

Sampling Accessories

Light Modification

MonoScan2000

The MonoScan2000 is a computer-controlled scanning monochromator with a 300-700 nm wavelength range. It requires only three seconds to scan from 300-700 nm. To scan only one nanometer takes about 15-20 milliseconds. The MonoScan2000 is compatible with all Ocean Optics spectrometers, light sources, accessories and optical fibers.

A light source provides light via optical fiber to a sample, interacts with the sample, and sends light to the MonoScan2000. The monochromator captures the incoming light, transmits it via fiber to a single-element detector, such as a photodiode, one wavelength at a time. The MonoScan2000 allows a high optical throughput and provides an intense spectral signal. The MonoScan2000 has the ability to scan through a wavelength range you select via software. Because the MonoScan2000 has no slit, the diameter size of the optical fiber determines the optical resolution of the system. When using 200 μm fibers, for example, optical resolution is <3 nm (FWHM).

Item Code: MONOSCAN2000



Specifications	
Dimensions:	112 mm x 132 mm x 145 mm
Weight:	1.1 kg
Wavelength range:	300-700 nm
Optical resolution:	Depends on the diameter of the optical fiber; ~ 4 nm (FWHM) using a 400 μm diameter optical fiber
Holographic grating:	1250 lines/mm, blazed at 350 nm
Accuracy:	<0.5 nm
Repeatability:	0.2 nm
Transition speed:	A scan from 300 nm to 700 nm takes ~ 3 seconds A one nanometer step takes ~ 15 -20 milliseconds
Dispersion:	~ 10 nm per mm
Optical throughput:	$>50\%$ with a 1000 μm fiber at 350 nm $>30\%$ with a 1000 μm fiber at 500 nm
Grating scan angle:	14.8° (300-700 nm)
Computer interface:	USB and RS-232
Power requirement:	12 VDC max. 1.2A (WT-12V-E)
Gearbox ratio:	1:261

Hydra Fiber-Coupled Light Mixer

Hydra from Ocean Optics is a fiber-coupled light mixer that features nine SMA 905 connectors. Each connector can be used as input for light or an output.

Light coming into the Hydra's SMA connectors are mixed homogeneously inside the Hydra's changer. The intensities of the outgoing light are at the same level with a matching of better than 1%.

The physical properties of the Hydra are based on Spectralon diffuse reflectance material and offer high reflection efficiency (better than 90%) over a wavelength range from 200-2500 nm.

The Hydra is a compact 60 mm x 45 mm. The unit's integrating sphere is 20 mm in diameter.

Use Hydra to harness up to eight light sources and mix light intensities accurately to fit your application's requirements.

Specifications	
Dimensions:	60 mm ht x 45 mm diameter
Integrating sphere:	20 mm diameter
Integrating sphere coating:	Spectralon
Integrating sphere reflectivity:	$\sim 99\%$ from 200-2500 nm
Connectors:	(9) SMA 905

