

BDS100 Deuterium/Tungsten Light Source

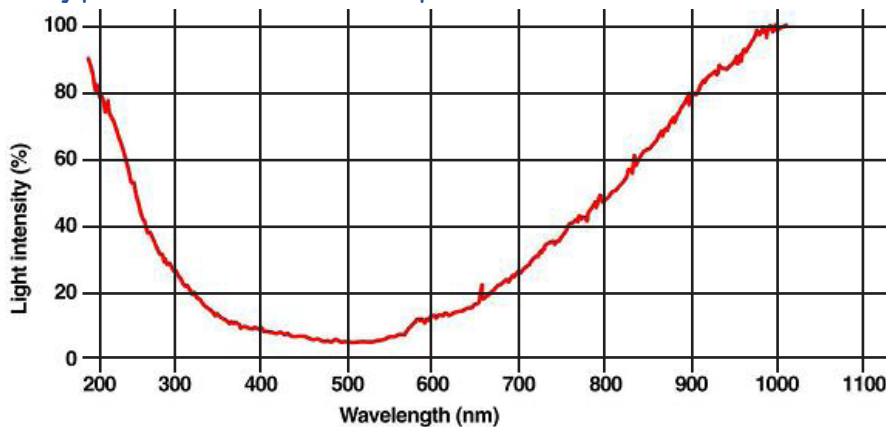
The BDS100 is a turnkey fiber coupled UV/Vis/NIR light source providing spectral output from 200 to > 1100nm. The 3 W UV Lamp is electrode-less RF induced deuterium lamp providing the advantage of low heat generation and low power consumption. A 3 W Tungsten (W) Halogen Lamp shares the optical path with the Deuterium (D2) Lamp and provides Vis/NIR emission. The light source comes complete with a DC power supply. A safety shutter and individual On/Off controls for both the Deuterium and Tungsten lamps are provided. The BDS100 features an SMA 905 connector for fiber optic light coupling. With no fiber alignment needed the BDS100 is ideal for spectroscopic applications.

Highlights:

- Fiber Coupled
- UV/Vis/NIR Single Path
- Shutter Control
- High Stability
- Compact
- Long Life

Applications:

- Transmission Experiments
- Absorption Experiments
- Much more...

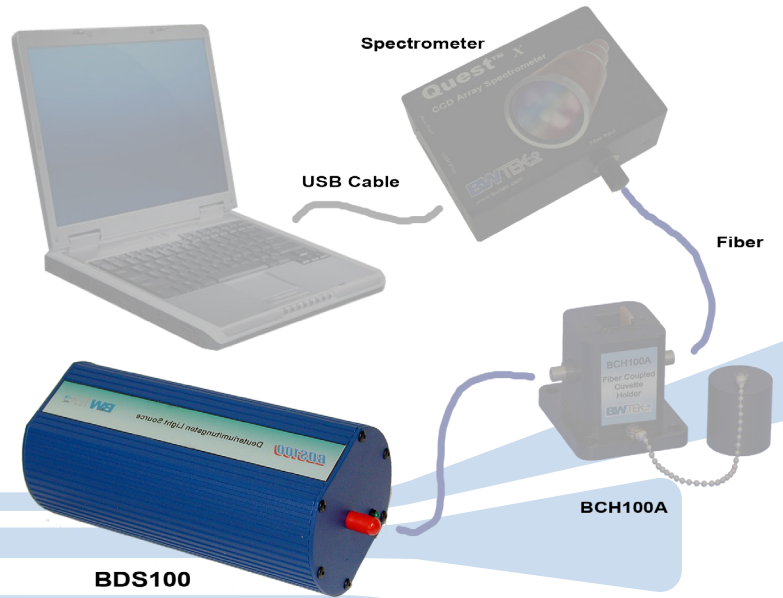
Typical Relative Spectral Distribution

BDS100 Rear View

Specifications:

COMPLETE MODULE	
Spectral Output Range	200 to > 1100nm
Electrical Power Consumption	6 W with both lamps on
Supply Voltage	12 V DC at 0.6 A
Operating Temperature	5 - 35°C
Relative Humidity	Max. 90%, non-condensing
Warm-up Time	8 - 10 minutes
Dimensions	6.75 x 3.0 x 2.5 inches
Weight	1.4 lb.
Fiber Optic Connector	SMA905
Recommended Fiber Diameter	200 - 600 μ m
DEUTERIUM LAMP (D2)	
Numerical Aperture	Approximately 0.245
Spectral Range	200 - 400 nm without spectral lines
Power Consumption	About 3 W
Lifetime	\geq 1000 hours at 240 nm (50% intensity loss)
Stability	$< 1 \times 10^{-3}$ AU
Drift	$< 0.25\%/h$
Ignition Voltage	About 1 kV
Excitation Frequency	250 kHz
TUNGSTEN LAMP (W)	
Numerical Aperture	Approximately 0.057
Spectral Range	400 to > 1100nm
Power Consumption	Apprx. 0.25 W
Lifetime	>2000 hours

Transmission / Absorption Experiment Setup



Dimensions (mm):

