



EUROCONTROL INCREASES THE RELIABILITY OF THEIR LEVEL MEASUREMENTS WITH NON-CONTACTING RADAR SENSORS

Customer

Eurocontrol (Brussels)

Application

Aviation fuel storage tanks

Challenge

Eurocontrol has been supporting the European aviation industry since 1963 by delivering technical excellence and civil-military expertise in air traffic management. Their headquarters is located in Brussels, where they have a control center with three bullet tanks, each containing aviation fuel for the planes.

Eurocontrol was using ultrasonic level transmitters in these bullet tanks together with the legacy Rosemount™ 3491 Controller. The legacy ultrasonic technology used batteries, and after the last battery replacement, the sensors were consistently delivering unreliable and erratic measurements, leading them to implement a temporary solution. The solution consisted of a bypass chamber that would connect the three bullet tanks and create communicating vessels. This solved the problem temporarily, but there was a need for a more reliable and stable level measurement technology because Eurocontrol had to initiate rounds to manually check the level in each tank, proving to be both costly as well as inefficient.

Results

- Increased reliability and accuracy by implementing non-contacting radar level technology
- Better visibility of tank levels via remote control capabilities, enabled by a complete measurement system
- Improved personnel efficiency by reducing manual rounds and maintenance tasks



Image 1. Storage bullet tanks containing fuel for planes

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Solution

Eurocontrol installed the Rosemount 1208 Level and Flow Transmitters, connected to the existing Rosemount 3491 Controllers to display the level values in each of the tanks. The two devices together created a complete measurement system that has been working flawlessly since installation. The Rosemount 1208 was installed in the bypass chamber, a still pipe 2.75 in. high and 98.42 in. wide (2.5 m high and 7 cm wide) close to the roof, while the Rosemount 3491 Legacy Controllers were located on the wall inside the office building, around 48 ft (30 m) away from the transmitter, where they serve as a remote display.

Improved Reliability

This complete system, consisting of the non-contacting radar, the Rosemount 1208 Level and Flow Transmitter, and the legacy Rosemount 3491 Controller, provided Eurocontrol with accurate and reliable measurements of their storage tanks, despite the measured media's low reflective properties which can be challenging to measure. With 80 GHz FMCW Fast Sweep Technology, the transmitter sends more sweeps each second than legacy technologies, delivering enhanced insight regarding the media surface and resulting in increased reliability and more accurate measurements compared to the old ultrasonic transmitters that Eurocontrol used prior. The compact size of the Rosemount 1208 housing also makes it a perfect fit for space-restricted installations.

All things considered, the complete level monitoring system helped Eurocontrol increase personnel efficiency by eliminating manual rounds and maintenance tasks. And, thanks to the Rosemount 3491 Legacy Controller, they can now control their operations remotely from the office building, thus gaining efficiency, improving safety, and saving time.

Resources

Emerson Automation Solutions Industries
[Emerson.com/OilandGas](https://www.emerson.com/OilandGas)

Rosemount
[Emerson.com/Rosemount1208](https://www.emerson.com/Rosemount1208)

For more information, visit
[Emerson.com/Rosemount1208](https://www.emerson.com/Rosemount1208)

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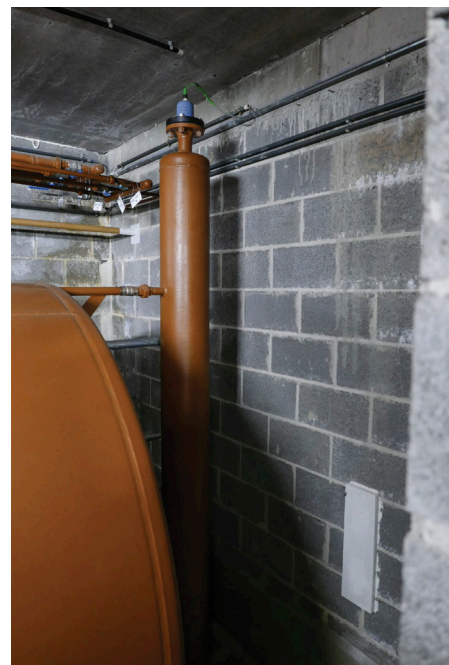


Image 2. Rosemount 1208 Level and Flow Transmitter installed in a 8.2 ft (2.5 m) high still pipe



Image 3. Rosemount 3491 Controllers installed in the building and connected to the level measurement transmitters