LB 135 TOL/G

Wide Range Dose Rate Meter

BERTHOLD

MEASURE THE DOSE RATE H*(10) IN CONTINUOUS OR PULSED GAMMA FIELDS

Be alerted as soon as a threshold value is exceeded

The LB 135 TOL/G has been developed to measure equivalent doses and dose rates H*(10) in an energy range from 15 keV up to 7 MeV in accordance with IEC 60846 in continuous as well as in pulsed gamma radiation fields. In particular the different integration modes allow the accurate determination of the received dose. The dose rate values are continously displayed, which makes it possible to detect immediately a change in the gamma radiation field.

Main features

2 measurement modes:
- LDR (low dose rate), proportional mode
- HDR (high dose rate), ionisation chamber mode

Energy range:
- 15 keV to 7 MeV (compliant with IEC 60846)

Dose rate range:
- LDR: 100 nSv/h to 10 mSv/h*
- HDR: 1 mSv/h to 10 Sv/h

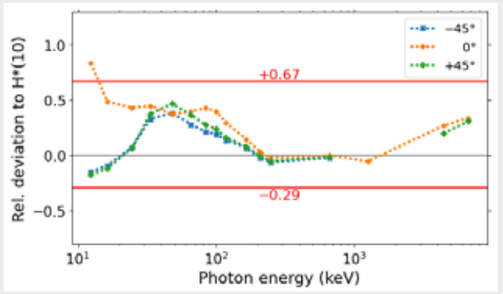
Dose rate:
- LDR: 10 nSv to 10 mSv*
- HDR: 50 µSv to 10 Sv
- integration time: up to 9999 s

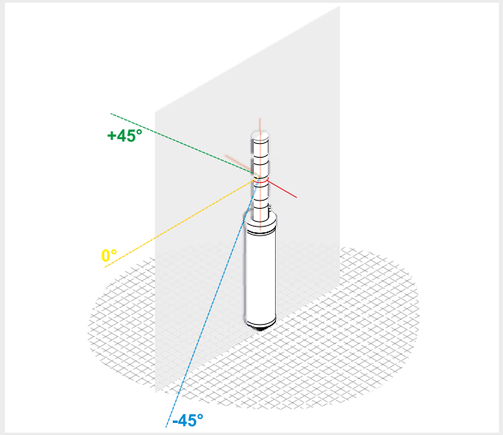
Warning signals:
- Acoustic and visual selectable

Type-approved by the PTB

* see technical specifications page 4

Over the entire range from 15 keV to 7 MeV, the results are within the tolerance range of -29 % to 67 % (IEC 60846).





TESTING DEVICE INCLUDED

Check your device on your own

A special radioactive tool is provided to periodically check the pulse. It offers the possibility to regularly control the performance of the probe in a very convenient way. The device recognizes the source incl. the source data automatically and it compares the measured value with the current reference value as well as shows its deviation in percent.

Now with practical carrying system

Carrying system with flexible straps for hanging or for one-handed measurements. The strap can be easily detached from the device and offers practical edge protection.

Scope of delivery

- carrying case with keys
- operation manual
- LB 1350 – display unit
- LB 1351 – probe
- spiral cable
- 8x Panasonic Eneloop NiMH rechargeable batteries (2500 mAh)
- switching power supply (changeable plugs)
- protective sleeve
- optional: radioactive checking device (ID 72270)
- carrying system (ID 77317)

TECHNICAL SPECIFICATIONS

Technical data LB 135 TOL/G

LB 135 TOL/G (Ident no. 72320)	
Type	H*(10) gamma dose rate monitor
Energy range	15 keV to 7 MeV
Dose range	LDR: 10 nSv to 10 mSv (displayed range) 0.1µSv to 10mSv (according to PTB-A 23.3, 11/2013) HDR: 50 µSv to 10 Sv up to 9999 s
Dose rate range	LDR: 0.1 µSv/h to 10 mSv/h (displayed range) 0.5 µSv/h to 10 mSv/h (according to PTB-A 23.3, 11/2013) HDR: 1 mSv/h to 10 Sv/h
Life span of the counting tube	500 mSv in low-dose mode
Auxiliary voltage Power consumption	4.75 to 5.25 V 80 to 120 mA
Ambient temperature in operation	-20°C to +40°C
Storage ambient temperature	-20°C to +50°C
Rel. humidity (Probe)	10% to 90% (non-condensing)
Rel. humidity (Display unit)	10% to 85% (non-condensing)
Protection class (Probe)	IP 53
Protection class (Display unit)	IP 43 (according to DIN IEC 60529)

Weight (Probe)	approx. 300 g
Weight (Display unit)	approx. 800 g (incl. batteries)
Data storage	2400 recordings with date and time
Dimensions	160 x 160 x 55 (L x H x D in mm)
Communication	USB (1 host for USB stick), RS-485 (for detector)
Alerts	Acoustical and/or visual
Warnings	Detector failure, temperature, warning threshold and measuring range threshold exceedance
Operating voltage	6 VDC ±5%
Battery supply	4 batteries rechargeable via mains unit

Radioactive control device (Ident no. 72270)	
Source	^{90}Sr
Activity	2,5 kBq
Tolerance	+0% -30%

Order information	
LB 135	72320-10
LB 135 calibratable	72320-20
Control device	72270
Carrying system	77317
Subject changes without prior notice.	

TRANSFORMING SCIENCE INTO SOLUTIONS

Experience and expertise are of great importance to be able to ensure safety-relevant measurements properly and reliably. With more than 70 years of experience in planning and design, installation and commissioning, calibration, documentation and service of radiation protection measurement systems, we continue to support our customers in their task to continuously optimize their work processes and to ensure the safety of the environment and personnel.

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LB 135 TOL/G en · Id.-No. 72320PR2 · Rev. 01