Improve Process Control
Reduce Energy Costs
Reduce Product Waste
Improve Quality Control
Industrial Grade

The NIR Series are Moisture Measurement and Control Systems designed for the continuous monitoring of your product using Near Infrared Reflectance (NIR) technology. Its rugged design provides accurate, real-time and non-contact measurements in the most demanding manufacturing environments. The NIR Series extends the range of Sensortech's precision industrial grade products.

Reliable Performance

Sensortech is unique in its ability to deliver dependable performance through its advanced NIR technology, leading edge manufacturing processes, and comprehensive testing and quality control standards. A thorough emphasis on durability had been placed on the NIR Series during its development in order to bring Sensortech's high standard of performance to industrial applications.

Full Integration

We at Sensortech recognize that every manufacturing process is unique and your needs are no exception. The NIR Series of moisture analyzers offer an array of interfaces that accommodate: water immersion, protection from dust, and severe temperature. Additionally, we manufacture numerous application interfaces and options designed to integrate the NIR Series into your particular manufacturing process.

Applications Include:

Foods
- Snack Foods, Crackers, Candy, Cookies, Chocolate, etc...
- Nuts, Peanuts, Cashews, Pecans, Almonds, etc...
- Flour, Potato Powder, Granules, and Milled Products
- Whole Grains, Corn, Soy Beans, Wheat, Rice, etc...
- Spent Grains
- Puffed and Flaked Cereals
- Beet and Citrus Pulp
- Coffee and Tea
- Sausage Casings

Chemicals
- Detergents & Fertilizers
- Granulas & Powders
- Soap Powders & Flakes
- Ceramics and Minerals
- Bauxite and Iron Ore
- Laminated Glass & Fiberglass
- Sand
- Foundry
- Cement
- Chalk
- PVB Sheet
- Crumb Rubber

Tobacco
- Cut Tobacco
- Reconstituted Tobacco
- Whole Leaf Tobacco
- Whole Stems
- Filler

Textiles
- Felts
- Carpets
- Dye Lines & Finish Lines
- Tows & Yarns
- Wovens - Synthetic & Organic

Silicon
- Solar Cells
- Solar Panels
- Photovoltaic

World Class Technology and Customer Support

Sensortech Systems, Inc. is a comprehensive design, development, and manufacturing facility specializing in moisture management solutions. Sensortech has pioneered industrial applications of moisture measurement technology for over 30 years and the NIR Series of moisture analyzers packages the latest NIR technology into a sophisticated instrument engineered for durability and precision measurement.

The NIR Series has numerous applications across a variety of industries. Calibration services are offered for every analyzer in addition to our unparalleled product support.
Sensortech manufactures a variety of moisture analyzers designed for numerous applications. The following analyzers are among our most popular specialty instruments designed for effective moisture measurement across a diverse range of manufacturing requirements. Sensortech provides solutions to the most challenging manufacturing environments.

**SNORKEL SAMPLER**

The NIR Series of moisture analyzers include a variety of application interfaces, options, and accessories designed to optimize your moisture measurement accuracy. The illustration to the left shows a Standard NIR 6000 analyzer having a SNORKEL SAMPLER option that provides an intelligent method of product sampling.

**SPECIAL TRANSMISSION**

The NIR 6200 Series of moisture analyzers have been developed for applications requiring a moisture measurement within a 10mm target area. The Special Transmission interface of the NIR 6210 is ideal for translucent products such as sausage casings or for web applications.

**HARSH ENVIRONMENT**

The IP67 rating of the NIR 6300 Series have been developed to withstand wash-downs, High Temperature, and is protected against the effects of immersion. Its rugged stainless steel enclosure makes it ideal for HARSH ENVIRONMENTS, High Temperature and food applications.

