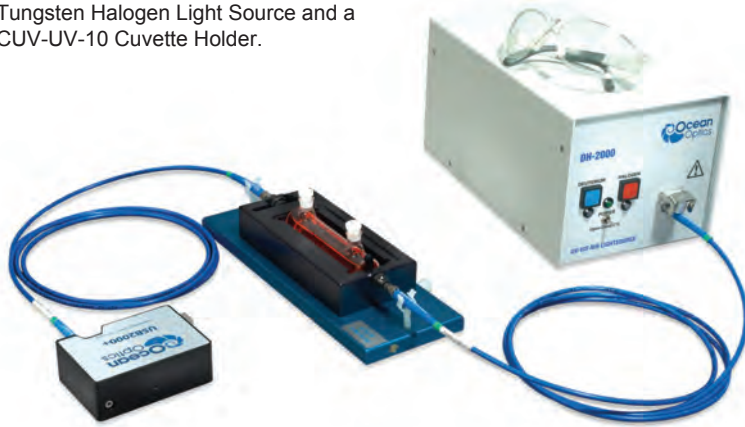


USB2000+UV-VIS and USB2000+VIS-NIR

Application-ready Spectrometers for the UV-VIS and VIS-NIR

A typical USB2000+ UV-VIS setup might include components such as XSR Optical Fiber Assemblies, a DH2000 Deuterium Tungsten Halogen Light Source and a CUV-UV-10 Cuvette Holder.



We offer general-purpose UV-VIS and VIS-NIR spectrometers – where all of the optical bench accessories are already selected – for basic spectroscopy applications such as measuring absorbance in solutions and reflectance of solids.

Each spectrometer has a 2048-element Sony ILX511B detector with a multibandpass order-sorting filter and 25 μm slit for optical resolution to ~ 1.5 nm (FWHM). The USB2000+UV-VIS covers the 200-850 nm wavelength range and the USB2000+VIS-NIR covers 350-1000 nm. Like all USB2000+ series spectrometers, the USB2000+UV-VIS and VIS-NIR feature an amazingly small footprint and offer plug-and-play capabilities and a simplified interface that operates without external power. Simply plug your USB2000+UV-VIS or VIS-NIR into an available USB port on your computer and you eliminate the need for analog converters. SpectraSuite spectroscopy software (priced separately) operates on Windows, Macintosh and Linux operating systems and provides a range of basic and advanced spectroscopy functions.

USB2000+UV-VIS and USB2000+VIS-NIR spectrometers are a great choice for researchers and others who handle a variety of basic spectroscopy measurements in the course of their work.

Key Features

- Preset with optical bench accessories and gratings for general-use applications in the UV-VIS (200-850 nm) and VIS-NIR (350-1000 nm)
- 25 μm slit ensures good optical resolution (~ 1.5 nm FWHM)
- Both models are in stock and ready to ship
- Covered by Ocean Optics' exclusive 3-year warranty
- Can be combined with our light sources and sampling accessories for absorbance, reflectance and emission measurements

Specifications	USB2000+UV-VIS	USB2000+VIS-NIR
Dimensions:	89.1 mm x 63.3 mm x 34.4 mm	89.1 mm x 63.3 mm x 34.4 mm
Weight:	190 g	190 g
Computer interface:	USB (RS-232 available on side connector)	USB (RS-232 available on side connector)
Spectrometer channels:	Master spectrometer channel only	Master spectrometer channel only
Detector:	2048-element linear silicon CCD array	2048-element linear silicon CCD array
Integration time:	1 ms - 20 seconds	1 ms - 20 seconds
Useable range:	200-850 nm (grating-dependent)	350-1000 nm (grating-dependent)
Dynamic range:	2×10^8 (system), 1300:1 (single acquisition)	2×10^8 (system), 1300:1 (single acquisition)
Sensitivity:	75 photons/count; also, 2.9×10^{17} joule/count 2.9×10^{17} watts/count (for 1-second integration)	75 photons/count; also, 2.9×10^{17} joule/count 2.9×10^{17} watts/count (for 1-second integration)
Signal-to-noise ratio:	250:1 (at full signal)	250:1 (at full signal)
Dark noise:	50 (RMS)	50 (RMS)
Grating:	600 lines/mm, set to 200-850 nm (blazed at 300 nm)	600 lines/mm, set to 350-1000 nm (blazed at 500 nm)
Slit:	25 μm width (height is 1000 μm)	25 μm width (height is 1000 μm)
Focal length:	42 mm (input); 68 mm (output)	42 mm (input); 68 mm (output)
Order-sorting:	Single-piece, multi-bandpass detector coating to eliminate second-order effects from 200-850 nm	Single-piece, multi-bandpass detector coating to eliminate second-order effects from 350-1000 nm
Resolution:	1.5 nm (FWHM)	1.5 nm (FWHM)
Stray light:	< 0.05% at 600 nm < 0.10% at 435 nm < 0.10% at 250 nm	< 0.05% at 600 nm < 0.10% at 435 nm
Fiber optic connector:	SMA 905 to single-strand optical fiber (0.22 NA)	SMA 905 to single-strand optical fiber (0.22 NA)