



Quant

Agri Feed Dairy Biofuels Food

The Quant FT-NIR analyser system is a revolution in FT-NIR technology and user friendliness. It is also the most reliable FT-NIR system available.

Designed around new FT-NIR interferometer technology the Quant requires preventative maintenance at only 5 year intervals, has a small footprint, has no hygroscopic optics, incorporates a modular design allowing rapid detector changes and allows the design of unique sample handling accessories.

Spectral performance is outstanding and combined with the latest process operator software the Quant system allows production and laboratory users to fully harness the analytic possibilities of near infrared spectroscopy.

Sample Accessories



5 year Maintenance Intervals

Very low cost of ownership

Cutting edge spectral performance

Signal to Noise
> 900 000 : 1

Simple to install, train and operate

Permanently aligned optical system

Well designed and adaptable sampling solutions

2 year instrument warranty

Life-time interferometer warranty

Life-time warranty against damage due to moisture

AgriQuant is available with INGOT calibrations

CAL INGOT®

MAINTENANCE, RELIABILITY AND WARRANTY

- Preventative maintenance at five year intervals
- NIR source has an average 10 year life-time
- VCSEL solid state laser with average 20 year life-time
- No component wear
- No components to adjust
- No hygroscopic optics
- No purge required
- 2 years system warranty
- Lifetime warranty on interferometer scanning mechanism and on all optical components of the interferometer against damage or degradation by moisture
- Rugged all metal enclosure designed to resist heat, dust and moisture

APPLICATIONS

AgriQuant - feed, flour, soils, agriculture, food powders

Hetero- and homogeneous samples are analysed by diffuse reflectance. Sample bottles are spun on a rotating holder to ensure consistent sample mixing.

LipidQuant - edible oils, fats, biofuels, and similar liquids

A heatable (ambient - 100°C) vial holder allows a range of samples to be analysed by transmission.

Adaptable Configurations

The Quant can be adapted for a number of applications depending on user requirements. Interchangeable detectors (DTGS, InAs and InGaAs) are available and the Fibre Interface module connects remote probes to the analyser.



InfraQuant 2.0

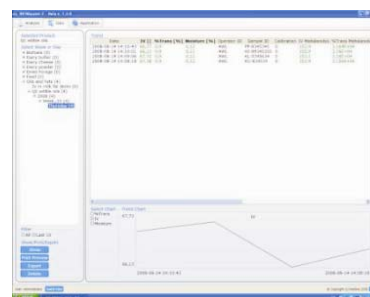
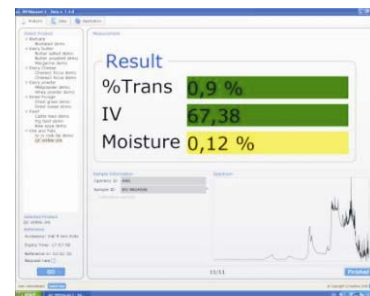
Spectroscopic Analysis Software

Designed in collaboration with NIR users, Q-Interline have developed InfraQuant 2.0, the next generation of NIR operator software. It allows laboratory staff or at-line operators to monitor and trim processes with real-time data.

Analysis is a simple path of fully configurable steps. All results are accessed through the Data Manager where trend curves, printing and export actions are easily performed. New analysis methods can be simply set up in the Application Manager.

Built-in instrument validation provides a high level of security and is automatically performed on every reference collection.

InfraQuant 2.0 is based on the latest Microsoft technology making it fully compatible with the latest Windows platforms and ready for any future upgrades. This technology also provides a safe and accessible platform for integration into a LIMS.



Quant Technology

New Features in FT-NIR Spectroscopy

Upgrading your FT-NIR analysis with the new Quant analyser means you will be at the forefront of analytical performance and technology. The Quant is the most reliable FT-NIR system in the market with the lowest cost of ownership. Easy to use and with minimal maintenance, it will provide constant analysis results for many years.

Spectral Performance

The internal VCSEL solid state laser is fully self calibrating and ensures exceptional wavelength accuracy with precise results. It is incredibly durable and has an average life-time in excess of 20 years. The innovative double pivot interferometer is designed to ensure increased robustness and allows more reproducible spectroscopy.

Signal to Noise (60s, 16 cm⁻¹, at peak response) > 900 000:1

Spectral Range 3,700 to 14,885 cm⁻¹ (672 to 2702 nm)

Frequency Repeatability @ 7300 cm⁻¹ < 0.006 cm⁻¹

Frequency Accuracy @ 7300 cm⁻¹ < 0.01 cm⁻¹

Absorbance Reproducibility (toluene) < 0.002 AU

Ethernet Communication, 10 / 100 Mbps

Size w 435 x d 280 x h 372 mm, 24 kg

Operating Temperature 10 -35 °C

Operating Relative humidity 5 - 80% (non-condensing)

Regulatory Certification and Compliance TUV, CE and RoHS

Maintenance

A preventative maintenance is recommended every 5 years to replace the source module that has a 10 year average life-time. Apart from this, the system is maintenance and adjustment free. No components to replace or adjust. No consumables. No He-Ne laser. No hygroscopic optics. No purge required. The interferometer has a life-time warranty and the overall system a 2 year warranty.

Built to Last

Rugged and durable modules, a permanently aligned optical system and a design that combines minimal mechanical components, the Quant will operate for years to come with no interference. The result: a reliable spectrometer that always produces results of great consistency.

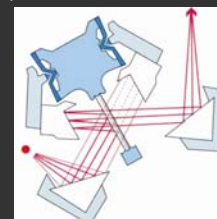


Small Footprint

The vertical design of the Quant makes it one of the most space-efficient spectrometers in the market. Its vertical design also facilitates access to internal components.

Interferometer Design

The interferometer in the Quant is an ABB Bomem double pivot interferometer with cube corner retro-reflectors that are permanently aligned. The scanning mechanism has a lifetime warranty against breakage. This design gives the instrument smooth, constant velocity and perturbation free scanning.



The design is the result of more than 30 years of experience in the space, chemical, pharmaceutical and petrochemical process and laboratory industries.