

HK4 SPECTRALYSER 1ST ON-LINE SPECTROMETER

SIGNIFICANT ADVANTAGES OVER CLASSICAL FILTER INSTRUMENTS
To control 100% of your production!

Food Industry

Miniaturized
Sensor for
small footprint



Application Example

- **Ground Meat**

Measure **Fat**
Collagen
Protein
Moisture

Directly on a **grinder or mixer**

Simple installation

All pipes, tanks, conveyor belts, mixers, even in locations with reduced space!

ATEX - 3A Version

Electronics placed in the control room.

3 Constituents

Measure up to 3 variables simultaneously.

More Precision

The diode array is equivalent to 512 narrow band filters. A classical filter system has a maximum of 6 filters.

Less Maintenance

No optical filters, no moving parts, (no filter wheel, no motor, no maintenance.

Calibrations

Easy and Quick

Mining and Industry

Connect
Transmitter to
Sensor with
Optical Fibers



Application Example

- **Powders, pellets, liquids, and slurries**

Measure **Moisture**
Directly on a **belt or in a vessel**

Construction Material Industry

Measure with a
Diode Array for
improved
precision



Application Example

- **Panels**
(Chips, OSB, MDF)

Measure **Moisture or Glue**
Directly after a **dryer or blender**

For more information: Please contact HK Instrument Systems at 1-888-859-9487

CONTINUOUS MEASUREMENT OF UP TO 3 COMPONENTS

THE PRECISION OF THE LABORATORY ON-LINE to control 100% of your production!

FOOD

Cereals, milk, coffee, chocolate, cakes, pastas, sugar, meats, flours, dehydrated products, rice, salt, spices, and peanuts

MINERALS

Kaolin, chalk, phosphate.

CHEMISTRY

Resins, cosmetics, polymers, detergents, soap, powders.

CERAMIC

Clay, plasters, concrete, cement.

PAPER MILL

Consistency, moisture, thickness, and area weight.

PANELS

Chips, MDF, OSB, and veneer.

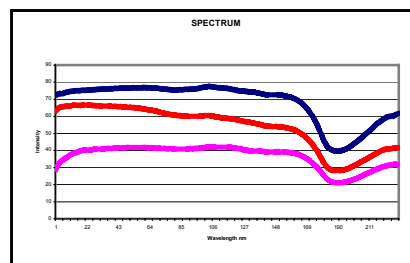
The HK-4 SPECTRALYSER is a Near Infrared (NIR) Instrument System, which allows for the continuous on-line measurement of up to 3 constituents. Due to an innovative concept and its simplicity of use, the HK4 has revolutionized the on-line NIR measurement. The ability to decide during calibration, what the constituents of interest will be, gives the HK4 a huge advantage over conventional mechanical filter wheel instruments.

HK4 SPECTRALYSER - Diode Arrays

The HK4 measures the NIR Spectra with a diode array. This allows the measurement of every constituent that has a spectral contribution in the measured spectra. The ability to measure different constituents is just a matter of calibration.



HK4 SPECTRALYSER - 3 Constituents



The HK4 is able to simultaneously measure up to 3 constituents. For example: moisture, fat, and protein. The HK4 can also measure complex chemical components, like different types of glue.

HK4 SPECTRALYSER Calibration Software

The HK4 uses a very simple PC based software program to configure and calibrate the system. This program allows the user to measure on-line spectra for analysis or calibration. This software runs under Windows 98, NT, 2000, and XP. The software program has multifunctional graphical tools that allow a qualitative analysis of the measurement. The calibration can be done without any specific chemo metric knowledge.

MOISTURE

FAT

THICKNESS

CAFFEINE

ALCOHOL

AREA WEIGHT

TOTAL SOLIDS

COLORS

GLUE