

# RTM-910



## Gamma Scan Vehicle Monitor

- intelligent detectors
- extremely fast measurement processing (100 ms)
- user-friendly operator interface

- configuration to suit application
- compensation of the shielding effect of the measurement object
- maintains records data base

The RADOS RTM910 is a flexible and versatile measurement system for round-the-clock radiological contamination of vehicles, packages, and people. The RADOS RTM910 has been tested and proven in many environments with a variety of functions and applications – ranging from nuclear energy to harbor facilities and steel plants. It is based on a combination of modern technology, traditional manufacturing expertise and know-how. Close contact and an understanding of customer needs during implementation makes RADOS a reliable partner for all topics relating to radioactive contamination.

## Functional characteristics

The RTM 910 was also designed for simple and easy use and maintenance. Installation can be performed without any special training or knowledge and the instructions are supported by computer software. System operation is also computer-controlled and user-friendly. It can be networked with other PCs e.g. to a radiation protection officer located in a remote centre. For example, the signal can be displayed as a graph on a large PC monitor allowing the investigation and interpretation of alarms. Setting up is performed by technicians following computerized guidance and calculations. System diagnostics are computerized to provide quick results. Maintenance activities can be performed quickly on easily accessible modules. And, if there are still questions or problems, the RTM 910 can be linked by modem to the Rados Customer Support line (Help-Desk) for diagnosis and resolution by Rados professionals.

The system components are linked by a twisted pair cable to eliminate outside interferences. They can be installed at almost any site.

- large area plastic scintillation detectors with intelligent probe electronics. The high voltage setting and discriminator threshold are carried out through the central PC. The detector signals are processed and transmitted via a network interface (RNET 2000)
- evaluation electronics based on PC technology with the powerful QNX real-time multitasking operating system. The extremely fast evaluation software EFISYS2 in conjunction with the short cycle (100 ms!) acquires signal changes fast and reliably
- signal units, which provide clear visual and acoustic signals on the system and/or at any other point
- interface units for the connection of external signal sources (light barriers, motion detectors ...)

## Technical Data Gamma Scan RTM910

- software packages:
  - EFISYS2 for automatic background matching, GAUS for reliable detection of measurement effects
- detectors:
  - large-area, volume optimised plastic scintillators with very good response to  $\gamma$  radiation
  - standard types: RPD25/125 and RPD 40/200 as well as columns of various lengths
  - configured for the measurement application
  - max. 16 detector channels
- electronics:
  - PC with Rados Interface Board ATEWIS, at least a Pentium 233 MHz
  - 64 RAM
- sensitivities:
  - energies from 60 keV can be measured
  - $^{133}\text{Ba}$  = 27 %;  $^{137}\text{Cs}$  = 28 %;  $^{60}\text{Co}$  = 52 % with a radiation source in contact
- speed measurement:
  - maximum speed: 10 km/h (6.21 mi/h)
  - monitoring of the permissible speed of vehicles using a light barrier system
  - acoustic and visual (optional) signals when exceeded
  - resolution: 0.8 km/h (0.49 mi/h)
- detection limits:
  - the detection limits depend on the selected detector configuration and the measurement object (e.g. vehicle, load); typical example: 4m (157.4 in) wide vehicle passage with 4 RPD25/125 Detectors: 60 kBq of  $^{60}\text{Co}$  at 8 km/h (4.97 mi/h) can be reliably detected

