

HYGROPALM



HANDHELD INSTRUMENT FOR EVERY APPLICATION.

INTRODUCING AIRCHIP DIGITAL TECHNOLOGY.

INNOVATION IN HUMIDITY AND TEMPERATURE MEASUREMENT

- Relative humidity, temperature and dew point measurement
- All psychrometric calculations available
- Outstanding accuracy and repeatability
- 2,000 data point memory
- Auto-diagnostics and automatic correction
- Highest-possible measuring accuracy



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LEADING IN HUMIDITY MEASUREMENT

SPECIFY THE BEST: HYGROPALM ADVANTAGES AT A GLANCE.

The HygroPalm2-series is the latest development in handheld measuring instruments for relative humidity, temperature and dew point. Based on AirChip3000 technology, the instruments achieve a degree of accuracy not seen before.

In combination with advances in sensor technology and integration, the HygroPalm2-series provides superb precision and state-of-the-art functionality, taking humidity, temperature and dew point measurements to a whole new level in performance and reliability ($< 0.8\% \text{rh} / 0.1 \text{K}$).

Flexible choice of probes

- The HygroPalm21 has an integrated probe and the HygroPalm22 can be used with an interchangeable probe

Practical display

- Clear, backlit graphic display for easy reading



TECHNOLOGY

AirChip3000

- Compensates humidity and temperature over 30,000 reference points
- 2,000 data point memory
- Dew/frost point calculation
- Sensor auto-diagnostics and automatic correction
- Active alarming and information
- ASIC (Application Specific Integrated Circuit), micro-controller and EEPROM on one chip

Tried-and-tested housing

- Ergonomic and robust ABS housing with rubber grip for secure handling



APPLICATIONS.

The HygroPalm2-series (with integrated or interchangeable probes) is ideal for all applications where exact measurement of humidity and temperature is of decisive importance, e.g. the food and pharmaceutical industries, printing and paper industries, many trades, the sciences, meteorology, agricultural sector, climatology, etc. There is hardly a field today in which these parameters may be ignored. It is ultimately the measuring task in hand that defines the HygroPalm instrument that best meets your needs.



Museums,
art galleries



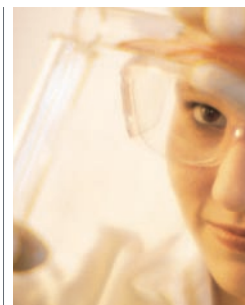
Food industry



HVAC / Building
management



Paper industry



Healthcare,
the sciences

PROBES FOR HYGROPALM22.

Whether you need a simple plug-in probe for use with a handheld instrument or data logger, or a more sophisticated cable probe for high temperature and other special applications, we can provide you with the ideal HygroClip2 probe to suit your requirements. All HygroClip2 probes can be individually calibrated and adjusted to increase measurement precision where you need it the most. This capability is exactly what makes every probe in the product range a high-end solution for your application.

Standard Climatic Probes

Probes with maximum accuracy, for all climatic measurements, operating range -40...100 °C



High Temperature Probes

Hand-held probes for applications to 200 °C
Probe length 250 and 400 mm Ø15 mm



Miniature Probes

4 and 5 mm probes for measurements in confined spaces such as packaging etc. and for building material tests



Sword Probes

Sword probes for measurements in paper, cardboard and textile stacks



An up-to-date overview of our extensive range of accessories such as cables, filters, sets, software and calibration equipment as well as further information on the HygroPalm21/22 is available on our web site www.rotronic-humidity.com.

TECHNICAL INFORMATION.

Factory Adjustment.

