MIRION TECHNOLOGIES

ACTIVE DOSIMETRY

Beta Module *H*p(0,07)

For the DMC 3000 Dosimeter

FEATURES

- Dose and dose rate *H*p(0.07) displayed
- Connect and ready for use
- High efficiency beta measurement
- Superior *H*p(0.07) energy response
- Meets or exceeds applicable IEC and ANSI standards
- Excellent EMC immunity
- Designed for ruggedness and durability

RELATED PRODUCTS

- Telemetry module, Neutron module
- Readers: LDM 2000, LDM 3000M, LDM 3200, LDM 320D/W, LDM 1000
- Software: LDMAccess, DMCUser, DosiCare and DosiServ

OVERVIEW

The Beta Module provides operational dosimetry for hospital personnel, first responders, and radiation workers where there is a Beta radiation risk.

The add-on Beta Module attaches to the DMC 3000 dosimeter is able to measure *H*p(0,07) radiation at a wide range of energy levels.

The *H*p(0,07) and beta measurements, display and alarms are higly visible on the DMC 3000's LEDs and high contrast backlit LCD display.

Powered by the DMC 3000, the add-on module does not require any supplementary battery and remains operational over 2000 hours in continuous use. Calibration and functionnal parameters are stored in the module

BETA MODULE *Hp*(0,07) | FOR THE DMC 3000 DOSIMETERS

PHYSICAL CHARACTERISTICS

Hp(0.07) Measurement range (DMC 3000 + module)

- Beta E_{mean} > 60 keV (Emax : 0.22 MeV to 2.3 MeV)

Dose Range, IEC 61526 Ed. 3 (Display & Measurement)

***Hp*(0,07) β**

- **Effective Range of Dose:**
  0,02 µSv to 100 Sv (0.002 mrem to 10000 rem)
- **Display Resolution:**
  0,1 µSv to 10 Sv (0.01 mrem to 1000 rem)
  up to four decimal places
- **Overload Indication:**
  from 10 Sv to >100 Sv (1000 rem to >10000 rem)

Dose Rate Range IEC61526 Ed. 3 (Display & Measurement)

***Hp*(0,07) β**

- **Effective Range of Dose Rate:**
  0.05 µSv/h to 20 Sv/h (0,005 mrem/h to 2000 rem/h)
- **Display Resolution:** 1 µSv/h to 10,0 Sv/h
  (0.1 mrem/h to 1000 rem/h) up to three decimal places
- **Overload Indication:**
  from 10 Sv/h to >50 Sv/h (1000 rem/h to >5000 rem/h)

Accuracy *Hp*(0,07) Beta

- **Relative *Hp*(0,07) Beta response of Pm-147, Kr-85 and Sr-90/Y-90 within ± 20% (*)**
  (*) in reference to the typical curve given here below

***Hp*(0,07) Dose Rate Linearity**

- < ± 20% up to 10 Sv/h, 1000 rem/h

Display of *Hp*(0,07) measurement

ELECTRICAL CHARACTERISTICS

- Powered by DMC 3000
- 9 calendar month battery life for beta module and the DMC 3000 (typical, 8 h per day, 5 days per week in run mode, without excessive alarms*)
- 2000 h battery life for DMC 3000 with beta module and DMC 3000 in continuous run, without excessive alarms*

**0.2% of the time in alarm with Duracell industrial battery*

MECHANICAL CHARACTERISTICS

- Rugged, high impact polycarbonate-ABS case
- Dimensions with DMC 3000:
  - 122 x 60 x 21 mm (4.8 x 2.4 x 0.8 in) max. without clip
  - 122 x 60 x 28 mm (4.8 x 2.4 x 1.1 in) with standard clip
- Weight with DMC 3000: < 112 g (3.9 oz) with clip
- Worn by a replaceable standard clip

ENVIRONMENTAL CHARACTERISTICS

- Temperature range: -10°C to 50°C (14°F to 122°F)
- Storage: -20°C to 71°C (-4°F to 160°F)
- Shock, vibration and drop resistant
- IP50 protection
- EMC: complies and exceeds standards by a large margin (CE compliant certificate number: DOC003214)
- MIL STD 461-RS103 (pulsed electric field): exceeds 200 V/m from 10 kHz to 5 GHz
  - MIL STD 461-RS101 (magnetic field 30 Hz to 100 kHz)

PRODUCT CHARACTERISTICS

Histogram Features

- Additional *Hp*(0,07) measurement (dose, dose rate and maximum dose rate) saved on non volatile memory (EEPROM) at the same time as *Hp*(10) measurement in configurable steps (10 s, 60 s, 10 min, 1 hour, 24 hours)

Display Features

- Additional *Hp*(0,07) measurement displayed on DMC 3000 high quality white backlighting
- Blue top LED for *Hp*(0,07) dose increment indication

Alarm Features and Communication

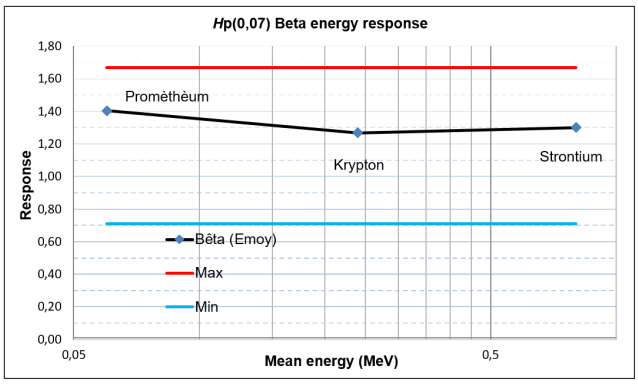
- DMC 3000 alarming speaker, vibrator, high efficiency red flash LED, 3 top LEDs and display indicators
- *Hp*(0,07) dose/rate alarms, adjustable over the display range
- *Hp*(0,07) dose/rate warnings, adjustable over the display range and acknowledgeable

Calibration

- Factory calibration in accordance with ISO/IEC 17025
- Parameters saved into the module

Compatibility

- With all DMC 3000 (firmware upgrade needed if firmware lower than V7.x)



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