



POWDERS AND WHOLEGRAIN ANALYSER

The MultiCheck is a NIR Analyzer based on the approved OmegaAnalyzer G for Transmission measurements, but with the possibility to measure in the classic reflectance range up to 2450 nm. The transmission measurements work in the classic range of 730nm to 1100nm with different path lengths between 8mm and 30mm to accommodate varying grain sizes and packing densities. Because a couple of applications have to be done in the higher wavelength range and in reflectance mode, the MultiCheck gives you the possibility to make analysis between 1400nm and 2450nm in reflectance mode. For larger samples a 100mm diameter cell is available that mixes up your sample in the sub-sample mode. This gives you optimal sample presentation. For homogeneous samples like flour and starch you can use the non-rotating 47mm diameter measuring cup. In reflectance mode you can use MLR and PLS calibrations. MLR calibrations can be transferred easily from other instruments on the market. The MultiCheck allows you to select every wavelength and bandwidth that you need. It can simulate other instruments with up to fifty fitted filters.

NEAR INFRARED REFLECTANCE



ROTATING SAMPLE CELL FOR EASY PREPARATION AND LOADING

- Cell re-packs during rotation
- Easy to fill and clean cell
- Powder or wholegrain applications
- Full NIR range, 1400nm to 2450nm
- MLR and PLS calibration capable
- 100mm diameter rotation cell
- 47mm diameter non-rotating cell

KEY FEATURES

- **Internal 10.4" Colour LCD Display**
- **Direct control via Touch Screen Interface: 2 USB, 1 Ethernet, 1 Parallel**
- **Changeable Pathlength for Rape Seed, Wheat, Corn**
- **Network possibilities for data exchange**
- **Dimensions: 580mm x 400mm x 470mm Weight: 40kg.**

NEAR INFRARED TRANSMITTANCE



WHOLE GRAIN ANALYSIS WITH EASE

- Easy operation with touch screen
- Scanning monochromator system, 0.5nm increments
- Averaging 16 sub-samples
- Full NIR range, 730nm to 1100nm
- Variable path length, 8mm to 30mm
- Ethernet network able for print and support Windows operating system
- All results are stored on calibration database

YOUR SUPPLIER:

Ronin
Grain Management Solutions

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OMEGA ANALYZER G

Precision NIR analyzers for Agriculture, Food,
Chemical and Pharmaceutical Industries



The OmegaAnalyzer G™ is the workhorse of Bruins Instruments NIR grain analyzers. The “G” is a versatile instrument for grain analysis and is capable of handling grain and seed such as wheat, barley, corn, rice, soy, rapeseed and more. This instrument offers USA NTEP certification and a host of upgrade options and accessories.

TYPICAL APPLICATIONS

Whole grain and seed analysis including: corn, rice, wheat, barley, oil seeds, etc. Optional Micro Cell measures flour, powders, and small amounts of grain. Universal calibrations are available for protein, moisture, fat, starch, fiber, gluten, sedimentation. Our calibration services can develop calibrations for almost any significant component or property for your particular product.

KEY FEATURES

- NTEP certified Variable path length from 8 to 30mm to accommodate a variety of grain and seed
- 50 second analysis time with 16 subsamples
- Fully transferable calibrations between instruments

KEY FEATURES

- **Dimensions: 580 X 400 X 470 mm (22.8 X 15.7 X 18.5 inches)**
- **Weight: 40 kg (88 lbs.)**
- **Wavelength range: 730-1100nm transmission .5nm scan increment**
- **Sample Presentation: automatic feed with multiple sub-sample measurements**

Common Features to All Bruins Instruments NIR Analyzers

KEY INSTRUMENT FEATURES

Fully Transferable Calibrations Bruins NIR analyzers are the only scanning instruments in the world where product calibrations can be transferred between ALL instruments without any adjustment of the calibrations or the instrument. The unsurpassed instrument linearity negates the use of non-linear calibrations, such as ANN, and instead can utilize robust statistically based calibrations such as PLS.

Research Grade Precision The Bruins monochromator has been developed and refined over 30 years with over 10,000 units delivered. They are used in some of the most demanding applications such as the measurement of optical laser filters, standards measurements, and military applications for quality control.

Industrial Grade reliability Utilizing a single moving part, excluding the sampling systems, Bruins NIR analyzers are known to run reliably and accurately for years without any adjustments at all utilizing the original calibrations!

Double Beam operation All Bruins Analyzers use a single channel, double beam mode of measurement that insures the highest precision. This is the same technique used on many research grade spectrophotometers. Double beam measurements always reference the sample measurement against an open beam measurement to eliminate the effects of drift due to environmental conditions or short and long term instrument variation.

INSTRUMENT SOFTWARE

Omega Predict Software Uses a high resolution color touch screen to guide the user through the simple process of running the measurements. All data from each measurement, including the full spectrum is logged into the Predict database. Password controlled administrative functions allow tailoring the menu to the exact level of operability for the user as well as configuring products and calibrations. Results and spectra are easily exported to a local network or USB device. Omega Predict utilizes the industry standard GRAMS PLSplus/IQ multivariate analysis software for generating calibrations for virtually any product. Unlike some NIR analyzers, calibrations are based on sound statistical models that not only provide fully transferable calibrations, but can also reliably indicate bad samples or instrumental problems and can virtually eliminate incorrect or misleading results. Omega Predict can also utilize calibrations developed on older filter based instruments using MLR which can easily be transferred to any Bruins NIR analyzer to get you up and running fast, without costly recalibration.

Omega-Pro analysis software is a full-featured spectroscopy software available on the research grade InfraScan instrument.

Communications Remote control and networking software included.

INSTRUMENT HARDWARE

Integrated PC board with network and USB connectors. Solid state Industrial grade 2GB bootable flash memory drive for program and data storage. Optional external mouse/keyboard/monitor.

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