

RadEye N / NL

Personal Highly Sensitive
Neutron Radiation Detector

High sensitivity for neutron radiation

- Rapid warning of neutron radiation fields
- Applicable as an Area Monitor
- Exceeds the neutron response requirements of ISO 22188
- Ideal complement to passive and active neutron dosimeters

160g lightweight with low power technology

- Always ready for use - can be worn and operated in its holster
- Hands free operation with no restriction of personal mobility
- Rapid scanning of changing field intensities
- Detection of neutron shielding deficiencies and source presence
- Ideal complement to Rem-Counters

No spill-over from gamma radiation up to 10 mSv/h (1 R/h)

- Ideal for verification of neutron fields when dealing with unknown radiation sources
- No false "Neutron Alarm"
- Can be used in high gamma dose rate fields



RadEye N: # 4250677

RadEye NL: # 4250678

The RadEye N / NL is the ideal personal neutron radiation indicator for

- **users of industrial neutron sources, e.g. in geology and material testing**
- **operators and users of accelerators in medical science and research**
- **radiation protection staff and inspectors of nuclear facilities**
- **first responders and law enforcement officers**



RadEye Area Monitor for neutron radiation

The new RadEye N / NL closes a gap in the classical product spectrum of the radiation measurement technology. Rem-Counters for neutron detection with a He-3 or BF₃ tube are usually heavy and bulky since fast neutrons have to be moderated in order to be detected and to provide the correct neutron dose rate response. Low energy neutrons with their lower biological impact however have to be suppressed to a large extent. Dropping the demand for energy compensated dose rate response, a device can be built with one fiftieth of the weight and comparable or even a higher neutron response as compared to a Rem-Counter.



The RadEye N/NL is normally worn in a holster. In order to use it as a hand held survey meter and to increase the efficiency for fast neutrons the RadEye N/NL can be put into an optional moderator with handle. **# 425067110**



Features of RadEye N / NL

- Rugged and reliable
- Removable rubber sleeve for extra protection
- Large display for clear information
- Top alarm indication - can be operated in holster
- One hot and four advanced buttons - easy to use, no PC required
- Rechargeable batteries can be used - low cost of ownership
- 1600 data points (mean/max.) - allows retrospective analysis
- PC-software with real-time graph - perfect for tutorial and training
- Adaptable user interface - can be optimized to application / user group
- Earphone output for noisy environment
- Alarm relay output - for area monitor application

New!

Calibration factors for selected work places with known neutron spectra can be entered. [mrem/h, µSv/h]

Users (e.g. service staff) who travel on commercial aircraft should use the RadEye NL, with a He-3 pressure of 2.5 bar. In this case both the neutron sensitivity and the background effect is only half as much as of the RadEye N.

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|---|---|
| Weight | 160 g (5.6 oz) |
| Dimensions | 96 x 61 x 31 mm (3.8" x 2.4" 1.2") |
| Detector | He-3 tube with 10 bar filling pressure (RadEye N) He-3 tube with 2.5 bar filling pressure (RadEye NL) |
| Sensitivity when worn at the body (RadEye N) | approx. 0.3 cps per µSv/h (3 cps per mRem/h) for Cf-252, detects 0.01 µg Cf-252 in typically 2 - 3 s for 25 cm (10") distance |
| Background | approx 0.005 cps at 300 m above sea level (RadEye N) |
| Gamma spill-over | < 0.2 cps at 10 mSv/h (1 R/h) Cs-137 radiation |
| Measuring units | Count rate (cps) moving average over 10 s Mean value and peak value over any time period |
| Operation time (2 AAA alkaline batteries) | 400 h (RadEye N), 500 h (RadEye NL) |

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