FT-NIR Spectrometer QuasIR™ 4000

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FT-NIR Spectrometer QuasIR^{TM} 4000

Portability without Compromise

- Two sampling methods in one design
- Compact and Portable
- High Performance
- Easy to use
- Ready for the road or lab
- Low cost of ownership
- Low maintenance
- Direct calibration transfer
- Rugged, insensitive to vibration
- Wide operating temperature range
- Flexible, easy to use software
- Large sampling area
- Temperature controlled sample compartment

Versatility

The QuasIR^{TM} 4000 was designed from the ground up to offer the industry a new kind of NIR analysis solution - a solution that brings together the portability required to move NIR analysis closer to point-of-need, combined with unmatched spectroscopic performance for the fastest and most accurate results.

Innovation

The QuasIR^{TM} 4000 delivers a wide range of technical innovations including our PermAlign^{TM} interferometer optics, industry leading sampling accessory designs, networked fleet management, and new concepts in software and algorithms such as our Advanced-ID^{TM} software for low concentration targeted screening.

Consistency

The QuasIR^{TM} 4000 was engineered to ensure direct calibration transfer without the frustration of standardizing instruments or adjusting models to accommodate excessive instrument variability. The heart of the QuasIR^{TM} 4000 is our PermAlign^{TM} optics technology, an innovative optical design that maintains alignment and performance under conditions from the routine to the extreme. Our technology and design ensure unmatched consistency and direct methods transfer with no loss in performance so you can expand your QuasIR^{TM} fleet with confidence.

FT-NIR Spectrometer QuasIR™ 4000

Two In One Design

QuasIR™ 4000 was engineered with both integrating sphere and sample compartment, which allows the instrument to measure solids in diffuse reflectance and measure liquids in transmittance.

The integrating sphere channel has an enhanced 23 mm sampling area, which is up to 5 times larger than leading competitive products. Our large sampling area with scratch resistant sapphire window helps produce better and more reproducible results.

An internal background shutter mechanism permits automatic collection of background scans without the need for external reference materials or user interaction. An optional easy to attach spinner further increases the sampling area making it especially suitable for inhomogeneous samples, and various sampling cups and accessories increase the versatility of the instrument . The sample compartment channel can hold different sizes of cuvettes and glass vials up to 10mm. With optional temperature controlled sample compartment the sample can not only be heated up to 100°C, but also be cooled down to 20°C, which eliminate temperature variations in samples.

25 mm Sampling Area

Quasir 3000   Competitor
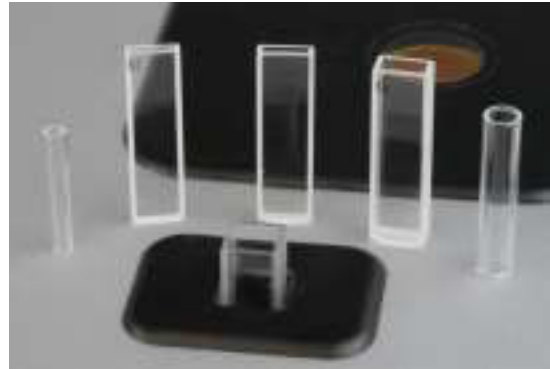
Ready for the Road

At just 44.0 x 24.1 x 14.5 cm and 8.4 kg, the QuasIR™ 4000 is made for analysis on-the-go. The QuasIR™ 4000 fits conveniently into its hard carryon travel case. The travel case contains everything you need to operate the QuasIR™ 4000. The QuasIR™ 4000 can operate from mains power   (110 - 240 VAC), battery (12V, 3A), or vehicle power (12V, 3A). This gives you the capability to power the QuasIR™ 4000 anywhere you need it.

FT-NIR Spectrometer QuasIR™ 4000

General Specification

Dimensions	44.0 x 24.1 x 14.5 cm (W x D x H)
Weight	< 8.4 kg
Communication	USB
Operating Temperature	0 - 40°C
Enclosure Protection	NEMA 13 / IP54 (dust)
Laser Life	> 10 years
NIR Source Life	> 20,000 hours, user replaceable

Performance Specifications

Wavelength Range	12,800 - 4,000 cm^{-1} / 785 - 2500 nm
Spectral Resolution	Better than 4 cm^{-1}
Wavelength Accuracy	< 0.1 cm^{-1} @ 7181.68 cm^{-1}
Wavelength Repeatability	< 0.05 cm^{-1} @ 7181.68 cm^{-1}
Photometric Accuracy	Better than 0.1% T
Noise	Better than 20 micro au