

# SIRA ENVINET



## **SIRA – Spectroscopic Aerosol Monitoring System**

The ideal solution for monitoring environmental air radioactivity.

Based on ENVINET's tried-and-tested, reliable spectroscopic solution SARA,

SIRA detects extremely low amounts of artificial radioactivity in the air.

The robust design, high automation, flexible analysis, easy handling and seamless integration into existing surveillance networks make SIRA the comprehensive answer to your air monitoring requirements.

# SPECTROSCOPIC AEROSOL MONITORING SYSTEM

SIRA is ENVINET's solution for the automatic, ongoing monitoring of airborne activity concentration. The system's data interfaces and transmission paths are identical to those of the SARA spectroscopic dose rate probe. As SIRA can be integrated in existing and new NMC monitoring networks, it is the perfect complement to dose rate probes in monitoring networks.

## APPLICATIONS

SIRA can be used for:

- Nationwide networks
- Ring monitoring around nuclear power plants
- Area monitoring

## FEATURES

SIRA is designed to provide maximum reliability and a minimum error rate, well above the standard. It is able to rapidly detect extremely low levels of artificial radiation in the air. Furthermore, it offers the following features:

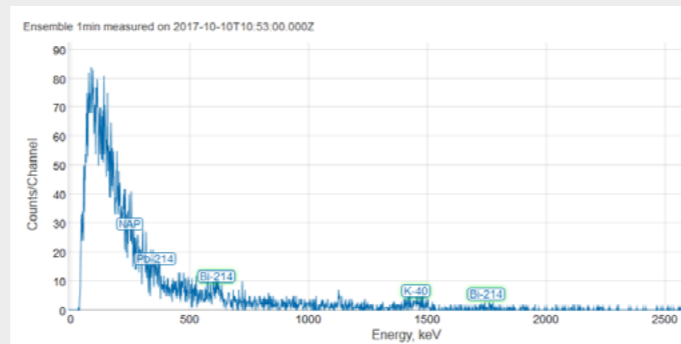
- Detector: NaI(Tl) or optional CeBr<sub>3</sub>
- Internal heating of sampling pipe
- Gamma nuclide activity evaluation for each spectrum according to ISO11929
- Freely configurable nuclide library
- Flow rate: 0.3 – 7 m<sup>3</sup>/h
- Filter size: 47 mm
- Filter magazine for 30 or 60 days' autonomous operation
- Compact size, small footprint
- Low energy consumption
- Local memory for back-up for more than 4 years
- No compressed air, no counting gas, no cooling required



Filters and filter magazine

## DESCRIPTION

SIRA consists of a collecting unit, through which the ambient air is drawn. The particles contained therein are separated via a filter. While the particles are being collected, the detector above the filter monitors them for radioactive components on an ongoing basis. The readings can be accessed online at any time. With its automatic switching mechanism, the filter magazine enables the maintenance-free operation of the system for 30 days (60 is also available as an option). SIRA can thus also be operated at remote, unmanned stations. The filters can also be removed individually at any time before the entire stack of magazines are processed (e.g. in the case of unusually high readings) for evaluation in the laboratory. The detector is a trusty SARA spectroscopic gamma probe. The filter activity is then subjected to spectroscopic analysis. This makes the nuclide-specific activity available, in addition to the total activity concentration.



Spectrum



## FUNCTIONS

- Individual filters, each separately exchangeable for optional lab re-analysis
- Immediate data analysis during air accumulation, fast response
- Detection of lowest artificial activity contribution, even in the case of strongly variable, natural radon concentrations
- Multiple active measurement intervals in parallel to achieve fast alarming and low detection limits
- Signal processing, evaluation and alarm generation directly in the detector. Should the network connection or the data management software ever fail, the measurement and alarming will still be fully functional.

## BENEFITS

SIRA is an easy-to-operate, highly reliable air monitoring system that is able

- To detect extremely low levels of artificial radiation in the air
  - To improve early warning and counter-measures due to its rapid detection technology and nuclide identification
- Thanks to SIRA's high degree of automation
- Operator-training is kept to a minimum
  - Installation is simple and maintenance minimized
  - Total cost of ownership is low

## ABOUT ENVINET

ENVINET GmbH is a German company based in Munich. For more than 30 years, our customers have been relying on our solutions when monitoring environmental parameters. With over 4,500 online detectors in operation, we are the leading manufacturer of networks to monitor environmental radiation. ENVINET's products and solutions reflect the experience and innovative capability of our team, thereby guaranteeing top quality, extremely reliable yet, at the same time, highly functional solutions.



Countries where ENVINET products are installed



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