



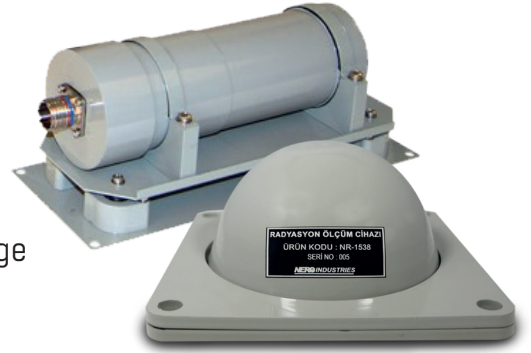
# RADIATION MEASURING DEVICE

## RADIATION MEASURING DEVICE

Mars detection system CBRN threats detections use both detection technology together in accordance with the conditions included in NATO AEP-54 standard. System is developed on radiation detection sensitivity on detectable radioactive particles. The system is developed on radiation detection sensitivity with regard to detectable radioactive particles. Nero Radiation Probe is a gamma dose rate detector with IP66 protection which can be mounted to upper structure. This detector provides data output on communication and can be directly integrated to IT system of any vessel.

Radiation Probe can be used at various applications including marine/air/land and critical infrastructure systems. There are , 0-100 R/h low level and 100 mR/h-1000 R/h high level detections at radiation detection system.

- Steel Body
- Dimensions: 150x150x85 mm
- IP67 protection level
- Digital interface for connection: RS485-CANBUS
- The energy gap to be detected is at; 60keV - 3MeV range



### ANALOG RADIATION MEASUREMENT UNIT

Analog Radiation Measurement Unit, is a radiation monitoring system which provides continuous and real-time radiation data about military vessels/vehicles. It provides detection and measurement. It shows digital measuring results of the data received from the sensors on vessel/vehicle. Analog radiation measurement unit consists of below components:

Analog Radiation Control Panel; enables central indication and alarm for all remote radiation detectors.

A separate display module for each detector, shows gamma dose rate at detector location. This unit is also used in cases of training.

Remote radiological detectors continuously transmit data about radiation existence and level to control panel.

Analog Radiation Measurement Unit can use 10 detectors but different variations are also present in line with the requirements.

### Control Panel Specifications

- It continuously monitors dose rate and alarm status for each detector in use.
- It shows separate dose persistence times for each channel
- Predetermination of level for alarm
- Visual and voice warning at adjusted alarm level
- Lightening on panel
- Vibration resistant assembly wedges



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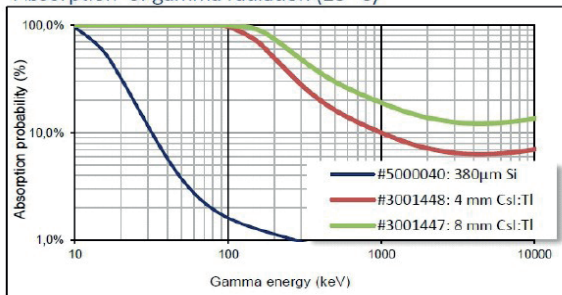
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## APPLICABLE SENSOR TYPES

### 1- PHOTODIODE SENSOR

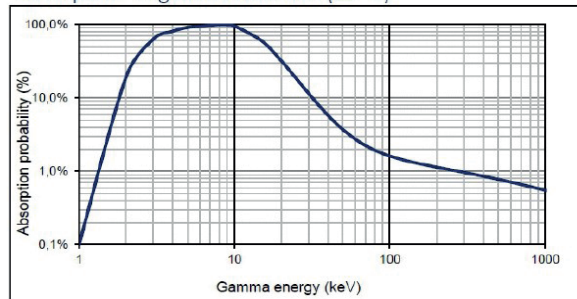


Absorption of gamma radiation (23 °C)



Square PIN photodiode with 100mm<sup>2</sup> active area. CsI:Tl ceramic carrier type with scintillator 2-pin (8 mm ; 4 mm)

Absorption of gamma radiation (23 °C)



Square PIN photodiode with 100mm<sup>2</sup> active area. Light-blocking black epoxy encapsulated ceramic carrier type 2-pin.

### 2- GEIGER MULLER SENSOR

- 1.8 to 2.2 mg/cm<sup>2</sup> ultra-fine mica\* window
- 19.8 or 28.4 mm effective diameter
- high alpha, beta and gamma efficiency
- Affordable, easy to use and very reliable with an unmatched quality/cost ratio

\*Mica has excellent electrical, physical, mechanical properties and good thermal resistance. It is transparent, has good optical properties, is flat, unbreakable.

