

Portable Neutron Survey Meter

NSN3



Lightweight and easy to handle

Without ^3He and BF_3

Excellent Gamma rejection

Wide measuring range

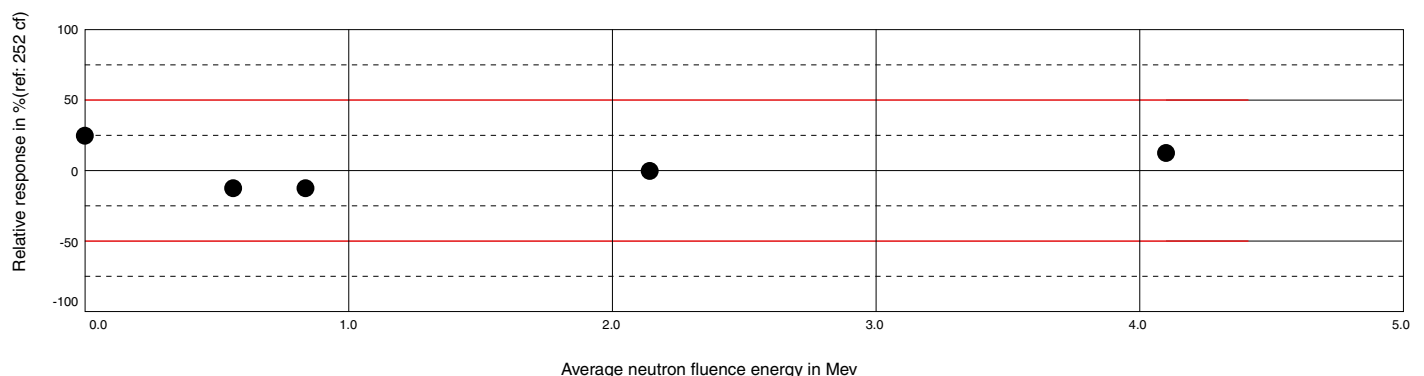
Specification

The NSN3 neutron survey meter measures the ambient dose equivalent rate.

It is intended for the protection of workers in nuclear facilities and throughout the fuel cycle, research centres, particle accelerators and civil protection first response teams.

The innovative detection principle of the NSN3 gas counter consists of an organic gas mixture of methane and nitrogen (neutrons are measured by this gas mixture). Fast neutrons are detected by the elastic scattering reaction of hydrogen from methane. Slow, thermal neutrons are detected by the $^{14}\text{N} (n,p) ^{14}\text{C}$ reaction of nitrogen. The proton energy in this reaction is 626 keV.

Standard	Compliant with IEC61005(2003) and JIS 24341 (2006)
Radiation measured	Neutron H*(10)
Detector	Proportional gas sensor
Measurement range	Dose rate: 0.01 $\mu\text{Sv/h}$ to 99.99 mSv/h Dose: 0.01 μSv to 99.99 mSv
Accuracy	Dose rate: $\pm 20\%$ at 10 $\mu\text{Sv/h}$ Dose: $\pm 20\%$ at 1 $\mu\text{Sv/h}$
Energy range	0.025 eV to 15 MeV
Energy dependency	ICRP74 compliant (H*(10) response curve)
Angular dependency	$\leq \pm 25\%$ ($\pm 90^\circ$ from the standard direction)
Linearity	$\leq \pm 20\%$ reference (10 $\mu\text{Sv/h}$)
Gamma-ray sensitivity	$\pm 1\%$ of reading (10 mSv/h)
Display	5-digit LCD display (dose rate, accumulated dose)
Communication	Dose rate, accumulated dose, history, data configuration. (USB cable or software)
Data storage	Primary or secondary battery (6 AA batteries) AC adapter (100 to 240 Vac)
Power supply	Batterie primaire ou secondaire (6 piles AA) Adaptateur secteur (100 à 240 Vca)
Battery life	Up to 30 hours (without permanent display)
Operating temperature	-10°C to 45°C
Operating humidity	35 to 90% RH (non-condensing)
Dimensions	289.5 (W) x 164 (D) x 246 (H) mm
Weight	Approx. 3 kg



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