



InSight Pro

Real-time product insights



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.



InSight Pro

Know more – do more – get more

Save time, energy, and raw material

Optimise your production process for maximum utilization of your raw material, for saving energy and time, and for ensuring product quality with the help from the InSight Pro and the real-time process insights provided for you.

You get a fast return on investment with full implementation support and utilization of your existing Q-Interline at-line calibrations in your new InSight Pro system.

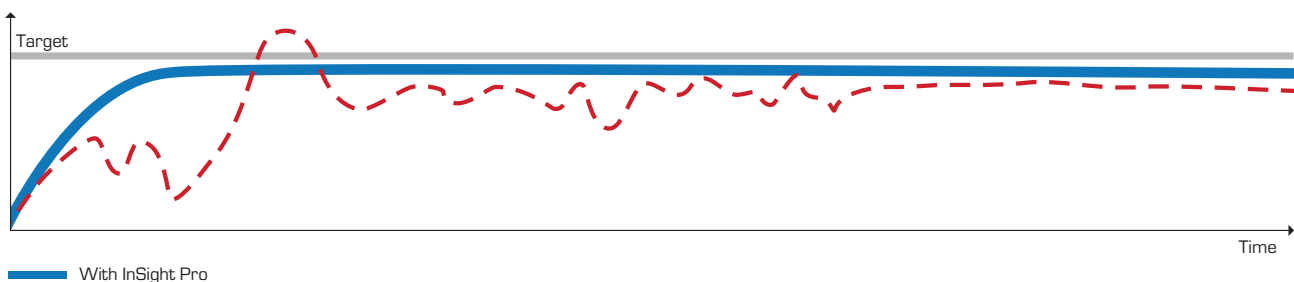
One or two measuring points can connect to the analyser via flexible optical fibres. Analyse fat, oily and non-fat liquids, creamy and semi-solid products like mozzarella or powders.

Measurable achievements

- Save energy
- Produce closer to target
- Have less waste and rework
- Get full traceability
- Start-up faster after production pause
- Get a stable and predictable process

With InSight Pro you get

- 3-years hardware warranty
- A maintenance-free system
- One or two measuring points
- Easy installation with choice of reusing Quant at-line calibration data
- Choice between five configurations
- Built-in 24/7 surveillance
- Full CIP/SIP compliance
- User friendly multilingual software InSightView

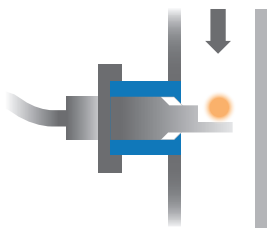


Sampling and measurement

One analyser for all purposes

Representative sampling - choose the optimal sampling solution

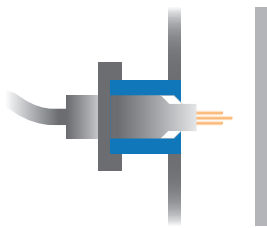
Presenting the sample to the analyser in the right way is an important step to ensure results that are free from unpredictable sampling errors. With InSight Pro the sampling accessories connect to the analyser through fibre optical cables from 5 to 30 metres. Fibre cables are self-contained in white food-grade hoses, which are easy to install in cable trays. All Q-Interline probes and cells - see below - are designed to meet strict hygienic requirements. The sampling systems all comply to CE norms, such as EN1935/2004 and the only contact materials are SS316L, Sapphire and Teflon. All configurations are CIP/SIP compliant and are specified to work up to 10 bar pressure and operating temperatures from 5 to 90 °C



Spoon Probe

With the Spoon Probe you can do in-line analysis of fine powders in a falling stream. The sample is collected in the spoon area of the probe and analysed. After analysis, the window of the probe and the spoon area are cleaned with pressurised air.

