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MEASUREMENT AND CONTROL

Redefining Ultrasonic Level Switch with a Streamlined Design

2700 Series ULS consolidates advanced microprocessor technology, intuitive interfaces and legacy features in one easy-to-use unit.

Key Takeaways

- SOR's 2700 Series is a newly launched single- or dual-point level switch using ultrasonic technology to detect the presence or absence of
- Designed for ease of use and installation, it simplifies level detection in challenging industrial environments.

While ultrasonic level measurement isn't a new technology, a new level switch from SOR Measurement and Control gives users in challenging industrial environments easier-to-use instrumentation for precise and reliable point-level detection. The 2700 Series that debuted in July is a single- or dual-point level switch using ultrasonic wave technology to detect the presence or absence of liquids at specific points in a tank or vessel.

"2700 Series ULS offers exceptional accuracy and reliability with minimal maintenance," says SOR's engineering VP, Mike Bequette. "Its intuitive design and features make it ideal for a range of industries from oil and gas to water treatment and chemical processing."

2700 Series uses different functions from previous SOR ULS models and consolidated them into a single unit, making it easier for users to order new devices. "We've taken some additional features that we had in previous models, and made them standard across this entire platform," adds Matt Cheesman, product manager at SOR Controls Group. "We've also added a key feature with an intuitive interface."

Consolidating features from legacy models, some of which debuted in the 1990s, is a big step in the evolution of SOR's level measurement technology. The company previously had five different models, and in some cases, they included f eatures such as failsafe or time-delay, depending on application needs. Now, those and other features are wrapped in a single model, so customers have an easier time performing replacements for upgrades.

"When 2700 is ordered by a customer it has the electronics, head and the sensing probe, so they just need to connect them with a cable," says Matt Giunta, marketing manager at SOR. "You just need to have the terminals wired to the system and power supplied to the device, and it's good to go."

He adds that, while signal gain or attenuations aren't needed in most applications, 2700 Series includes capabilities for extreme uses. Even then, it makes the process easier because there isn't a lot of dialing in needed for it to to perform in those applications.

2700 Series features advanced technology as well. Bequette adds it takes advantage of several gains in ultrasonic technology since SOR's legacy units debuted. He points to advances in materials, diagnostics and signal processing. 2700 uses advanced microprocessors that give it innovative signal processing. The new unit detects level by analyzing the attenuation of ultrasonic signals. When liquid is present, attenuation is reduced, triggering the relay output to signal the user-defined condition.

It's a disruptive shift that features previously reserved for continuous level measurement, such as transmitters, are now being employed in point level switches. "I'd say using microprocessors is more of an iterative design improvement by adding the ability to change code and additional functions," Bequettee says.

In addition, 2700 Series features a glass housings with LEDs on the interface board. "The nice part about the glass window is you can see through it without having to remove the cover and potentially declassify the area if it's a hazardous location," explains Giunta.

Ultrasonic level measurement has gained popularity in industrial settings, particularly in hazardous liquid applications. 2700 Series is the latest advance in ULS technology, and it provides users with an easier and more efficient path to secure vital level measurement data in several industrial applications.

2700 Series single and dual point ultrasonic level switches