



MNT
KWINT INTERNATIONAL B.V.



MEDICAL NUCLEAR TECHNOLOGY

DoseGUARD

DoseGUARD™ personal alarm dosimeters are precision instruments for ensuring personal safety. The dose rate or cumulative dose is shown on an LCD display. An audible alarm sounds if a preset dose or doserate is exceeded.

The instrument can also be set to give an audible warning of the instantaneous dose rate.

DoseGUARD dosimeters are distributed by AEA Technology QSA as part of the isotrak™ range



The detector element is a silicon diode. Energy compensation circuits ensure high accuracy (better than 5% at 662 keV, linearity better than 15%). Key parameters are stored in EEPROM and are retained even if the battery is removed. The dosimeter casing is robust and splash proof, and is constructed from smooth high impact plastic for easy decontamination. The instrument has been designed to protect the readings against accidental erasure due to mechanical shock or an RF field. It is battery operated, and requires one standard AAA size alkaline cell.

Features

- Digital display of dose rate or cumulative dose
- Six user-selectable alarm levels on dose and dose rate
- Self-diagnostic operational checking
- Robust, splash-proof casing
- Lightweight design with strong pocket clip
- Shock resistant
- Shielded from RF
- Standard AAA alkaline cell - power reserve of 12 hours after low battery warning



A reader head (including software) is also available for easily and rapidly changing the configuration of

DoseGUARD dosimeters. The reader head can be connected to a PC via the serial port.

Product Code (excl. PC)
NIGB 4955

Specifications:

	PRODUCT CODE: NIGB 2000
Radiation detected:	gamma and x-rays
Measurement range:	dose: 1 μ Sv - 9.99 Sv or 0.1 mrem - 999 rem dose rate: 5 μ Sv/h - 3 Sv/h or 0.5 mrem/h - 300 rem/h
Calibration accuracy:	better than $\pm 5\%$ (Cs-137, 662 keV at 2 mSv/h, Hp(10))
Energy response:	Hp(10), 60 keV - 3 MeV, better than $\pm 25\%$, (up to 6 MeV, better than $\pm 35\%$)
Dose rate linearity:	better than $\pm 15\%$, up to 3Sv/h
Audible alarms:	seven separate alarms - integrated dose, dose rate, dose overflow, dose rate overflow at 3 Sv/h or 300 rem/h, low battery 1 and 2, fault
Alarm tone:	better than 85 dBA at 30 cm
Alarm thresholds*:	six preset values for both integrated dose and dose rate, manually selectable by push-button
Power supply:	one alkaline cell, AAA-size, life typically 1800 h in background dose rate (dose mode)
Push button functions*:	front panel push button has the following selectable functions - switch ON/OFF, chirp ON/OFF, change alarm thresholds, activate battery test, reset integrated dose, change display (dose/dose rate)
Temperature range:	-20 to +50 °C in operation, humidity up to 90% RH, non-condensed, -20 to +70°C for storage
Dimensions:	78 x 67 x 22 mm
Weight:	80g including battery
Battery type:	1.5 V LR03 (AAA)
Battery life time:	1800 hours

* **Note:** the preset alarm levels and the push button functions can be changed using a 'Reader Head' connected to a PC.
Further details are available on request.