The RS-200 systems are 2 PMT based fully digital systems specially designed for the difficult operating conditions of scrap and aluminum processing plants. These systems combine exceptional performance with minimum false and nuisance alarms through advanced digital design and spectral analysis.

The system is fully modular which makes it easily configurable to suit local logistics and permits fast, easy maintenance. The system operates independently and has direct Ethernet connectivity to plant networks. This connectivity allows for a fully integrated plant design with the ability for RSO overview on all installed systems.

The Complete Service Solution

The RS-200 system design incorporates many advanced ideas to make fast, easy, local maintenance practical. These features include – easy-open doors and rugged PMT mounts for reliability accompanied by an easy access electronics tray with all electronics modules visable for fast changes. A major new feature is Internet based service support permitting the RSI Service Department direct overview for trouble shooting – in most case we can advise which module to change.

Once a problem is diagnosed replacement parts/modules are readily available, often with the option of overnight delivery.

www.radiationsolutions.ca
RSX-1500 DETECTOR

- VOLUME – 1512 in³ (23.5L)
- SIZE – 64” x 16” x 7.2”
  (1625 x 406 x 163mm)
- Custom designed fully weather-proof box with detachable lid
- Fully DIGITAL system design for high performance and hi reliability
- PHOTO-TUBES (PMT) = 2 PMTs with low noise buffer amplifiers
- COINCIDENCE COUNTING = very advanced digital FPGA design for fast coincidence on all PMTs simultaneously giving very high noise rejection, high throughput and good spectral shape
- SPECTROMETER = 4069/128 channel spectrometer on EACH PMT permits accurate spectral analysis. This digital FPGA based spectrometer gives full spectrum 10/sec data sampling for analysis
- VEHICLE PRESENCE MODULE = FPGA based module uses 2 (with the option of 4) optical sensors with fast 500Hz resolution to permit accurate determination of vehicle speed and presence
- MODULAR = fully modular system design, 3 easy-to-change modules contain all system electronics and if any are changed it is Plug-and-Play with automatic parameter adjustment - no user adjustments
- Detector boxes are aluminum for non-corrosion and long life and fiber-glass lids to improve low energy performance
- SHOCK MOUNTS - each scintillator is specially shock mounted to minimize shock and vibration effects that shorten system life

CONTROLLER

- Size = 14.7”H x 14.5”W x 3.9”D
  (373 x 368 x 99mm) - 115/220V AC operation 25 lbs (11.5 Kgs)
- CPU = high power custom designed Industrial embedded system gives high reliability over a wide temperature range
- NO system HARD-DRIVE all memory storage on solid state memory (8GB)
- OPERATING SYSTEM = the system runs Windows CE - this is a specially developed operating system for industrial systems which permits real-time operation
- Dust-proof, waterproof enclosure with internal heat sinking and no system fan for safe operation even in high dust areas
- CONNECTIVITY = Ethernet, USB, VGA and Serial connections for user interfaces

STANDARD SYSTEM DELIVERABLES
- Detectors (2 standard – up to 16 optional) complete with 2PMTs each and modular electronics
- System controller
- 15” VGA color touch display
- POS impact printer for alarm summary
- GPS system for location and high resolution system absolute timing
- LAN switch for network connection
- RSI DataCentre (a black-box pre-programmed computer system to archive data from RSI systems to allow easy access for the local RSO as well as buffering data for Internet linked support) – only 1 supplied per plant as 1 system can support up to 8 RSI systems

ADDITIONAL
- 2 pairs fast optical sensors
- 250ft (76m) cable – detectors to controller
- Installation manual (sent in advance) with appropriate stand drawings
- User, RSO, and Maintenance manuals included

OPTIONAL
- Additional detectors (up to 16 optional)
  Up-grade available for RSX-1500 detector to a RSX-3000 box size/type
- Additional 2 pairs of Optical sensors for improved precision
- UPS system
- TLC (Traffic Light Controller) system
- Detector spares kit (only 1 reqd/plant) to permit fast local service
- CABLE – additional cable as required
- START-UP services – RSI Staff on site visit to terminate detectors, startup system and train local staff

CUSTOMER FURNISHED ITEMS
- Detector stands with suitable foundation and conduits
- Normal lightning protection to the detectors - recommended standard is NFPA780
- UPS (to RSI spec)
- Horn, traffic lights as required

CUSTOMER PROVIDED CONNECTIONS
- LAN link - connection to the users LAN to permit RSO to view the data
- Internet link - users LAN permits Internet connection from RSI DataCentre to the RSI-service computer to allow proper level of RSO and maintenance support (technical details available)
- 115/220VAC connection - max 6A-115V, 3A-220V