

Ensure safe and reliable operations – for the life of your plant.



## Rosemount 3150 Series Nuclear Pressure Transmitters

Achieve the highest levels of safety and reliability with the most proven solutions in the industry.



## In complex, critical nuclear applications you need secure, reliable measurement backed by a proven and committed supplier.

Working in a culture of escalated safety, from the nuclear island to auxiliary facilities, cooling towers to containment, you strive for instrumentation that works reliably and accurately, without concerns. Industry standards, safety regulations, and plant-specific application expertise are demanded of you and your team for safe operations, all day, every day.

## Rosemount 3150 Series Nuclear Qualified Pressure Transmitters deliver proven reliability.

With more than 40 years of experience, Emerson offers unmatched understanding and application knowledge of nuclear qualified pressure measurement.

No matter the extent of the application challenge, the type of reactor technology, or the global qualifications required, Emerson's Rosemount nuclear pressure instrumentation delivers what you need. From mild to harsh or severe environments, you can expect us to deliver a complete offering with the utmost performance and reliability, tested to the highest standards of quality and backed by a committed organization with world-class technical support.



### Realize improved safety at every pressure measurement point.

Building on the trusted performance of the Rosemount 1150 Series, the Rosemount 3150 Series offers enhanced capabilities under all operating conditions - taking safety to the next level.

[Complete Offering > p4](#)

### Operate with confidence using robust, secure, and trusted instruments.

Optimized pressure sensor technology and advanced analog electronics reduce channel uncertainty, enabling operation at peak efficiency in the most severe nuclear environments while eliminating susceptibility to cyber security threats.

[Highest Performance & Reliability > p6](#)

### Achieve the highest standards of quality with field-proven experience.

Rosemount 3150 Series Pressure Transmitters have undergone rigorous testing and global qualifications spanning over a decade - resulting in the highest quality products.

[Proven Operating Experience > p8](#)

### Solve your toughest challenges with a committed, world-class supplier.

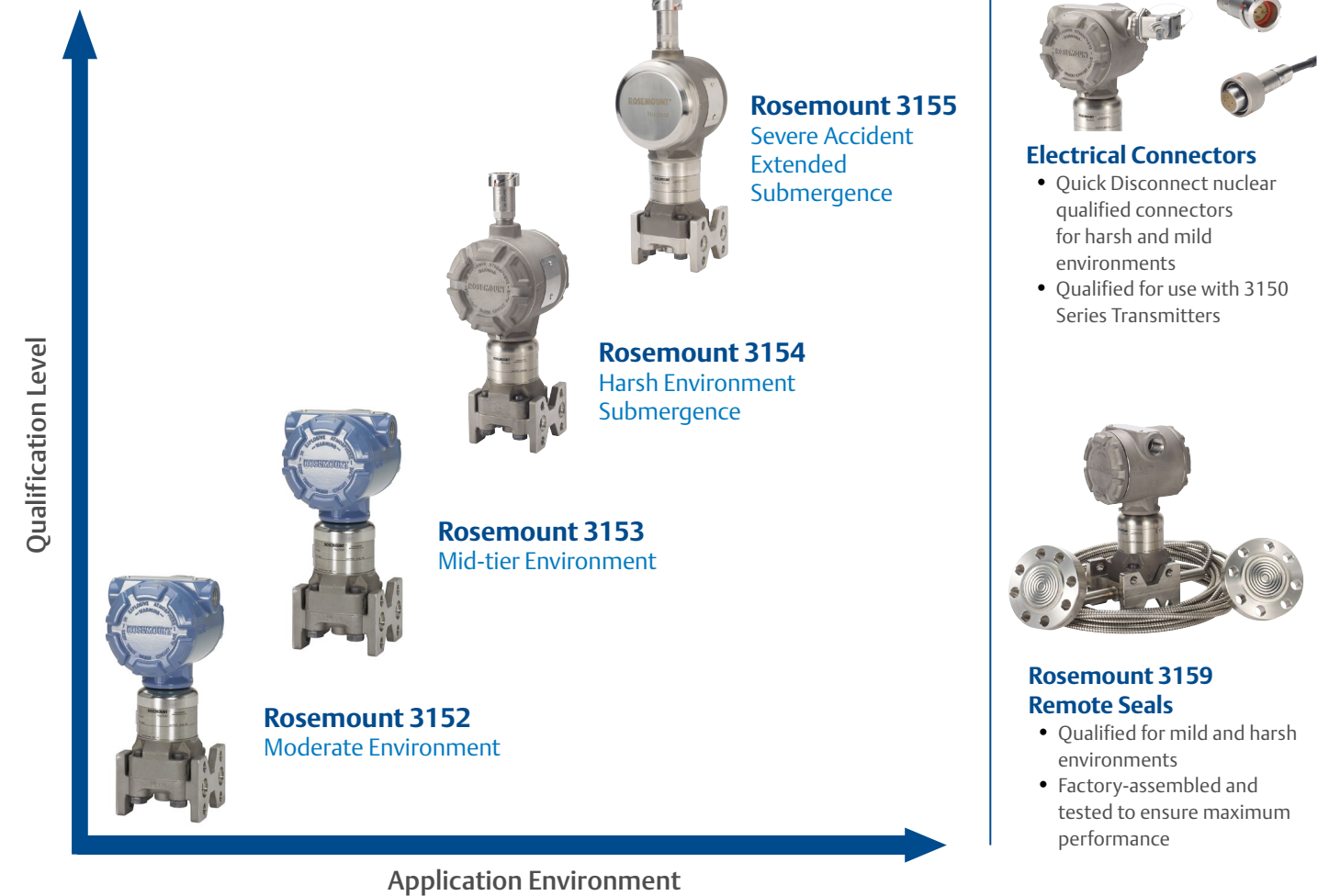
With applications in nuclear plants all around the world, Rosemount nuclear pressure transmitters are backed by a dedicated team of engineers with exceptional application knowledge.

