



# 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 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 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 nuclear workers where there is a Beta radiation risk.

The additional Beta Module connected to the DMC 3000 dosimeter is able to measure the shallow dose equivalent (SDE) radiation at a wide range of energy levels.

The high contrast backlit LCD provides a clear indication for the display of  $H_p(0.07)$  measurements and alarms.

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 functional parameters are stored in the module



**PHYSICAL CHARACTERISTICS**

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| <b>Hp(0.07) Measurement range (DMC 3000 + module)</b>   |
| • Beta $E_{mean} > 60$ keV (Emax : 0.22 MeV to 2.3 MeV)   |
| <b>Dose Range, IEC 61526 Ed. 3 (Display &amp; Measurement)</b>  |
| <b>Hp(0.07) <math>\beta</math></b>  |
| • <b>Effective Range of Dose:</b><br>0.02 $\mu$ Sv to 100 Sv (0.002 mrem to 10000 rem)  |
| • <b>Display Resolution:</b><br>0.1 $\mu$ Sv to 10 Sv (0.01 mrem to 1000 rem)<br>up to four decimal places  |
| • <b>Overload Indication:</b><br>from 10 Sv to >100 Sv (1000 rem to >10000 rem)   |
| <b>Dose Rate Range IEC61526 Ed. 3 (Display &amp; Measurement)</b>   |
| <b>Hp(0.07) <math>\beta</math></b>  |
| • <b>Effective Range of Dose Rate:</b><br>0.05 $\mu$ Sv/h to 20 Sv/h (0.005 mrem/h to 2000 rem/h)   |
| • <b>Display Resolution:</b> 1 $\mu$ Sv/h to 10.0 Sv/h<br>(0.1 mrem/h to 1000 rem/h) up to three decimal places   |
| • <b>Overload Indication:</b><br>from 10 Sv/h to >50 Sv/h (1000 rem/h to >5000 rem/h)   |
| <b>Accuracy Hp(0.07) Beta</b>   |
| • <b>Relative Hp(0,07) Beta response of Pm-147, Kr-85 and Sr-90/Y-90 within <math>\pm 20\%</math> (*)</b><br>(*) in reference to the typical curve (Beta energy response) |
| <b>Hp(0.07) Dose Rate Linearity</b>   |
| • $< \pm 20\%$ up to 10 Sv/h, (1000 rem/h)  |

Display of Hp(0,07) measurement



**ELECTRICAL CHARACTERISTICS**

- Powered by DMC 3000
- 9 calendar months 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) clip included
- 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  
(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) simultaneously with 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 backlighting LCD
- Blue LED indication for Hp(0.07) for dose increment

**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 upgraded if lower than V7.x)

