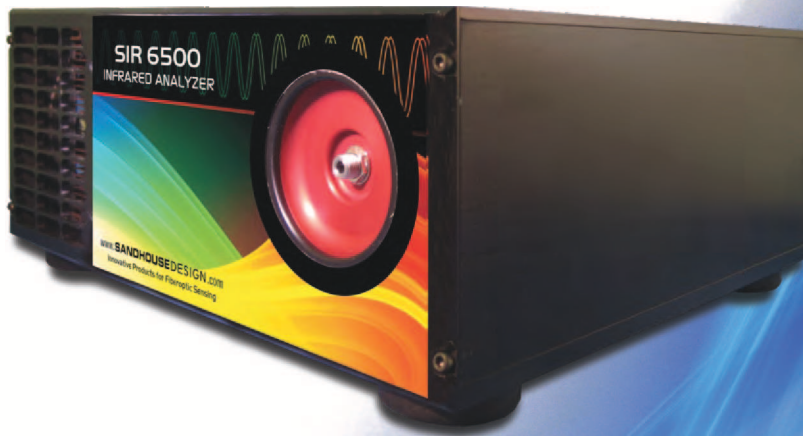


Scanning Spectrometer



SIR-6500 Compact, Extended Range Spectrometer

The SIR-6500 Scanning Spectrometer collects spectral data over the 3-6.5 μm wavelength range. This spectrometer's fiber-based system features a unique design that allows for rapid spectral scans over its entire range. Its compact design allows the SIR-6500 to be easily integrated into OEM and online process applications.

The SIR-6500 uses a single point detector and a high angular resolution-tunable grating system. The zero-backlash mechanical design provides superior accuracy and repeatability. This combination, along with an innovative 24-bit A/D converter, provides high spectral resolution and very high signal-to-noise data.

The SIR-6500 is designed with a rugged aluminum housing that is robust enough to withstand the rigors of chemical processing applications.

The USB 2.0-compliant interface provides fast data transfers and our included software can be used to control all of the SIR-6500's functions as well as analyze data.

Specifications

| | | |
|------------------------------------|--|--------|
| Range: | 3.0-6.5 μm | |
| Detector: | Photovoltaic MCT with stage 3 cooler | |
| Diffraction grating: | 150 lines/mm 4 μm blaze | |
| Optical design: | Czerny-Turner F/3 | |
| Slits available: | 10 μm , 50 μm , 100 μm , 200 μm , 500 μm , 1000 μm | |
| Optical input: | SMA-905/906 with optional lensed input | |
| Analog resolution: | 24 bits 16,777,216 counts | |
| Triggering options: | Internal and external synchronization, pulse width control and phase delay | |
| Additional digital outputs: | 2 channel selectable 3.3V/5V output | |
| Additional digital inputs: | 2 channels 3.3V/5V compatible inputs | |
| Grating steps in range: | 20,000 | |
| Step accuracy: | +/- 10 steps | |
| Data interface: | USB 2.0 | |
| Scan time: | As quick as 20 seconds | |
| Resolution based on optical slits: | 10 μm | .5 nm |
| | 50 μm | 2.8 nm |
| | 100 μm | 4.5 nm |
| | 200 μm | 9.1 nm |
| | 500 μm | 23 nm |
| | 1000 μm (no slit) | 45 nm |

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