



Moisture Measurement & Control From Lab To Line

868 LABORATORY MOISTURE SENSOR

Offline Moisture Sensor for
Measurement Control
Near Infrared NIR Measurement

Moisture
POWDER
Paper
TOBACCO
POLYMERS
Plastics
Optimized Drying
Chemical Sinter
Mineral OILS
Fats
Brick
Wood
ENGINEERED WOOD
Bulk Materials
Concrete
IMPROVE PRODUCTIVITY
Fibers
Biofuels
CERAMICS
Food
Pellets
Grains



Laboratory Moisture Sensor for Measurement Control

AT LINE 868 WIDE RANGE OF APPLICATIONS INCLUDE:

- ✓ Animal Food
- ✓ Chemical
- ✓ Chips
- ✓ Coal
- ✓ Fly Ash
- ✓ Forest
- ✓ Human Food
- ✓ Mineral
- ✓ Pharmaceutical
- ✓ Plastic
- ✓ Renewable Energy
- ✓ Snack Food
- ✓ Textiles
- ✓ Tobacco
- ✓ Wood



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-homogeneous 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.

AVAILABLE SAMPLE DISH SIZES:

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

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.

MANAGEMENT SOFTWARE

MoistTech has designed a suite of high-tech Windows™ programs to provide user-friendly interfaces for configuration, data logging, and monitoring of diagnostics. With this you can perform calibrations, define gauge and measurement parameters, and set-up and configure up to 50 different product codes. The MoistTech Software package is easy to use and compatible with any PC platform.



DISPLAY OPTIONS:

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

KEY BENEFITS FOR USERS:

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 explosions due to dust

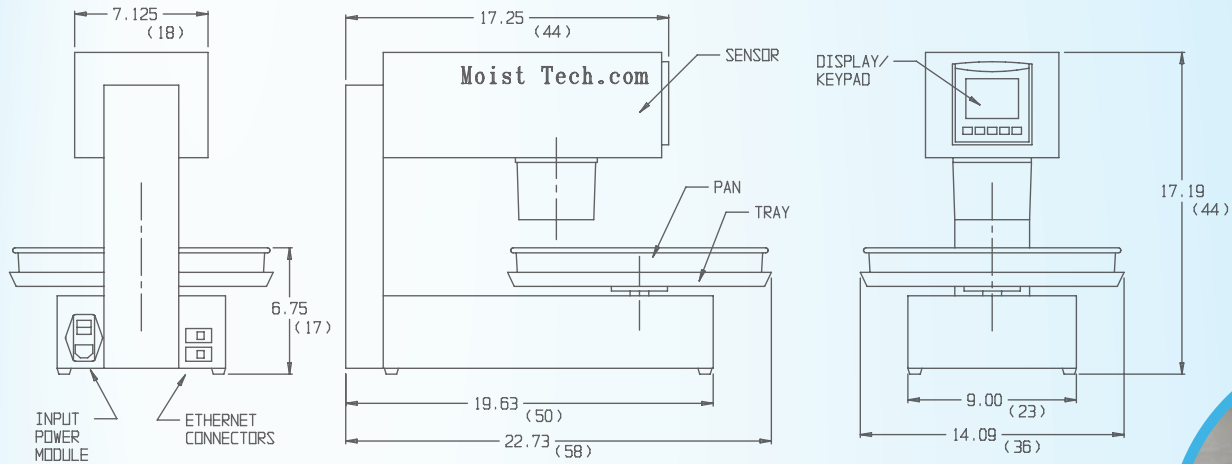


STANDARD FEATURES INCLUDE

- Resolution for unsurpassed accuracy and response
- Built in Touch Panel PLC OP Full Color
- Pre-Programmable measurement algorithms and calibrations
- Customized NIR filter selections for your application
- Flash data storage removable
- Sampling Dish choice of 5", 7", 9", or 13"
- Parts and labor warranty

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:

Moisture Ranges:

Repeatability:

Color Display:

Calibration Codes:

Measurement Response Time:

Weight:

Enclosure:

Dimensions:

Power:

Sample Holders:

Networking:

Operating System:

Outputs:

Calibration:

Reliability:

1, 2 or 3

0–0.1%, 0–100% and PPM Ranges Subject to Application

Accuracy (subject to application): $\pm 0.1\%$

$\pm 0.05\%$

3.6-inch, 9 cm LCD with touch-screen input

50 Standard, Stored in non-volatile Flash memory

Default to 11 seconds and as fast as 3 seconds

24 lbs

Durable Steel with beige powder coat paint

23cm (9in) D x 50cm (20in) W x 43cm (17in) H

115–230VAC 50/60Hz 30W

13" D x 2" H-Standard, Also available 9", 7", 5"

2-Ethernet TCP/IP Ports

Internal PLC/HMI

Data Transfer to PC Based Excel Worksheet

Factory Pre-Calibrated (Routine re-calibration is not required)

System Warranty including Lamp and Motor

**Above specifications are subject to application*

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