dBi HART Provides Remote Man-hole Monitoring for Taipei City.

The Sewerage Systems Office of the Public Works Department of Taipei City is in charge of the planning, designing, constructing, operating, and managing of sewage pipes, sewage treatment plants, pumping stations, and other related infrastructures in Taipei City.

Sewage pipes run like veins in the city, they spread out along the streets' grids, carrying effluent to a sewerage treatment plant for processing. The department is the first organization in Taiwan to install sewage pipes, which demonstrates the commitment of the Taipei City Government in preserving and protecting the environment and water quality.

dBi6 and dBi10 Provide Accurate Level Monitoring

The Sewerage Systems Offices were looking at monitoring the level at a point in their sewage system which was at a difficult location. The point of measurement was in a manhole cover in a very busy part of the city. Because of the heavy traffic that passes through daily, getting to the unit to replace it would prove difficult, so it was absolutely essential that the instrument be accurate, reliable, and low power. Contacting level sensors would have meant that someone would have needed to access the transducer to complete maintenance and cleaning tasks, which in this heavy traffic location would have been impossible.

So, they reached out to Red Star Instruments for help, Pulsar Measurement's partner for Taiwan. Because of the nature of the application, Red Star knew that by combining Pulsar Measurement's non-contacting dBi transducer range with the Taiwanese local NB-IoT system they could provide the low-power accurate level monitoring that the Sewerage Systems Office required.

The dBi HART Transducers

The dBi HART Transducers are a range of self-contained, intelligent, non-contacting level sensors. Making use of the

"By combining Pulsar Measurement's non-contacting dBi transducer range with the Taiwanese local NB-IoT system they could provide the low-power accurate level monitoring that the Sewerage Systems Office required."

HART protocol makes integration with existing site systems quick, simple, and easy. The non-contacting, ultrasonic level transducers can be used as stand-alone devices or as complete systems, using HART protocol for data collection.

The low power design of the dBi HART level sensors is ideal for remote locations, wet-well monitoring, and sewer network monitoring.

DATEM Technology Boosts Accuracy

Because of the nature of a manhole, there are lots of obstructions in the measurement path of the instrument, which ordinally would cause problems for other manufacturers. Thanks to Pulsar Measurement's industry leading DATEM technology, engineers at Red Star instruments were able to easily configure the sensor to be able to ignore all the competing echoes from ladders and chains.

By linking the dBi sensors with the NB-IoT system, the sensors were able to send readings back to the central control system at the Sewerage Systems Office to provide real time level monitoring of the sewerage system.

The dBi sensors have provided great results for the city, and there are even plans to get more points of measurement installed throughout the sewerage network.

More Information

dBi Sensors: https://pulsarmeasurement.com/en/dbi-hart

Partner Locator: https://pulsarmeasurement.com/en/partnerlocator

www.pulsarmeasurement.com

pulsar MEASUREMENT

INFO@PULSARMEASUREMENT.COM

United States
+1 888-473-9546

Canada
+1 855-300-9151

United Kingdom
+44 (0) 1684 891371

Asia
+60 102 591 332

Oceania
+61 428 692 274

pulsarmeasurement.com

Rev 0.1