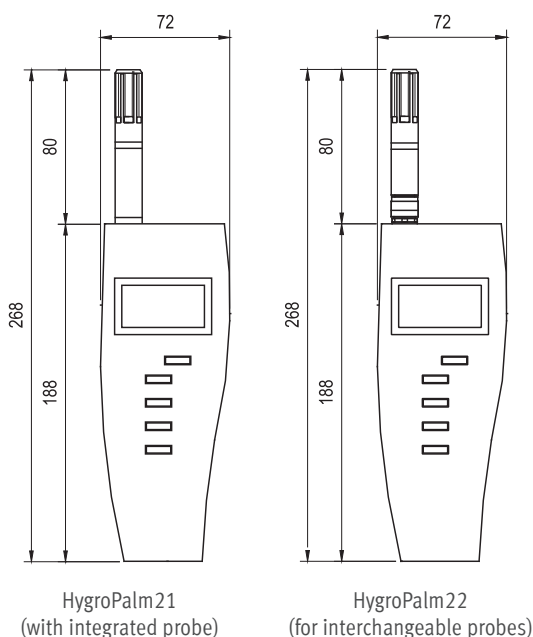
Three different adjustment profiles are available from the factory for the HygroClip2; this means that measuring accuracy can be matched to the application need. The custom adjustment profile consists of 20 humidity values at 3 temperatures to ensure optimum performance over a required working range. The data is stored on the AirChip and can be retrieved later for audit purposes.

Sensor Diagnostics.

The intelligence of AirChip3000 technology enables advanced sensor diagnostics. Should the sensors deviate from factory defined parameters, measurement values can be compensated automatically and a digital alarm triggered.

Data Logging and Alarm Generation.

Up to 2,000 measurement values can be stored in the HygroClip2 probe; the user is able to configure the measurement interval, set alarm limits, scale the output signal and download data using optional ROTRONIC HW4 software. The HygroClip2 probe can be programmed with set limits to generate an alarm which is available when the probe is communicating with a PC or compatible ROTRONIC device. Thus, the HygroClip2 can be integrated in any application.



| | HP21 | HP22 |
|--|---|---|
| No. of probe inputs / Probe type | Integrated sensors | 1/HygroClip2® |
| Humidity sensor | Hygromer® IN-1 | Depending on probe |
| Temperature sensor | Pt100 1/3 Class B | Depending on probe |
| Probe cable extension | N/A | Passive: max. 5 m, active 100 m |
| Accuracy at 23±5 °C | ± 1.0 %rh / ± 0.2 K | Depending on probe & adjustment profile |
| Resolution AirChip3000 | < 0.02 %rh / 0.01 K | |
| Long-term stability humidity sensor | <1 %rh / year | |
| Response time τ63 | <10 seconds | Depending on probe |
| Initialisation time | Typically 3 seconds | |
| Measurement range | -10...60 °C / 0...100 %rh | -50...200 °C |
| Electronics operating range | -10...60 °C / 0...100 %rh | |
| Display type | Graphic display, backlit, Parameters configurable | |
| Trend indicator | Yes | |
| Power supply | 9 V battery / mains adaptor | |
| Power consumption | Typically 4mA with backlight off | |
| Battery indicator | Low battery indicator | |
| Firmware update | Possible via HW4 software | |
| Sensor diagnostics (drift, state) | Programmable, default: off | |
| Sensor protection | Polyethylene filter | Depending on probe |
| Max. wind speed at probe | 20 m/sec | Depending on probe |
| Probe adjustment by keypad | 1-point offset | Multipoint |
| Probe adjustment by HW4 software | Humidity: Multi point, Temperature 2 point | |
| Data logging 2000 data point memory | internal | in probe |
| Psychrometric calculations | Dew point | All available |
| PC interface Data processing | Via ROTRONIC Interface cable, HW4 compatible | |
| Dataprocessing by HW4 | Graphs, statistics, analyses, qualification etc. | |
| Audit Trail & Electronic Records | FDA-CFR21 Part 11 / GAMP compliance | |
| Housing material / weight | ABS / approx. 210g | |
| Norms | CE-compliant, 2007/108/EG | |
| IP & fire protection rating | IP40 / complies with UL94-HB | |

Interested in further information (special applications, order codes, etc.)? A complete and up-to-date overview of our HygroPalm21/22 series is available on our web site www.rotronic-humidity.com.

Change over now to the HygroClip2 with its integrated AirChip3000 for your temperature and moisture measurements. You can find detailed information about our probes at www.rotronic-humidity.com. We would also be happy to advise you in person either on the phone or at our showroom.

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