

# RanidProFX

Radionuclide Identifier  
for Fixed Installations



- High performance tools for radionuclide identification
- Compatible with EnviScreen monitoring software
- Full reachback capability
- Integreatable to air samplers



Environics

For your SAFETY

# RanidProFX

## Fixed Radionuclide Identifier



**RanidProFX ensures reliability through the sophisticated identification algorithms and reachback capability.**

Every day a huge amount of nuclear material is handled in the nuclear power plants, industry, hospitals, medical science and so on. Opportunities for the material to become misplaced, stolen or a container to leak because of an accident are numerous. In the worst scenarios huge radioactive fallout due to power plant accident can face any geographical area. On the other hand natural background radiation varies due to environmental issues. Handling of these threats and separating natural background variation from change in radiation level caused by unnatural radioactive sources poses high demands for reliable radiological monitoring.

### KEY FEATURES

- High sensitivity
- Highly sophisticated detection algorithms
- Very low false alarm rate
- Automatic energy stabilization – valid data available every time
- Full reach back capability
- Easy to install and replace
- Easy to use expert tool

### APPLICATIONS

- Portal applications (e.g. entry control)
- Radiological safety of industrial sites (e.g. steel mill industry)
- Radiological safety of harbors and railways
- Customs, border control and law enforcement
- Monitoring of mass events and high security meetings
- Environmental monitoring (e.g. borders of large geographical areas)

## Bringing Expertise to the Field

The performance of current radiation analyzers is varied at best and using them require thorough training, expertise and understanding on the matter. The Environics RanidProFX has been designed to provide every user with this information. The device measures, detects and identifies the source of radiation and gives the user clear and simple information from the results.

## Reliable Data – Extremely Low False Alarm Rate

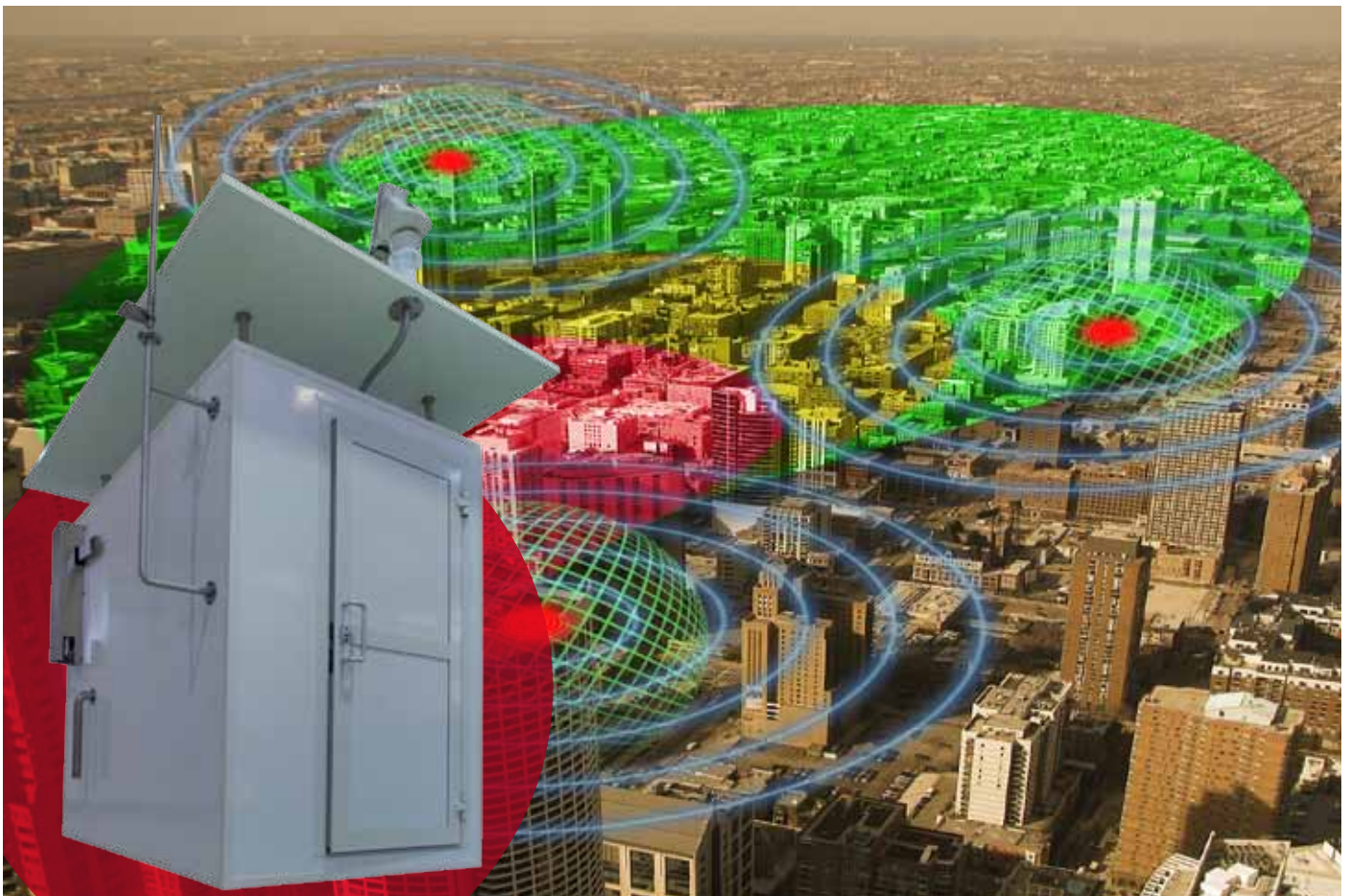
The RanidProFX implements unique automatic energy stabilization routines, meaning that the detector is able to conduct continuous spectroscopic measurements and analysis.

