DATUM POINT

Central Control Monitoring System by Heron

The **Heron** **DATUM POINT** is an independent, wireless, real time data transfer system requiring no Cell or Wi-Fi coverage. The network allows you to collate, view and record remote data at a single location. This turnkey system makes the data viewable on the tablet or personal device. The optional Web interface also allows you to upload the data to a cloud where it can be viewed using our Web App. The **DATUM POINT** can be deployed in any location and accommodate an unlimited number of sensors. It is completely scalable and perfectly adaptable to YOUR unique project.

Each individual data syncing Field Transmitter in the network communicates with all of its neighbours within reach, creating a completely independent network that does not rely on other services such as Wi-Fi, Internet or Cellular.

The Receiver and tablet is the ultimate destination of the data flow. The Receiver is how all the information is sent via Bluetooth to the tablet for collation and display. The tablet comes with the **DATUM POINT** application installed and configured for your network. All the data from the Field Transmitters in the system can be viewed on the tablet simply by selecting which Field Transmitter's data you wish to access.

A) Field Transmitter

C) Tablet w/ Software

B) Receiver

dipperLog TOUGH/dipperLog 64

Field Transmitters/Repeaters
Receiver/Tablet

Cooperative Mesh Technology:

In a wireless cooperative mesh topology, network traffic is synchronized. There are no data collisions, since every Field Transmitter has a precise communication slot allocated. As a result, a wireless sensor network (WSN) using this topology is not limited in size. Communication is very efficient as no energy is wasted handling network traffic. This makes the technology exceptionally low-powered which will eliminate the use of solar-panels in most applications.

- Large Network (300+ sensors)
- Extremely low powered (Field Transmitters operate on 3x D-cell alkaline batteries for up to 3 years)

Web App. Features*:

- *Detailed sensor page with data-log viewing*
- *Multiple datasets charting*
- *Alarms with sound/speech integration*
- *Export datasets to .tsv Excel compatible files*
- *Differential analysis from reference values*
- *Live modifications to the physical system (control/configuration/thresholds)*
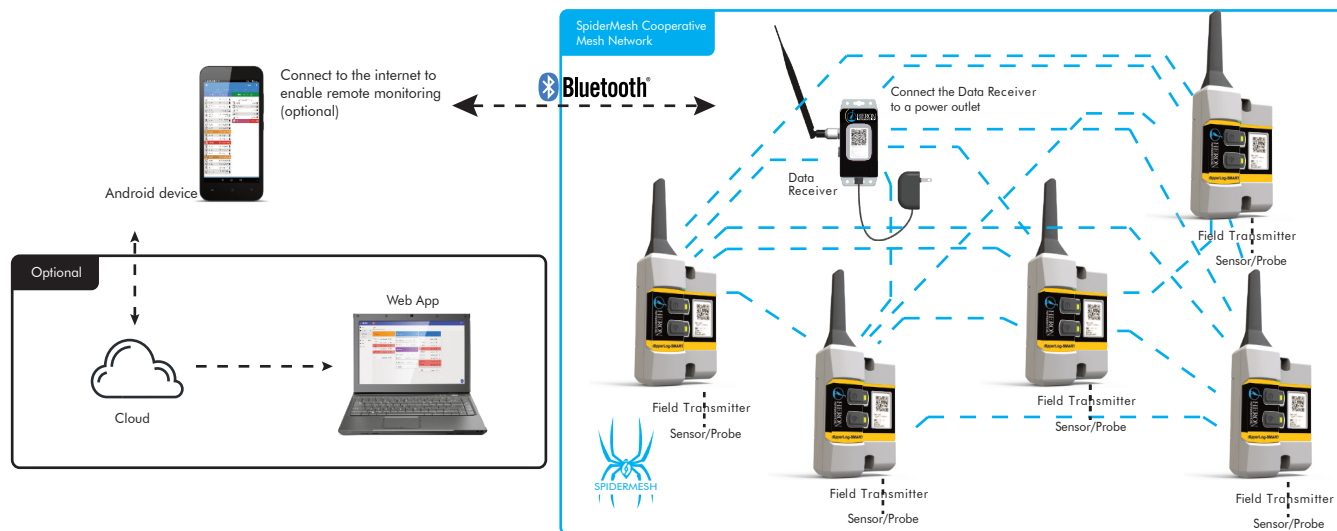
Device Dependent

Features and Advantages Included*:

- *Easy installation*
- *Automatic barometric compensation*
- *Three years replaceable D-cell batteries (Field Transmitter)*
- *Cutting-edge, user friendly Mobile or Web App*
- *Measurement of pressure and temperature up to 120m(400ft)*
- *Real-time readings and data-logging*
- *Up to 10km between Field Transmitters with direct line of sight*
- *Total network area dependent on number of sensors (300+ sensors)*
- *Synchronous communication*
- *Pump control*

Applications:

- *Surveillance in remote areas*
- *WSN in forest/mountainous high occlusion conditions*
- *Long and short term monitoring*
- *Pump and slug testing*
- *Wetland and tidal studies*
- *Municipal pumping stations*
- *Dewatering*
- *Environmental Companies*
- *Agriculture*
- *Government Agencies*
- *Educational Institutions*

Communication Protocol

The **DATUM POINT** Software allows for communication to peripheral equipment such as pumps or alarm sirens, when used with the appropriate Field Transmitter. After setting alarm limits, the correct programming can enable the system to turn pumps and signals ON when conditions, such as specific levels, temperature readings, flow rates, etc. are met.

The Field Transmitters and Repeaters are designed to be weather proof with heavy duty casing and seals for outdoor deployment. Together they create the spidermesh network, a stand-alone data transfer network whose size is defined only by the number of units deployed with an unlimited capacity.