

Prevent costly radioactive contamination of your Conveyor and Off-Gas/Dust Collection System with the RC3000 Series Radiation Detection Systems

- Innovative design
- Energy specific alarm and background statistical analyses
- Network capability with email
- User-friendly, easy to install and operate
- Ability to retrofit or upgrade existing systems

RC3000

CONVEYOR & OFF-GAS RADIATION DETECTION SYSTEMS

Detection of Radioactivity in High Density Materials

The RC3000 Series radiation detection systems have been designed to detect very low Gamma Ray emissions in high density materials. Monitoring the Conveyor and Off-Gas/Dust collection systems for radiation emissions provides critical information that plant personnel need in order to take corrective actions in the event of an accidental smelting of a radioactive source. The RC3000 Series radiation detection systems utilize RadComm's high quality Polyvinyl Toluene (PVT) scintillators, electronics and Photomultiplier Tubes (PMT).

Simplified System Operation

The RC3000 Series utilizes real-time statistical algorithms that are based on Gamma Energy Distribution to ensure alarm thresholds levels are optimized. The RC3000 Series utilize a user-friendly graphical interface allowing the operator to easily move through the wide range of user options. All detailed Testing and Alarm records are stored on the internal hard drive and can be easily retrieved and interpreted as required.

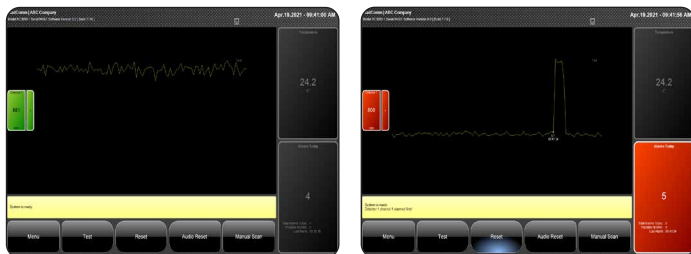
Remote System Access

The RC3000 Series controller is equipped with a network adaptor allowing remote monitoring, data retrieval and maintenance functions. The internal software and hardware designs are extremely flexible allowing remote software updates and electronic hardware adjustments when necessary. Supervisors can monitor the system operation in real-time to ensure normal system operation is maintained. Also, with a network connection the system has the capability of emailing alarms and system malfunctions.



The RC3000 Series consists of:

- Detector assemblies
- RadLink embedded controller
- Large touchscreen monitor
- Remote communications package (optional)



RadLink Controller Features

- Touchscreen LCD monitor
- Large storage capacity for system operational information and alarms
- Easy to follow multilingual menu outlines and descriptions
- Multi-level security password control
- Detailed alarm data storage
- Easy to set alarm configuration menu
- Network access for remote service and monitoring
- Radiation levels displayed (mR/h, nSv/h, cps)
- Ambient temperature displayed in Celsius or Fahrenheit
- Adjustable audio alarm
- Detailed alarm information displayed and stored after every alarm

Options

- External alarms
- Supervisory software

Detector Features

- Premium grade 12L PVT scintillator (single panel)
- Low density shield on face of detector panel
- Dual layer thermal insulation protection (-20°C/-4°F to 55°C/131°F)
- High signal-to-noise ratio PMTs
- High speed microcontroller for signal/alarm analysis
- Dual input high speed pulse processor
- Noise reduction hardware/software
- Background characterization for variable ambient background suppression
- 4 output drivers (24VDC@50mA) for remote indicators
- Internal non-radioactive test source for detailed and repeatable system checks
- 24VDC input voltage @1.5A
- System auto-stabilization & remote calibration

Response/Sensitivity

- Energy range: 20KeV to 3.0MeV (incident)

Model #	RC3000R
System Size (in ³)	744
System Size (L)	12
System size is based on 1 panel. Systems may be expanded with additional panels.	
PER/Panel Size (in ³)	744
PER/Panel Size (L)	12
# of PMTs/panel	1
Detection Capability/Overall Sensitivity - Unshielded Source (Shielded Source)	2.7µCi (98mCi)
* Radiation measurement of ¹³⁷ Cs (point source) at 1 meter from the face of the detector (the radiation exposure level is comparable to a 75mm x 150mm ¹³⁷ Cs lead sealed source buried in 40lbs/ft ³ (0.64 g/cm ³) of scrap metal)	



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