NIR Series Includes:
- NIR 6000 Industrial Grade
- NIR 6100 Food Grade
- NIR 6200 Narrow Beam
- NIR 6300 Harsh Environment
- NIR 6400 Explosion Proof
- NIR 6500 Laboratory
- NIR 6700 High Sensitivity
- NIR 6800 Tobacco Grade
- NIR 6900 Special/OEM

The NIR Series can be used as a Stand-Alone instrument or in a networked Multi-Sensor Configuration.

Intelligent Sampling

Full integration into your production process is reinforced through your choice of the NIR Series numerous sampling methods. These sampling methods support your Process Control System’s ability to optimize production flow by targeting critical points throughout your process and effectively deliver the type of moisture measurements required for your specific application.

**SAMPLING METHODS INCLUDE:**

1. Continuous non-interrupted sampling.
2. Signal Gated Sampling uses an external gating input to start and stop sampling and holds the last measurement.
3. Auto Gated Sampling where the measured moisture level is used to start and stop the measurement using user defined moisture thresholds.
4. Timed Sampling may be used with Application Interfaces, such as a Snorkel Sampler, using fill and purge techniques of sampling.
5. Gate Timed Sampling uses an external gating input to start and stop sampling for a timed interval.
6. Auto Reference Sampling uses a measured value that is stored as a zero value offset.

Management Software

The NIR Series includes a proprietary PC based software package that offers an accelerated view of your production process from a desktop or laptop computer.

General measurement reading, data-logging, calibration utilities, and numerous configurations are among the many features included with your NIR Series proprietary software.
On-Line Moisture Measurement and Control System

Analyzer Specifications

NIR Constituents 1, 2, or 3
Moisture Ranges 0 - 100%
Measurement Distance 1.5 - 16 in. (3.81 - 40 cm)
Optical Sampling Size 1.46 in. (3.70 cm)
6200 Series 0.39 in. (1.00 cm)
Number of Calibrations 50
Standard Weight 16 lbs. (7 Kg)
* Non-Standard enclosures are subject to application.

Enclosure
Standard Cast Aluminum
6100, 6300 & 6500 Series Stainless Steel
6400 & 6900 Series Subject to application
Dimensions Refer to diagram on right
Power 80 / 260 VAC (50 / 60 Hz)
Option 24VDC
Temperature Control
Standard Operating Temperature 0 - 130°F (0 - 55°C)
6300 Series 0 - 185°F (0 - 85°C)
• Several options are available spanning and exceeding the minimum and maximum stated specifications.
• Contact Sensortech for details.
Analyzer Inputs / Outputs • Three self-powered isolated 4 - 20mA outputs
• Ethernet TCP/IP, RS-232, RS-422/485
• 1 Digital Input
• 1 Digital Output
Communication Interface Options PROFIBUS, PROFINET,
DeviceNet, EtherNet/IP, Modbus
Warranty 1 year system guarantee
Lamp and Motor (Lifetime)

Standard Features Include:
• 16-bit conversion and 32-bit processing
• Wavelength selection for each application
• Advanced digital filtering for noise free signal
• Surface mount technology
• Windows operating software
• Standard ethernet output
• 3 x 4-20mA outputs
• Embedded PC with flash memory
• Optical window contamination monitor
• 1 year parts & labor warranty
• Pre-calibrated to your application

Options:
• Digital Display (DD)
• Touch Operator Interface (OI)
• Cooling Panels (Air Vortex or Liquid Cooled)
• Calibration Check Standards
• Product Temperature Sensor
• PROFIBUS, PROFINET, EtherNet/IP, DeviceNet, Modbus
• KEL-F, Quartz, and Sapphire Viewing Windows
• Extended Warranty

Sensortech Guarantee
All products manufactured by Sensortech Systems, Inc. are warranted against defects in material and workmanship for a period of one year from date of shipment. In the event any product manufactured by Sensortech Systems, Inc. proves to be defective during the warranty period, it will be repaired free of charge.

For Additional Details Please Visit: www.sensortechsystems.eu

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