BERTHOLD

DOSE RATE MONITORING YOUR WAY

The LB 115 Data Logger

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High flexibility. Maximum safety.

The LB 115 Data Logger
Stationary Dose Rate Monitoring System

The LB 115 Data Logger is a stationary dose rate monitoring system providing high flexibility and maximum safety. The system consists of a head unit with a 7" colour touch screen display, user-friendly software for intuitive operation, electronics for flexible alarm signalling and can be combined with up to two external probes.

LB 115 Data Loggers are designed to measure dose rate levels in nuclear facilities, nuclide laboratories, hot cells, and many other laboratories and production facilities.

LB 115 benefits at a glance

- Large, colour touch-screen display for best readability even from a greater distance
- Intuitive, easy to use software that provides you with a quick overview of the current situation
- Create flexible alarm concepts with up to 4 alarm thresholds per channel to meet even complex security concept needs
- 5 double relays for flexible alarm forwarding and triggering of immediate reactions (optical alarm, targeted control of room doors, ...)
- Connect up to 2 measuring probes to meet even the requirement of different measuring tasks

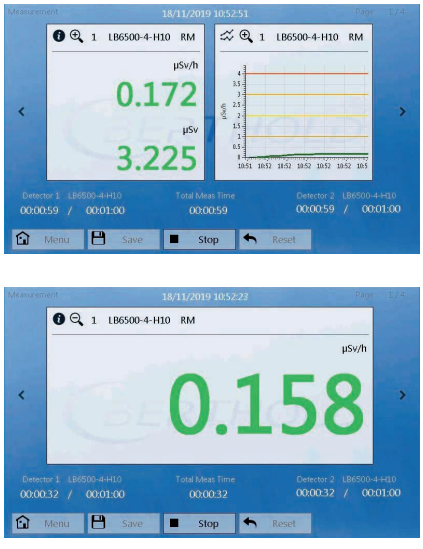

Figure 1: Flexible display options

DESIGNED TO SUPPORT YOUR SAFETY CONCEPT

Benefit from a variety of connection options & easy handling

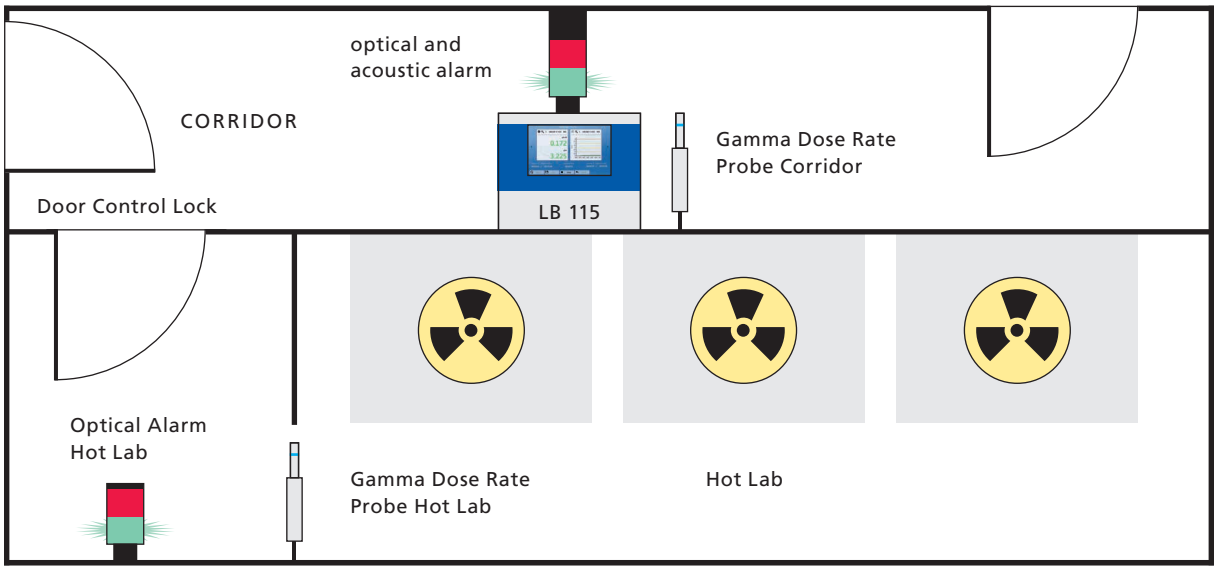

Figure 2:
Integration example of a LB 115 controlling door control lock, two Gamma dose rate probes & optical and acoustic alarms

The LB 115 Data Logger was developed to meet the requirements of even complex security concepts. The system offers a high degree of flexibility through numerous combination possibilities with established measuring probes and data processing in real time.

