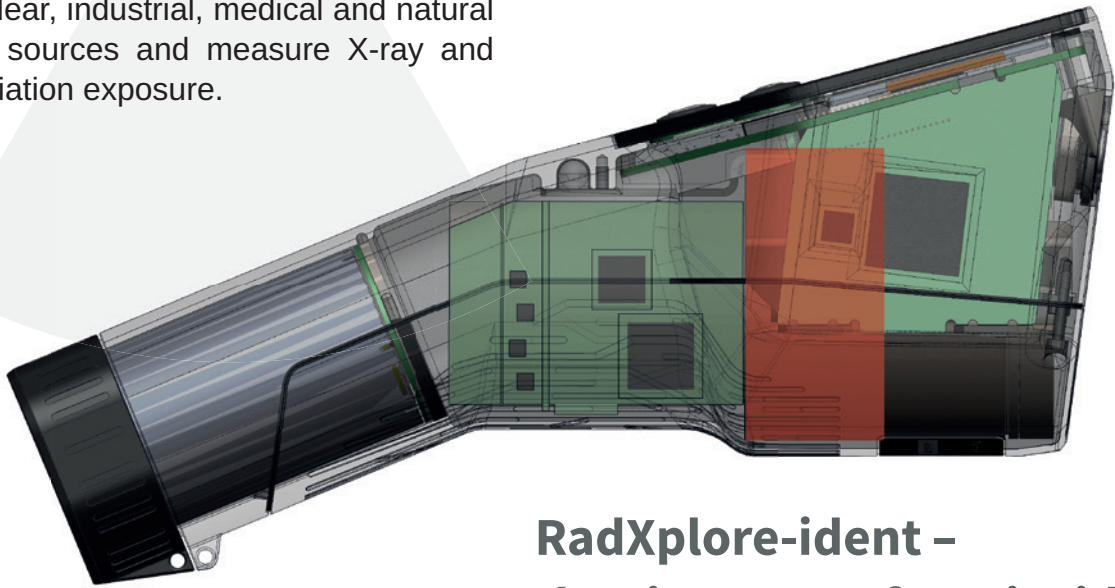# Graetz
## Strahlungsmeßtechnik



# RadXplore-ident
## High Efficiency Radionuclide Identifier (RID)

An ultra-compact, robust and sensitive radionuclide identifier (RID) which features a wide energy range, high throughput and excellent stability with outstanding application capabilities.

# RadXplore-ident

## versatile and precise

The RadXplore-ident is designed to detect gamma, beta, neutron and cosmic radiation from natural and man-made sources, identify special nuclear, industrial, medical and natural radioactive sources and measure X-ray and gamma radiation exposure.



## info

*The RadXplore-ident one-hand measuring device comes standard with 2" x 1" BGO detector in a robust aluminum housing - ergonomic, lightweight and waterproof. For more information, please refer to our product data sheet.*

*Dimensions:*
*235 mm x 88 mm x 92 mm (9.3" x 3.5" x 3.6")*

*Weight:*
*950 - 1,250 g (2 - 2.7 lbs) depending on detector type*

## RadXplore-ident – the size comes from inside

In the development of the device, which is powered by a Li-Ion battery powered device, great emphasis was placed on comfortable handling as well as a high degree of user-friendliness.
The result is a housing shape and weight that makes the RadXplore-ident highly ergonomic and unique: compact and operable with one hand.

This is because, for the first time, it has been possible to combine a 2" x 1" BGO (bismuth germanate) detector with high-precision, high-speed digital electronics in an ergonomic, lightweight and waterproof aluminum housing that can be operated with one hand.
The RadXplore-ident convinces in use on land, on water and even under water up to 10 meters diving depth.

# Convincing stability in every application situation

The novel patented stabilization of the RadXplore-ident is based on the measurement of the quantum photoelectric effect. It requires no built-in source or LED and instantly and automatically compensates for any gain variations due to hysteresis and temperature changes.

The main advantages of this method are:

- No internal stabilization source „blinds" the instrument
- No faulty LED can affect the stabilization affect stabilization
- Excellent stability in any situation

With the highest precision, the RadXplore-ident thus provides consistent performance in all conditions and environments, reducing false alarms and shortening decision-making processes in the field.

## Detect, measure, localize and identify

Especially for missions with unknown risks, the wide measurement range (10 $keV_{ee}$ to 1000 $MeV_{ee}$) as well as the dose rate measurement is a convincing advantage.
The sophisticated analog and digital electronics make it possible to measure a wide gamma dose rate range and neutrons with only one BGO crystal.

Low radiation levels can be detected earlier, faster and with higher accuracy than with comparable handheld instruments. Stronger radiation sources are analyzed and identified even at high input rates. With the Easy-Finder function, radiation sources can be found, located and then quickly identified. For example, a radiation source with an activity of 37 kBq Cs-137 is identified within 3 seconds.

