

# RADIAC SYSTEM

Radiac System for vehicles or shelters





Power









Homeland Security & Defense

Labs and Industrial and Education Manufacturing

**OVERVIEW** 

This RADIAC system allows real-time nuclear radiation monitoring in on-board or fixed applications. It detects and measures gamma radiation down to low levels (L.L.R) and provides alarm indication.

- Detection and crew protection (ALARA concept)
- Suitable for all types of vehicles (NBC Recce, AFVs/ IFVs, soft skinned)
- Flexible implementation either with or without display unit.

#### Covers broad range of threats:

- Tactical operations
  - direct exposure to gamma radiation
  - gamma radiation issued from contamination
- Peace keeping missions
  - Unprotected or orphan sources
- Technological hazard
  - Point sources and spread contamination
- Terrorism
  - -Radiological Dispersal device (RDDs)

# According to recommendations & meets requirements of:

- NATO AC/225 D/104recommendations
- AEP-14
- IEC 532

#### **KEY FEATURES**

- Smart detector for inside and outside monitoring from Low Level Radiation to radiac threat levels
- Flexible implementation
- Low size and weight for implementation in space critical vehicle
- Fast response time
- Dose rate, mission accumulated dose and vehicle accumulated dose
- High reliability, qualified to MIL standards, EMP and TREE protected
- Two alarms, dose rate and mission dose
- Adjustable thresholds over full measurement range
- · Local and remote alarms (with display unit)
- Adjustable correlation/protection factors
- History record of measurements and events
- Flexible display and sound modes
- Interfaces with Vehicle Management System and alarm system
- Flexible mounting options (display unit): top or roof/ wall mount
- Provided with configuration software tool

#### RADIOLOGICAL PERFORMANCES

- Gamma radiation detection
- Dose rate range: 50 nGy/h to 10 Gy/h
- Energy response:
- 50 keV to 1.3 MeV (tested)
- 50 keV to 3 MeV (predicted)
- Linearity: < +/- 15% (50 keV to 1.3 MeV)
- IEC 532 compliant

#### **POWER SUPPLY**

- 18VDC to 32VDC
- Power consumption (typical):
- Detector: 1W
- Display unit: 6W

### MECHANICAL CHARACTERISTICS

- Detector: 125 x 80 x 92 mm Display unit: 227 x 144 x 77 mm
- Display unit can be top or roof/wall mounted
- Weight:
- Detector: 1 kg
- Display unit: 1.35 kg

## **ENVIRONMENTAL CHARACTERISTICS**

- Operating temperature: -40°C to +60°C
- Shock resistant
- Vibration resistant to MIL STD 167
- EMC compliant to MIL-STD 461
- Electrical interface compliant to MIL-STD-1275
- IP67 (detector) and IP55 (display unit)
- Decontaminable



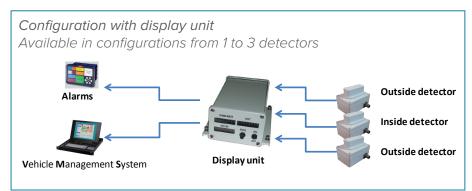


Top mount

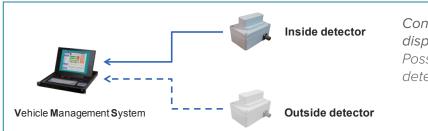
Roof/wall mount

#### **RADIAVIEW SOFTWARE**

In a configuration without display unit, it can be supplied our RADIAVIEW management PC software to be integrated into vehicle management system or separate computer. It provides the following main features:



- Communication management of several detectors
- · Graphical presentation of measurement and detectors statuses
- Alarm management
- History records of the measurements and events



Configuration without display unit Possibility to connect multiple detectors

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