

# INDUSTRY PERSPECTIVE Q&A

We're offering industry leaders the opportunity to be spotlighted in a unique Q&A feature that we're calling "Industry Perspective." Each Industry Perspective takes the form of a sponsored two-page Q&A interview between the magazine's editors and a company spokesperson on a topic of particular importance and meaning to your organization.

Because each Industry Perspective feature takes the form of a conversation, it's uniquely suited to telling stories that are difficult to convey in a traditional advertising format. One of our first examples that appeared in our sister magazine *Control* (right), celebrated and expanded on the legacy of innovation that resulted from the introduction of an industry-changing instrument fifty years ago. You choose the topic, and we'll work with you to draft appropriate questions. We'll create responses based on an actual telephone interview, or draft responses based on established marketing objectives.

Each Industry Perspective feature includes 4-6 questions, together with photo of interviewee and a supporting graphic. The two-page spread will be included in a mutually agreed upon issue, and will reach the full, 30,000+-strong subscriber list of *Smart Industry*. Pricing for development of the feature and for its inclusion in the magazine is \$6,500 net. The sponsor will also receive a standalone PDF of the article which you can use for your own content marketing purposes.

To get additional mileage out of your Industry Perspective investment, an audio recording of the Q&A can be promoted as a special Solution Spotlight episode of our new *Smart Industry* podcast series.


We also offer a digital promotion program designed to further increase the print article's online readership. In addition to the two-page spread treatment in the magazine, we'll promote the digital article via a series of digital traffic drivers such as e-newsletter ads, website ads, social media posts and premium content alerts.

## PROGRAM PRICE:

- Industry Perspective Q&A..... \$6,500 net
- Digital Promotion Package ..... \$3,000 net
- Solution Spotlight Podcast ..... \$2,000 net

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### Emerson marks 50 years of pressure instrumentation innovation



**SCOTT NELSON**  
VP of R&D, Emerson  
Pressure Products,  
Emerson Automation Solutions

The pressure transmitter has long been the workhorse instrument of choice for the process industries. Like no other instrument, it offers unparalleled application flexibility and is often used in flow and leak level applications. A steady stream of innovation has carried the pressure transmitter forward throughout the past several decades, but leaving the transition from pneumatic to electronic to highlight.

Emerson Engineering Co. was there as the 18th firm globally to introduce instrumentation patent cases, introducing in 1955 the new line: Rosemount™ 115—the aging pressure transmitter that would set the performance standard for decades to come and pave the way for Rosemount Engineering Co. and eventual parent company Emerson to become a major force in the global process instrumentation marketplace.

With the 50th anniversary of the Rosemount 115's introduction approaching, Control caught up with Scott Nelson, Vice President and General Manager of Rosemount pressure products at Emerson Automation Solutions, to discuss the five decades of innovation that continue to make the company's pressure instrumentation offering as cutting edge and relevant today as the Rosemount 115 was in 1955.

Q When it was introduced back in 1950, the Rosemount 115 represented a big change forward in terms of quality, reliability and accuracy—all in a more rugged yet modular, repairable package only one-third the size and weight of competitive offerings. What other innovations have continued to define Emerson's industry leading position in the process instrumentation space during the past several decades?

A: The evolution of Emerson's Rosemount pressure instrumentation offering is really punctuated by the three generations—up to—of our flagship pressure transmitter. The Rosemount 115L, of course, marked our entry into the industrial space. Pure and simple, it was a dramatically better and more capable transmitter than what had previously been available, and its success was the catalyst for Rosemount's transformation from a maker of specialized aerospace instrumentation to a process automation company.

If the Rosemount 115 was about building a better analog instrument, our second-generation transmitter, the Rosemount 3025, debuted 20 years later and was firmly rooted in state-of-the-art digital technologies. Inside, a new, non-leaking, micro-machined capacitive sensor came together with surface-mount electronics and custom ASIC circuitry to provide enhanced performance and increased functionality. The Rosemount 3025 was the first pressure product on the market to include a total performance specification that reflects operation in real-world conditions over a five-year time frame. It also supported a range of digital communication options, adding HART™ communications to the 4-20mA analog signal and, in due time, Profibus, Foundation Fieldbus and WirelessHART™. Modernization brought about a further 50 percent reduction in size and weight, and a new outdoor design allowed the integration of process flow elements, instrument markings and diagnostic read assemblies into complete, factory-assembled solutions.

