

WBDOSE OSL DOSIMETER SYSTEM



The **WBDOSE OSL Dosimetry System** has been developed to perform measurements of whole-body and environmental dosimeters using Optically Stimulated Luminescence (OSL) technology. The system consists of passive dosimeters, the WBDOSE OSL Dosimeter Reader/Eraser unit, and dedicated software modules.

The core component of the system, the WBDOSE OSL Reader-Eraser Unit, provides an integrated and practical solution by enabling both reading and erasing operations on the same device, eliminating the need for two separate units.

The WBDOSE Manual OSL Dosimetry System is fully compliant with international ISO/IEC standards (IEC 62387-1 and ISO 14146).

TECHNICAL SPECIFICATIONS

De Detector: Beryllium Oxide (BeO) crystal ($Z_{\text{eff}} = 7.11$)
Device: Integrated Reader and Eraser Unit (single device)
Radiation type: Photon (Gamma and X-ray), Beta
Doze Measurement Range: 0,05 mSv - 10.0 Sv
Reading Time: ≤ 2 s (low doze), ≤ 20 s (high doze)
Operating Temperature: -10 C° to +40 C°
Power Input: USB-B
Weight: 19.1 kg
Protection Class: IP 41
Dimentions: 205 x 501 x 255 mm (w x d x h)

APPLICATION AREAS

- Nuclear facilities and nuclear power plants
- Medical radiology and nuclear medicine departments
- Medical isotope production facilities
- Industrial applications requiring dose monitoring

Proficiency Tests

- IEC 62387
- ISO 14146
- IEC 61000
- IEC 60950

Quality Standards

- ISO 9001:2015
 - ISO/IEC 17025:2017
- (Irradiation and calibration laboratories)

WBDOSE OSL Dosimeters are designed for the measurement of whole-body Hp(10), skin Hp(0.07), and *ambient dose equivalent H(10)**. In this system, Beryllium Oxide (BeO) is used as the detector material due to its tissue-equivalent properties.

Beryllium Oxide (BeO) enables reliable and accurate dose measurements in low-energy radiation fields thanks to its high energy accuracy, low energy dependence, and wide measurement range.



WBDOSE OSL Dosimetry System Software Features

- Dosimeter Preparation / Reading Mode
- QC/QA Mode
- User Settings
- Dosimeter History (Preparation / Reading Data)
- User Manual
- Contact Information

QC and QA systems have been developed in accordance with ISO/IEC 14146 standard in order to perform the control, verification, and calibration procedures of the WBDOSE Reader/Annealer device.