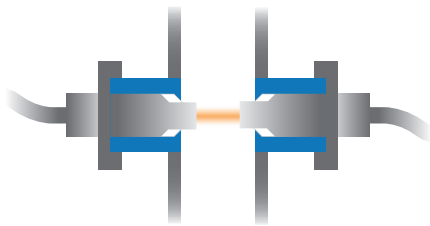
Powders · Fish meal · Fine feeds



Reflectance Probe

This sampling system is ideal for sampling of semi-homogeneous process streams and semi-solid products flowing in a pipe. Hygienically mounted through a port with the tip 25 mm into the product guarantees high quality contact with the product stream.

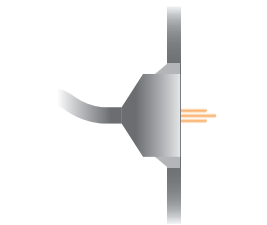
Butter · Mozzarella · Chocolate · Processed cheese



Transmission Cell

With the Transmission Cell you can get a reliable and representative analysis of liquids in pipes from 1.5" to 6" in diameter without moving parts. The cell is built around a modified Varinline® house mounted with two high-precision probes. The system works with a fixed optical path of 1 mm..

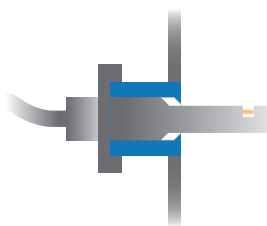
Milk · Cheese milk · WPC · Whey · Oils



Backscatter Probe

The Backscatter Probe gives you an ideal solution for analysis of products in tanks with stirring. The flush-mounted design helps revealing valuable information about your production process.

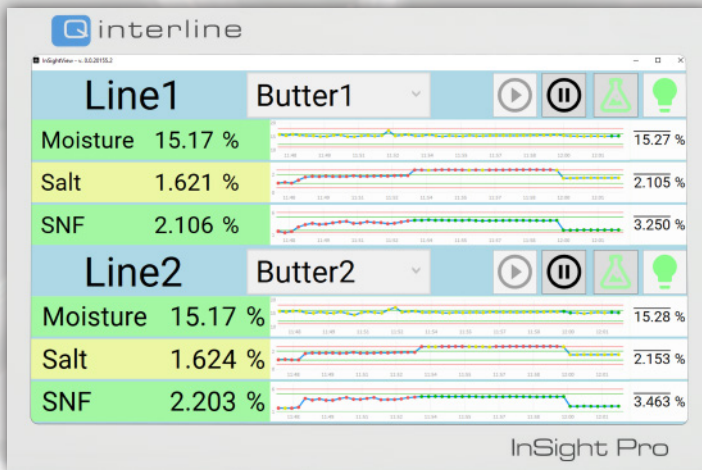
Cheese milk vat



Transmission Probe

Here you get the option of up to 60 metres long fibres. You can do remote transmission measurement of clear or slightly scattering liquid process streams and tanks at high-temperature and high-pressure operating conditions.

Oil · Water · Emulsifiers · Chemicals



Software highlights

- Intuitive and easy to use without training
- Multiple user languages
- Linked to AnalyticTrust for intelligent surveillance and QA
- Easy link to factory systems

InSight Pro software

- an important part of the user experience!

InSightView - multilingual and easy to use

You have the process composition, averages, and trends available in real-time allowing tight process control and optimised profits.

InSightView is a multilingual wizard-driven software programme which can be operated easily by anyone. You get a great overview of your analysis results. You get help collecting the right control samples to minimise load and laboratory costs.

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.

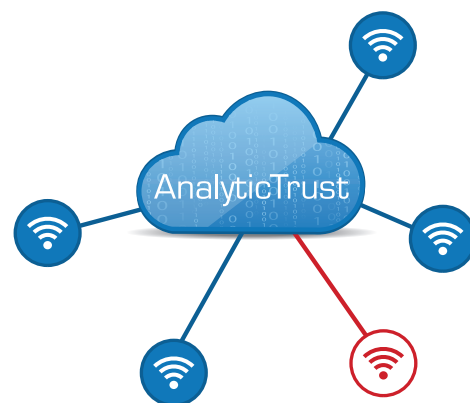
Leave all the scheduling to the QA planner and ensure that the necessary minimum validation is done and be certain about the uncertainties. The cloud-based tool monitors critical aspects of keeping your analyser in statistical control.

