

IAS-PAT L1M

ON-LINE NIR ANALYZER

Robust, Explosion-Proof Design Ensures Safe Production

The IAS-PAT L1M features enhanced heat dissipation, modularity, and pressure testing, with a high explosion-proof rating. Supports IIB/IIC-type enclosures, reducing manual sampling, chemical exposure, and ensuring stable production.

Optimized modeling for online process control to enhance production efficiency

The IAS-PAT L1M online NIR analyzer enables rapid offline modeling, real-time parameter tracking, and clear data visualization to enhance production efficiency and ROI.

Flexible Probes for Any Scenario

Modular optical probes adapt to various process positions. Rapid customization available for unique requirements.

The Perfect Solution
for Efficiency Gains



IAS Global Pte. Ltd.

Applications

Chemical Industry

Online analysis of active chlorine and free alkali content in fine chemical production.
Online analysis of ethanol, glucose, and other key components in ethanol fermentation broth.
Online analysis of octane number, aromatics, and olefins in petrochemical production of finished oils.




Pharmaceutical Industry

Online monitoring of active ingredient content during the concentration and extraction of traditional Chinese medicine.

Palm Industry

Detection of free fatty acids, moisture, DOBI (Deterioration of Bleachability Index), and oil content in crude palm oil, palm kernels, palm kernel cake, and production waste liquids.

Sampling Accessories

Accessory	Description
 Flow Cell Assembly	<p>*Material: Main body made of 316L stainless steel.</p> <p>*Components: Window holder, sapphire window, flexible tube, collimator, liner (316L stainless steel for non-corrosive liquids; PTFE for strongly oxidizing or corrosive liquids).</p> <p>*Size: DN25/DN50.</p> <p>*Function: The flow cell is used for liquid detection in pipeline scenarios.</p>
 Optical Fiber	<p>*Material: Low-hydroxyl quartz.</p> <p>*Interface: SMA905.</p> <p>*Length: Customizable.</p> <p>*Function: Connects to the flow cell to transmit optical signals.</p>
 Diffuse Reflectance Probe	<p>*Application: Suitable for detecting solid particles, powders, or pastes in pipelines and equipment.</p>
Optional Accessories	<p>*PC console (including operating system), keyboard, mouse, monitor, industrial control adapter module.</p> <p>*Flow cell, optical fiber, explosion-proof corrugated tube.</p>

Specifications

Parameter	Description	Parameter	Description
Wavelength range	900-1700nm (typically 950-1650nm)	Light Source	Integrating sphere halogen tungsten lamp
Resolution	<16nm	Auto-Calibration Maintenance	Automatic wavelength and reference calibration
Spectroscopy Principle	Grating	Display	7-inch
Detector	InGaAs detector (256 pixels)	Vibration	0.3g@0.1-200Hz
Baseline Noise	≤0.0002AU	Operating Temperature/Humidity	-30°C ~+45°C /<90%
Wavelength Repeatability	≤0.1nm	Weight	Main unit: 14 kg; With explosion-proof cabinet: 54 kg
Wavelength Accuracy	≤1 nm, with built-in auto-detection and calibration	Dimensions	L:310mm*W:340mm*H:210mm
Absorbance Repeatability	≤0.0002AU	Power Supply	100-240VAC 50Hz
Detection Time	0.1S-60S	Built-in Operating System	Linux