RC2W34

Specialized Vehicle Waste RPM
Radiation Portal Monitor

The RC2W34 Radiation Detection Systems are finely-tuned, revolutionary, instrumentation that has been specifically designed to detect radioactivity contained in a moving vehicle containing waste material and scrap. The revolutionary design of the RC2W34 incorporates 20 years of engineering design and proven field application experience, and provides the Waste & Metals Industry with the best safety record to-date. The RC2W34 represents only state-of-the-art components and the best software- hardware technology available in the world.

In the event radiation has been detected in the vehicle a varying audio frequency and change count-rate on the display will warn the operator of the detection. To ensure the operator hears and sees the alarm condition the audio and red alarm lamp will remain on until the operator resets the systems condition. The revolutionary design utilizes high-speed micro-controller/CPLD technology in each detector assembly. A multiple of electronic adjustments such as gains, high voltage, noise filters and thresholds can be made via the PC display screen and/or network/Ethernet connection. The detector electronics utilizes modular designs allowing fast and easy replacement of parts should a problem arise.

The RC2000 PC windows based software is extremely flexible with easy to follow menus in the language of the country where the system is being used. The menus include alarm data, total system configuration, manual scan mode, power outage tracking, non-radioactive testing, etc. The System Menus are based on a Windows environment, allowing a clear and precise understanding of the RC2W34 without the requirement of a background in computer science or physics.

The RC2000 detection systems utilize advanced technology including advanced software algorithms and our exclusive real-time "Total Count" and "Shape Recognition" alarm algorithms. The RC2000 is extremely sensitive to low level radiation emissions from a moving vehicle regardless of the severe changes in background caused by varying scrap densities. Another extremely important issue is for the system to recognize and eliminate the ambient background interference from the ground, brick building and concrete structures. This significantly improves system detection capability while virtually stopping false alarms.

RC2W34-2 Radiation Detection System

Each Detector Assembly consists of:

Large Premium Grade 1,056 in3 (17.3 L) PVT Scintillator

Detector Case Nema-4(IP65) Rated

Vehicle/Presence/Speed Sensors;
  High Powered, Frequency Coded, Infrared Transmitter
  Infrared Receiver
  Protective Covers

Low Density Shield on Face of Detector Panel

Dual Layer of Thermal Protection (-200C to 500C)

95% Humidity Rating (Non-condensing)

High Signal to Noise Ratio PMT

High Speed Micro-Controller

High Speed Pulse Processor

Noise Reduction Hardware/Software

Internal Non-Radioactive Test Source

24 Vdc Input Voltage @ 1.5 A

Energy Range: 50KeV to 3.0MeV (Incident)

Sensitivity: Typ. 0.05 counts/s/cm3/nSv/h-1

RC2000 Controller Software includes:

Large Touch-Sensitive LCD Display

High Speed Pentium Processing Unit

Windows Based Software for Menu and Data Management

Large Storage Capacity for System Operational Information and Alarms

Easy to Follow Menu Outlines and Descriptions

Multi-Level Security Password Control

Detailed Alarm Data Storage

Manual Scanning for Pinpointing Source Location in Vehicle

Multilingual Menu Selection

Easy to Set Alarm Configuration Menu

FULL Remote Service and Reachback

Radiation Levels Displayed in CPS (counts per second)

Vehicle Speed Measurement in km/h and mph.

Detector Temperature displayed in Celsius and Fahrenheit

Detailed Easy to Follow Detector and System Configuration Menu

Adjustable Volume - Audio Alarm

Counter for Number of Scans in a 24 hour period and to-date

Detailed Alarm Information Displayed and Stored After Every Alarm

RC2000 Controller Software

GS-07F-0147T
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