[World-Class Technical Support > p10](#)

With no room for error or unnecessary risk in challenging nuclear applications, what if you could enhance safety, improve reliability, achieve the highest quality, and have the best technical support when you need it?



## Rosemount 3150 Series Nuclear Qualified Pressure Transmitter Portfolio



## Complete Offering

Critical applications in the harshest of environments demand instruments and components that deliver the highest standards of quality, safety, and reliability. Rosemount 3150 Series Nuclear Qualified Pressure Transmitters offer enhanced performance and are designed to operate in mild, harsh, and severe accident environments. Whether applications are in third generation reactors or legacy reactor technologies, Emerson delivers the right transmitters for the right application.

	Test Parameter	Rosemount 3152	Rosemount 3153	Rosemount 3154	Rosemount 3155
Nuclear Specification	Qualification Standards	IEEE Std 323™-1974/1983/2003 & IEEE Std 344™-1975/1987/2004 (3152K and 3154K to KTA 3505 2005)			
	Qualified Life	20 years at 120 °F (48.9 °C)			20 years at 105 °F (40.6 °C)
	EMC	NRC Regulatory Guide 1.180 Rev. 1 and EN 61326-1 & EN 61326- 2-3			
	Radiation (TID)	6.5 Mrad (65 kGy)	36 Mrad (360 kGy)	112 Mrad (1.12 MGy)	165 Mrad (1.65 MGy)
	Seismic	8.5g ZPA			
	LOCA/HELB	290 °F (143.3 °C)	333 °F (167.2 °C)	435 °F (224 °C)	437 °F (225 °C)
	Chemical Spray	Yes	No	Yes	Yes
	Submergence	N/A	N/A	14 Days at 130 °F (54.4 °C)	110 Days at >200 °F (93.3 °C)
	Post Accident	1 year at 120 °F (48.9 °C)			



## Highest Performance & Reliability

Rosemount 3150 Series Pressure Transmitters deliver a robust, 100 percent analog design for consistent, reliable measurement performance and the most secure solution for nuclear power plant cyber and network risks. The coplanar sensor architecture not only provides the highest performance, but also improves manufacturability for industry-leading delivery times.

## Analog Electronics Provide Reliable, Secure Measurement

### Robust 4-20 mA Analog Output



- 100 percent analog electronics with no digital or microprocessor-based components
- Eliminates susceptibility to cyber security threats
- Lower operational risk and peace-of-mind
- Superior performance under normal and accident operating conditions

## Industry-Leading Quality and Reliability Designed Into Every Sensor Module

### Hermetic Electrical Seal

Internal seal protects the sensor and electronics from moisture and field contaminants



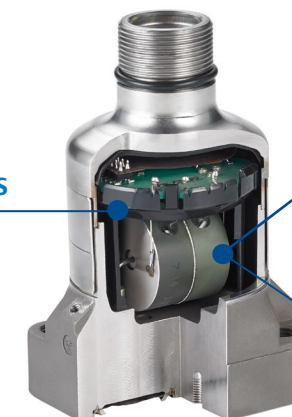
### All-Welded, Hermetic 316 SST Housing

Designed to withstand the harshest of environments for highest field reliability

## Advanced Coplanar Sensor Architecture for Highest Performance

### Radiation Hardened Electronics

Fastest dynamic response for highest performance



### Variable-Capacitance Sensor

Advanced sensor technology for enhanced performance

### “Floating” Sensor Design

Reduces overpressure, static line pressure, and temperature effects while increasing stability over time to extend calibration and maintenance cycles



## Proven Operating Experience

Nowhere is quality, reliability, and experience more valued than in the global nuclear industry where safety is vital. Emerson offers proven operating experience and our knowledge of the nuclear industry's requirements, regulations, and risks allows us to consistently help our users determine the best application of our products. Rosemount 3150 Series Nuclear Pressure Transmitters are backed by more than 10 years of rigorous testing and extensive qualifications that result in the highest quality products available.

