BAB-7

α/β particulate monitor

- Static and dynamic compensations of ambient gamma radiation and natural radon/thoron progenies
- Robust and durable case with reinforced EMC levels
- Uniform sample print for more accurate measurement
- Low dust retention sampling line
- Available as static or relocatable version
- 96 hours graphic memory
- Non volatile memory (21 days, one minute storage interval)
- Internal quality control tools with spectra
- Optional external gamma dose rate probe
- Optional local and remote alarm unit
- Compatible with DataExpert supervision software

The BAB-7 particulate monitor is specially designed for the continuous monitoring of α and β artificial radioactive particulate activities in nuclear plants or dismantling yards.
BAB-7 is housed in a robust and durable case with reinforced EMC levels for use in industrial environment.
Innovative background and radon compensation technics allows more accurate measurement and minimize false alarm rate

Main applications are:

- ➢ monitoring of low particulate concentrations in high gamma background
- ➢ working place monitoring, as a fixed or mobile unit
- ➢ ventilation duct air monitoring
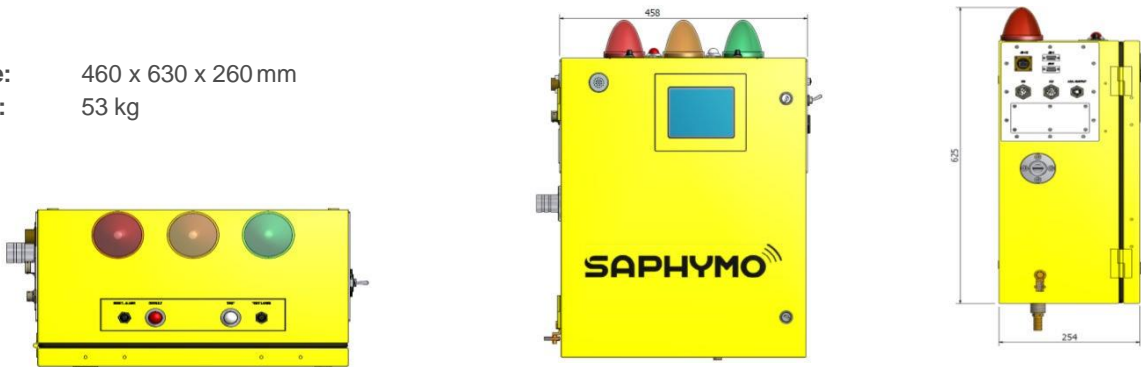- ➢ exhaust air monitoring

PHYSICAL CHARACTERISTICS

- **Detector:** large area dual silicon diode, 2 x 360 mm²
- **Energy range:** α: 2 to 10 MeV - β: 80 keV to 2 MeV, adjustable artificial α ROI
- **Measuring range:** α: 10^{-3} to 5.10^4 Bq/m³; β: 10^{-2} to 5.10^4 Bq/m³
- **Pneumatic circuit:** inlet: sampling nozzle
- **Outlet:** 32 mm nozzle
- **Pump flow rate:** 8 m³/h

ENVIRONMENTAL CHARACTERISTICS

- **Temperature range:** from +5°C to +45°C
- **IP index:** IP 50

MECHANICAL CHARACTERISTICS

- **Size of case:** 460 x 630 x 260 mm
- **Total weight:** 53 kg

ELECTRICAL CHARACTERISTICS

- **Power supply:** Mains single-phase 230V-50Hz
- **Consumption:** 650 VA, peak intensity 13
- **Electromagnetic interference:**
  - **emission:** EN 61000-6-4
  - **immunity:** EN 61000-4-3, level 3

INTERFACES

- **Display:** 3 lights, 2 LEDs (test and faulty) and 1 horn (90 dB, 1 m distance, internal acknowledgement). Local alarm unit as an option
- **Outputs:**
  - relay outputs for local and remote display unit
  - 3 analog outputs 4 – 20 mA
  - 2 x RS 485 to JBUS Modbus protocol
  - Ethernet connection

ACCESSORIES & PRODUCTS REFERENCES

- Gamma GM-2N probe for dose rate monitoring
- GJNOV software for local maintenance and data acquisition
- Optional: detector head lead shielded for use in high gamma background
- Optionnal: wireless data link, (ShortLink radio)
- Optionnal: effluent sampling and release
- Optionnal: remote local unit BAL-2