

Emerson Introduces New Pressure Measurement Innovations To Solve Tough Industrial Installation Challenges

The Rosemount™ 3051S pressure transmitter has been enhanced to allow new measurement possibilities in high-process temperatures or changing ambient conditions

The process control industry is often challenged with harsh operating environments where existing technology does not meet measurement needs. Emerson has leveraged their pressure expertise and industry field experience to tackle these tough measurement challenges.

First, the new Rosemount 3051S Thermal Range Expander with new UltraTherm™ 805 oil fill fluid enables pressure measurements by direct-mounting a diaphragm seal system to processes that reach up to 410°C (770°F) without requiring the challenging impulse piping or heat tracing used in traditional connection technology. In applications where ambient temperatures drop below ideal operating conditions, system response time becomes slow, resulting in delayed process pressure readings. Traditionally, this problem is solved by using heat tracing which is costly, maintenance intensive, and difficult to install. By using the new thermal range expander dual fill fluid seal, the Rosemount 3051S can reliably measure pressure at extremely high process and low ambient temperatures.

Second, the Rosemount 3051S Electronic Remote Sensors (ERS™) System now has safety certification. The ERS System calculates differential pressure through a digital architecture -- and is now suitable for SIL 2 and 3 applications. Manufacturers have challenges installing and maintaining traditional mechanical systems due to line plugging and ambient temperature effects. This leads to inaccurate measurements and fluctuations. ERS systems solve this problem by replacing filled capillaries with an innovative digital connection, providing a stable and reliable measurement in safety applications. The solution delivers improved performance and response time, and helps end users eliminate mechanical DP level systems.

Finally, the new Rosemount 3051S High Static Differential Pressure Transmitter provides reliable flow measurement in high pressure applications with capabilities up to 15,000 psi (1034 bar). As

processing applications increasingly operate in conditions with extreme pressures and temperatures, operators must vigilantly monitor equipment integrity and stability in order to prevent failures, safety hazards and decreased production. In industries such as offshore and onshore oil and gas and power generation where pressures can exceed 10,000 psi, it is critical that instrumentation be robust enough to provide accurate measurements on a consistent basis. The transmitter's SuperModule™ platform and coplanar design reduce potential leak points by 50 percent compared to traditional designs, ensuring the highest differential pressure measurement accuracy, field reliability and safety.

"Companies working in increasingly challenging operating environments require advanced technologies that provide better process insight and help them comply with industry regulations and safety standards. The Rosemount 3051S Series of Instrumentation was designed to solve these needs," said Scott Nelson, vice president and general manager of Rosemount pressure products at Emerson Process Management.

To learn more about the Rosemount 3051S Series of enhancements for tough pressure applications visit:

www.EmersonProcess.com/Rosemount-3051S