



# AquaSense 7101

## Water Vapor Transmission Rate Analyzer

Meeting the NEW ASTM International F3299-18 standard, the AquaSense Model 7101 water vapor transmission rate analyzer incorporates the most advanced coulometric sensor technology with high sensitivity. It is simple to operate, reduces testing costs and increases productivity. Its wide humidity and sample temperature ranges provide research grade flexibility.

### What's new:

- Completely new design
- High sensitivity, coulometric sensor with no calibration required
- Easy testing, just load the film and press a button to start
- Optional large touch screen providing easy operation and display of results

- Film loading made simple and effective with the Q-Seal™ gas free cell closure system.
- Automatic relative humidity and temperature control
- "Test Condition Matrix" (TCM™) enables you, with the touch of a single button, to test a sample at up to ten different conditions of temperature and relative humidity.
- Expandable up to 20 cells

The AquaSense 7101 is designed to be expandable and reduce your testing costs. Systech Illinois is the only major developer of transmission rate test instrumentation to offer satellite expansion. Satellite systems can be configured to meet your precise testing needs, allowing you to cost effectively add capability as needed while continuing to reduce your cost per test.

[www.systechillinois.com](http://www.systechillinois.com)

# Typical Applications

## A wide range, coulometric sensor for your WVTR applications. Compliant to ASTM F3299-18 & F1249 (modified method)



The high sensitivity wide range coulometric sensor offers a range from 0.002 to 70 g/(m<sup>2</sup> · d), 0.02 to 1000 g/(m<sup>2</sup> · d) when masked.

## Easy operation



Simple and intuitive software makes operation of the instrument extremely simple. Testing can be done as easy as entering the test conditions and press START.

## Low operation cost



The sensor continues Systech Illinois' leadership in providing a longer lasting sensor with a lower replacement cost.

## Networking



This system runs on a full Windows operating system enabling safe, secure operation and network connectivity.

## Anti-Surge™



Prevents sensor damage due to excessive levels of water vapor - extending sensor life.

## Fast & Accurate System Validation



Obtained in just a few hours using our unique "Gas Validation" process. Validation is accomplished using NIST Certified Trace Gas. Allowing you the validate your instrument performance as often as you like.

## Remote, Internet based support



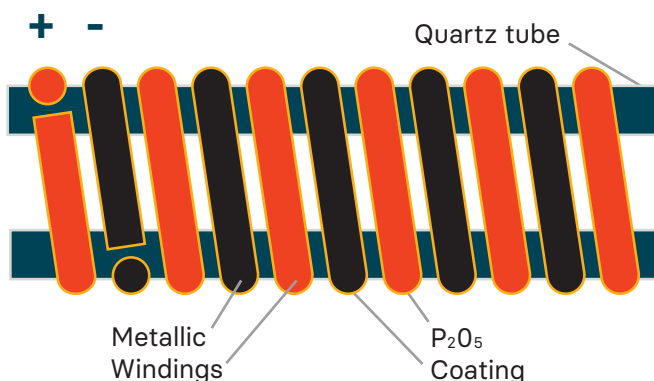
Systech Illinois can access your instrument (with your permission) to diagnose and repair system errors without the cost and time of an on-site visit.

## Software



The Windows based software offers:

- Easy input and recall of operating parameters and test protocols.
- Data tracking, searches, sorts, storage and output capabilities.
- Graphical representation of measurement data in real time.
- Auto-stop feature stops test when samples have reached equilibrium or by user entered elapsed time valve.
- Software available to conform with 21 CFR Part 11.
- Complete system diagnostics.



## P2O5 Sensor Phosphorous Pentoxide

To achieve an absolute measure, the technology draws upon a fundamental principal of physics. The phosphorous pentoxide (P<sub>2</sub>O<sub>5</sub>) moisture sensor consists of a dual platinum winding formed around a quartz tube. The change in the resistance across the windings creates a change in the measured current. According to Faraday's Law this is directly proportional to the amount of moisture in the gas steam.

## Technical Details

	<b>g/(m<sup>2</sup> • day) Unmasked</b>	<b>g/(m<sup>2</sup> • day) Masked</b>	<b>g/(pkg • day) at 10cc flow</b>	<b>Resolution g/(m<sup>2</sup> • day)</b>	<b>Repeatability g/(m<sup>2</sup> • day)</b>
<b>RANGE</b>	0.002 to 70	0.02 to 1000	0.00001 to 0.05 At 50cc flow up to 0.5	0.0001	0.002 or 2% Whichever is greater

## Test Conditions

**Test Temperature Range**

10°C to 40°C (50°F to 104°F)

**Controlled RH Testing Range:**

20 to 90% RH

**Sample size:**

50cm<sup>2</sup>, adapters available for smaller sizes

## Industry Standards

ASTM F3299-18



ASTM F1249 (modified)



ISO 151106-3



DIN 53122-2



Industrial Physics can supply an appropriate tablet if required, contact us for the required specifications of the computer system

### Product Details

For more information about  
Water Vapor Transmission Rate  
Analyzers visit our website:



### Systech Illinois

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