

Sewer Network Monitoring:

Wastewater

Wide Area Sewer Blockage, Sewer Surge and Sewer Flooding Alarm & Monitoring Networks. With Real-Time Data, Low TOTES and the Ability to Communicate with Existing SCADA and to Control Pumps & Valves.

Wide Area Networked BDT Level Transducers

Ofcom Licenced Radio Backbone

Interfaces with Existing Telemetry & SCADA

Up to 10-Years Battery Life

Signals Can be Used for Real-Time Control

Low Operating Cost

Operate in Areas Without Cellular Coverage

Future Proof Against Cellular Migration

ATEX Certified to Zone 2

Second-by-Second or 5-Minute Reporting

Links from 50m to > 5Km



RDN

Wide Area Sewer Monitoring Networks



BDT Transducer

The BDT Transducer:

The BDT is an multi-award winning solid state proximity probe that has the ability to detect high levels in sewers and storm drains. Consuming < 1/50,000 of the energy of an ultrasonic level switch and responding to level change in < 0.01 sec the BDT has found widespread acceptance across both the utility and private sectors.



BDT Installed

Easy to Position & Adjust:

Unlike ultrasonics the BDT is easy to position, adjust and test. It can be installed in both shallow and deep chambers from 20cm to over 10m deep. Operation is not compromised by steps, ledges and overhangs. Cable suspension simplifies adjustment and means there is no software or programming and seldom the need for confined space entry.



BDT Head Unit

The BDT Head Unit:

The head Unit is sealed for life with integrated controller, battery pack and radio transmitter from which the BDT is mounted. The Head Unit reads and broadcasts the status of the BDT every 2.5 seconds appended with a unique 32-bit IP style address prefix permitting the data to be monitored from the surface in real-time.



Monitoring Tools

Easy to Read, Test & Service:

Unlike cellular, the BDT's status can be monitored at any time without having to lift a manhole cover. Data can be collected on a handheld terminal or laptop from the comfort and safety of a vehicle. During sewer maintenance the BDT can be easily lifted prior to jetting or to aid human access in tight chambers without fear of altering the set point.



Booster/Repeater

Wide Area Fixed Networks:

Shoe box sized, the Booster/Repeater is a battery powered device that converts the BDT's short range broadcast into a wide area network message. Installed typically within 70-100m of the BDT on street furniture, in a bollard or up a pole or tree, the Booster/ Repeater is capable of repeating the BDT message over distance of up to 5km.



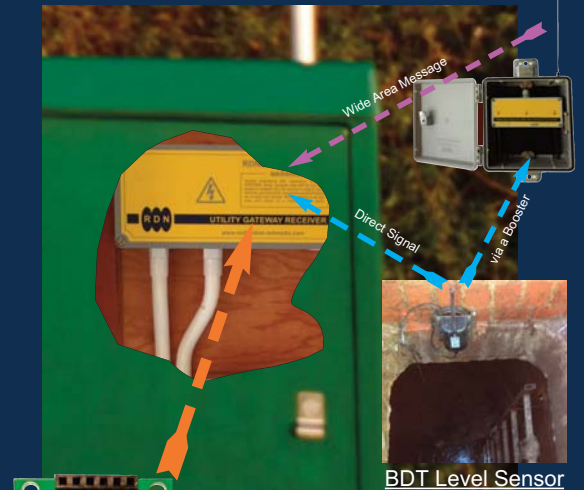
Data Gateways

Interface with Existing Systems:

BDT data is simple to interface equally with modern cloud based or existing systems. With legacy systems BDT status is normally replicated as open or closed contacts via a relay card in a Gateway Receiver which is wired to spare inputs of a telemetry outstation. Gateway Receivers can accommodate anything from 1 to 64 BDTs and/or FDTs.

Licensed Radio EDM Reporting:

Delivering data over an Ofcom licenced radio channel has many advantages especially since the Water Industry focus has switched to TOTEX. Messaging costs can be as low as 1% of that of cellular and battery life of the Booster/Repeaters can reach over 5-years or even 10-years with solar assistance. Regular health messages also give users the assurance that communications is healthy and the avoidance of cellular eliminates the uncertainty over longevity of the asset during the dash for 4G and 5G technology. Finally, data can be even used for real-time control.



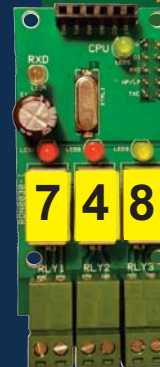
BDT Level Sensor

The Universal Gateway:

Plug in card configuration, volt-free relay alarm status interfaces.

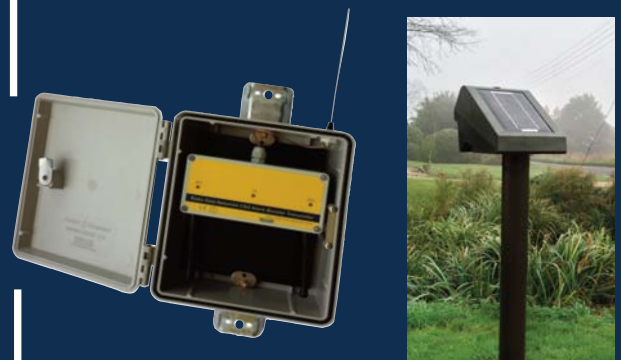
Connects to existing monitoring or alarm equipment without programming or software.

- Integrated health monitoring relays
- Mains with battery backup option
- 4-card, 8-card and modular 64-way options
- Status LEDs blink to assist viewing in daylight
- GPRS, SMS, LAN and PSTN options



Gateway in Existing Kiosk with plug-in Card

Our networks can also carry mixed traffic from FDTs monitoring sewer overflows, BDTs looking for blockages, river levels, PH levels, turbidity and control messages to open and close Valves or to hold off pumps.



Pole Mounted & Solar Assisted Booster / Repeaters

Wide area repeaters and GPRS data concentrators, SMS text units are also available to order.

Designed & Manufactured in the UK. Bespoke Solution Service. Radio Data Networks Limited

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