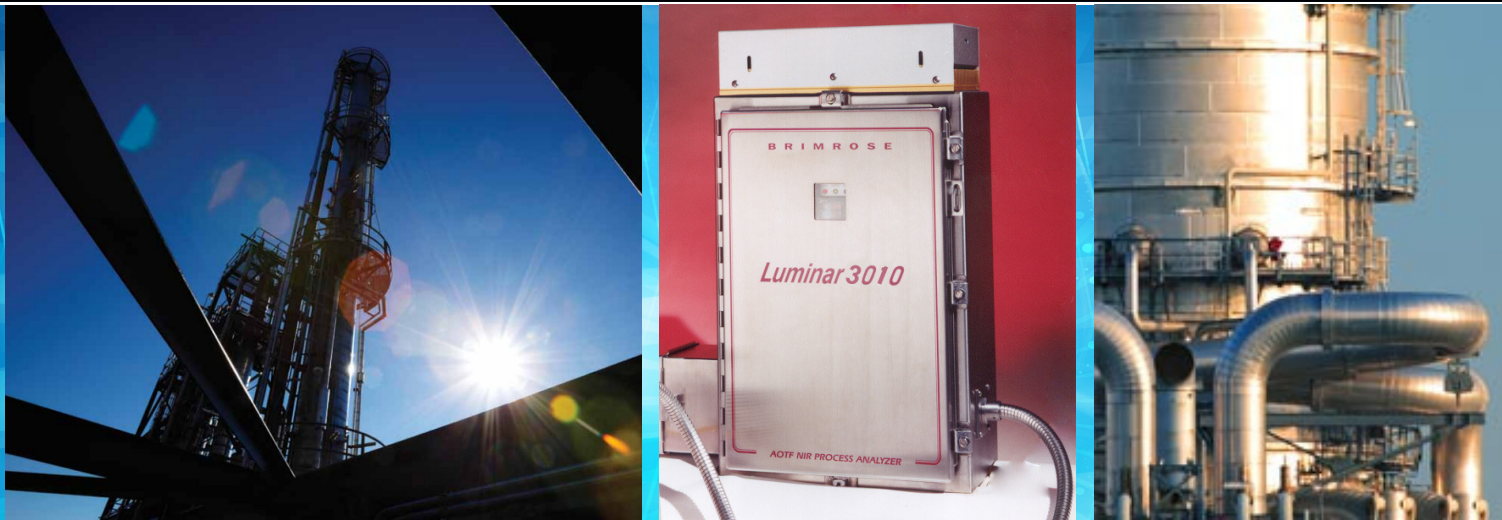


**Robust . Reliable . Accurate**

## **Process AOTF-NIR Analyzer**



- Chemical and Physical Properties Measurements in Transmission, Reflectance and Transflectance modes
- Brimrose Analytical Software - Snap32!
- Process Interfaces Including Fiber-Optic Probes and Flow Cells



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Luminar 3010

## ■ Process AOTF-NIR Analyzer for Industrial Plant Monitoring and Control

Brimrose's solid-state Luminar 3010 Process AOTF-NIR Analyzer has proven to be the leading process spectroscopy technology for industrial plant monitoring and control.

Our patented state-of-the-art technology couples unmatched repeatability with minimized insertion loss to produce a system performance of outstanding quality while achieving signal-to-noise ratios which only full light transmission analyzers can perform.

The analyzer is designed for measuring of chemical and physical properties of liquids, solids, powders, gels, etc. in real production environment, in any classified area by using a wide variety of process interfaces including fiber-optic probes and flow cells, attachments, etc. allow Brimrose to implement successful solutions in many different industries.



### ■ Key Features

- Dual Beam, Pre-aligned Lamp Assembly, InGaAs Detectors
- Fast Scanning Speed - 16,000 wavelengths/sec
- Hoffman Stainless Steel Enclosure
- SNAP32! Brimrose Analytical Software with Brimrose MACRO Language

### ■ Real-time Applications

- Hydrocarbon: gasoline, diesel, and kerosene blending
- Polymer: analysis for chemical, physical, and mechanical properties of polyolefin and resins, polymerization monitoring, NCO values, on-line catalyst identification
- Pharmaceutical/Chemical: reaction monitoring, recovery, distillations, and 100% inspection
- Dairy: fat, protein, pH, lactose, moisture, and more.
- Pulp & Paper: green, white, and black liquor process control and monitoring



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## ■ Technical Data Specifications

Spectrometer Name	Luminar 3010 Process AOTF-NIR Analyzer
<b>Spectral Range Options</b>	850-1700 nm, 900-1800 nm, 1100-2300 nm
<b>Measurement Modes</b>	Transmission, Reflectance and Transflectance
<b>Spectral Resolution</b>	2-10 nm
<b>Wavelength Accuracy</b>	± 0.5 nm
<b>Wavelength Repeatability</b>	± 0.01 nm
<b>Ambient Light Rejection</b>	> 10 <sup>6</sup>
<b>Non-Linearity</b>	0.1%
<b>Signal Digitalization</b>	16-bit A/D (1 part in 65,536)
<b>Sampling Speed</b>	16,000 wavelength/sec
<b>S/N at 70% range (closed loop)</b>	< 10μabs in transmission, and < 40μabs in reflectance
<b>Process Control</b>	16 A/D, 16 D/A Channels and 16 digital I/O Channels fully accessed via MACRO language, Modbus Interface
<b>Enclosure</b>	Hoffman stainless steel enclosure, NEMA 4X, 12X; Explosion-proof options available
<b>Diagnostic</b>	10 Built-in monitoring sensors
<b>Optical Fiber Cables</b>	Low OH silica fiber for Near-IR/fluoride fiber for extended Near-IR
<b>Switching Time</b>	< 0.25sec for any channels
<b>Power Requirements</b>	24 VDC, 110Watts, 110VAC 60Hz, 220VAC 50 Hz
<b>Software Package</b>	Windows-based analytical software for data acquisition
<b>Options</b>	
<ul style="list-style-type: none"> <li>➤ 601: Fan-cooled NEMA 12 enclosure</li> <li>➤ 602:TE-cooled NEMA 12 enclosure</li> <li>➤ 609:Vortex-cooled with heat exchanger NEMA 4X enclosure</li> <li>➤ Single fiber or fiber bundle</li> <li>➤ SMA or TNC connectors</li> </ul>	



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