

Water Activity Meter AW-1s/AW-Multi

Easily measure water activity in samples!
The new AW-1s now supports both
capacitance-type and
electric resistance-type sensors,
replacing the previous AW-1 model!



Applications (Examples)

- Food, pharmaceutical, cosmetic, and agricultural fertilizer industries
- Educational and research institutions, as well as testing and analysis agencies
- New product development and prototype evaluation
- Quality control of raw materials and manufacturing processes, as well as pre-shipment inspections



Water Activity Meter AW-1s

Features

- Compact and lightweight—ideal for portability
- Capable of measuring both powders and liquids
- Measures by inserting a sample container (sold separately) equipped with either a capacitance-type or electric resistance-type sensor into the main unit
- Equipped with Stability Mode (standard measurement mode) and Quick Mode (fast measurement mode)
- Supports 1-point to 3-point calibration
- Stores up to 99 measurements in the main unit
- PC-exclusive software enables mode settings, data logging, and calibration

Display Examples

- PC-exclusive software



Capacitance-Type or Electric Resistance-Type



Sensor-Equipped Sample Containers (Capacitance-Type / Electric Resistance-Type)

The AW-1s and AW-Multi feature a separate main unit and sensor-equipped sample containers.

The AW-Multi comes with sensor-equipped sample containers, **while the AW-1s requires them to be purchased separately.**

You can choose between capacitance-type and electric resistance-type sensors to suit your needs.



Selecting the Right Sensor Container

Sensor	Capacitance-Type	Electric Resistance-Type
ISO 18787:2017	Compliant	Compliant
Japan Food Sanitation Act	Not Compliant	Compliant with Food Sanitation Inspection Guidelines*
Measurement Range	Great Wide range and high accuracy	Good Difficult to measure below 0.2aw
Responsiveness	Great	Good
Alcohol resistance	Good Affected by high concentrations	Great High resistance

*Measured under conditions of 25±2° C

Multi-Sample Water Activity Meter AW-Multi 8CH/16CH

Features

- Measures up to 8 or 16 samples simultaneously
- Capable of measuring both powders and liquids
- Connects to a PC and allows insertion of capacitance-type sensor containers for measurement
- Features two measurement modes similar to the AW-1s: Stability Mode and Quick Mode
- Choose between per-channel or simultaneous measurements
- Enables simultaneous calibration of multiple sensors
- Automatically saves measurement data to a PC in CSV format
- PC-exclusive software for mode settings, initiating measurements, and calibration

Display Examples

- PC-exclusive software



This is the perfect solution for measuring multiple samples at once! It supports capacitance-type sensors!

*Please contact us if you require electric resistance-type sensors.

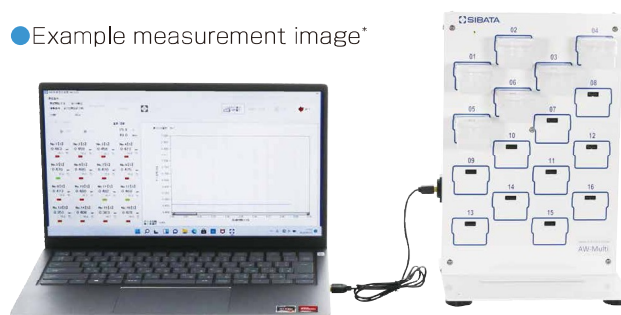


8 sample(8CH) Model



16 sample(16CH) Model

- Example measurement image*



*A PC is required for measurements.

3 Benefits of Detachable Sensor-Equipped Containers

1. Use Different Calibration Values for Each Sample

Calibration values for rice samples



Calibration values for seasoning liquids



Example:
Store separate calibration values for different sample types, such as rice or seasoning liquids.

2. USB Cable Compatibility



Suitable for use in a thermostatic chamber

USB Cable
USB Type-A (Plug) to Type-A (Socket) Cable
Measurements can be performed inside a thermostatic chamber using a USB Type-A (plug-to-socket) cable.

3. Easy Maintenance

The sensor has deteriorated



Replace it with a new one



Replace only the sensor-equipped sample container when the sensor deteriorates.

Specifications Overview

■ Water Activity Meter AW-1s (Sensor Sold Separately)

Item Code	060990-030
Model	AW-1s
Measurement Value Display	0.001 to 1.000 aw
Screen Display Items	AW measurement value, Temperature (relative humidity optional), Battery status
Data Storage Function	Stores up to 99 measurements
Communications	Special PC Software (Windows 10/11) via a USB connection
Continuous Operating Time	Approx. 60 hours (when using AAA alkaline batteries)
Power Source	4 AAA batteries or USB power(micro-B)*1
Dimensions and Weight	Approx. 83(W) × 47(D) × 140(H) mm(excl. protrusions) Approx. 270g

*1: The USB cable is for PC connection.

*AW-1s does not come with a sensor.

*Download the communication software from the SIBATA website.

*A mobile battery and smartphone charger are not supplied.

*Additionally, power cannot be supplied via the USB connection when connected to a PC.

