Water Activity Meter

AW-THERM

BENEFITS

- Highest precision through exact stabilization of temperature
- Wide temperature-control range
- Outstanding repeatability
- Excellent long-term stability
- Reference probe exchangeable for calibration or cleaning

APPLICATIONS

- Food industry
- Pharmaceutical industry
- Cosmetics industry

TECHNICAL INFORMATION

With AwTherm, Rotronic offers a professional, high-end laboratory unit for temperature-stabilized measurement of water activity. The wide control range permits measurements to be integrated 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.

General specifications	
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 operation
Sample sizes	Variable (14 mm / 40 mm)
Technical specifications	
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
Probe	
Sensor	HYGROMER® IN-1
Maintenance / Calibration	Annual calibration (recommended)
Long-term stability	<0.01 aw/year
Temperature sensor	Pt100, DIN 1/3 Class B

Functions	
HW4-compatible	Yes (v 3.6.0 and higher)
aw-Quick function	Yes
Interface	Micro USB
Calibration / Adjustment	**Aw & temperature:** HG2-S (probe removed with AwT-CAL) **Aw:** Rotronic humidity standards (via HW4)
Trend indicator	Yes
Approval / Conformity	
Standards	ISO 18787
CE / EMC	EMC 2004/108/EC IEC EN 61010-1:2010
IP protection	IP21
Housing / Mechanics	
Enclosure 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

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

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