

RADEAGLET-R

Rugged Handheld Radioisotope Identification Device (RIID)

ORTEC®

AMETEK®

Radioisotope identification devices, or RIID, identify radioactive materials by detecting and measuring emitted gamma rays. When a preliminary screening device detects a radiation source, RIIDs provide the next layer of detection and analysis needed to determine whether the radioactive source constitutes a high-level threat.



RADEAGLET-R Provides Superior RIID Speed, Accuracy, Versatility and Durability

ORTEC's RADEAGLET-R lightweight, handheld RIID provides the speed and reliability you need to identify potentially harmful radiation sources in the field. Designed and built for military, law enforcement, first responders and border patrol use, the RADEAGLET-R's construction stands up to rugged use under harsh conditions, delivering accurate readings in seconds via a user-friendly, high-resolution display. Bluetooth, LAN, Wi-Fi and USB compatibility lets field personnel quickly and easily transmit data via smartphone, tablet or PC for Reachback/Triage analysis.



KEY FEATURES:

- Superior speed and accurate identification of radiological materials.
- Lightweight, ergonomically balanced design reduces user fatigue and physical stress.
- Large, high-resolution display is clearly visible, even in bright sunlight.
- Bluetooth, Wi-Fi and PC capability enables data transfer from the field or in the office.
- Fully compatible with Windows, MAC OS, iOS and Android platforms.
- Solid, durable construction ensures reliability under rugged field conditions.
- Modular design enables quick, easy self-service maintenance, maximizing availability.

Your New RADEAGLET-R RIID Delivers:

- Upgraded Linux OS for:
 - Faster boot-up.
 - Use with any PC without downloading drivers.
 - Bluetooth enabled communications via smartphone.
 - Robust software security.
- External Sensors connected via USB now available
 - Alpha, beta, alpha/beta, and CZT
- Automated State of Health Monitor
- Supports both iOS and Android App
- Improved stabilization algorithms for more accurate detection
- Designed to withstand up to a 2-meter drop on a solid surface
- Tested to meet or exceed ANSI N42 RIID specifications

Applications:

- Local/State/Federal Law Enforcement
- First Responders and Emergency Management
- Customs and Border Protection
- Security and Military Forces
- Nuclear Safeguards
- Intelligence Agencies
- Environmental Management and Cleanup
- Nuclear Medicine and Scientific Institutes
- Scrap Steel and Recycling

Compact and Perfectly Balanced



Technical Specifications:

RADIOLOGICAL PERFORM-	Calibration Source	External Source: ^{40}K ; Embedded Source: ^{137}Cs ; 111 Bq (3 nCi)
	Energy Range	Nal: 15 keV to 3 MeV. GM: 45 keV to 1.5 MeV
	Sensitivity (^{137}Cs)	>1600 cps per $\mu\text{Sv/h}$
	Gamma Spectrum	2048 Channels
	Dose Rate Range	Total: 10 nSv/h – 1/Sv/h. Nal: 10 nSv/h – 250 $\mu\text{Sv/h}$. GM: >250 $\mu\text{Sv/h}$ – 1 Sv/h
	Overload Threshold	≥ 1 Sv/h
	Dose Rate Accuracy	Nal: $\pm 10\%$ for ^{137}Cs @ 662 keV; ^{241}Am @ 59 keV; ^{60}Co @ 1172 keV and 1332 keV. GM: $\pm 30\%$ for ^{137}Cs @ 662 keV
Nuclide Library	Exceed ANSI N42.34, > 60 nuclides in the library	
PHYSICAL	Housing Materials	Rustless Aluminum; fiber-reinforced plastic; polyoxymethylene; glass
	Dimensions	(W x L x H) 90 mm (3.54 in) x 280 mm (11.00 in) x 110 mm (4.33 in)
	Display	640 x 480, 89 mm (3.5 in) Transflective Color TFT
	Batteries	Rechargeable; hot-swappable; Li-Ion; Low Self Discharge NiMH by request
	Operational RunTime	12 hours guaranteed; 15 hours typical under normal operating conditions
	Nal Detector	50.8 x 25.4 mm (2 x 1 in)
ENVIRON-	^3He Tube	12.7 mm (0.50 in) x 114 mm (4.49 in); net: 9.4 mm (0.37 in) x 100 mm (3.94 in); 8 bar (116.03 psi).
	GPS	66-channel MediaTek MT3339 receiver
	Operating Temperature	-20°C to $+55^\circ\text{C}$ (-4°F to $+131^\circ\text{F}$); >0.15 bar (2.18 psi)
	Relative Humidity	10% to 95%, non-condensing
COMPUTA-	Storage and Transport	-20°C to $+50^\circ\text{C}$ (-4°F to $+122^\circ\text{F}$); <2.1 bar (30.46 psi).
	IP Protection Rating	IP65 according to IEC 60529
	Memory	>16 GB (can store up to 1,000,000 spectra)
SOFTWARE	File Formats	ANSI N42.42 (xml) and spe (IAEA) files compatible with third-party analysis software
	Connectivity	USB, Wi-Fi, Bluetooth, LAN (RJ-45 -requires network connection)
	Reachback and E-Mail	Dispatch via optional USB communication adaptors
	Operating System	Linux on RadEAGLET-R instrument and Compatible with MS Windows, MAC OS, iOS, and Android

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