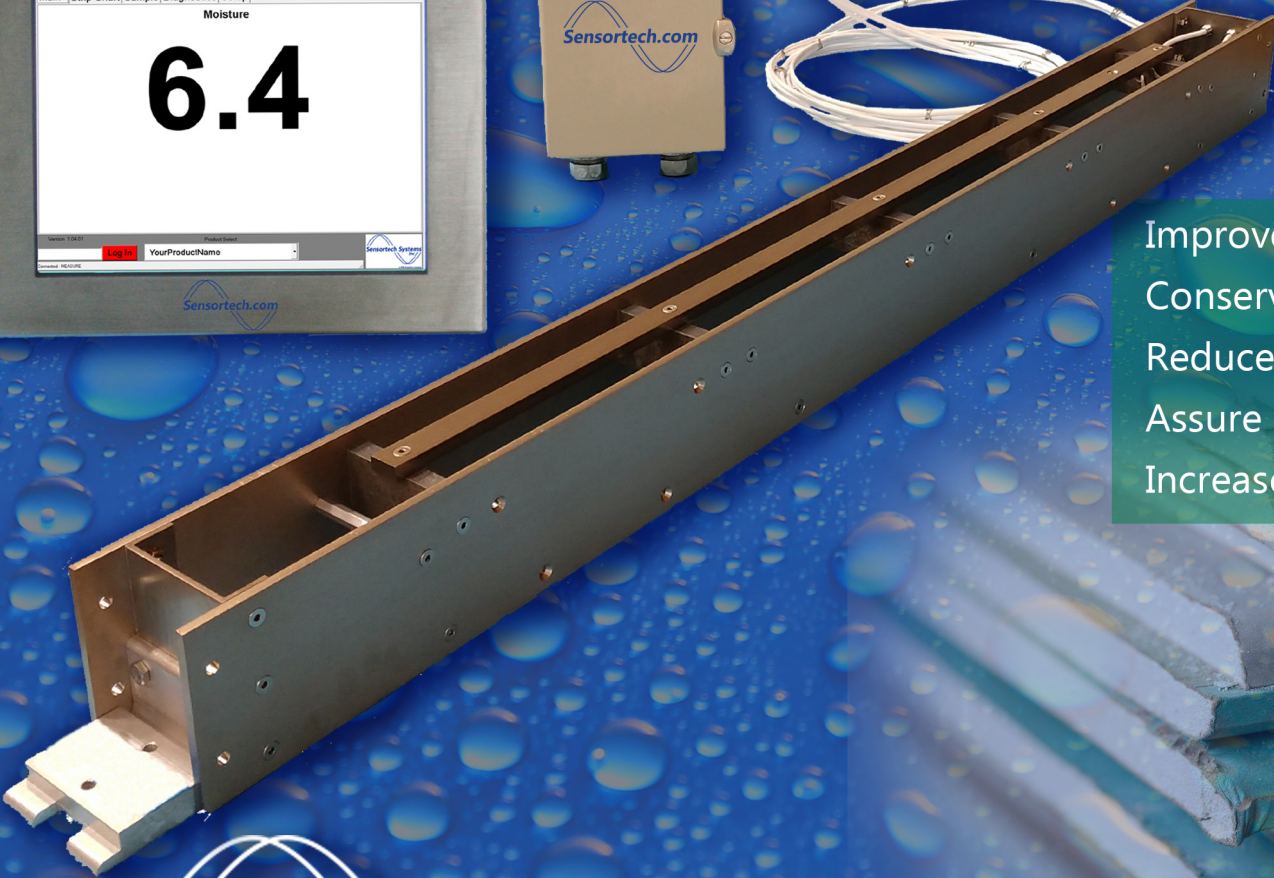
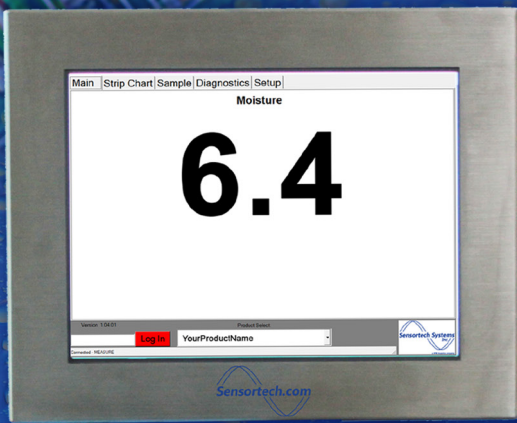


# ST-3300

## Smart RF

### MOISTURE SENSOR



Improve Process  
Conserve Energy  
Reduce Waste  
Assure Quality  
Increase Capacity



MOISTURE MEASUREMENT  
AND CONTROL *for*  
MANUFACTURING QUALITY



# ST-3300

## Smart RF

### MOISTURE SENSOR

The ST-3300 series of online moisture sensors continues the Sensortech tradition of world-leading radio frequency measurement technology. Our patented radio frequency measurement principle enhanced with an all-digital phase-lock loop achieves significantly improved resolution and stability.

