PAB - 2

α and β low background counter

The **PAB-2** low background counter allows measurement of α and β surface contaminations. Smear tests with diameter 51 mm are controlled and sorted according to the radiological thresholds and uncertainty preset.

In the absence of smear testing, the Gamma background is measured. Measuring time is then automatically adjusted according to this background value and with respect to the detection limit.

PAB-2 is used for testing contamination on transport casks, parcels, luggage, materials, etc… leaving a controlled area or a nuclear site.

Technical characteristics

Detector :
- double sealed Ar-CO2 detector, window diameter Ø 51 mm, sensitive to α and β radiation, protected by a lead shielding
- Background noise in normal environment (100 nSv/h) :
  Background noise α ≤ 0,002 c/s
  Background noise β ≤ 0,3 c/s
- Efficiency : α (Pu 239) : 0,12 c/s/α/s/2π (PAB 2-2-S: 0,2 imp/s/ α/s/2π)
  (indicative values) β (Co 60) : 0,32 c/s/β/s/2π

Treatment unit :
- electronics based on industrial microprocessor
- display on large LCD screen
- anticoincidence algorithm
- Memorisation of the 1000 last values
- Maintenance mode allowing quality control of the double detector

Mechanics :
- manual planchet with simple or double drawer
- Weight : 24.7 kg
- Size: 412 x 342 x 246 mm (l x p x h)

Interface :
- RS232 output (data compatible with hyperterminal and datasheets)

- **3 versions : simple drawer (PAB 2-1), double drawer (PAB 2-2) and alpha specific with double drawer (PAB 2-2-S)**
- **Autonomous and user-friendly**
- **Measurement and memorization of the external background and real-time monitoring**
- **Double sealed Ar-CO2 proportional counters**
- **Surface radiological contamination threshold adjustable (Bq/cm²)**
- **Audible alarm**
- **Parameter access password-protected**
- **Printer and PC outputs**

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