



Luminar 2030/3030 FreeSpace™ Analyzer

The **Luminar 2030/3030 FreeSpace™ AOTF-NIR Analyzer** is built to be placed directly into the production line. Its rugged design and solid state technology allows an installation right into the production environment and eliminates the use of fiber optic lines. This high-speed **NIR** Analyzer is based on diffuse reflectance optics, and can be integrated in a vast variety of housings to match your process area classification.

BRIMROSE offers this rugged solid state analyzer in a variety of different configurations to meet the high demand of different industries and applications.

The **FreeSpace™** meets all requirements and standards for on-line applications in the pharmaceutical industry and is built to work reliably even in the toughest environmental conditions. The integrated **AOTF-NIR** technology offers outstanding S/N ratio combined with ultra high speed scanning rates and makes it possible to analyze in real time, on-line and with laboratory accuracy.



- * Insensitive to vibrations and ambient light
- * Fast scanning rates up to 16,000 wavelength per second
- * Non-invasive, contactless measurement
- * Superior S/N ratio across the entire spectral range
- * Solid, pellet, powder and liquid samples

Pict..#1 On-line Polymer-Inspection
Pict. #2 On-line dairy analysis
Pict. #3 Miniature Analyzer

Typical Applications:

- **Pharmaceutical:** 100% inspection of solids, pastes, creams and powders
- **Agricultural/Food:** On-line food analysis for fat, protein and moisture
- **Polymer:** In-site measurement of pellets, films, and coatings
- **Textile:** Cotton/polyester ratio directly in the web
- **Drying Process:** Direct placement on spray or fluid-bed dryers
- **Pulp & Paper:** Thickness and coating analysis - on-line

And much, much more...

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Specifications

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FreeSpace™ Analyzer

Spectral Range Options	600-1100 nm, 850-1700 nm, 900-1800 nm 1100-2300 nm
Measurement Modes	Diffuse Reflection, (Transmission with an attachment)
Spectral Resolution	5-10 nm
Wavelength Accuracy	± 0.5 nm
Wavelength Repeatability	± 0.01 nm
Wavelength Increment	Software Selectable 1-10
Ambient Light Rejection	> 10⁶
Signal Digitalization	16-bit A/D (1 part in 65,536)
Non-Linearity	0.1%
Sampling Speed	up to 16,000 wavelength/sec
Sampling Area	26 x 16 mm (Model 700), 9 x 5 (Model 701), 5 x 3 (Model 705)
Sampling Angle	25°
Process Control	up to 16 A/D, 16 D/A Channels and 16 I/O Channels accessed via MACRO language, D/A outputs can be supplied as isolated 4-20 mA current loop outputs -Modbus capability (optional) (RS 422/485)
Diagnostic	10 Built-in monitoring sensors
Power Requirements	100-240 VAC, 50/60 Hz, 90 Watts
Software	Windows based analytical software for data acquisition, processing, and prediction. Process MACRO language.

Attachments

- 700-23 For conversion to lab diffuse reflectance
- 700-25 For conversion to lab transmission measurement
- 700-26 Air-Flow Curtain
- 705-20 For transmission measurement

BRIMROSE

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