

HIGH EFFICIENT RADIONUCLIDE IDENTIFYING DEVICE (RID) GRAETZ RADXPLORE-IDENT

Product features

The GRAETZ RadXplore-ident is an ultra-compact, robust and sensitive radionuclide identifier (RID), which features a wide energy range, high throughput and excellent stability with outstanding application possibilities.



System Overview

Technology

Radionuclide Identification Device (RID)

Scope

Detection of gamma, beta, neutron, and cosmic radiation emitted from natural and man-made sources. Identification of special nuclear material, industrial, medical, and natural radioactive sources. Measurement of x-ray and gamma exposure.

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Detector-Options

BGO	Gamma and neutron detection Material: $\text{Bi}_4\text{Ge}_3\text{O}_{12}$ Size: 51 x 25 mm (2" x 1")
M600	Gamma and neutron detection Material: rubber M600 Size: 51 x 51 mm (2" x 2")

Physical

Weight	1,250 g (2.7 lbs) with power module
Dimensions (L x H x B)	235 x 88 x 92 mm (9.3" x 3.5" x 3.6") with rubber enclosure
Housing material	Machined aluminum

Operating Conditions

Operating temperature	-20 °C bis 50 °C (-4 °F to 122 °F)
Operating humidity	up to 93 % at 40 °C (104 °F) non-condensing
Protection rating	IP68 according to IEC 60529 10 m (0.4") 30 min submersible

Operating Modes

Dose Rate	Gamma dose rate and neutron count rate display
Finder	Rate history display
Directional Finder	Source strength and direction
Identification	Gamma spectrum measurement and identification

Performance

Energy range (Gamma)	10 keV _{ee} – 1 GeV _{ee}
Dose rate range (Cs-137)	10 nSv/h – 10 mSv/h (1 µrem/h – 1 rem/h) ±30 %
Dose rate range ID Mode (Cs-137)	10 nSv/h – 200 µSv/h (1 µrem/h – 20 mrem/h)

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Performance

Dose rate overload range (Cs-137)	0,2 mSv/h – 500 mSv/h (0,02 rem/h – 50 rem/h)
Maximum input count rate in ID mode	1 Million cps (Cs-137)
Gamma sensitivity	1.850 cps/μSv/h (Cs-137)
Neutrons	According to ANSI 42.34
Power-up time	Operative in less than one minute
Identification time	Identification of 1 μCi Cs-137 in 13 s
Linearisation	real-time linearization of gamma energy
User-interface update frequency	0.5 s
Nuclide library	> 70 Nuclides (exceeding IEC 62755, ANSI 42.34)

Power Module PM1 Li-Ion 240

Run time at 20 °C (68 °F)	> 6 h continuous use (non-alarm state)
Run time at -20 °C (12 °F)	> 1 h continuous use (non-alarm state)
Operating temperature	-20 °C to 50 °C (-4 °F to 122 °F)
Charging temperature	0 °C to 40 °C (+32 °F to 104 °F)
Storage temperature	-20 °C to 50 °C (-4 °F to 122 °F)

Hardware

Data Storage	30 GB interner Speicher
Wi-Fi	Wi-Fi access point 2,4 GHz 802.11 g, encryption WPA-PSK AES
BlueTooth	BlueTooth LE for connection to the Mobile App
GPS	switchable 72 channel M8 engine (Navstar, Galileo, Glonass, Beidou)
USB-C	Power and Data port

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Software

Web server	Web Interface for setup, data download and remote control
Data streaming	Supporting Sigma streaming API via BT tethering
Data reporting	Supporting Sigma reporting API via BT tethering
Easy finder	Convenient directional finder mode to locate gamma sources
Session data	Continuously tracking GPS position, dose rate, alarms and identification results

Mobile App

Remote Operation	Use any mobile device to remote operate the instrument
Reachback	Reachback functionality (Mail with attached ANSI 42.42 data)

Standards Compliance

RID environmental tests	IEC 62706
Data format	ANSI 42.42, IEC 62755

For more information on this product, please visit our website:
<https://graetz-strahlungsmesstechnik.com/radxplore-en>
or scan the following QR code.

