

# Production information

## LB 123 D-H10

### Dose- and Dose rate monitor

for measurement of ambient dose and ambient dose rate equivalent  $H^*(10)$



#### Applications

- Measurement of photon-radiation in ionizing radiation fields
- New measured quantity of ambient dose and ambient dose rate equivalent  $H^*(10)$

#### Highlights:

- Measurement of the new quantities ambient dose and ambient dose rate equivalent  $H^*(10)$
- Easy operation by means of 5 softkeys
- Automatic detector identification
- Optical and acoustical indication
- Free selectable alarm thresholds for dose and dose rate
- Data memory
- Interface for PC and printer
- PTB Type approved



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## LB 123 D-H10 Dose- and Dose rate monitor

### Device concept

The portable dose rate monitor LB 123 D-H10 for measurement of the new quantities ambient dose and ambient dose rate equivalent  $H^*(10)$ , consisting of the basic evaluation unit LB 1230 UMo and the dose rate probe LB 1236-H10.

The dose rate probe LB 1236-H10 is particularly suitable for low dose rate levels between background up to 10 mSv/h. The probe consists of an energy compensated proportional counter tube, an amplifier with discriminator and a High-Voltage-unit.

The dose rate probe is PTB Type approved in combination with the basic unit LB 1230 UMo.

The LB 1230 UMo can work in ratemeter mode or in counter-timer mode. The indication unit of the dose rate can be selected in „ $\mu\text{Sv/h}$ “ or „cps“.

Special supports for the LB 1230 UMo and the LB 1236-H10 enable the use either as a portable or a semistationary device.

A radioactive check source, LB 7452 with 0.185 MBq Cs-137, can be used for checking the detector response, the performance of calibrated measurements - to extend the validity of the calibration (licence required).

### Technical Data

#### Universal Monitor LB 1230 UMo

Display

High contrast dotmatrix-display 32 x 84 pixel, backlight, numerical value 4 digits with floating-point and automatic prefix-switching in the case of changing measuring range  
145 mm x 170 mm x 45 mm (H x L x W) / 0.8 kg (with batteries)  
3 x IEC LR14 (Babycell) batteries or NiMH batteries 1.2V/4.5Ah with LR14 > 150 h  
-15°C to +50°C (operation); max. 60°C (storage)  
30 to 75% (no condensation)  
IP65 (according to IEC 60529)  
in combination with proportional counter tube LB 1236-H10

External dimensions / weight

Power supply

Max. operating time

Temperature range

Relative humidity

Protection class

PTB Type approval

#### Dose rate probe LB 1236-H10

Measuring range

50nSv/h to 10mSv/h  
Type approved: 100nSv/h to 10mSv/h; 100nSv to 1678 mSv  
30 keV to 1.3 MeV  
< 0.1 cps  
0.214  $\mu\text{Sv/h}$  per cps  
50 mm  $\varnothing$  x 275 mm / 0.46 kg  
-20°C to +60°C (operation); max. 60°C (storage)  
30 to 90% (no condensation)  
IP65 (according to IEC 60529)  
in combination with universal monitor LB 1230 UMo

Energy range

Intrinsic background

Calibration factor

External dimensions / weight

Temperature range

Relative humidity

Protection class

PTB Type approval

#### Radioactive check source LB 7452

Nuclide / nominal activity

External dimensions / weight

PTB Type approval

Cs-137 / 0.185 MBq  
58 mm x 95 mm x 160 mm (L x H x W) / 2 kg  
for extension of the validity of the calibration for the dose rate probe LB 1236-H10 and for periodical tests

#### Order information and accessories

Dose rate monitor LB 123 D-H10

with additional set of batteries	81824-34
with wall bracket, power supply, NiMH batteries	81824-35
LB 1230	81824
LB 1250 with power supply	19148
LB 1250-E2	19439
180 mm x 450 mm x 350 mm (H x L x W)	19568
0.185 MBq Cs-137	82035

Basic unit

Wall bracket for basic unit LB 1230

Wall bracket for probe LB 1236-H10

Transport case

Check source LB 7452

This instrument is not intended to be used for diagnostic and/or therapeutic purposes on human beings and is not a medical device according to the definitions of the European Council Directive 93/42/EEC.

Subject to changes without prior notice.

