

AMGRI

Automatic Monitor for Radioactive Aerosols

with automatic cartridge changer and on-line spectrometric analysis



Features

Main operational functions:

- Cartridge control (including Δp and inlet air temperature) and cartridges changing
- Flow-rate control and measurement
- Live spectrum acquisition
- On-line Spectra analysis and readout
- Pb-214 peak automatic compensation
- Evaluation of Iodine concentration in air
- System parameters set-up
- Two programmable thresholds (alert and alarm) for radiological events
- Intrinsic automatic control of system operation, machine failure alarm messages in case of equipment operational failure (i.e. mechanics or pneumatics failures)
- Built in test procedures
- Data communication

Setup parameters:

- Station identifier: identifier of the station
- Sampling Time: total sampling time (ST) for cartridge (in hours and minutes)
- Data period: data files issuing period
- Iodine Alert Threshold: alert trip point for Iodine concentration
- Iodine Alarm Threshold: alarm trip point for Iodine concentration
- Flow Alarm Threshold: flow-rate trip point for 'low flow' alarm ($X.XX \text{ m}^3/\text{h}$).
- Flow Filter Threshold: flow-rate trip point for filter change ($X.XX \text{ m}^3/\text{h}$).
- MCAs set-up: coarse gain, fine gain, shaping, threshold, HV
- Network: IP address, firewall, time synchronization



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AMRA α , β , γ

Automatic Monitor for Radioactive Aerosols



Features

Main operational functions:

- Filter control (including Δp and air inlet temperature) and filters changing
- Flow-rate control and measurement
- Live spectrum acquisition
- On-line Spectra analysis and readout
- Gamma background compensation
- Evaluation of activities on filter and concentrations in air
- System parameters set-up
- Two programmable thresholds (alert and alarm) for radiological events on each measurement chain (Alpha, Beta and Gamma emitters)
- Intrinsic automatic control of system operation, machine failure alarm messages in case of equipment operational failure (i.e. mechanics or pneumatics failures)
- Built in test procedures
- Data communication

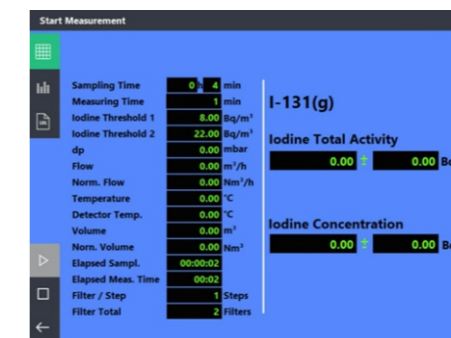
Setup parameters:

- Station identifier: identifier of the station
- Sampling Flow Rate: sampling flow-rate ($X.XX \text{ m}^3/\text{h}$)
- Sampling Time: total sampling time (ST) for each filter (in hours and minutes)
- Data period: data files issuing period
- Alpha Alert Threshold: alert trip point for alpha concentration
- Beta Alert Threshold: alert trip point for beta concentration
- Alpha Alarm Threshold: alarm trip point for alpha concentration
- Beta Alarm Threshold: alarm trip point for beta concentration
- Gamma ROI Alert Thr.: ten ROI independent trip point set-up
- Gamma ROI Alarm Thr.: ten ROI independent trip point set-up
- Flow Alarm Threshold: flow-rate trip point for 'low flow' alarm ($X.XX \text{ m}^3/\text{h}$).
- Flow Filter Threshold: flow-rate trip point for filter change ($X.XX \text{ m}^3/\text{h}$).
- MCAs set-up: coarse gain, fine gain, shaping, threshold, HV
- Network: IP address, firewall, time synchronization

AMRA-Sr 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 AMRA-Ge equipped with electrically cooled HPGe detector.

The innovative unique use of a SrI2(Eu) crystal with its very low intrinsic background and very high photonic yield makes possible at a reasonable cost the implementation of an industrial grade equipment with laboratory grade analytical performances on-line.



Developed
and
manufactured
in cooperation
with

