

AWTHERM WATER ACTIVITY METER



STABLE TEMPERATURE YIELDS PRECISE MEASUREMENTS.

- ROTRONIC HYGROMER® IN-1
- Highest precision through exact stabilization of temperature
- Wide temperature-control range
- Excellent reproducibility
- Excellent long-term stability
- Variable size of sample container
- Reference probe exchangeable for calibration or cleaning
- Quickest 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, or pharmaceutical industries.

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.

Exchangeable measuring head

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

User-friendliness

The AwTherm shows its paces in island-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 operation
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 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
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

Subject to technical change without notice. Printing and other errors reserved.

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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MEASUREMENT SOLUTIONS

ROTRONIC AG, Grindelstrasse 6, CH-8303 Bassersdorf, Tel. +41 44 838 11 44, www.rotronic.ch
 ROTRONIC Instruments (UK) Ltd, Crompton Fields, Crompton Way, Crawley, West Sussex, RH10 9EE, UK, Phone +44 (0)1293 571000, www.rotronic.co.uk
 ROTRONIC Instrument Corp, 135 Engineers Road, Hauppauge, NY 11788, USA, Phone, +1 631 427-3898, www.rotronic-usa.com
 ROTRONIC Canada Inc., 236 Pritchard Rd, Unit 204, Hamilton, ON, Canada, L8W 3P7, Phone + 1 416-848-7524, www.rotronic.ca
 ROTRONIC Instruments Pte. Ltd., 1003 Bukit Merah Central, #06-31 Inno Centre, Singapore 159836, Phone +65 6376 2107, www.rotronic.sg