

Intelligent Ultrasonic Level Sensors Work Where Others Fail

Municipal wastewater treatment plants are a big part of water pollution control in the United States. These systems work by first collecting the polluted water from various businesses and residential areas. This water then flows to the municipal wastewater plant, where it is treated before entering a body of water, land, or reused for another purpose where that clean water is needed. At the Evesham Municipal Utilities Authority (MUA) in Marlton, New Jersey, they were running into level measurement problems at a few of their pump / lift stations and how they were feeding to the local treatment plants and needed to resolve this situation quickly.

Having functioning pump stations is critical to any city or town as they play an important part in wastewater treatment. During this process, pump stations collect the waste and help to pump wastewater back to the treatment facility when gravity can't get there. As pump stations usually collect wastewater from multiple locations, the system waits until the wastewater reaches a certain level before pumping the waste further in the collection system back to the treatment facility. With that, having an accurate level sensor is important so that the pump station can continue to operate effectively. To ensure the Evesham MUA had the right level sensors in place for their application, they reached out to Pulsar Measurement. To ensure that Evesham MUA had the correct measurement systems in place, they contacted our Northeast Sales Manager, Rob Davis to explore our portfolio of products and find out which was most suitable for their application.

Pulsar Measurement offers many different level sensors, including both ultrasonic and radar technology. For this application, it was decided that the dBi HART Intelligent Transducer range would be the most suitable. The dBi HART Transducers are non-contacting level sensors that are ideal for tank level monitoring, remote level monitoring, event duration management, combined sewer overflows, and volume measurement. These sensors are self-contained and offer an optional submergence shield. To ensure that these transducers have optimal range, they produce reading from 4.9 in - 49.2 ft (120 mm - 15 m) with the use of our robust Digital Adaptive Tracking of Echo Movement (DATEM) Technology which prevents false-alarms caused by wrong level measurements in cluttered pump stations. The addition



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Ken Zawacki, Applied Analytics

of this proprietary software can only be found in Pulsar Measurement units and helps the unit focus on the true echo, ignoring competing noise from objects in the measurement path for lasting accurate and reliable measurement.

The dBi HART Transducers worked where other sensors have failed as they have continued to operate for the team at the Evesham MUA since its initial installation. These transducers have held up in the extreme cold temperatures during New Jersey winters and the high heat of the summer months. Our local New Jersey representative Ken Zawacki with Applied Analytics, who helped with the sale the dBi HART heard great things from the team at Evesham MUA, "The current units have been performing very well in all-weather, which was one of our concerns."

Having non-contacting transducers, such as the dBi HART, not only provide accurate and reliable measurement but can ensure all those working with the product are continuing to work safely by eliminating the need to interact with the dangerous and potentially harmful conditions of a pump station. The dBi HART transducers are the ideal long-term, level measurement solution for your wastewater applications.

More Information

dBi HART Ultrasonic Intelligent Transducers: <u>www.pulsarmeasurement.com/dbi-hart</u> Evesham MUA: www.eveshammua.com

Delivering the Measure of Possibility

Pulsar Measurement offers worldwide professional support for all of our products, and our network of global partners all offer full support and training. Our facilities in Malvern, UK and Largo, USA are home to technical support teams who are always available to answer your call or attend your site when required. Our global presence, with direct offices in the UK, USA, Canada, and Malaysia, allows us to create close relationships with our customers and provide service, support, training, and information throughout the lifetime of your product.

By taking a step forward in echo processing technology, Pulsar Measurement addresses applications previously thought to be beyond the scope of ultrasonic measurement. This technology improves signal processing at the transducer head which has made it possible to increase resistance to electrical noise, enabling the transducer to 'zone in' on the true echo.

For more information, please visit our website:

www.pulsarmeasurement.com



INFO@PULSARMEASUREMENT.COM

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Asia +60 102 591 332 **Canada** +1 855-300-9151

Oceania +61 428 692 274 **United Kingdom** +44 (0) 1684 891371

pulsarmeasurement.com