



# Quant

One analyser – endless possibilities



A TRIBUTE TO  
INNOVATIVE CHANGE  
DANISH QUALITY  
SINCE 1996 

*Value through insight*

DANISH QUALITY SINCE 1996 

*Since 1996 Q-Interline has specialised in developing and providing analytical solutions to our customers.*

*We help our customers:*

- ✓ *Optimizing raw material utilization*
- ✓ *Optimizing production processes*
- ✓ *Lowering energy consumption*
- ✓ *Ensuring product quality*



### **Invest in technology that matters**

You get a 3 years hardware warranty on Q-Interline instruments, no strings attached. Our analysers are built to last!

All our solutions are based on 3 fundamental technology areas.

- High-end Fourier Transform Near-Infrared (FT-NIR) spectroscopy.
- Proper representative sampling.
- Intelligent digital technology efficiently supporting all solutions in real-time.

### **Your results matter**

Q-Interline is your NIR-partner ensuring an efficient delivery process, installation, and maximum return on investment for you.

No production processes nor customers are 100% alike, and we adapt to every project with motivation and commitment. Your analyser doesn't bring any change until the analysis results are validated and these results are applied and used – We focus on your effect in the short, medium, and long term.

### **You can believe in your data insights**

You need to be certain that your production is going as planned and that you can trust your analysis results. That is why we developed AnalyticTrust - for intelligent surveillance of hardware and application performance.

This tool can help save you from loss of product, profit, customers, and reputation as consequences can be high with production not living up to the quality standard.



# Quant analyser

One analyser – endless possibilities

## Representative non-destructive analysis

With different and interchangeable sampling accessories you can use the same base Quant FT-NIR analyser for non-destructive at-line analysis of solids, powders, pastes, liquids, and more.

You will get a fast and representative analysis result ensuring product quality.

## Simple and flexible solution

- One spectral format to handle across all applications
- Easy interchangeable sampling accessories
- Same userfriendly software across all applications
- Same LIMS interface for all applications
- Easy operator training
- Link to AnalyticTrust surveillance & support platform
- 1 analysis technology for all types of samples and applications across all sites.

## With the Quant analyser you get

A robust base analyser with

- 3 years hardware warranty
- No scheduled maintenance
- Lamp life on average 10 years and internal laser that lasts for the instrument lifetime
- Most representative sampling with the right choice of sampling accessory
- Intuitive multilingual user software – InfraQuant

## What about in-line analysis?

You can switch from at-line to in-line and you can reuse calibration data from your at-line Quant solution to your InSight Pro solution as the same base instrument and technology are used for both solutions.



# Sampling and measurement

One analyser for all purposes

## Representative sampling - choose the optimal sampling accessory

You should find the right balance between your analysis being right and being easy.

- Applying correct representative sampling in the first place is essential.
- Presenting the sample to the analyser in the right way is the next important step to ensure results that are free from unpredictable sampling errors.

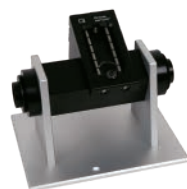
All sampling accessories below, developed by Q-Interline, are the result of extensive experience and knowledge in the field of representative sampling and with respect for the Theory of Sampling.



### Cup Sampler

Get the easiest, cleanest, fastest sample presentation for both solid and liquid butter and cream cheese. Reuse sampling cup without cleaning in between samples as product is measured from the top. Safely use the plastic sampling cup in the production area.

[Butter](#) · [Fresh cheese](#) · [Margarine](#) · [Pasty products](#)



### Bottle Sampler

Get a representative analysis of even heterogeneous products with the Bottle Sampler tumbling and spinning the sample in a sealed 125 ml glass container. The sealed lid protects the sample against influence from surroundings and makes it possible for you to prepare many samples in advance and send for reference analysis if needed.

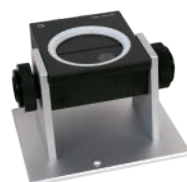
[Dry silage](#) · [Soil](#) · [Feed](#)



### Spiral Sampler

You can avoid cumbersome and time consuming pre-treatment of the samples with the Spiral Sampler. You simply fill the large glass container and the patented Spiral Sampler offers truly representative scanning of heterogenic samples. You get an amazing 375 cm<sup>2</sup> surface scanning in FT-NIR quality.

