

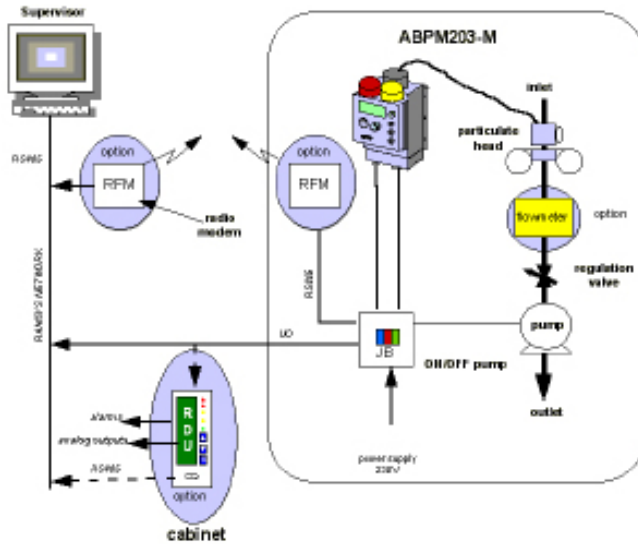


ABPM 203 M

Mobile alpha beta particulate monitor

- continuous air monitoring and display of the α and β volumetric activity
- visual, audible and electrical signal alarms when threshold levels are exceeded
- static and dynamic compensation of the Radon and Thoron solid progenies
- perfectly adapted for α and β measurement of particulates in environment with high rate of Radon
- optimized α measurement for high energies (PU^{238} , PU^{239})
- on-line α spectrometry
- up to 6 months filter cassette autonomy

The ABPM 203 M forms part of the **RAMSYS** product line. Its small and light weight extendable sensor allows this monitor to function locally next to the respiratory tract of workers. A dual silicon detector (pips) performs the γ compensation and a radial fin grid limits the scattering of the α particles (static compensation) which facilitates the compensation of the Radon and Thoron solid progenies by the processing algorithms (dynamic compensation). Operating costs are minimised through unattended operation, by the use of a continuous filter and the on-line spectroscopy capability. All these features make the ABPM 203 M an efficient diversified and cost effective tool.



Physical characteristics

- radiation detected: alpha and beta
- detector: Silicon
- filter:
 - type: FSLW
 - autonomous: up to 6 months (\cong 200 advances)
 - efficiency: > 99.99 % for particles Φ : 4 μ m
- measurement range (IEC60761):
 - alpha: 10^{-2} to $3.7 \cdot 10^6$ Bq/m³ ($2.7 \cdot 10^{-13}$ to 10^{-4} μ Ci/cc)
 - beta: 1 to $3.7 \cdot 10^6$ Bq/m³ ($2.7 \cdot 10^{-11}$ to 10^{-4} μ Ci/cc)
- energy range:
 - alpha 2 MeV to 10 MeV
 - beta 80 keV to 2.5 MeV
 - gamma 80 keV to 2.5 MeV
- temperature range:
 - +0°C to +45°C (32°F to 113°F)
- flow rate: 35l/min (1.24 Scfm)

Electrical characteristics

- power supply: 120V 60Hz or 230V 50Hz
- interfaces:
 - RS 232 Serial link for parameter configuration of the monitor through PC and MASS application software
 - two 0/4 - 20 mA analog outputs, one 0/4 - 20 mA analog input, three programmable relays, two RS 485 isolated serial link

Mechanical characteristics

- protection index: IP 32 and IK 07
- color (decontaminable paint): grey RAL 7030
- sizes: 1270 x 360 x 303 mm (50 x 14.1 x 11.9 in)
- weight: 26 kg (57 lbs)

Qualification

- EMI/RFI: EN 55022, CEI 61000-6-2, 61000-6-4

Alarm signaling

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

Accessories

- RAMSYS softwares
- wall mounting support for CE 200 detector
- set of calibration - sources and its fixture (²³⁹Pu + ¹³⁷Cs) or other alternate combinations
- 406 MHz radiomodem
- longer detector's cable hose set available on request

RAMSYS: Radiation
Monitoring System