## Unmatched Nuclear Pressure Measurement Experience

Emerson is the trusted measurement leader of nuclear qualified pressure instrumentation for more than 40 years



- 80,000 transmitters shipped globally to over 300 reactors in more than 23 countries
- Dedicated organization to the design and manufacture of qualified, safety related nuclear pressure transmitters and accessories
- Experience with existing facilities, new build projects, new reactor designs, and first-of-a-kind projects

## Extensive Qualifications and Testing to Global Nuclear Industry Standards

### Global Nuclear Qualifications and Testing

Rosemount 3150 Series Pressure Transmitters are qualified according to:

- IEEE Stds. 323™ and 344™
- KTA 3505 & 3507
- RCC-E
- USNRC RG 1.180 Rev. 1
- EN 61326

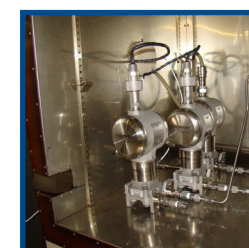
### Quality Assurance Programs

Rosemount nuclear products are manufactured in accordance with these standards:

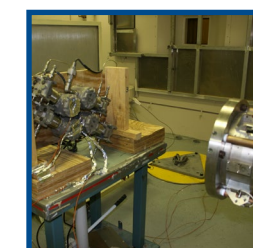
- 10CFR50 Appendix B
- NQA-1-1994
- KTA 1401
- IAEA 50C-Q
- IAEA GS-R-3
- CSA CAN3-Z299.1-85
- ISO 9001:2015

### Robust Qualification Test Methodology

Emerson has performed and thoroughly documented compliance with the most rigorous, extensive qualification test programs to meet global nuclear industry standards and customer-specific environmental parameters.



Aging



Radiation



Seismic



LOCA/HELB  
(Steam/Pressure)



## World-Class Technical Support

When safety is critical, experience matters. Avoid knowledge gaps resulting from a retiring or inexperienced workforce by partnering with Emerson for the most comprehensive product and application support available. A committed, consistent supplier to the global nuclear industry for the past 40 years, Emerson customers benefit from unmatched support expertise, on-time delivery, and product availability. Emerson is the preferred pressure instrument supplier to nuclear facilities around the world.

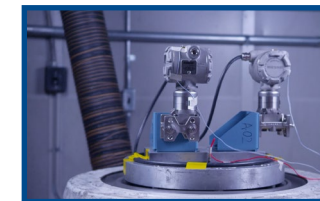
## Industry-Leading Experience with Nuclear Qualified Pressure Measurements

**Commitment, application understanding, and technical expertise to support every kind of nuclear facility operations.**

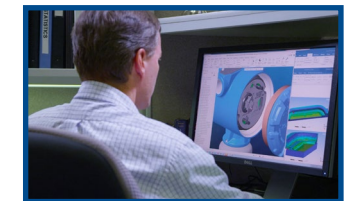
- Rosemount Nuclear employees have extensive knowledge of nuclear industry requirements, regulations, and risks
- Our team of highly skilled and dedicated personnel help customers determine the best application of Rosemount products in their nuclear facilities
- We maintain a company-wide commitment to solving our customers' toughest challenges



Manufacturing Excellence



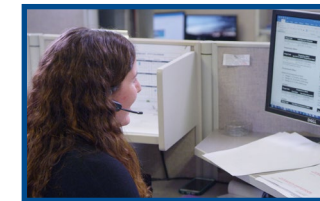
Testing & Documentation



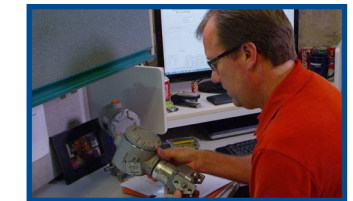
Engineering & Application Support



Quality Control



Technical Support & Customer Care

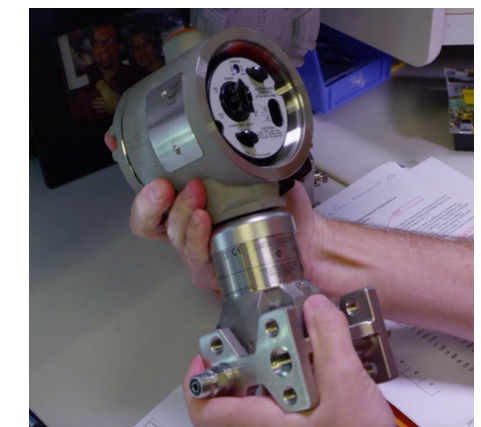


Industry Knowledge

## Emerson is Committed to Serving the Nuclear Industry

**With so much at stake, you need a trusted name with the expertise to help you achieve your business objectives.**

- Applying decades of experience and technology expertise to help ensure the efficient, reliable, and safe operation of next-generation nuclear facilities around the world
- Financial security and long-term nuclear market presence
- Ongoing activity in nuclear industry forums and international standards committees provide additional insight and support on even the most complex applications and issues



# Industry-leading Rosemount measurement and analytical solutions are available to fulfill all your commercial plant needs.



Pressure



Temperature



Wireless



Flow



Level



Analytical

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