Product Specifications

New Thermo Scientific Gamma Neutron Pager with rejection of gamma background alarms.

Thermo Scientific RadEye GN

Gamma Neutron Pager

Key Features

- Pocket-sized gamma neutron pager
- Very high neutron and gamma sensitivity
- Immediate classification of gamma source (NORM/non-NORM)
- Energy compensated gamma dose rate
- Dual gamma/neutron display
- No false neutron alarms for even intense gamma sources
- Ideal for law enforcement officers and first responders

The Thermo Scientific RadEye GN Gamma Neutron Pager combines the superior performance of the Thermo Scientific RadEye PRD Gamma Pager with a very high neutron sensitivity that exceeds the time-to-alarm requirements of ANSI 42.32 and IEC 62401. Furthermore the Thermo Scientific RadEye GN shows a significantly enhanced performance of the built-in NBR circuitry (NBR = Natural Background Rejection). It is now even more capable of differentiating artificial sources from NORM than previous RadEye™ PRDs, due to the resolution and stability of the scintillator material.

The RadEye GN identifies to the user whether the alarms are due to gamma or neutron by a different colored alarm LED, different tones and flashing the count rate/dose rate display readings with an inverted display background of the alarming channel or both channels as appropriate. The RadEye GN also has different audible alarms, discriminating between elevated background/NORM and any artificial isotope alarm. The gamma and neutron audible alarms are clearly different. This gives the RadEye GN audible and visual identification using NBR of the type of material detected.

In conjunction with the optional moderator (# 425067177), the RadEye GN pager can be transformed into an even more powerful gamma/neutron search device at very little additional cost. An estimation of the neutron dose rate can thus be achieved for perimeter marking as well.

The Thermo Scientific RadEye GN's large LCD display has large 8 mm numerals and large clear radiation units:

It includes a quick-view bar graph of current count-rate / dose-rate and alarm set points, including the floating sigma alarm point, if utilized.

The display also shows alarm status:

- Artificial Low Energy alarm,
- Artificial Mid Energy alarm
- Artificial High Energy alarm,
- NORM Balanced alarm
- Gross gamma count or dose rate alarms (2 alarm levels)
- Gross neutron count rate alarm
- Gamma dose alarm (2 alarm levels)
- Safety alarm (gamma)

A bright orange LED for gamma alarms and a bright blue LED for neutron alarms is viewable from the front and above. When a dual gamma and neutron alarm is detected, both LEDs flash. Both readings on the display are flashed with a reversed background.
The RadEye GN can be fitted with the Bluetooth™ (#425067087) back that can be set to talk to a PC, or to other devices for networking.

Technical details of the Thermo Scientific RadEye GN Gamma Neutron Pager

Size	96 mm x 61 mm x 31 mm
Weight	160 g
Battery life time	> 300 h
Detection capability	Gamma count-rate from 30 KeV to 1.3 MeV Energy compensated gamma doserate from 45 KeV to 1.3 Mev (H*(10)) from 1 µRem/h to 25 mRem/h (0,01 µSv/h to 250 µSv/h) Neutron count-rate from 0,1 to 1000 cps
Gamma efficiency	900 cps per µSv/h (Am-241); 130 cps per µSv/h (Cs-137); 60 cps per µSv/h (Co-60)
Neutron efficiency	4.3 cps/20,000 n/s Cf-252; shielded in 1cm lead 25 cm in front of instrument with 30 cm x 30 cm x 15 cm PMMA phantom. Exceeds ANSI 42.32 and IEC 62401 alarm requirements
Order number	**#4250630**

NBR = Natural Background Rejection

The NBR measurement method has been developed by Thermo Fisher Scientific, for extremely fast discrimination between natural and artifical gamma radiation. Many thousands of devices, based on this technology, are in use worldwide.

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