## Comprehensive Full Spectrum Database

The RanidProFX offers a comprehensive radionuclide database for reference. All measured data can be compared to the known spectrums for very specific analysis.

## Full Reachback Capability

The RanidProFX includes wired Ethernet-connection (RJ45), and optionally it supports all commonly used wireless data transfer methods. This enables constant contact with the control centers, where experts can process the measurements for more in-depth analysis. This kind of reachback capability ensures rapid verification of the threat and enables providing immediate instructions for countermeasures.



# Technical Data

|                                    |   |
|------------------------------------|---|
| <b>Size</b>                        | Approx 35x36x12 cm<br>[data processing and power unit]<br>35 (h) x 8,0 (d) cm [probe] |
| <b>Weight</b>                      | Approx. 10.5 kg<br>[data processing and power unit]<br>1.64 kg [probe]                |
| <b>Power</b>                       | Input<br>100-240V (50-60Hz)<br>9-36 VDC   |
| <b>Communications</b>              | RJ-45 Ethernet<br>LAN or WLAN<br>3.5G   |
| <b>Relative Humidity</b>           | <95% at 35C, non-condensing   |
| <b>Temperature Operation Range</b> | -20 °C -to 50°C   |

## Performance

|                                     |   |
|-------------------------------------|---|
| <b>Gamma detector</b>               | LaBr3 scintillator 1.5"x1.5" or<br>Nal (Tl) scintillator 2"x2"<br>(Optionally other detector sizes)   |
| <b>Energy range</b>                 | 30Kev to 5MeV (LaBr3)<br>30Kev to 8MeV (Nal)  |
| <b>Energy resolution</b>            | < 3% FWHM @ 662keV (LaBr3)<br>< 7.5% FWHM @ 662keV (Nal)  |
| <b>Dose rate range</b>              | 0,01 to 100µSv/h  |
| <b>Dose rate Accuracy</b>           | ±5%   |
| <b>Spectrum</b>                     | 2048 channel MCA  |
| <b>Library &amp; Categorization</b> | Designed to fulfill and exceed standard<br>N42.34 ANSI Isotope list<br>Medical and Industrial lists<br>Special Nuclear Material lists<br>Customizable user defined lists and ROIs |
| <b>Functions</b>                    | Nuclide identification<br>Spectrum analysis<br>Dose rate calculation<br>Comprehensive radionuclide database<br>Audible search tool  |



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All operations in Environics have been audited and certified against ISO 9001:2008, ISO 14001:2004 and NATO AQAP 2110 standards.  
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