Sensortech Systems, Inc.

NIR 6000

Industrial Grade NIR Moisture Analyzer

7.93

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

Sensortech.com™

SENSORTECH'S NIR 6000

> The NIR Series can be configured to measure coating thickness, oil, protein, and many other compounds.

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 was placed on the NIR Series during its development to ensure Sensortech's high standard of performance.

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.

ESTABLISHED 1983 · THE MEASUREMENT & CONTROL COMPANY ·

33 Years

Sensortech Systems, Inc

Applications Include:

Foods
- Beet & Citrus Pulp
- Cereal & Grains
- Cheese
- Chocolate
- Coffee & Tea
- Cookies
- Crackers/Biscuits
- Milk Powder
- Nuts, Almonds, Cashews, Peanuts, etc...
- Pet/Animal Food
- Potato Powder/Granules
- Spent Grain
- Sugar

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

Chemicals/Minerals
- Acetate
- Bauxite & Coal
- Cellulose
- Cement & Sand
- Ceramics
- Chalk
- Crumb Rubber
- Detergent
- Fertilizer
- Fiberglass
- Foundry
- Granular Material
- Iron Ore
- Laminated Glass
- Salt
- PVB Sheet
- Powders
- PVC
- Sinter
- Soap Flakes & Powders

Biomass
- Bark
- Hog Fuel
- Raw Material
- Saw Dust
- Wood Chips & Shavings
- Wood Fibers & Flakes
- Wood Pellets

Wood Products
- Coating Measurement
- Fiberboard
- Flakeboard
- Hardboard
- Medium Density Fiberboard (MDF)
- Oriented Strandboard (OSB)
- Particleboard
- Resin
- Veneer

Converting
- Carbonless
- Coatings
- Converting
- Corrugating Control
- Hot Melts
- Paper
- Plastic Film Thickness
- Pressure Sensitive
- Remoisturizing
- Wax Coatings
- Nonwovens

Tobacco
- Cut Tobacco
- Filler & Stems
- Lamina
- Cigar Tobacco
- Reconstituted Tobacco
- Whole Leaf Tobacco
- Snuff Tobacco

ASK ABOUT OUR COMPREHENSIVE PRODUCT LINE

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.

Operator Interface		Digital Display	
5.26	PC	191	PLC / Controller

HUB

The NIR Series product line is equipped with Ethernet TCP/IP, RS-232, and RS-485 protocols in addition to three self-powered isolated 4-20mA outputs; these standard features are included with every analyzer.

Optionally, Sensortech offers additional protocols at your request: PROFIBUS, PROFINET, EtherNet/IP, DeviceNet, and Modbus.

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.

Intelligent Sampling

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.
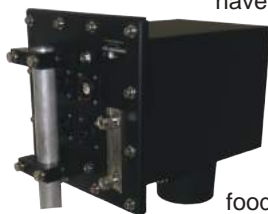6. Auto Reference Sampling uses a measured value that is stored as a zero value offset.

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.

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.

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 ENVIRON-MENTS, High Temperature and food applications.
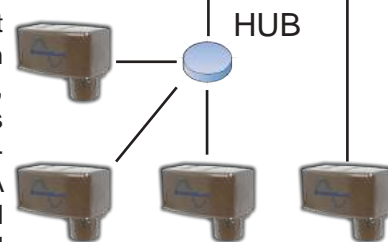
NIR Series Includes:

- 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

On-Line Moisture Measurement and Control System

Analyzer Specifications

Number of Measured Constituents	1, 2, or 3
Moisture Range & Accuracy	0 - 95% ±0.01% *
* All accuracies are subject to application	
Measurement Distance	4.0 - 16 in. (100 - 400 mm)
Optical Sampling Size	1.50 in. (38 mm)
6200 Series	0.40 in. (10 mm)
Number of Stored Calibrations	50
Standard Weight	16 lbs. (7 Kg) *
* Non-Standard enclosures are subject to application.	

Enclosure

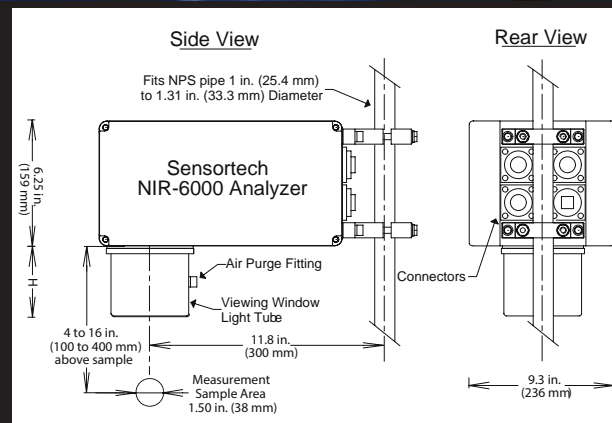|	
Standard	Cast Aluminum
6100 Series	Nickel Coated Cast Aluminum
6300 & 6500 Series	Stainless Steel
6400 & 6900 Series	Subject to application
Dimensions	Refer to diagram on right
Power	80 / 260 VAC (50 / 60 Hz)
Option	24VDC

Temperature Control

Standard Operating Temperature	32 - 120°F (0 - 50°C)
6300 Series	32 - 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	2 year system guarantee
	Lamp and Motor (Lifetime)

Side View — Rear View

Fits NPS pipe 1 in. (25.4 mm) to 1.31 in. (33.3 mm) Diameter
Sensortech NIR-6000 Analyzer
6.25 in. (159 mm)
Air Purge Fitting
Viewing Window Light Tube
Connectors
4 to 16 in. (100 to 400 mm) above sample
11.8 in. (300 mm)
Measurement Sample Area 1.50 in. (38 mm)
9.3 in. (236 mm)

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
- Optical window contamination monitor
- 2 year parts & labor warranty
- Factory Calibration included with your purchase

Options:

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

For Additional Details Please Visit:
www.sensortech.com

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SENSORTECH SYSTEMS, INC.
HEADQUARTERS

2221 E. Celsius Avenue, Unit B
Oxnard, California 93030
United States of America

Phone: (805) 981-3735
Fax: (805) 981-3738

sales@sensortech.com
www.sensortech.com

SENSORTECH SYSTEMS
EUROPE BV

Distributiestraat 73
4283 JN GIESSEN
The Netherlands

Phone: +31(0) 183 445051
Fax: +31(0) 183 445059

info@sensortechsystems.eu
www.sensortechsystems.eu

SENSORTECH LTD.
CHINA

Fu Ping Lu 299
24 Hao 2201 Shi
Shanghai 200333

Phone: +86 21 6609 0208
Fax: +86 21 6609 0209

info@sensortech.com.cn
www.sensortech.com.cn

Sensortech Systems™ Inc.
The Measurement and Control Company