar panel)
- Remote Health Assessment of Battery via Dashboard
- Visual Sensor inspection (annual recommended)