



*Moisture Measurement & Control From Lab To Line*

## 868 LABORATORY MOISTURE SENSOR



## Produce More & Waste Less

Improve Manufacturing Production  
with Moisture Control

**MONITOR**  
Moisture Content  
Directly on the  
Production Line

**ADJUST**  
Crucial Moisture Levels  
Immediately

**MAINTAIN**  
Product Integrity  
Throughout the Process

**REDUCE**  
Waste & Human Error

**IMPROVE**  
Plant Efficiency &  
Product Quality

**Try MoistTech's NIR Technology today!**

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# Laboratory Moisture Sensor for Measurement Control

## AT LINE 868 WIDE ARRANGE OF APPLICATIONS INCLUDE:

- |               |                   |                    |              |            |
|---------------|-------------------|--------------------|--------------|------------|
| ✓ Adhesive    | ✓ Converting      | ✓ Minerals         | ✓ Snack Food | ✓ Web      |
| ✓ Animal Food | ✓ Food            | ✓ Paper            | ✓ Sugar      | ✓ And More |
| ✓ Bio-mass    | ✓ Forest Products | ✓ Pharmaceuticals  | ✓ Textiles   |            |
| ✓ Chemicals   | ✓ Grains          | ✓ Plastic          | ✓ Tobacco    |            |
| ✓ Coating     | ✓ Hog Fuel        | ✓ Renewable Energy | ✓ Web        |            |

SEE THE WAYS MOISTURE CONTROL CAN BENEFIT YOUR FACTORY'S OVERALL PRODUCTION!

### PRODUCT INFORMATION

The 868 NIR (Near Infrared) Moisture Sensor is MoistTech's at-line moisture sensor with a large rotating sampling dish for the rapid moisture analysis of raw and non-homogenous materials. Precision filters and algorithms have been incorporated into the sensor to optimize performance under the demanding conditions in the manufacturing industry. The 868 Sensor incorporates MoistTech's well-proven IR-3000 optics and electronics providing superb accuracy, and resolution of any similar technology gauge. Unsurpassed in performance, stability, reliability, maintainability and cost of ownership the 868 Sensor is the answer to controlling moisture in your product.

Ideal for laboratories or near processing lines MoistTech's 868 Sensor features a removable, rotating sampling dish, available in a variety of sizes that was designed for rapid moisture determination of non-homogeneous products and raw materials. Due to the large sample size, the 868 has greater accuracy of any other laboratory NIR sensor on the market within 0.1% and as fast as 3 seconds.

With the 868 Sensor you will dramatically improve product quality, providing both energy savings and potential increased productivity with lower material losses. Additionally, it has a one-time calibration, maintenance free, drift free optical design that allows operating personnel to confidently make immediate process adjustments based on real-time measurements.

### NEAR INFRARED (NIR) TECHNOLOGY

All molecular bonds absorb specific wavelengths of light. Hydrogen bonds including O-H (water); C-H (hydrocarbon) and N-H (ammonia) all absorb strongly in the NIR spectral region. The amount of NIR energy reflected at a given wavelength is inversely proportional to the quantity of absorbing molecules in a product.

The NIR technique is a non-destructive, non-contacting measurement. MoistTech's sensor utilizes multiple wavelengths of NIR light, projected onto the product at a very high repetition rate. The reflected light is then measured using a digitally enhanced detection system and thousands of data points are sampled every second.

### APPLICATIONS

MoistTech has the worldwide reputation for its exceptionally accurate NIR (near infrared) sensors and software for moisture testing and measurement and control. The newly developed 868 Moisture Sensor and software can be configured and calibrated for numerous components in virtually any application.

### SENSOR DISPLAY

The 868 Sensor incorporates a large color-touch-screen PLC that offers the ability to set sampling times, calibration of up to 50 different product codes and data storage that is downloadable to your PC.

