Data Sheet
Data Logger LB 115

Application
Dose rate and activity measurement in radiation protection especially at workplaces, in nuclear facilities, hot cells, nuclide laboratories and similar facilities, as well as for environmental monitoring networks in the vicinity of nuclear facilities.

Usability
In combination with corresponding detectors as stationary dose rate meter for monitoring the radiation field in the environment or as activity-measuring device for measuring beta-gas activities in room and exhaust air as well as for measuring contaminations.

Functional Description
Display of the current measured values locally both in numerical and graphical form. Communication and power supply with almost all Berthold probes via Rad I/O box. Connection to database software optionally possible.

Connectable Probes
incl. Detector Interface (excerpt)

The following probes are provided for determining the gamma and neutron dose rate:
- Low dose rate probe LB 6500-4-H10
- High dose rate probe LB 6500-3-H10
- Low dose rate probe LB 6360-H10
- Ionization chamber LB 6701L-H10
- Ionization chamber LB 6701M-H10
- Ionization chamber LB 6701H-H10
- Neutron dose rate probe LB 6411

The following probes are intended for the determination of beta-gas activities in room air and exhaust air:
- Large surface proportional counter tube LB 6350
- Large surface proportional counter tube LB 6377

The following detectors can be connected for contamination measurements:
- Scintillation detector LB 1342
- Scintillation detector LB 1343
Technical Data LB 115

**Electronics**

**CPU**
NXP i.MX 6 ARM Cortex A9 Windows Embedded Compact 2013

**Display**
Coloured, 7” Touch Panel, 800 x 480p

**Data storage**
up to 10,000 measured values

**On/Off switch**
key switch, uncoded

**Mains connection data**
- **Mains voltage**: 100-240 VAC, 50/60 Hz
- **Mains voltage fluctuation**: +/-10%
- **Power maximum**: 60 W (at 20°C)
- **Power nominal**: 11 W (at 20°C)
- **Fuse**: T1.6A L 250 V

**Interfaces**
- **Ethernet**: 10/100/1000Mb
- **USB A (Host)**: USB 2.0, max 200mA, 5VDC
- **USB B (Device)**: USB 2.0
- **RS485**: 1x galvanically isolated
- **Probes**: 2x RS485 + 24VDC
- **Digital inputs**: 3x galvanically isolated
- **Current outputs**: 2x galvanically isolated

**Digital Inputs**
Low active (High = 5V at input)

**Current Outputs**
linear / logarithmic
- **Maximum load**: 300 Ω
- **Modes**: 0-20 mA, 0-24 mA, 4-20 mA

**RS485**
- **Baud rate**: 9600 – 115200 Baud
- **Data bits**: 8
- **Startbit / Stopbit**: 1 / 1
- **Parity / Handshake**: no / no
- **Spannungspiegel**: according to standard
- **Differential signal**: according to standard
- **Cable length**: <1200m according to standard
- **Members**: max. 15
- **Kabeltyp**: STP

**External signal transmitters**
- **Cut-off relay**: 5x2 changeover
- **Contact voltage (ELV)**: max. 50VAC/120VDC
- **Switching current**: max. 3 A
- **Optional supply voltage for signal transmitter**: 24 VDC (intern)
- **maximum connected load**: 12 W / 500 mA (24V)

**Operating Conditions Indoor & Outdoor**
- **Ambient Temperature**: -25 to +50°C
- **Rel. Humidity**: 0 to 93 %, (at +35°C) non-condensing
- **Protection Class**: IP65
- **Degree of contamination**: 2
- **Altitude**: <2000m

**Mechanical data (basic housing)**
- **Dimensions**: approx.
- **(W x H x D)**: 300 x 250 x 100 mm
- **Mounting Dimensions**: approx.
- **(W x H x D)**: 300 x 320 x 100 mm
- **Weight**: approx. 5.5 kg