In combination with corresponding detectors, the data logger LB 115 is suitable as a stationary dose rate monitor or as an activity meter for measuring beta gas activities in room and exhaust air as well as for measuring contamination.

Application flexibility

The LB 115 data logger is used to display, record and store measurement data. Up to 2 measuring probes can be connected (dose rate, contamination or activity measurement).

- Gamma and neutron dose rate probes (e.g. LB 6411)
- Low/high dose rate system with automatic switching (2 probes, e.g. LB 6500-4 H10 and LB 6500-3 H10)
- Large area proportional counter tubes (e.g. LB 6350)
- Scintillation detectors (e.g. LB 1342)

Flexible handling

The LB 115 offers you a variety of features that make both, integration and handling easier:

- Intuitive, app-like touch-screen user interface
- Measured values can be displayed both, numerically and graphically
- Remote control option
- Flexible, easy data transfer options
- Password protected input parameters and access level restriction
- Connectivity to support various visual and acoustic alarm units

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Mechanical data	
Dimensions	30 cm × 25 cm × 10 cm (W × H × D), stainless steel
Weight incl. signal tower	approx. 5,5 kg
Electronics	
Display	7" color touch screen, 800 × 480 pixels
Potential-free relay	5 × 2 change-over contact max. 50 VAC/120 VDC, 3 A
Optional 24VDC supply	Internal, max. connection power 12 W / 500 mA
On/off switch	Key switch
Ambient conditions	
Temperature	–25 °C to 55 °C (–25 °C to 50 °C with signal tower)
Relative humidity	0 – 93 % (at +35 °C), non-condensing
Protection class	IP65
Pollution de-gree	2
Power Supply	
Voltage	100 to 240 VAC, 50/60 Hz,
Power max.	60 W (at 20 °C)
Fuse	T1.6 A / 250 V (slow bow)
Software	
Measuring modes	Ratemeter, moving average and counter / timer operation
Data memory	Up to 100.000 measured values
Back-up function	Parameter Up-/Download for external data backup
Alarm modes	4 alarm thresholds, 1 integral threshold and 1 failure threshold per probe
Service mode	Various service routines such as background measurement, system test and hardware test

Interfaces	
Ethernet (ext.)	10 / 100 / 1000 Mb
USB Host (Typ A,) (external)	USB 2.0 (HS); max. 200 mA; Updates via USB;
USB Device (Typ B) (external)	USB 2.0 (HS)
RS485 (internal)	9600 – 115 200 Baud, 8 data bits, 1 start bit, 1 stop bit, no parity, no handshake, Cable length up to 1200 m, max. 15 participants, Cable STP
Probes	2 × RS485 + 24 VDC for detector-interface
Digital inputs	3 × galvanically isolated, Low active (High = 5 V at input)
Current outputs	2 × galvanically isolated, load 300 Ω, modes: 0 – 20 mA, 0 – 24 mA, 4 – 20 mA
Measuring task	**Detector type (LB type)**
Gamma and neutron dose rate	Geiger-Müller (LB 6500-x)
	Proportional counter (LB 6360)
	Ionization chamber (LB 6701x)
	Neutron-counter (LB 6411)
Beta-gas activities in room and exhaust air	Large area proportional counter tube (200 cm²) (LB 6350)
	Large area proportional counter tube (1000 cm²) (LB 6377)
Contaminations	Scintillation detector (170 cm²) (LB 1342)
	Scintillation detector (300 cm²) (LB 1343)
Accessories	
Signal tower	Siren (opt.), LED green, flash light red
	Siren (opt.), LED green + yellow, flash light red
Detector-Interface	
Dimensions	9 cm × 11,5 cm × 5,5 cm (W × H × D)
Weight	approx. 0,5 kg
Protection class	IP65

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