

Axsun™ NIR Analyzer Diffuse Reflectance Probe for Application Development

DATA SHEET



A Comprehensive Sample-Interface Tool for Use with the Axsun NIR Analyzer XL

The Diffuse Reflectance Probe – manufactured for Axsun by a world leader in process-spectroscopy solutions – Sentronic, features a laboratory sample interface that is optimized for NIR spectroscopic solid-phase analysis. Diffuse reflectance is an excellent sampling tool for NIR analysis of powdered or crystalline materials and intractable solid samples. It has the added benefit of being well-suited to automation.

Methods can be developed with the accessory and then easily transferred to an automated process flow.

The Diffuse Reflectance Probe is designed to work with Axsun's IntegraSpec™-powered NIR Analyzer XL. Put the probe and the analyzer together – and you have all you need to run a wide range of solid-phase samples to develop applications quickly and easily. The combination delivers unparalleled system performance, enabling the applications developer to solve the toughest in-line process problems.

Rugged, versatile, and designed for the exacting demands and hostile environments of industrial-process applications, Axsun's leading-edge Integra-Spec micro-spectrometer platform makes real-time, process measurements feasible and affordable. Combined with Axsun's proprietary WARM™ Wavelength/Amplitude Referencing Module, methods developed on the NIR Analyzer can be rapidly transferred to IntegraSpec process spectrometers distributed throughout the process line.

Product Description

The Diffuse Reflectance Probe is a sampling tool for use with the Axsun NIR Analyzer XL to develop process-monitoring applications on the IntegraSpec XL and XLP platforms. It is designed for spectroscopic analysis of solids including flakes, powders, and crystals, using diffuse reflectance in a laboratory environment.

Rapid Transition to Process Solution

A process-grade Diffuse Reflectance Probe is readily available to rapidly transfer application development from laboratory to process. The identical optical configuration is available with process-grade temperature and pressure ratings, materials, seals, and application-specific mechanical dimensions and fittings. Process-grade versions are also available to comply with FDA-compliant contact parts and application-specific environmental compliance.



APPLICATION EXAMPLES

- Raw-Material Inspection
- Point-of-Use QA/QC
- Blending and Mixing Monitoring
- Drying Monitoring
- Automated QC/QA of Continuous Processes



NIR Analyzer XL for application development



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PERFORMANCE SPECIFICATIONS

Part No. 6015-3100

General Specifications

Optimum Spectral Range	1320 to 1800 nm
Diameter, Illumination Area	2 mm
Sampling Configuration	Direct window-to-sample
Probe Material	316 stainless steel; process grade available
Probe Diameter	25 mm
Probe Length	100 mm
Total Length	2 m including fiber delivery
Fiber Optic Cable	3 mm outer diameter stainless steel cabled
Sample Window	Scratch-resistant sapphire
Window Seal	Epoxy, not for use with solvents; process grade available
Fittings	316 stainless steel; process grade available
Optical Interface	Excitation: polarization-maintaining fiber, FC/APC Collection: multimode fiber, SMA905
Temperature / Pressure	125 °C / 6 bar; process grade available
Environmental Compliance	None; process grade available
Compatibility	Axsun NIR Analyzer XL

(Specifications are subject to change without notice)



PRODUCTS FOR APPLICATION DEVELOPMENT



NIR Analyzer XL for application development



Liquid-Transmission Probe



Diffuse Reflectance Accessory

For more information

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