Metrix+™
Innovative Excellence

WATER ACTIVITY METER

WAM 01

Measure free water in food

Measuring principle

What is water activity? It is the amount of free water in the state of food balance. With the possibility of microbial reproduction, chemical, enzyme and physical changes in food over time, it can cause change of food quality, and consequently its shelf life.

This meter measures the water activity by measuring the relative humidity or vapor pressure of the water molecules in the food sample. The principle behind this is that the amount of water a substance adsorbs is proportional to the vapor pressure at a given temperature. The sample is placed in a closed chamber for some time, and the water activity is displayed in 'aw' units. Higher 'aw' unit mean more free water biologically available for micro-organisms to grow.

Applications

Water activity affects the shelf life, safety, texture, flavor, smell and stability of food. This measures the dryness enduring ability of the microorganisms in food samples. By measuring the water activity of food and selecting reasonable packing and storage methods, the use of preservatives can be reduced, and the shelf life of food, grains, fruits and vegetables can be judged. Widely useful in food, pharmaceutical, cosmetics, seed storage, tobacco industry, etc.

Features

- Highly precise with 0.03 aw accuracy
- Ultra-portable with a weight of only 100g, for on-site measurements and easy carriage
- Simultaneous display of water activity and temperature
- Data logging



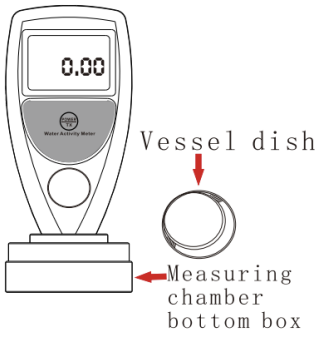




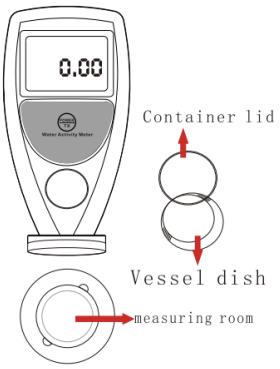
Technical Specifications

Model	*Metrix+* WAM 01
Range	0 ~ 1.0aw
Resolution	0.01aw
Accuracy	±0.03aw
Sensor	Non-conductive humidity sensor
Sampling time	Max. 10 minutes. Record the response value of the water activity meter every 5 minutes, when the difference between the two adjacent response values is small, approx. 0.01aw, that is the measured value.
Features	backlit display, low battery indication, auto power off
Operating	Temp: 0~50C, Humidity <95% RH
Power source	2 x 1.5V AAA batteries
Dimensions	Main unit: 135 x 70 x 44mm, approx. 100g
Std accessories	Main unit, sample plate, manual, case
Optional accessories	Data logging: PC interface(USB & software), Bluetooth

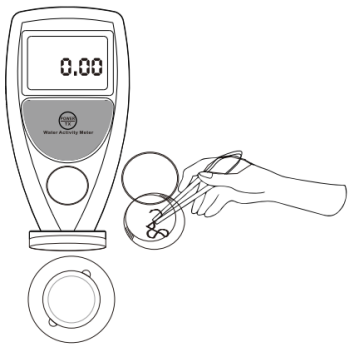
8. operation procedure



1. Take out the instrument



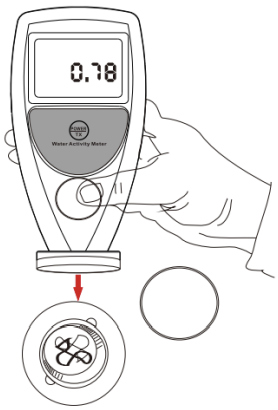
2. Open the instrument measuring room



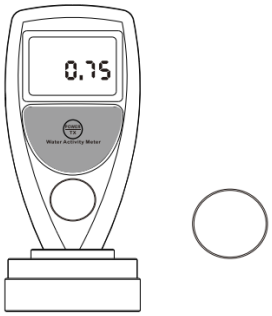
3. Open the container dish and put the test sample into the container dish



4. Put the container dish with sample into the bottom box of the measuring chamber (do not cover the container dish).



5. Start the instrument and combine the measuring chamber



6. Check whether the measuring room has anas -tomosis. After the anas -tomosis, the measurement begins

Model and Specifications subject to change without notice.