

Luminar 3060

Multiplexer AOTF-NIR Spectrometer



Data Sheet

In-line Measurement AOTF-NIR Spectrometer – Luminar 3060

The Brimrose Luminar 3060 Multiplexer AOTF-NIR Spectrometer is designed for at-line measurement in a production facility with up to 16 active channels. Each channel is connected to a probe or flow cell with fiber-optic cable. A single spectrometer is multiplexed by rapidly switching the light source from each channel into the detector. All 16 channels can be sequentially analyzed in less than 1 minute.

The 3060 can be a cost-effective option when needing multiple test points and not wanting to purchase multiple 4030's (or another Brimrose AOTF-NIR model). Choosing between a 4030 and 3060 depends upon the number of test points required and the location of each test point due to the length of fiber-optics required to be run.



Luminar 3060 In-line for Real-time Measurement

Measurement Modes

- **Transmission Flow Cells** - High Pressure and/or High Temperature Flow Cells Available
- **Probes** - Reflectance or Transflectance for Powder or Liquid Applications

Key Features

- **Robust** - Built for In-Line and At-Line Monitoring; Extremely Fast (up to 10 measurements / second Typical)
- **Reliable** - Solid State; Immune to Vibration and Ambient Light; Install Anywhere
- **Accurate** - Real-Time Dual Beam Referencing; Real 1 or 2 nm Steps
- Analyzing and Controlling up to 16 Sample Streams

What is measured?

- Reaction Monitoring
- Solvent Recover Monitoring
- Validation of Biodiesel Product
- Tablet Inspection
- Grain & Flour Mills

AOTF-NIR Advantages

- **Solid State** - No Moving Parts
- **Faster** - Up to 10 measurements / second and can get up to 30 scans per second across the whole wavelength range (1100-2300 nm)
- **Sensitive** - higher resolution with excellent signal-to-noise ratio
- **Customized for Purpose** (ATEX / UL / IPxx)
- **Immune to Ambient Light & Vibration** - no need to block ambient light from the sample
- **Real-Time Dual-Beam Reference** - No Drifting, Excellent Wavelength Repeatability, No Need to Recalibrate The Device



Technical Specification

Spectral Range Options	850-1700 nm, 900-1800 nm, 1100-2300 nm (standard)
Wavelength Repeatability	± 0.01 nm
Spectral Resolution	2-10 nm
Wavelength Accuracy	± 0.5 nm
Sampling Speed	16,000 wavelength/sec
Ambient Light Rejection	> 10 ⁶
Installation Requirement	
Power Requirements	24 VDC, 110Watts, 110VAC 60Hz, 220VAC 50 Hz
Cooling Options	Fan-cooled, A/C-cooled, Vortex-cooled, TE-cooled
Communication	OPC UA, Modbus (Serial or TCP), I/O with 4-20mA, TCP/IP Ethernet
Accessories / Options	
<ul style="list-style-type: none">• Up to 16 Channels• Liquid Probe Attachment• Powder Probe Attachment• Transmission Flow Cell	



High Pressure/High Temperature Flow Cells