## info

*The RadXplore-ident in night mode allows working in complete darkness without blinding the user.*

# Simple and intuitive

The high-resolution and bright display ensures trouble-free operation both in bright sunlight and in the dark. During development, particular attention was paid to a proven operating concept and a user-friendly user interface with the display of essential information.

This results in simple and intuitive handling for the single-handed measuring device. The individual modes can be started very quickly. The visualization is colorful and self-explanatory. Even when the RadXplore-ident is upside down, it is easy to operate because the user interface automatically rotates the various elements.

*Display views of the various functions:*



*Easy Finder (Scan)*



*Easy Finder (Direction)*
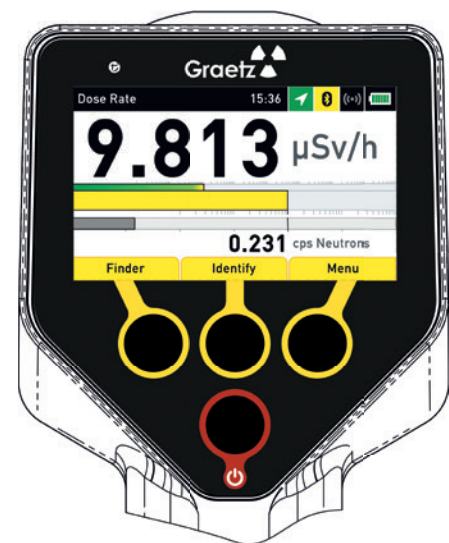


*Dose rate mode*

**Finder mode**

**Identification mode**

**Identified nuclides**

# Connectivity and Documentation

All measurements are stored on the device's internal memory (30 GB storage capacity) and can be easily transferred without special software. Its numerous interfaces and the built-in web interface allow easy remote data transmission as well as secure remote maintenance and remote control of the device. For example, not only can the current display be seen in the command vehicle, but the device can also be operated or configured.

The digital user manual is an integral part of the web interface and is therefore always available and always up to date.

## info

**Image 1:**
*The recording of a spectrum with the web interface.*

**Image 2:**
*The password protected area for the expert settings.*

**Image 3:**
*The user manual, an integral part of the web interface.*
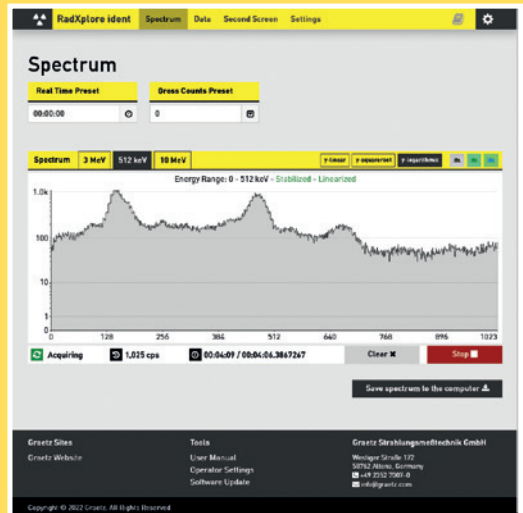

*Image 1*
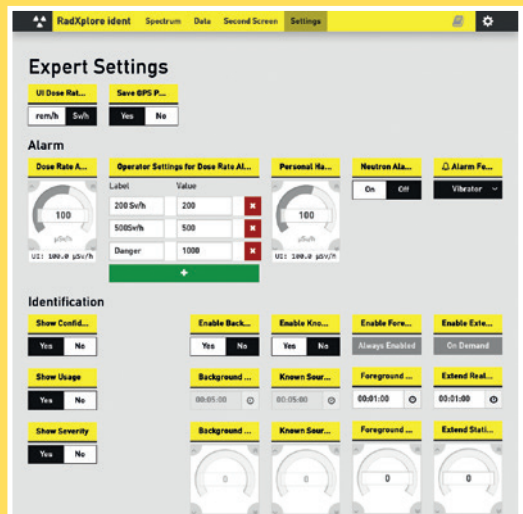

*Image 2*


*Image 3*

# Features of the RadXplore-ident at a glance

- 2" x 1" BGO ($Bi_4Ge_3O_{12}$) detector with outstanding efficiency in the standard version - optionally further detectors with a higher measuring efficiency are possible

- Improved overall robustness with non-hygroscopic BGO detector

- Novel sourceless gain stabilization (Pat. US 9,864,076)

- High dose rate capability and neutron detection with one detector

- Nuclide identification at up to 1 million Ip/s

- Directional radiation detection

- Waterproof up to 33 feet (10 meters) - IP68 rating

- Easy system integration through HTTP REST interface and universal API

- N42.42 data format for easy remote data transmission

- Remote control and configuration via web interface or app

- Nuclide library (> 70 nuclides) exceeds IEC-62755- and ANSI 42.34 requirements

# PIONEERS OF
# RADIATION MEASUREMENT TECHNOLOGY
# SINCE 1949 – MADE IN GERMANY

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