



AirTrack Aerosol Monitoring Station

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with automatic filter changer



DESCRIPTION

The Aerosol Monitoring Station AirTrack represents a breakthrough in autonomous radiation surveillance which is specially developed for continuous automatic measurement of the concentration of alpha, beta, and gamma radionuclides in airborne aerosols.

AirTrack utilizes silicon, high-purity germanium or scintillation detectors (gamma detectors are fully interchangeable without any design modifications) for alpha, beta, and gamma monitoring in the air. With exceptional precision, this advanced system enables rapid and accurate detection of radioactive aerosols. Designed for autonomous operation, it delivers real-time data, making it ideal for industrial, research, and emergency applications.

FEATURES

- Touch screen user interface, easy to learn and intuitive operation
- 1024-channel MCA for alpha channel, 4096-channel MCA for gamma channel
- Removable cartridge with 48(60)-filter capacity, up to 2 months of autonomous operation, any Ø47 mm disk filter is suitable
- Compensation for radon progeny and gamma background
- Evaluation of measurement results in accordance with ISO 11929
- Automatic filter replacement when total activity or differential pressure thresholds are exceeded
- Automatic stabilization of the gamma spectrometric channel using the K-40 peak
- Continuous self-diagnostic procedures with alarm signals and status messages
- 1 minute update period of the radionuclide concentration information
- Data transfer via LAN, USB and 4G interfaces in the ANSI 42.42/EURDEP format
- Capability to control all AirTrack operations from a remote computer



| Parameter | Value |
|--|---|
| Detector type | Alpha/Beta: 900 mm ² silicon ion-implanted detector Gamma: SrI ₂ (Eu), optionally LaBr ₃ (Ce), CeBr ₃ or NaI(Tl) HPGe with electrical cooling |
| Energy measurement range | Alpha: 2 – 10 MeV, Beta: 0.05 – 2 MeV Gamma: 0.05 – 3 MeV (SrI ₂ detector) 3 keV – 3 MeV (HPGe detector) |
| Concentration measurement range | Alpha: 10 ⁻² to 10 ⁵ Bq/m ³ Beta: 10 ⁻¹ to 10 ⁵ Bq/m ³ Gamma: 10 ⁻² to 10 ⁶ Bq/m ³ |
| Relative energy resolution on the line 661,7 keV | AirTrack-Sr: < 3.2% at 661.7 keV (for SrI ₂ (Eu) Ø38.1×38.1 mm) AirTrack-Ge: < 1 keV at 122 keV, < 2 keV at 1.33 MeV |
| Power supply voltage | 230 V / 50 Hz |
| Operation temperature | +5 °C – +40 °C |