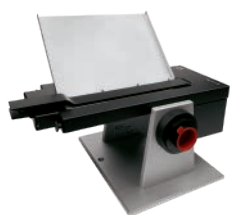
[Fresh Silage](#) · [Compost](#) · [Hay](#)



### Petri Sampler

Prepare your samples easily. The Petri Sampler spins the sample while analysing providing a fully representative result. For analysis of more homogenous products but suitable for many different product types. The petri dish can be made from either glass, plastic, or Teflon.

[Grated Cheese](#) · [Powders](#) · [Feed](#) · [Bone meals](#)



### Bag Sampler

The Bag Sampler is designed to analyze hot, sticky, or viscous products as well as powder products. The sample goes directly into a sealed plastic bag. Cleaning is simple and reference measurements are built into the instrument, ensuring consistent and reliable results. This procedure minimizes irritating odors, skin contact, and dust.

[Melted, cream, and grated cheese](#) · [Similar products](#) · [Powders](#)



### Vial Sampler

With a minimum of preparation and no cleaning you can analyse liquids and fluids in transmission mode with disposable glass vials. The Vial Sampler has 8 positions for you to preheat and prepare samples for measurement. Your result is highly reliable as the Vial Sampler controls the sample temperature, eliminating temperature effects.

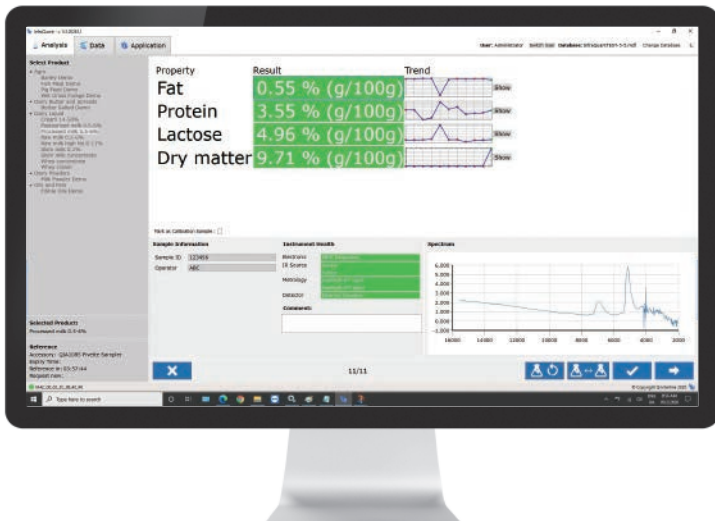
[Edible oils](#) · [Fat](#)



### Fibre Interface

This accessory is ideal for research and special applications enabling remote and flexible scanning with endless possibilities. The interface makes it possible to use fibre optic cables and probes. A wide variety of sampling cells and probes are available.

[Probes](#) · [Cells](#)



## Software highlights

- Intuitive and easy to use
- Choose between multiple languages
- Easy link to AnalyticTrust for intelligent surveillance and quality assurance
- Easy link to LIMS with XML

# Quant software

An important part of the user experience!

## InfraQuant - multilingual and easy to use

You get a multilingual wizard-driven software programme which can be operated easily by anyone. You get a great overview of your analysis results.

You can easily link InfraQuant to any LIMS system by means of a standard XML format.

## Secure your data with AnalyticTrust

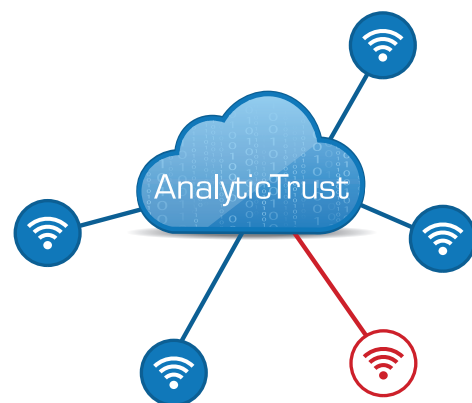
Run your process closer to target and make more profit! Make your work life easier and your results more reliable by connecting your analysers to the cloud-based surveillance tool AnalyticTrust.