■ Multi-Sample Water Activity Meter AW-Multi 8CH / 16CH

Item Code	060990-08	060990-16
Model	AW-Multi 8CH	AW-Multi 16CH
Maximum Number of Samples Measured	8 samples	16 samples
Measurement Principle	Capacitance Type *1	
Measurement Range	Water Activity : 0 to 1.000 aw Cell Interior / Ambient Temperature: 0 to 80°C Ambient Humidity: 10 to 95% RH	
Resolution	Water Activity (aw): 0.001 aw Cell Interior / Ambient Temperature: 0.1°C relative Humidity: 0.1% RH	
Water Activity Measurement Accuracy	±0.01 aw (Fluctuations within ±0.2 °C of the Relative temperature) *2	
Communications	Special PC Software (Windows 10/11) via a USB connection	
Data Storage Function	Automatic Data Saving to PC (water activity, cell interior / ambient temperature, and relative humidity)	
Power Supply	Via USB-B port	
Accessories	Sensor-equipped sample container capacitance-type x 8 pcs, Sample container 20 mL x 8 pcs, Protective sensor filter φ18 x 8 pcs, USB cable for AW-Multi x 1 pc, Type B Silica gel x 1 pack (included in the sensor-equipped sample container)	Sensor-equipped sample container capacitance-type x 16 pcs, Sample container 20 mL x 16 pcs, Protective sensor filter φ18 x 16 pcs, USB cable for AW-Multi x 1 pc, Type B Silica gel x 1 pack (included in the sensor-equipped sample container)
Dimensions and Weight	Approx. 210(W) × 180(D) × 315(H) mm / Approx. 2.0kg	

*1: Only sample containers equipped with capacitance-type sensors can be used. For the use of electric resistance-type sensor-equipped sample containers, please contact SIBATA.

*2: 0.12 to 0.97 aw/ Stability mode: ±0.01 aw after calibration; during measurement with the same conditions as during calibration.

*3: The USB cable is for PC connection.

Note: A PC with the USB driver and dedicated software installed is required for operation.

■ Options(Saturated Salts for Calibration)

Item Code	Item Name	Type of Saturated Salt	Element symbol
060990-020	Saturated salt 0.225aw	Potassium acetate	CH ₃ COOK
060990-021	Saturated salt 0.328aw	Magnesium chloride	MgCl ₂
060990-022	Saturated salt 0.529aw	Magnesium nitrate	Mg(NO ₃) ₂
060990-023	Saturated salt 0.753aw	Sodium chloride	NaCl
060990-024	Saturated salt 0.843aw	Potassium chloride	KCl
060990-025	Saturated salt 0.930aw	Ammonium Dihydrogen Phosphate	NH ₄ H ₂ PO ₄
060990-026	Saturated salt 0.973aw	Potassium sulfate	K ₂ SO ₄

* Prepared with reference to ISO18787:2017.

* Can be used for daily inspections and user calibrations.

* Simply replace the container lid with the lid from the Sensor-equipped Sample Container.

* Allowed to be used repeatedly.

■ Sensor-Equipped Sample Containers

Item Code	060990-011	060990-031
Model	Capacitance-Type	Electric Resistance-Type
Measurement Range	Water Activity: 0 to 1.000 aw Cell/Ambient Temperature: 0 to 80°C Relative Humidity: 10 to 95% RH	Water Activity: 0.200 to 1.000 aw Cell/Ambient Temperature: 0 to 80°C Relative Humidity: 10 to 95% RH
Resolution	Water Activity: 0.001 aw Cell/Ambient Temperature: 0.1°C Relative Humidity: 0.1% RH	
Water Activity Measurement Accuracy	±0.01 aw*1 (Fluctuations within ±0.2 °C of the ambient temperature)	±0.02 aw*2 (Fluctuations within ±0.2 °C of the ambient temperature)
Measurement Time	Stability Mode: 5 to 30 minutes*3 Quick Mode: 6 minutes	
Accessories	Sample container 20 mL x 5 pcs, Protective sensor filter φ18 x 5 pcs, Type B Silica gel x 1 pack (included in the sensor-equipped sample container)	Sample container 20 mL x 5 pcs, Protective sensor filter φ35 x 5 pcs, Type B Silica gel x 1 pack (included in the sensor-equipped sample container)
Dimensions and Weight	Approx. 52(W) x 40(D) x 32(H) mm (excl. connector part) Approx. 25 g	Approx. 57(W) x 40(D) x 44(H) mm (excl. connector part) Approx. 30 g

*1: 0.12 to 0.97 aw in stability mode, within ±0.1 aw after calibration, under the same measurement conditions.

*2: 0.23 to 0.97 aw in stability mode, within ±0.1 aw after calibration, under the same measurement conditions.

*3: The measurement time may vary depending on the sample.

■ Options

(Small Thermostatic Chamber)



Usage Example

Item Code	060990-20
Model	SLC-25A
Temperature Control Range	3 to 65°C (1°C increments)
Temperature Control Accuracy	±0.2°C
Dimensions and Weight	345(W)×445(D)×477(H) mm · Approx. 13kg
Effective Internal Volume	25L
Power Supply and Consumption	AC100V, 50/60Hz, 98W

■ Consumables and spare parts

Item Code	Item Name
060990-012	Sample Container 20mL, 10pcs
060990-013	Capacitance-Type Sensor Protection Filter φ18, 10 pcs
060990-014	Electric Resistance-Type Sensor Protection Filter φ35, 10 pcs
080990-1	USB cable for AW-1s and Battery Set*
060990-2	USB cable for AW-Multi*

* Both cables are for PC connections.



Saturated Salt for AW

* All salts have a consistent appearance, with the type clearly labeled on the side for easy identification.

● Specifications and appearance described in this document are based on information as of Feb. 2025. ● The color of actual products may differ to that color in this data sheet.

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