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 = 0.910.95 | 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 lifetime, clotting or pourability of powders, tablets, etc., or the adhesive properties of coatings.

| General | |
|------------------------------|---------------------------------------|
| Device type | Temperature-stabilized water activity |
| | measurement |
| Operating conditions | 140 °C (34107 °F) |
| Measurement range | 0.0051.000 aw |
| Accuracy | ±0.005 aw (1030 °C) |
| | ±0.1 °C (±0.18 °F) |
| Power supply | 110230 V / 5060 Hz |
| Display | 8-line LCD with touch interface |
| Sample sizes | Variable (14 mm / 40 mm) |
| Technical Information | |
| Current Consumption | ≤2 A |
| Temperature control range | 060 °C (32140 °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**.



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 <u>ROTRONIC Instruments Pte. Ltd., 1003</u> Bukit Merah Central, #06-31 Inno Centre, Singapore 159836, Phone +65 6376 2107, www.rotronic.sg