

— SAPHYDOSE GAMMA-i DOSIMETER —

γ, x Electronic Dosimeter

- Compliance with IEC 61526 (classe 1)
- High immunity against electromagnetic immunity
- Long battery autonomy: 4 years with 2 batteries
- Integrated with an operational dosimetry system, or stand-alone use



The Saphydose Gamma i is an isotropic electronic dosimeter which complies with the IEC 61526. This instrument provides measurement of the Hp(10), dose equivalent for the whole body.

The Saphydose Gamma i has gained popularity due to its high immunity against electromagnetic perturbations, reliability, easy-use and the robustness given by its aluminium box. Four alarm thresholds are included within, each one warning the user by triggering a buzzer, enabling a front-side LED and showing a clear message on the display. A dosimetry management software, like Easy Dose Gamma, can help to customise these alarms.

The Saphydose Gamma i can be used as a stand-alone device (individual mode) or be integrated into a dosimetry system (system mode). In such case, the data concerning the worker doses are sent wirelessly to the operational dosimetry system.

The Saphydose Gamma i is aimed for people working in a controlled area (nuclear power plant, fuel reprocessing plant, research centre, hospital, non destructive testing service ...) or likely to be exposed (army, police, fire brigade ...).

PHYSICAL CHARACTERISTICS

- **Detector:** Dual silicon diode
- **Radiation type:** X et gamma rays
- **Measurement range of dose equivalent** From 1 µSv to 9 999.9 mSv
- **Observational error for dose equivalent :** < ± 15 %
- **Measurement range for dose equivalent rate:** From 0.5 µSv/h to 5 Sv/h
- **Energy response:** Compliant with IEC 61526 from 50 keV to 7 MeV
- **Dose response linearity function of dose rate:** <± 20 % from 0.5 µSv/h to 2 Sv/h, <± 25 % from 2 Sv/h to 5 Sv/h
- **Angular response:** Compliant with IEC 61526 from 50 keV to 7 MeV
Isotropy in the air to ⁶⁰Co
- **Adjustability of warning and alarm thresholds for dose equivalent:** From 1 µSv to 9 999.9 mSv
- **Alarm for dose equivalent overload:** Beyond 9 999.9 mSv
- **Adjustability of warning and alarm thresholds for dose equivalent rate:** From 0.5 µSv/h to 5 Sv/h
- **Response time for the alarm of the dose equivalent rate:** < 1 second beyond 3.6 mSv/h
< 40 seconds à 100 µSv/h
Beyond 5 Sv/h
- **Alarm for overload of dose rate equivalent:**

COMPLIANCE TO STANDARDS

- IEC 61526 classe 1
- IEC 60068-2-32
- IEC 61000-4-2
- IEC 61000-4-3
- IEC 61000-4-8

ENVIRONMENTAL CHARACTERISTICS

- **Operating temperature:** From -20° C to +50° C
- **Storage temperature:** From -20° C to +70° C
- **Ingress Protection Marking:** IP 65
- **Oscillating quality:** 20 m/s², 15 min, from 10 to 33 Hz, 3 axes stressed
- **Shock resistance:** 10 shocks per side onto steel, height of drop: 10 cm
- **Radiated RF EM field immunity:** 20 V/m from 80 MHz to 1 GHz
> 100 V/m from 1.8 GHz to 2 GHz
- **Electrostatic discharges immunity:** ± 4 kV on contact, ± 8 kV in the air
- **Magnetic fields immunity:** 30 A/m at 50 Hz

MECHANICAL CHARACTERISTICS

- **Dimensions:** 98 x 64 x 24 mm
- **Weight:** 145 g with 1 battery, 160 g with 2 batteries

ELECTRICAL CHARACTERISTICS

- **Power supply:** 1 or 2 lithium batteries 3,6V (AA type)
- **Autonomy:** 4'000 h with 1 battery, 8'000 h with 2 batteries

INTERFACES

- **Audible alarm:** Front-side buzzer, sound level > 85 dBA (30 cm far in line)
- **Visual alarm:** Red high-luminosity front-side LED (alarm type text-displayed)
- **Fault warnings:** Low battery, detector fault, memory error
- **LCD :** 5 scrolling alphanumeric characters
- **Panel lights:** Overload
Fault (low battery, detector, memory, etc.)
Maintenance advised
Worn/dropped dosimeter (option)

ACCESSORIES & RELATED PRODUCTS

- 20 216 770 : Saphydose Gamma i Dosimeter

Related products

- Saphydose Gamma i RT teledosimeter
- EPD Reader LMF3
- Flexidose STD and NPP software
- Easydose Gamma software and Saphyr Gamma reader
- Sub area marker

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