Leave all the scheduling to the QA planner and ensure that the necessary minimum validation is done and be certain about the uncertainties. The cloud-based tool monitors critical aspects of keeping your analyser in statistical control. On top of this AnalyticTrust also automatically saves your calibration data in the cloud for your safety.

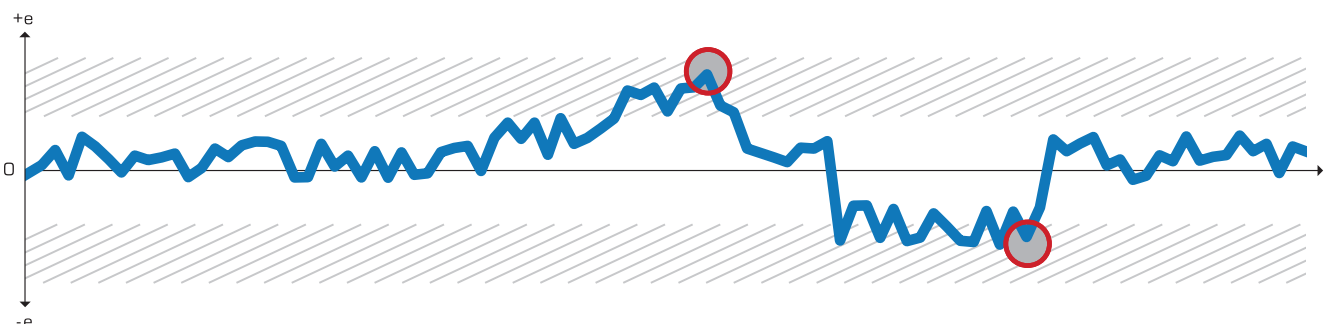
## See issues before they become a problem

You or your Quality Assurance Manager can set requirements and create alerts in AnalyticTrust ensuring that you get a warning if irregularities in your analysis occur. This way you get a chance to deal with issues before they become a real problem in your production.

AnalyticTrust automatically creates and maintains control charts covering a wide variety of parameters from analysis accuracy to hardware performance.



Automatic control charts



# Specifications of the Quant

## General

Technology	FT-NIR
Maintenance free	Yes. Average lamp life 10 years
Warranty	3 years
Intelligent analytics enabled	Yes includes driver for AnalyticTrust
Compliance	CE, RoHS
Power (UPS preferable)	240 VAC/50 Hz or 120 VAC/60Hz, approx. 65 W
Dimensions (H x W x D)	372 x 435 x 280 mm, accessory may add to height
Weight	24 kg + accessory
Operating temperature	10-35 °C , stable within +/- 5 °C
Operating humidity	<90% RH non-condensing
User interface	Multilingual InfraQuant operator interface

## Sampling & measurement

Accessories	Multiple options available for reflectance and transmission
Sample containers	Glass, Teflon, plastic
Accessory swap	Yes optional
Measurement time	10-30 sec typical
Calibration range, accuracy repeatability, components	According to application examples

## Spectroscopic Performance (typical, at 25 °C with InAs detector)

Interferometer spectral range	3,700 to 14,885 $\text{cm}^{-1}$
Signal to noise	(60 s, 16 $\text{cm}^{-1}$ , at peak response) > 500 000: 1 (InAs)
Frequency repeatability	(@ 7300 $\text{cm}^{-1}$ ) < 0.006 $\text{cm}^{-1}$
Frequency accuracy	(@ 7300 $\text{cm}^{-1}$ ) < 0.06 $\text{cm}^{-1}$
Absorbance reproducibility	(Toluene) < 0.002 AU
Detector option	DTGS, InAs, InGaAs 2.1, InGaAs 2.6



[info@q-interline.com](mailto:info@q-interline.com) | [q-interline.com](http://q-interline.com)

## FT-NIR Technology

Our analysers are powered by the latest ABB Bomem FT-NIR technology.

FT-NIR is short for Fourier Transform Near Infrared.

This technique offers fully digital access to the entire spectrum with extremely low noise and high stability.

This means calibration lasts much longer and improved sensitivity and repeatability detect smaller process and the variations with greater certainty.

