



QuasIR™ 1000 FT-NIR for Liquids

Portability without Compromise

- Transmission measurements of liquid samples with optional temperature control
- Compact and Portable
- High Performance
- Easy-to-use
- Suitable for the road, lab, or factory
- At-line or point-of-need
- Rugged, insensitive to vibration
- Low cost of ownership and maintenance
- Direct calibration transfer
- Instrument-to-instrument consistency
- Wide operating temperature range
- Powerful and easy to use software

Versatility

The QuasIR™ 1000 is a new kind of NIR analysis solution that brings together the portability required to move NIR analysis closer to point-of-need, with unmatched spectroscopic performance for the fastest and most accurate results.

Innovation

The QuasIR™ 1000 delivers a wide range of technical innovations including our PermAlign™ optics technology. This advanced optical design maintains alignment and performance under conditions from the routine to the extreme.

Our Advanced-ID™ software is a targeted screening software tool that allows quick screening and semi-quantitative results for concentrations substantially less than 0.1%. Advanced-ID™ extends the use of NIR to further reduce ingredients supply chain risk and protect brand integrity.

The QuasIR™ 1000 features a transmission chamber that can hold various sizes of cuvettes and glass vials up to 10mm. Optional temperature control is offered; the sample compartment can be heated to 100°C or cooled to 20°C, for a wide range of applications. Transmission samples such as edible oils, lubricants, and fuels can be easily analyzed for quality control or adulteration.

Consistency

The QuasIR™ 1000 is designed to ensure direct calibration transfer without the frustration of standardizing instruments or adjusting models to accommodate excessive instrument variability. Our technology and design ensure unmatched consistency and direct method transfer with no loss in performance, so you can expand your QuasIR™ fleet with confidence.

Key Analysis Applications:





QuasIR™ 1000 FT-NIR

System Specifications

General Specification	Value	Alternate Value/Benefit
Dimensions (W x D x H)	44.5 x 24.1 x 14.5 cm	17.52 x 9.49 x 5.71 in.
Weight	< 9.6 kg	< 21.2 lbs.
Power Supply	12V / 3A Supply, 60W max	
Communication	USB	
Operating Temperature	0°C- 40°C, < 95% humidity, Non-condensing	32° F to 104°F
Enclosure Protection	IP64 (dust) / NEMA 13	
Sampling Mode	Transmission for liquids	Maximum signal and collection efficiency
Sampling Device	Transmission cell with optional temperature control	Maximum signal and collection efficiency
Automated Verification & Instrument Diagnostics	Automatic, internal, 4-position validation wheel	Continuous performance monitoring
Performance Specifications		
Wavelength Range	12,000 - 4,000 cm ⁻¹	833 - 2,500 nm
Spectral Resolution	Better than 4 cm ⁻¹	< 0.3nm @ 870 nm
Wavelength Accuracy	< 0.05 cm ⁻¹ @ 7181.68 cm ⁻¹	< 0.01 nm@ 1392 nm
Wavelength Repeatability	< 0.025cm ⁻¹ @ 7181.68 cm ⁻¹	< 0.0048 nm@ 1392 nm
Photometric Accuracy	Better than 0.1% T	
Signal-to-Noise Ratio	> 20,000:1	Excellent sensitivity
Noise	Better than 20 micro au	Low detection limit
Detector	TE cooled InGaAs	
Data Acquisition A/D converter	24-bit high speed Delta-Sigma	
Reliability Specifications		
Laser Life	> 10 years	Low downtime & ownership costs
NIR Source Life	> 20,000 hours, user replaceable	Low downtime & ownership costs
Desiccant	User Replaceable	Low ownership costs
Regulatory Compliance		
EMC directive 2004/108/EC	Complies	
RoHS directive 2002/95/EC	Exempt	
WEEE directive 2002/96/EC	Complies	

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