

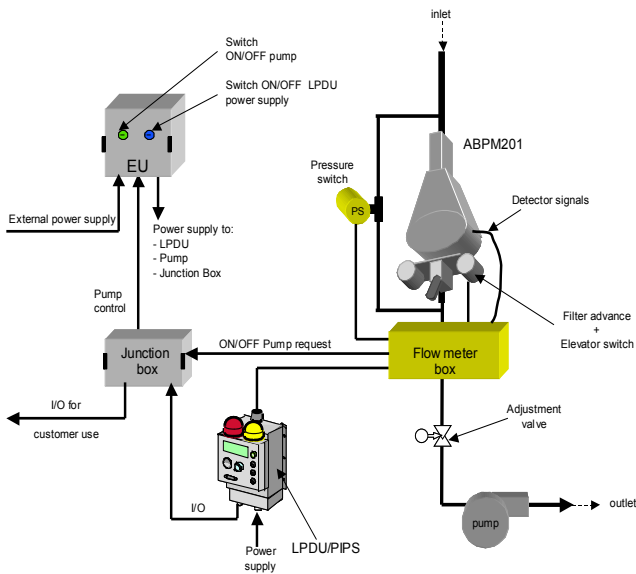


# ABPM 201 M

## Alpha Beta Particulate Monitor

- continuous air monitoring and display of the  $\alpha$  and  $\beta$  volumetric activity
- visual and audible alarms whenever threshold levels are exceeded
- static and dynamic compensation of the Radon and Thoron solid progenies
- absorbed  $\gamma$  dose rate indication
- natural  $\alpha$  volumetric activity indication
- on-line  $\alpha$  spectrometry
- up to 6 months autonomy filter cassette

The ABPM 201 M monitor from the **RAMSYS** product line has been developed to sample air in ventilation ducts or stacks. A double silicon detector performs the  $\gamma$  compensation and a radial fin grid limits the scattering of the  $\alpha$  particles (static compensation) which facilitates the compensation of the Radon and Thoron solid progenies by the processing algorithms (dynamic compensation). The spectrometry capability will allow immediate and easy isotope identification in case of alarm. Operating costs are minimised by the use of a continuous filter and on-line spectroscopy capability. This monitor is also available in light or seismic version.



## Physical characteristics

- radiation detected: alpha, beta and gamma
- detector: Silicon
- filter:
  - type: FSLW
  - autonomous: up to 6 months
  - efficiency: > 99.99 % for particles  $\Phi$ : 4 $\mu$ m
- measurement range:
  - alpha:  $10^{-2}$  to  $10^4$  Bq/m<sup>3</sup> ( $2,7 \cdot 10^{-13}$  to  $2,7 \cdot 10^{-7}$   $\mu$ Ci/cc)
  - beta: 1 to 107 Bq/m<sup>3</sup> ( $2,7 \cdot 10^{-11}$  to  $2,7 \cdot 10^{-4}$   $\mu$ Ci/cc)
- energy range:
  - alpha 4.2 MeV to 5.5 MeV
  - beta 80 keV to 2 MeV
  - gamma 80 keV to 2 MeV
- temperature range: +0°C to +55°C (32°F to 131°)

## Electrical characteristics

- power supply: 115V 60Hz - 230V 50Hz
- interfaces:
  - RS 232 Serial link for parameter configuration of the monitor through PC and MASS application software
  - one 0/4 - 20 mA Analog output, two programmable SPDT relays, two RS 485 isolated serial link

## Mechanical characteristics

- protection index: IP 44
- color (decontaminable paint): grey RAL 7030
- sizes: 1406 mm x 520 mm x 708 mm
- weight: ~120 kg
- interfaces:
  - input sampling: pipe  $\phi$  18 mm OD
  - output sampling: pipe  $\phi$  12mm OD

## Alarm

- audio indicators: buzzer sound alert rated at 90dBa at one meter
- visual indicators: programmable operation lights such as red for high alarm, orange for alert alarm, green for normal operation

## Accessories

- RAMSYS softwares
- Isokinetic probe
- set of calibration (<sup>204</sup> TI sources and its fixture)
- 406 MHz radiomodem

RAMSYS: Radiation Monitoring System

128365A

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