

BeOSL Reader



Key Features

- Compliant to IEC 62387
- Extremely fast readouts
- Easy to use, learn and maintain
- No need for nitrogen

The BeOSL Reader is an essential component of every BeOSL System. The BeOSL Reader measures radiation exposure using state-of-the-art technology, optically stimulated luminescence (OSL). During the readout process, the material is exposed to light from a light emitting diode (LED). This stimulus causes instantaneous light emission from the BeO detectors which is measured by photomultiplier tubes (PMT). The amount of released light matches proportionally with the radiation dose to which the dosimeter was exposed.

Our Reader is a fundamental part of the BeOSL System. Our BeOSL technology provides multiple dosimeter readouts (i.e., rereads) for dose result verification. The BeOSL Reader's exceptional engineering and design, high-end components, and local manufacturing in Germany ensure millions of readouts with as little downtime as possible.

The Reader can be operated in two different ways: either manually or combined with automatic solutions. It is designed to read two- and four-element BeOSL Dosimeters. The two-element version measures Hp(10) and Hp(0.07) simultaneously within the limits of IEC 62387. The dose algorithms are linear and not based on a distinction of cases.



Our Reader goes above and beyond international standards. It is CE compliant and part of a dosimetry system that is PTB type tested (Physikalisch-Technische Bundesanstalt of Braunschweig, Germany) under reference number 23.52 11.01.

Also, the BeOSL Reader offers more than other systems can; it automatically extracts the card with the detector elements from the dosimeter assembly and pushes it back after the readout. In fast mode, the short readout time allows the operator to process 240 dosimeters per hour or more and in standard mode, 100 dosimeters can be processed.

The BeOSL Reader is paired with its own very intuitive and user-friendly operational software, LabClient. It leads the user through the entire process with on-screen messages and self-explanatory pictographs. The Reader also controls the reader calibration and numerous quality management functions. More information about our software's functions can be found in the LabClient Manual.

Our IT and Customer Support Team is always ready to assist with any technical questions or inquiries the user may come across when operating any of our BeOSL equipment. With the BeOSL Reader, our expert staff are able to remotely access a customer's system (subject to the customer's permission) for monitoring and servicing any issues. The Dosimetrics' Team ensures both high quality service and products – we are ready to be your partner in providing a best dosimetry system possible to your clients.

For additional information including pricing, please contact the Sales team at sales@dosimetrics.de.

Technical Specifications

Troughput:

- 240/hour in fast mode
- 100/hour in standard mode

Dosimeter Identification:

- internal bar code reader (Code 128 C),
- internal RFID reader on request

Nominal Range (Dose):

30 µSv - 10 Sv

Nominal Range (Energy, Angle):

- 16 keV - 7 MeV
- 0° - ±60°

Repeatability:

$\sigma < 3\%$ for 1 mSv of Cs-137

Size:

- Width: 20.5 cm / 8.1 in
- Height without optional handle: 20.6 cm / 8.1 in
- Length, drawer closed: 47.9 cm / 18.9 in
- Length, drawer open: 57.5 cm / 22.6 in
- Weight: 18.6 kg / 41 lbs

Electrical Supply Data:

100 - 240 V, 50 - 60 Hz

Maximum nominal power:

- 30 VA @ 100 V,
- 40 VA @ 240 V

IP41

Components

Article No.	Description
1001	BeOSL Two-Element Dosimeter
1002	BeOSL Four-Element Dosimeter
2001	BeOSL Reader
2002	BeOSL Eraser
2003	BeOSL Irradiator
2012-0001	Reader Control PC (full)
2012-0002	Reader Control PC (light)



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