

HANDHELD FOR HUMIDITY AND TEMPERATURE

HYGROPALM23



THE PERFECT HANDHELD INSTRUMENT AND CALIBRATOR FOR CLIMATIC MEASUREMENTS.

INTRODUCING AIRCHIP DIGITAL TECHNOLOGY.

INNOVATION IN HUMIDITY AND TEMPERATURE MEASUREMENT

- Highest-possible measuring accuracy
- Ensures measurement reproducibility
- Relative humidity and temperature measurement and calculated psychrometric values
- Two interchangeable probe inputs, digital or analog
- 20,000 data point memory with real-time clock
- Data capture of 250 data points each for up to 8 defined locations
- Probe adjustment with dew point reference
- Battery status indicator and recharging function



rotronic
LEADING IN HUMIDITY MEASUREMENT

HYGROPALM23

SPECIFY THE BEST: HYGROPALM ADVANTAGES AT A GLANCE.

The HygroPalm23-series is the latest development in handheld measuring instruments for relative humidity, temperature and dew point. Based on AirChip3000 technology, this indicator achieves 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 and temperature measurement to a whole new level of performance and reliability ($\ll 0.8\% \text{rh} / 0.1 \text{ K}$).

Flexible choice of probes

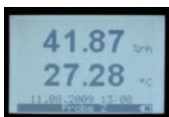
- The HygroPalm23 can be fitted with interchangeable probes
- Has 2 probe inputs
- Connection of HygroClip2 or analog probes possible
- No adjustment required for HygroClip2 probes

Interface

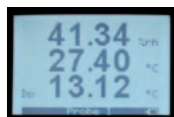
- Easy and quick access to service connector possible
- Mini USB interface available
- Offers extended calibration and calculation functions
- Remote connection to HygroClip2 transmitters

Practical display

- The clear, backlit graphic display is easy to read and the simple menu navigation quickly provides fast access to all the information available
- Trend indication of values
- Saves measurements (capture logging) and allows display of all values
- Battery status indicator
- Display resolution to 3 decimal places
- Various display formats available



Standard



3-line



Large

Tried-and-tested housing

- Ergonomic and robust ABS housing with rubber grip for secure handling
- IP 40 protection

Battery/Rechargeable battery compartment

- Battery or rechargeable battery holder with lock
- The battery powers third party probe (max. 5 V)
- Includes recharging function



APPLICATIONS.

The HygroPalm23 is ideal for all applications where precise measurement of humidity and temperature is required e.g. the food and pharmaceutical industries, printing and paper industries, the sciences, meteorology, agriculture, climatology and many more. There is hardly a field in which these parameters may be ignored. It is ultimately the measuring task at hand that defines the HygroPalm instrument and probe that best meets your needs.



Museums,
art galleries



Food industry



HVAC / Building
management



Paper industry



Healthcare,
the sciences

PROBES FOR HYGROPALM23.

Whether you need a simple climate probe for measuring ambient conditions 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 what makes every probe in the product range a high-end solution for your application.

Standard Climate Probes

Probes with maximum accuracy, for all climatic measurements, operating range -40...100 °C, 0...100 %rh



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



Analog Probes

Connect analog probes for the measurement of wind velocity, pressure etc.



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 HygroPalm23 is available on our web site www.rotronic-humidity.com.

TECHNICAL INFORMATION.

Data Logging.

View historical data. The values stored in the instrument can be displayed graphically with the optional software HW4. You can define the storage intervals, the alarm limits, the type of alarm generated (analog or digital probes), the scaling and much more. The HygroPalm23 can therefore be integrated in any application.

Data Capture.

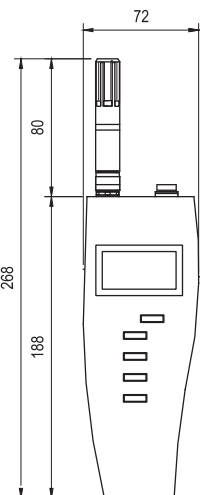
The handheld instrument HP23 offers you the possibility to record up to 8x250 data points. This data, including time stamp, can be called up individually, thereby providing perfect room surveillance. Thanks to this function, the handheld instrument is ideal for everyday use.

Adjustment.

There are three different adjustment profiles for measurement accuracy available as options. With the top version the instrument is adjusted at 20 humidity values and three different temperatures. A further advantage of this version: the data are stored on the AirChip and can therefore be used for audits.

Sensor Diagnostics.

The intelligence of AirChip3000 technology enables advanced sensor diagnostics. Should the sensors deviate from factory defined parameters, the measured values are compensated electronically. You can select whether the values are to be compensated and whether an alarm is to be given.



Analog Probe Input

Socket (instrument):
The numbers are given for illustration purposes only and are not marked on the socket.

- 1) RXD UART digital probe
- 2) GND (digital and power)
- 3) V+: digital probes: 3.3 VDC nominal, analog probes: max. 5.0 VDC, 10 mA
- 4) AGND (analog ground)
- 5) Not used
- 6) One-channel analog probe signal: +0.0 to 3.3 VDC
- 7) TXD UART digital probe

Accessories

Order no.: A-02XX

Description: Cable adapter 2m, with open ends for analog probe connection

| | |
|---|---|
| | HP23 |
| No. of probe inputs | 2 (HygroClip2 or analog) |
| Humidity sensor | Depends on probe |
| Temperature sensor | Depends on probe |
| Accuracy at 23 ± 5 °C | Depends on probe used (±0.8 %rh / ±0.1 K) |
| Long-term stability humidity sensor | < 1 %rh / year |
| Response time τ63 | Depends on probe |
| Start-up time | Typically < 3 s |
| Measurement range | Depends on probe |
| Electronics operating range | 0...100 %rh / -10...60 °C |
| Display type | Graphic display, backlight, parameters configurable, 3 decimal places |
| Alarm indicator | Yes |
| Real-time clock | Yes, with backup battery |
| Trend indicator | Yes |
| Power supply | 9 V block battery or rechargeable battery |
| Power consumption | Typically 10 mA with backlight off |
| Power for 3rd-party probes | Yes, battery voltage |
| Battery indicator | Yes, low status indicator |
| Firmware upgrade | Yes, via HW4 software |
| Sensor diagnostics (drift, state) | Programmable, default: off |
| Filter | Depends on probe |
| Max. air velocity at sensor | Depends on probe |
| Humidity / Temperature adjustment from keyboard | Yes, 1-point or multipoint temperature and humidity adjustment |
| Humidity / Temperature adjustment via dew point reference | Yes, temperature 2-point / humidity max. 100 points |
| Adjustment with software | 1-point & multipoint (%rh / °C), with service cable |
| Data logging memory function | 20,000 data points (2 x 10,000 data point pairs) |
| Psychrometric calculations | Dew point, wet-bulb temperature, mixing ratio, enthalpy, water vapor content, water vapor density |
| Event logging | Yes |
| Interface | Mini USB |
| Device lock | Via service cable & HW4 software |
| Data processing with HW4 | Graphs, statistics, analyses, qualification, etc. |
| Max. length service cable | 5 m |
| Housing material / weight | ABS / approx. 300 g |
| Dimensions | 196 x 72 x 35 mm |
| Standards | CE-compliant 2007 / 108 / EC |
| Audit trail & electronic records | FDA-CFR21 Part 11 / GAMP compliance |
| IP & fire protection rating | IP 40 / Complies with UL94-HB |

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

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