### AVAILABLE SAMPLE DISH SIZES:

5", 7", 9", and 13" (120, 175, 225, 325 mm)

### WHY MOISTTECH 868 SENSOR?

- Low Cost
- Highest Accuracy
- Newest Technology
- Removable Sampling Dish
- Easiest Installation & Calibration
- Very Low Maintenance
- Most Advanced Software
- Surface Mount Electronics

### KEY BENEFITS

- **Insensitive to Material Variations** – particle size, material height and color do not affect the sensor
- **One-time Calibration & Zero Drift Over Time**
- **Maintenance Free**
- **Product Quality Monitoring** – allows immediate production line adjustments to improve product quality and consistency
- **Process Optimization** – allows 100% monitoring of your production process to reduce product that is "out of specification"
- **Fuel Consumption Savings** – reduce your energy usage as the drying/cooking process can be controlled resulting in a reduction in energy consumption
- **Water Savings** – reduce your water usage by continuously monitoring moisture content
- **Dust Prevention** – help reduce the risk of explosion due to dust



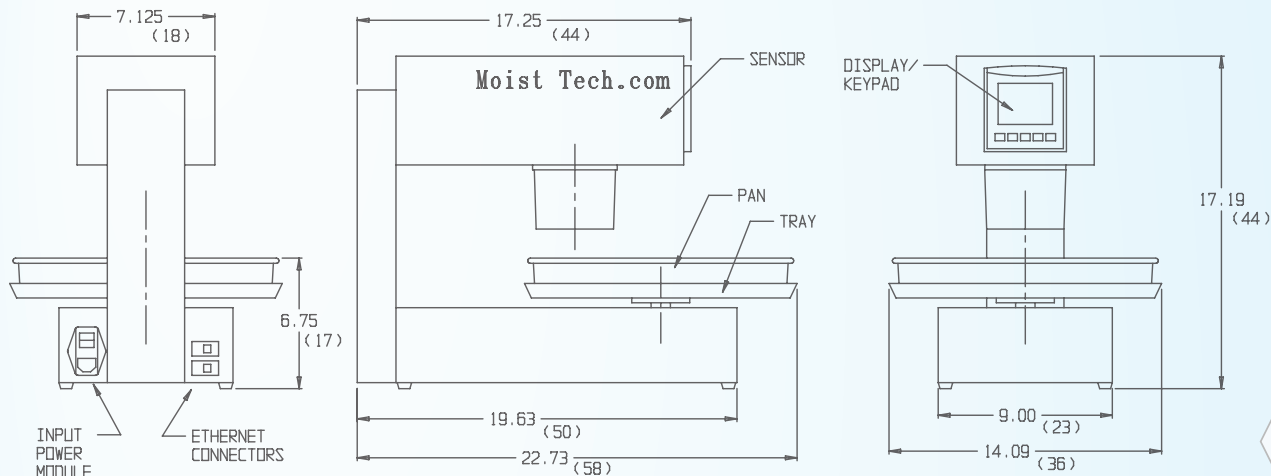


## STANDARD FEATURES INCLUDE

- 16-bit data resolution for unsurpassed accuracy and response
- Built in Touch-Panel with PLC/HMI
- Pre-programmed measurement algorithms and calibrations
- Customized NIR filter selections for your application
- Ethernet Connectivity (2 RJ45)
- Non-volatile FLASH data storage 1 Removable
- 13" Sampling Dish
- 2-year warranty parts and labor

## 868 TECHNICAL INFORMATION

- Non-Contact
- Advanced digital filtering for noise free signal
- Very low energy use
- Surface Mount Technology
- Simple calibration procedure
- No routine recalibration needed
- No routine maintenance needed
- 50 products codes available



## SENSOR SPECIFICATIONS

Measured NIR Constituents:	1, 2 or 3
Moisture Ranges:	0-0.1%, 0-100% and PPM Ranges Subject to Application
Accuracy (subject to application):	± 0.1%
Repeatability:	± 0.05%
Color Display:	3.6-inch. 9 cm LCD with touch-screen input
Calibration Codes:	50 Standard, Stored in non-volatile Flash memory
Measurement Response Time:	Default to 11 seconds and as fast as 3 seconds
Weight:	24 lbs
Enclosure:	Durable Steel with beige powder coat paint
Dimensions:	23cm (9in) D x 50cm (20in) W x 43cm (17in) H
Power:	115-230VAC 50/60Hz 30W
Sample Holders:	13" D x 2" H-Standard, Also available 9", 7", 5"
Networking:	2-Ethernet TCP/IP Ports
Operating System:	Internal PLC/HMI
Outputs:	Data Transfer to PC Based Excel Worksheet
Calibration:	Factory Pre-Calibrated (Routine re-calibration is not required)
Reliability:	System Warranty 2 years. Lamp and Motor Lifetime (MTBF 15 years)

\*Above specifications are subject to application

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