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DH-2000-BAL

Balanced Deuterium, Halogen Light Source for the UV-Vis-NIR

Contact us for details or to request a quote.

The DH-2000-BAL is the world's only balanced deuterium halogen source. It uses innovative filtering technology to produces smooth spectrum across entire range. This same technology eliminates the alpha deuterium line in the visible region. Using a combination of deuterium and halogen lamps, the DH-2000 is flexible and ideal for measuring a sample that has multiple features in different spectral regions or for analyzing a variety of different samples in your lab.

All deuterium sources have an alpha line, a sharp spectral feature centered at 655 nm. This feature and other deuterium lines produce "unbalanced" output in the deuterium and halogen sources. Simply adjusting the integration time of the spectrometer to suppress the alpha line does not solve the problem as the efficiency of the system at UV wavelengths drops significantly, compromising signal-to-noise performance.

A system of proprietary internal mirrors and filters to eliminate the D-alpha, D-beta and Fulcher lines in the deuterium source, producing a "smoother" spectrum across the entire wavelength range and eliminating problems associated with saturation. By comparison, most combination UV-NIR sources can be adjusted for relative intensity only.

All models of the DH-2000-BAL include easy-to-replace bulbs, keeping your measurements going with fast lamp changes.

PRODUCT DETAILS

SPECIFICATIONS

Engineering Specifications	DH-2000-BAL
Sources:	Deuterium & Tungsten Halogen
Wavelength range:	230 – 2500 nm

Color temperature:	unknown
Nominal bulb power:	25 W (deuterium) 20 W (tungsten halogen)
Typical output power:*	194 µW (deuterium bulb)
	615 µW (tungsten bulb)
Warm-up time:**	25 minutes
Source lifetime:	1,000 hours
Stability of light source output:	≤0.1%/hour @ 254 nm (deuterium) ≤0.1%/hour @ 700 nm (tungsten halogen)
Drift:	≤0.1%/hour @ 254 nm (deuterium) ≤0.1%/hour @ 700 nm (tungsten halogen)
Trigger/Shutter input signal:	TTL; Up to 2.5 Hz maximum
Trigger/Shutter connection:	SUB-D-15 pin
Integrated filter holder:	No
Operating temperature:	5 °C – 35 °C
Operating humidity:	5-95% without condensation at 40 °C
Power requirements:	85-264 V 50/60 Hz
Power consumption:	Approximately 78VA
Dimensions (W x H x L):	15 x 13.5 x 28.5 cm
Weight:	5.5 kg
Safety & regulatory:	CE; ROHS, WEEE
Replacement bulbs:	DH-2000-BD (deuterium)
	DH-2000-BH (tungsten halogen)

* Typical output power coupled into a 600 µm UV/VIS fiber and measured with an optical power meter integrated from 200 – 1100 nm

** Warm up time @23 °C ambient, free airflow, no vibrations

DOWNLOADS

APPLICATION NOTES

MEASUREMENT TECHNIQUES

RELATED PRODUCTS

SPECTRAL OUTPUT GRAPH

FAQ (FREQUENTLY ASKED QUESTIONS)