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MDN-01

# NEUTRON DOSE RATE METER

## MAIN ADVANTAGES

- High reliability and durability
- Two adjustable alarm levels
- Can be an autonomous local monitor with alarm lights or part of a host system
- Outdoor and indoor use

## PURPOSE

The MDN-01 monitor is designed for the measurement of ambient dose equivalent rate  $\dot{H}^*(10)$  in neutron fields in different environments, such as spent fuel storage facilities in nuclear power plants, PET centers with cyclotrons, workplaces with particle accelerators, radioactive waste repositories, neutron calibration laboratories, etc.

The MDN-01 Monitor can be used as part of a large monitoring system with a remote centralized indication of measurements, or it can be directly connected to a local display unit, as an autonomous monitor, which provides the data indication locally. It is possible to have both local indication and transmission to a remote display.

The MDN-01 includes a proportional  $^3\text{He}$  detector, sensitive to low energy neutron.

The detector is mounted in a moderator - a Bonner sphere made of polyethylene with a diameter of 25 cm. The moderator provides a slow-down of high-energy neutrons to neutrons of detectable energies.

The measured values are compared to two adjustable alarm levels and are transferred to the host system via the RS-485 interface. Exceeding the alarm level will trigger an alarm

## SPECIFICATION

Detector type	proportional $^3\text{He}$
Dimensions ( $\varnothing \times h$ )	250 × 348 mm
Measuring range	from 1E-7 to 100 mSv/h
Efficiency ( $^{252}\text{Cf}$ )	4 cps/ $\mu\text{Sv/h}$
Weight	cca 10 kg
Power supply	24 V DC
Temperature range	from -10 to +45 °C
Humidity range	max. 80% non-condensing.

## OPTIONAL ACCESSORIES

50-A-0010333	
50-A-0012434	Adapter with RS232 / RS485 converter and 24V source
1-0217-00022	12pin connector, F on ECTA cable
53-A-0000006	VF-Setup service software

MDN-01

# NEUTRON DOSE RATE METER

## RELATED PRODUCTS

<b>RDU-22</b>	Radiation Display Unit
<b>ASU-50</b>	Alarm Slave Unit
<b>RMS</b>	Radiation Monitoring System



Radiation Display Unit RDU-22



Alarm Slave Unit ASU-50



Radiation monitoring system RMS