On top of this AnalyticTrust also automatically saves your calibration data in the cloud for your safety.

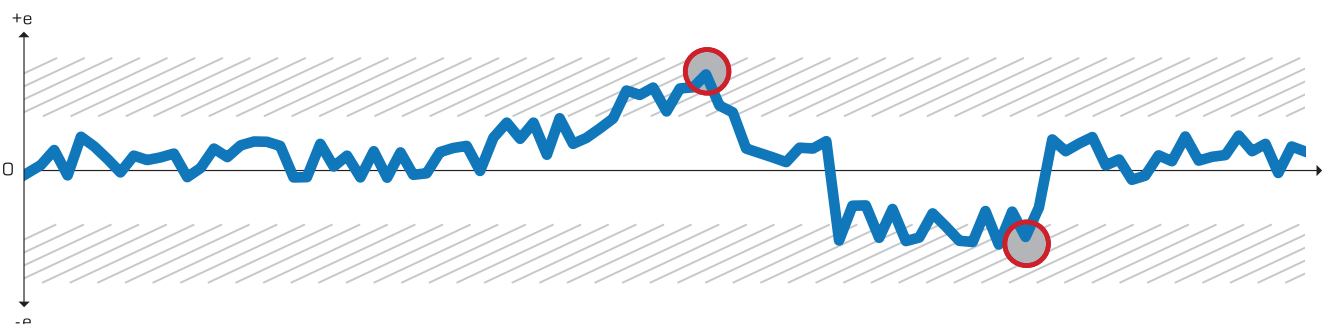
See issues before they become a problem

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 InSight Pro

| General | |
|-------------------------------|--|
| Technology | FT-NIR |
| Maintenance free | Yes, average lamp life 5 years |
| Warranty | 3 years |
| Intelligent analytics enabled | Yes, includes driver for AnalyticTrust |
| Compliance | CE, Rohs, IDF/ISO 23291, ATEX 21 (powder) optional |

| Sampling & measurement | |
|---|--|
| Multiplexer | Allows one or two sampling devices as well as internal optical reference for live intelligent diagnostics. Switching time 1 sec. |
| Sampling system | Fibre-optic probes and cells, see specs sheet |
| Wetted materials | SS316L, Sapphire, PTFE. food approved EN1935/2004 |
| Fibre length | 5-30 metres |
| Measurement time | 10-20 sec per channel |
| Calibration range, accuracy repeatability, components | According to application examples |

| Instrument enclosure | |
|------------------------|--|
| Construction | Two-layer SS304 cabinet IP65 |
| Operating temperature | 10-25 °C ventilated version, water-cooling 10-35 °C |
| Humidity | <90% RH non-condensing |
| Vibration | Vibration isolation built in |
| Dimensions (H x W x D) | 850 x 650 x 450 mm (water-cooling adds 250 mm to height) |
| Weight | 65 kg |
| Power consumption | 120 VAC 60 Hz or 240 VAC 50 Hz, 200 watt |

| InSightTouch | |
|---------------------------------|---|
| PC controller with touch screen | Win10 UK Pro. Touch technology capacity |
| Controller enclosure | Monolayer SS304 cabinet IP65 |
| Dimensions (H x W x D) | 580 x 700 x 210 mm |
| Dist. to instrument enclosure | <50 metres |
| Compliance | CE, Rohs, IDF/ISO 23291 |
| Multi-screen | Optional |
| I/O Communication | OPC standard, optional ModBus/Profibus/discrete |
| User interface | Multilingual InSightView operator interface |



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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.

