

AwTHERM WATER ACTIVITY METER



STABLE TEMPERATURE CONTROL YIELDS PRECISE MEASUREMENTS.

- ROTRONIC HYGROMER® IN-1 sensor
- Highest precision through exact stabilization of temperature
- Wide temperature control range
- Excellent reproducibility
- Excellent long-term stability
- Variable size of sample container
- Reference probe interchangeable for calibration or cleaning
- Fast measurements with the AwQuick function
- Simple operation via Touch Interface
- Conforms to ISO 21807 / EMC 2008/108/EC / IEC EN 61010-1:2010



TECHNICAL INFORMATION

Temperature-stabilized measurement

With AwTherm, ROTRONIC offers a professional, high-end laboratory unit for temperature-stabilized measurement of water activity in the foodstuffs, cosmetics, pharmaceutical and other industries.

The wide control range permits measurements to be obtained directly in the tempered manufacturing or storage process. Water activity measurement reacts very sensitively to variances in temperature. Stabilizing the temperature prevents imprecise results due to external temperature influences.

Interchangeable measuring head

A further advantage of AwTherm is that the measuring head is removable, which means that the probe can be calibrated or adjusted for both temperature and humidity to give high precision.

User friendly operation

The AwTherm shows its paces in stand-alone operation mode, with its simple handling and clarity. No laboratory should be without the device in conjunction with the ROTRONIC HW4 software.

Why measure water activity?

The free water in a product influences its microbiological, chemical and enzymatic stability. If there is too much free water present, the products spoil; too little water can be detrimental to the product characteristics.

Water activity	Contaminants
aw = 0.91..0.95	Many bacteria
aw = 0.88	Many yeasts
aw = 0.80	Many mildews
aw = 0.75	Halophile bacteria
aw = 0.70	Osmiophile yeasts
aw = 0.65	Xerophile mildew

Measuring water activity provides useful information about characteristics such as cohesion, storage life-time, clotting or pourability of powders, tablets, etc., or the adhesive properties of coatings.

General	
Device type	Temperature-stabilized water activity measurement
Operating conditions	1...40 °C (34...107 °F)
Measurement range	0.005...1.000 aw
Accuracy	±0.005 aw (10...30 °C) ±0.1 °C (±0.18 °F)
Power supply	110...230 V / 50...60 Hz
Display	8-line LCD with touch interface
Sample sizes	Variable (14 mm / 40 mm)
Technical Information	
Current Consumption	≤2 A
Temperature control range	0...60 °C (32...140 °F)
Temperature stability	±0.01 °C/min (±0.018 °F/min)
Chamber temperature gradient	<0.1 °C (<0.18 °F)
Firmware update	Via USB port
Functions	
HW4-compatible	Yes (v 3.6.0 and higher)
AW-Quick	Yes
Interface	Micro USB
Calibration / Adjustment	Aw & Temperature: HG2-S (probe removed with AwT-CAL) Aw: ROTRONIC humidity standards (via HW4)
Trend indicators	Yes
Probes	
Sensor	HYGROMER® IN-1
Maintenance / Calibration	Annual calibration (recommended)
Long-Term Stability	<0.01 aw/year
Temperature sensor	Pt100, DIN 1/3 Class B
Approval / Conformity	
Standards	ISO 21807
CE / EMC	EMC 2004/108/EC IEC EN 61010-1:2010
IP protection	IP21
Housing / Mechanical parts	
Housing material	PC / ABS
Housing dimensions	400 x 180 x 180 mm
Sample container dimensions	AwT-PS14: Ø46 x 14 mm AwT-PS40: Ø46 x 40 mm
Weight	4200 g

Would you like more information?

You will find a complete and up-to-date overview of the products on our Internet page at www.rotronic.com.

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