

- α , β and γ contamination floor measurements
- Real-time gamma background compensation
- Insensitive to shock and vibration (reduced false alarm)
- Adjustable and automatic alarm threshold
- Autonomous, easy-to-use system
- Speed monitor



CS-28N / CST-28N

α , β and γ large surface floor contamination monitor

CS-28N / CST-28N are specially designed to control the possible α and β contamination on large surface floors (halls, parking lots, factories...). It can be used for routine monitoring or post accident monitoring.

The α , β and γ pulses are discriminated and simultaneously monitored.

It is based on two dual proportional counters. The lower one measuring the surface contamination and the other one measuring the gamma background hence allowing gamma background discrimination on the lower counter.

Physical characteristics

- Detector DAB 1800-2
- Double counter, area: 750 x 250 mm (active area)
- Detection characteristics:
 - ✓ Sensitivity depends on the speed and the distance between the detector and the floor
 - ✓ Detection limits b at 4σ (^{36}Cl to 50 mm of the floor, speed 1km/h): 450Bq (150Bq at 0.5km/h) in a natural background (0.1 $\mu\text{Sv/h}$)
 - ✓ β rejection in α (^{36}Cl , H1) : <0.1%
- Typical background:
 - ✓ background for 0.1 $\mu\text{Sv/h}$: approx. 50c/s without lead protection.
 - ✓ background for 0.1 $\mu\text{Sv/h}$ with lead protection : approx. 30c/s:
- Gas supply by B1 or B5 type bottles, 100 bars (not included), average consumption, detector window in good shape: 1l/h (permanent: 4l/h)

Mechanical characteristics

- Dimensions: With large detectors, handle folded: 1,090 x 894 mm (L x l), height 477 mm
- Weight: 600 kg typically with bottle
- Mechanics:
 - ✓ CS28N: decontaminable tubular chassis, 3 wheels including one on rotating support, handle guidance, detector protected by a fine grid with great transparency, 3 preset heights from 4 to 50 mm.
 - ✓ CST28N: tractor, mower type

Electronic characteristics

- Processing unit with built-in charger and battery (8h autonomy)
- Display box with signalisation and speed indicator
- Main : 230V - 50Hz s supply, 40VA
- Integrated battery :
 - ✓ battery life : 8 hours
 - ✓ charging time : 12 hours

Interfaces

- Adjustable detector height position for survey mode or measurement mode (H1: 40 mm and H2 : 11 mm)
- Gas bottle:
 - ✓ Argon-methane Ar-CH₄ (90-10%) or Argon - CO₂ (90% - 10%)
 - ✓ Type B5 cylinders, capacity 1m³
 - ✓ A dual pressure regulator must be used, outlet overpressure 0.2 bar with respect to atmospheric pressure

Options and models available

- cabin
- audio headset
- double pressure valve reducer and Ar-CO₂ bottle



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