



Neutron Snooper - Neutron Monitor with MCA

Detectors

- combination of neutron detector with cylindrical polyethylene moderator and gamma detector
- large volume proportional detector with 4 atmospheres $^3\text{He}:\text{CO}_2$ gas filling for increased neutron sensitivity
- energy response from 0,025 eV up to 14 MeV, from thermal up to fast neutrons
- measurement of the ambient dose equivalent $\text{H}^*(10)$ gamma dose rate with energy compensated Geiger Müller tube

Electronics

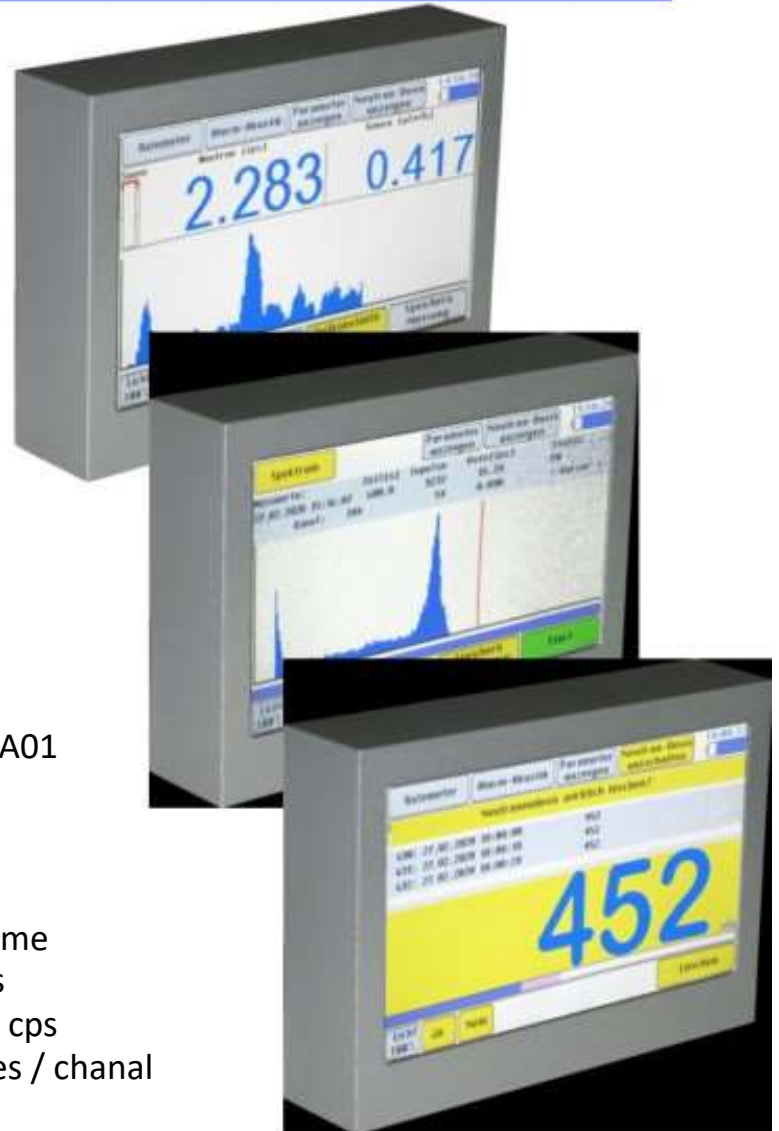
- multichannel analy SMC 2100 / MCA 2048 channels, on neutron detector
- reliable SMC elect for GM tube
- MCA with the seri interfaces RS232 RS485 for PC con and link-up
- 4,3" colour display with touch function resolution 480 x 272 pixels
- storage of the measured results on a MicroSD card
- download of the measuring values spectra via USB connection
- mains and battery operation
- on/off switchable n pulses acoustic



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Firmware and Software

- firmware in the SmartDisplay
 - rate meter mode for the measurement of the neutron dose rate with 3 selectable time constants
 - graphic of the course of the measured values
 - indication search alarm for neutrons and safety alarm for neutrons + gamma
 - determination of the neutron dose
 - acquisition and storage of the ^3He (n,p) T 2 neutron spectrum
- Windows standard software AM-SMCA01



Technical Data

- multichannel analyser

shaping time:	9 μs	peak time	
resolution:	2048 channels		
pulse rate:	up to 100'000 cps		
pulse contents:	up to 2 ²⁴ pulses / chanal		
- detectors

neutron	neutrons from 0,025 eV (thermal) up to 14 MeV
sensitivity:	40,4 pulses / nSv resp. 11,22 cps / $\mu\text{Sv/h}$
gamma	gammas from 40 keV up to 2 MeV
sensitivity:	1,6 cps / $\mu\text{Sv/h}$
- connections

interfaces:	MCA with RS232 and RS485, SmartDisplay with USB 2,5 till
power supply:	5V, 3x R20 batteries or 5V DC supply
- setup

moderator:	150 mm x 225 mm (diameter x length)
total mass:	5 kg