Sensortech Systems' patented dielectric measurement technique has been further enhanced featuring:

- Internally switched standards for long-term stability.
- Sensor frequency relates to product dielectric.
- Resonant signal amplitude relates to dielectric loss.
- Unaffected by product pH and salinity.
- Accurately measures moisture levels less than -.01% to more than 50%.

<b>Accuracy:</b>	±0.05% 0 - 1% Range ±0.10% 0 - 10% Range ±0.25% 10 - 30% Range ±1.00% 30 - 60% Range
<b>Resolution:</b>	±0.01%
<b>Measurement Modes:</b>	Real Dielectric, Dielectric Loss, Ratio Mode
<b>Electronics Operating Temperature:</b>	0 - 60°C (32 - 140°F)
<b>Power Requirements:</b>	110/240VAC 50/60Hz 30W
<b>Materials:</b>	According to Sensor Style #316 Stainless Steel Electroless Nickel Plated Aluminum Teflon or Ceramic Insulators

#### Sensor Operating Temperatures:

Low Temp	High Temp	Ultra-High Temp
0 - 60°C (32 - 140°F)	Up to 260°C (500°F)	Up to 540°C (1000°F)

#### Communications:

Standard I/O:	Advanced I/O: <i>(includes Standard I/O)</i>	Advanced Options <i>(includes Standard &amp; Advanced I/O)</i>
1 4-20mA Output 1 Product Temp Input 1 Digital Input 1 Ethernet TCP/IP OR 1 RS-485 Full Duplex	3 4-20mA Outputs 2 Digital Inputs 1 Product Temp Input	1 PROFIBUS 1 PROFINET 1 DeviceNet 1 Ethernet/IP



#### SENSOR ANTENNA CLASSIFICATIONS

##### FLANGE MOUNT

The product glides on the sealed Teflon or ceramic surface of the sensor where the moisture measurement is taken. The sensor is fixed in place using the flange-mount. Performs well in high vibration environments and is ideally suited for granular or powdered products. Typically used in bins, hoppers, planar (sloping/horizontal) surfaces and conveyor drop-offs.



##### OPEN-FRAME

As the product passes over the sensor, it measures moisture content and instantly transmits values to remote display and/or PC control system environments. Typically placed between conveying belts or rollers in-kiln and out of kiln. Ideally suited for board materials.



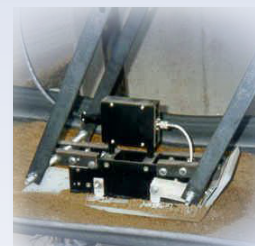
##### PIPELINE

A pipe with an attached sensor is integrated into the framework of the production process. Measurement is taken as product flows through the pipeline. An optional heater jacket ensures that the product remains viscous and does not solidify. Typically used in production processes manufacturing fluids, pastes, and confectionery applications.



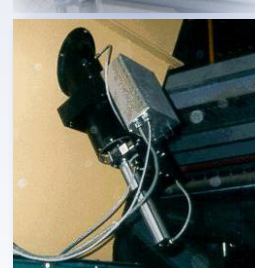
##### SLED/SKID PLATE

The sensor takes measurement as the product passes underneath. The sled hangs from hinged arms allowing it to maintain a parallel position to the conveyor and to level the product for consistent measurement. Other varieties include the Skid-Plate Sensor that has a smooth abrasion-proof surface designed to have a gentle impact on sensitive products. Typically used on conveyors (sloping/horizontal) or between rollers.



##### SAMPLING

The product enters a sampling tray or chamber where the moisture measurement is taken. A digital output of the processor unit is used to control the fill and purge sampling. Common types of Sampling Sensors include a Piston-Purge and Air-Purge Sensor that uses different techniques of sampling the product. Typically used in production processes where a small sample is taken from a large flow of product or where it is not possible to maintain a reasonably constant flow of product over the sensor.



#### SENSORTECH SYSTEMS, INC., a KPM

Analytics company, is a full design, development and manufacturing company specializing in moisture measurement technology. Our instruments support diverse industries throughout the world and we develop solutions for a comprehensive range of applications.



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