

AirTrack

Aerosol Monitoring Station

with high performance detector assembly and automatic filter changer

Features



- Touch screen user interface, easy to learn and intuitive operation;
- Update period of the radionuclides concentration information is 1 minute;
- Gamma spectrometric chain made of scintillation detector $\text{SrI}_2(\text{Eu})$ high resolution and digital 4K MCA;
- Automatic stabilization of the energy scale of gamma radiation spectrometric channel is implemented using a K-40 built-in source;
- Calibration of alpha/beta/gamma radiation energy scale using reference sources in filter geometry;
- Full load of filter cartridge provides up to three months of autonomous operation;
- Automatic control of the operations, emergency messages about equipment faults in case of operation failure and built-in testing procedures.

Main operational functions:

- Acquiring alpha-beta and gamma spectra in real-time;
- Calculating activity of radionuclides on the filter [Bq] and concentration of radionuclides in the air [Bq/m^3];
- Indication of the concentration of Radon in the ambient air and automatic compensation its progenies;
- Two programmable thresholds (notification and alarm) for radiological events in each measurement chain (alpha, beta and gamma emitters);
- Automatic filter replacement depending on its contamination degree, integrity damage, or after measurement time;
- Automatic control of filter condition, including measurement of differences in the air pressure Δp at the inlet and outlet of the filter;
- Measurement of the flow rate of the incoming air;
- Data transfer via LAN, USB and 4G interfaces in the ANSI 42.42/EURDEP format to the end-user;
- Control of all AirTrack operations from a remote computer.

AirTrack is the State of the Art among Aerosols Monitors, in terms of advanced design solutions and performances of the Alpha/Beta and Gamma spectrometric measurement chains.

It is a budget friendly alternative to its higher performance version **AirTrack-Ge** equipped with electrically cooled HPGe detector.



Baltic Scientific Instruments
Ramulu str. 3
Riga, LV - 1005
Latvia

Phone: (+371) 67383947
Email: sales@bsi.lv
www.bsi.lv

AirTrack-i

Iodine Monitoring Station

with automatic cartridge changer and on-line spectrometric analysis



Features

- Automatic stabilization of the energy scale of gamma radiation spectrometric channel is implemented using a K-40 built-in source (for scintillator);
- TEDA (triethylene di-amine) impregnated Carbon filter cartridge with a high affinity for the adsorption, chelation and retention of the various species of Iodine;
- Gamma spectrometric chain made of scintillation detector SrI2(Eu) high resolution and digital 4K MCA;
- Update period of the I-131 concentration information is 1 minute;
- Touch screen user interface, easy to learn and intuitive operation;
- Full load of filter cartridge provides up to three months of autonomous operation;
- Automatic control of the operations, emergency messages about equipment faults in case of operation failure and built-in testing procedures.

Main operational functions:

- Acquiring gamma spectra in real-time;
- Measuring the activity of I-131 on the filter [Bq] and calculating the concentration of I-131 in the air [Bq/m³];
- Automatic filter replacement depending on its contamination degree, integrity damage, or after the expiration of the specified measurement time;
- Automatic control of filter condition, including measurement of differences in the air pressure Δp at the inlet and outlet of the filter;
- Measurement of the flow rate of the incoming air;
- Ambient air temperature measurement;
- Two programmable thresholds (notification and alarm) for radiological events;
- Audio and color alarm signals about operation modes and exceeding threshold values;
- Data transfer via LAN, USB and 4G interfaces in the ANSI 42.42/EURDEP format to the end-user;
- Control of all AirTrack operations from a remote computer.

AirTrack-i is the state-of-the-art among Iodine monitors in terms of advanced design solutions for automatic gamma spectrometric measurements and cartridges changer mechanics.

The innovative unique use of a SrI₂(Eu) scintillation crystal with high energy resolution and low intrinsic background ensures maximum reliability in the identification of radioactive iodine and reduces the detection limit of its concentration. It shares the same functional and mechanical design of the AirTrack-Sr Aerosols Monitoring station. Both monitors are constructed on a modular principle and have interchangeable parts, but AirTrack-i uses special charcoal filters. This charcoal material is selective, it will not trap other gases, and therefore the sample will be enriched with only I-131. When it is impregnated with some chemicals, the activated charcoal can effectively adsorb both organic and elemental iodine.

