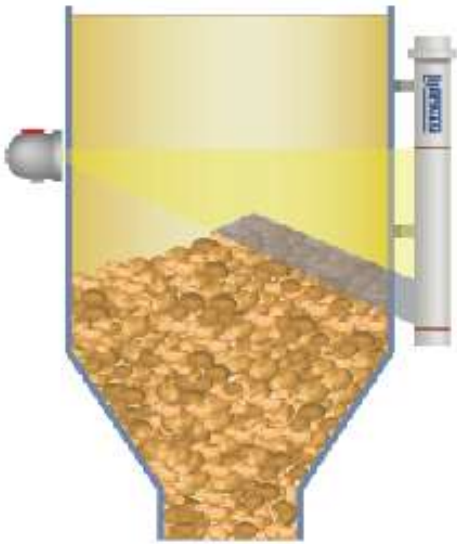




# Rigid Scintillation Detector

For more than 60 years, Ronan Engineering Company has supplied the process control industry with leading-edge Radiometric Measurement Systems that provide non-contact measurement solutions for the harshest environments.



Level measurement in food processing.

Each measurement system consists of a gamma source, detector and microprocessor. The gamma source, mounted externally on one side, emits energy towards the detector mounted externally on the opposite side. The detector measures the level of energy reaching it and sends a proportional signal to the microprocessor, which filters and correlates the signal to a unit of measure chosen by the user. Because all system components are mounted externally to the vessel, mold, pipe or conveyor, they can be installed and maintained while the process is running without downtime, vessel modifications, risk of accidental release, or the need for specialty construction materials.

# The Benefit of Radiometric Measurement

Radiometric measurement provides a safe and efficient, non-contact method to measure liquids or solids in harsh process environments.

Measurement is not affected by extreme process temperatures, caustic products, slurries, process flow and viscosity, violent product flow, sterile or changing processes or internal obstructions such as an agitator.

**Radiometric measurement is ideal for complex density, level and weight measurement applications in many industries including:**

- Steel production
- Aluminum production
- Glass production
- Mining
- Ethanol and renewables
- Food
- Recycling
- Chemical
- Petroleum
- Refineries
- Pulp and paper
- Dredging
- Power



The newly advanced Ronan Scintillation Detector features a modernized design and operation.



- New integral electronics and mechanics provide enhanced reliability.
- State-of-the-art electronics include a smaller, single-circuit-board construction, making for an overall smaller detector size, allowing the system to be installed within smaller space constraints.
- High electro-magnetic shielding is now standard in all Ronan detectors.
- The detector construction includes fewer components which offers even better vibration resistance and minimizes failure risk.
- Enhanced shielding and new circuit board reduces electrical noise.
- The new design maintains ability for repair and replacement.





## The Right Detector for Your Application

Ronan's Rigid Scintillation Detector is designed to deliver outstanding performance for a wide range of difficult applications and process conditions.

### The Detector is:

#### Reliable

Upgraded electronics and mechanics improve reliability, delivering accurate and repeatable measurements, even on difficult applications and in the harshest environments. New construction allows the detector to maintain signal-path integrity while operating under vibration and when the detector is mounted inverted. All Ronan detectors are manufactured to the highest quality standards and are backed by a three-year limited warranty<sup>1</sup>.

#### Efficient

Improved detector sensitivity allows for use of the lowest level sources in the industry and is optimized to "As Low as Reasonably Achievable" (ALARA) standards. This improves safety, is more environmentally friendly and can reduce costs by extending the life of your measurement system because sources do not have to be replaced as frequently.

#### Robust

The detector utilizes a variety of crystals, the two main types being sodium iodine (NaI) and scintillating plastic (PVT). Both types of crystals can be manufactured in various shapes and sizes. The PVT crystal can be fitted to the curvature of the vessel shape to, for example, measure the spherical bottom of a tank. Ronan is the only company that manufactures rigid curved crystals in addition to flexible detectors. Ronan also provides detector lengths up to 15 feet and up to 6 detectors can be connected, providing up to 90 total feet of measurement.

#### Versatile

With a philosophy of designing new products to be backward compatible, our customers have the confidence of an installed base of thousands of systems. Ronan detectors can be retrofitted to older systems without having to replace the source, allowing upgrades to the latest technology while avoiding disposal costs, and can also be retrofitted to replace other brands.

<sup>1</sup>Excludes PM Tubes.



## Customer Service Just Right for You

Everything we do is focused on helping you solve your most complex process measurement challenges.

Ronan is the only manufacturer that makes customized radiometric measurement systems for the widest variety of complex measurement applications. We'll work with you and your team to build a customized system for your most complicated measurement applications.

Our experienced staff of Applications Engineers not only work with you to find the ideal solution for your measurement needs they also offer personalized training at your facility or at the Ronan factory, just 15 minutes from the Cincinnati airport.

Ronan has a team of experienced technicians who will visit your site to assist with installation and start-up. Contact us to schedule.

Ronan provides  
unmatched  
personalized service.  
**Contact us today.**

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We work with a worldwide network of dealers.  
To find a local representative call us or visit:

**<https://ronan.com/find-a-representative>**

# Ronan Engineering Company

Ronan Engineering Company, located in Florence, Kentucky, was formed to address a growing market need for difficult process measurements using nuclear technology in industrial plants worldwide.

For over 60 years, Ronan Engineering Company has been at the forefront of industrial measurement technology, providing innovative, accurate, and reliable solutions for global industries. Specializing in level, density, and weight measurement, Ronan's mission is to drive efficiency, safety, and precision across industrial operations.



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