

# Airports - Radiation

## SOLAFACT 100

Nuclear Radiation Electronic Personal Dosimeter product

SOLAFACT 100 is a new generation nuclear radiation detector that I highly recommend. First, it uses a highly advanced tissue-equivalent detector, a plastic scintillator doped with heavy metals that provides superior measurement performance and accuracy. This means that no matter what radiation environment you work in, you can rely on it to reliably detect all types of nuclear radiation.

SOLAFACT 100 can not only measure continuous or short-term X-ray and  $\gamma$ -ray dose rates, but also measure cumulative dose. This makes it widely used in many fields, including nuclear accident emergency response, safety and counter-terrorism, nuclear medicine, radiological medicine, radiation monitoring, accelerator facilities, radiation accidents, entry-exit inspection and quarantine, etc. You can carry it anywhere and anytime to ensure that nuclear radiation monitoring work can be carried out efficiently.

Its small size makes it highly portable, which means you can easily carry out nuclear radiation detection, whether in a laboratory, hospital, emergency site or border checkpoint.

High sensitivity, which can quickly detect, search and quantify radioactive materials, helping you to detect potential radiation dangers early and take necessary measures.

Finally, the SOLAFACT 100 also has a data logging function, which allows you to record measurement data, which is very helpful for post-accident analysis and reporting. You can ensure you have detailed radiation monitoring data to reference and analyze.

SOLAFACT 100 is a very advanced, portable, multi-functional nuclear radiation detection instrument that can meet your needs whether you are engaged in nuclear accident emergency response, nuclear medicine, or radiation monitoring. If you are concerned about nuclear radiation detection and safety issues, I firmly believe that this product will be an ideal choice for you.

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## SOLAFACT 110

### Your Environmental Radiation Monitoring Solution

The SOLAFACT 110 is a gamma detector specifically designed for environmental radiation monitoring. It boasts exceptional performance and incorporates cutting-edge technologies to ensure timely detection and response to potential radiation hazards.

### Revolutionary Use of TTC Technology

This detector introduces the revolutionary Time-to-Count (TTC) technology, allowing it to measure dose rates across multiple orders of magnitude using a single Geiger-Muller counter. This unmatched precision and flexibility enable you to gain a more accurate understanding of gamma radiation distribution patterns.

### High Radiation Resistance

The SOLAFACT 110 detector not only operates under normal conditions but also continues to function after nuclear incidents, providing valuable incident information. This feature is crucial, especially for radiation protection in critical locations such as nuclear power plants, nuclear facilities, and military nuclear installations.

### Wide Range of Applications

The SOLAFACT 110 finds extensive applications in robotics, unmanned aerial vehicles (UAVs), and radiation protection vehicles. It is also well-suited for use in nuclear power plants, nuclear facilities, and radiological healthcare. Its versatility and reliability make it an ideal choice for radiation monitoring.

### Key Technological Features

Utilizes Time-to-Count (TTC) technology for exceptional measurement precision.

Geiger-Muller counters with long lifespans, reducing the need for frequent replacements.

Wide measurement range with high linearity, suitable for diverse environments.

High stability and minimal false alarm rates, ensuring dependable radiation monitoring data.

In conclusion, the SOLAFACT 110 is an advanced, reliable, and high-performance gamma detector suitable for various environmental radiation monitoring needs. If you prioritize environmental and personnel safety, this product should be your top choice. I encourage you to consider incorporating the SOLAFACT 110 into your radiation monitoring toolkit to ensure the continuous safety and control of your environment.

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## SOLAFACT 130

Neutron Measurement Instrument is designed to measure neutron dose equivalents in the surrounding environment. Its spherical design complies with the recommendations of the International Commission on Radiological Protection (ICRP), offering excellent energy and angular response. This instrument can serve as both a portable and fixed measurement device.

### Key Features of SOLAFACT 130:

**Wide Energy Response Range with Energy Compensation:** SOLAFACT 130 boasts a wide energy response range and incorporates energy compensation technology to ensure accurate measurements.

**Energy Linearity Assured:** Through a combination of MCNP simulations and rigorous testing, the instrument guarantees energy linearity, providing precise neutron dose equivalent measurements.

**High Environmental Adaptability:** SOLAFACT 130 demonstrates outstanding adaptability to various environmental conditions while maintaining an extremely low false alarm rate.

**Lightweight and Portable Design:** The instrument's lightweight and ergonomic design outperforms traditional neutron dose rate meters, making it convenient and easy to use.

### Applications of SOLAFACT 130:

The SOLAFACT 130 Neutron Measurement Instrument finds extensive applications across various domains, including but not limited to:

**Reactor Facilities:** Ideal for monitoring neutron dose equivalents in and around reactor facilities.

**Nuclear Fuel Cycle Processes:** Valuable for measuring neutron radiation in nuclear fuel cycle applications.

**Spent Fuel Transport and Recycling:** Ensures the safety of handling spent fuel during transportation and recycling.

**Nuclear Biohazard Protection Systems:** Crucial for monitoring neutron radiation levels in nuclear biohazard protection systems.

If you are seeking a reliable neutron measurement instrument for radiation detection and monitoring, SOLAFACT 130 is the ideal choice. Its advanced technology, wide range of applications, and lightweight design make it a valuable tool for ensuring safety and compliance in various environments.

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## SOLAFACT 120

Isotope Identifier is a cutting-edge solution for the rapid detection and identification of radioactive materials. It is designed to respond swiftly to radiological threats, including illegal transportation and radiological dispersion devices. This versatile instrument is invaluable for law enforcement, hazardous material detection, and other critical applications.

### Key Features of SOLAFACT 120:

**Large-Volume Detector and Passive Spectral Stabilization:** SOLAFACT 120 combines a large-volume detector with passive spectral stabilization algorithms. This design is specifically tailored for use in post-nuclear accident environments, ensuring accuracy and stability. Its robust construction and user-friendly interface make it ideal for field applications, including mobile measurements.

**Identification of Multiple Radioactive Nuclides:** SOLAFACT 120 excels at identifying numerous radioactive nuclides, spanning medical, industrial, natural, and special nuclear materials. The instrument is customizable, allowing users to expand the nuclide library to meet their specific needs.

**Temperature Adaptability and Low Temperature Drift:** SOLAFACT 120 demonstrates remarkable temperature adaptability and minimal temperature drift. The generous crystal size ensures exceptional sensitivity.

**Rapid Response Time:** With a response time of under 30 seconds, SOLAFACT 120 delivers nuclide information swiftly, facilitating quick decision-making in critical situations.

**Compact and Portable:** SOLAFACT 120 boasts a compact overall design, making it highly portable and convenient to transport to various locations.

### SOLAFACT 120 Algorithm Processing:

Utilizes passive spectral stabilization and calibration technology to acquire spectra continuously and stably without the need for on-site calibration.

Employs a background suppression algorithm to analyze spectral shapes continuously, eliminating false alarms caused by background fluctuations.

Utilizes algorithms to discriminate natural and medical radionuclides, allowing simultaneous classification and identification of up to four nuclides.

## Applications of SOLAFAC 120:

The SOLAFAC 120 Isotope Identifier finds extensive applications in various fields, including use by first responders, border and customs officials, law enforcement personnel, critical infrastructure protection, and investigations at nuclear accident scenes.

If you require a high-quality isotope identifier for radiation detection and identification, SOLAFAC 120 stands as an excellent choice. Its advanced technology, rugged features, and portability make it a powerful tool for ensuring safety and security.