The third-generation Rosemount 3025L added scalable intelligence and an articulated approach to the industry's top-performing pressure transmitter. This platform for innovation has enabled more industry firsts since its introduction in 2002. The increased computational horsepower of the Rosemount 3025L, for example, allowed us to pioneer the multivariable transmitter: a single device that brings together pressure, differential pressure (DP) and temperature measurements to output real-time mass flow and energy readings.

Other industry firsts for the Rosemount 3025L include the Electronic Remote Sensor (ERS)™ System, which eliminated mechanical capillary and impulse lines for safer and higher performing DP and applications, as well as lower maintenance and installed costs. The Rosemount 3025L has also taken on higher level diagnostics, detecting anomalies not only in its own operation but in the integrity of its communication path, the health of the process itself and the performance of associated assets.


Q Your customers have certainly come to rely on the quality and reliability that comes with Emerson's Rosemount portfolio, but innovation, accuracy and stability of the primary measurement is only the start of the story. Along with other dimensions has Emerson continued to innovate its pressure instrumentation offering?

A: There are several driving forces behind our ongoing development efforts. While we continue to advance the state of the art in reliable and accurate measurement performance, we're striving to extend the reach, scope and applicability of our pressure instrumentation solutions while also making those solutions safer as well as easier to engineer, use and maintain.

On the digital front, we're leveraging on-board analytics to provide users with more actionable insight into their process conditions in a way that cannot be achieved via their control systems. Statistical analysis of process noise, for example, allows us to provide preconfigured diagnostics for specific issues or concerns such as valve cavitation, column flooding, multi-phase flow conditions and plugged impulse lines. We're also ensuring top integrity by monitoring and verifying the integrity of the device and its connection to the process and to the control system.

But not all of today's innovations are digital. Some of our latest innovations involve creating highly optimized and safety-critical solutions for very traditional applications like DP flow measuring. Our new Rosemount 5025 Process Flow Meter (PFLM) effectively eliminates the complexities and drawbacks of orifice plate installations in refining and chemical industries by replacing the entire installation with an all-welded top design.

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Q Next year marks 50 years since Rosemount Engineering Co. moved from its roots in the aerospace market and into the industrial instrumentation space. As we look ahead, what can you tell us about what further innovations Emerson has in store for users of pressure instrumentation?

A: We'll continue to build our pressure measurement technology to meet more diverse, industry-specific requirements. Subsea oil and gas applications, for example, pose pressures that can exceed 10,000 psi, and our enclosure construction is that instruments perform maintenance-free for up to 20 years. Diverse and aerospace also represent environmental and logistical extremes, requiring specialized packaging. On the other end of the spectrum, we're looking to extend Rosemount performance and reliability to the pharmaceutical industry's emerging single-use manufacturing technology.

In that same vein, miniaturization and industry versatility of the industrial Instrument of Things will continue to drive the development of more types of economical sensors that will pave a richer picture of process conditions, while leaving plenty of room for potentially hazardous areas.

We're also enhancing and expanding our wireless instrumentation capabilities. Future update rates with selected battery life will broaden the spectrum of served applications including control and safety. With additional evolution in the underlying wireless technology, the most advanced instrumentation functionality will be available as wireless configurations. Other device interface technology will enable easier, faster and safer personnel interactions.

At 50th anniversary, Rosemount's ground-breaking pressure instrumentation technology was the spark for Emerson's industry-leading record of innovation in the automation business. And we expect to continue to ensure that record into the next half century.

**OVERCOMING DRIFTE LIMITATIONS**  
Emerson's 3025 Process Flow Meter effectively eliminates the complexities and drawbacks of orifice plate installations in the refining and chemical industries by replacing the entire installation with an all-welded top design.

This pre-configured flow meter supports up to four individual flow transmitters for safety applications, is fully modular, comes complete with top piping class isolation valves, and requires no straight pipe run beyond the meter body due to the use of the proven Conditioning Orifice Technology. This is just one of a variety of application-based innovations that integrate traditionally separate components and bring much more flexibility, safety and capability to the picture.

We're also tackling increasingly complex measurement conditions—both of the process and of the surrounding environment. These include differential pressure (DP) measurements to 10,000 psi (1,375 bar) in terms of pressure, our transmitters are rated to 25°F (-60°C) on the low end and our new Thermal Range Expansion accommodates process temps over 770°F (410°C).

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