

# HYGROLOG HL20



## ECONOMICAL & PRECISE.

BASED ON THE AIRCHIP3000 DIGITAL TECHNOLOGY.

### INNOVATION IN HUMIDITY AND TEMPERATURE MEASUREMENT

- Highest accuracy at 0.8 %RH and 0.3 °C
- Outstanding long term stability
- 20,000 data point memory with date & time stamps
- Programmable alarm limits
- Programmable recording intervals
- Psychrometric calculations of dew and frost point values available
- FDA 21 CFR Part 11 / GAMP 4 compliant
- UART interface
- Long battery life



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**rotronic**  
MEASUREMENT SOLUTIONS

# HYGROLOG HL20

## SPECIFY THE BEST: HYGROLOG HL20/21 ADVANTAGES AT A GLANCE.

The new HygroLog HL20 series is the latest development of data loggers for relative humidity, temperature, dew point and frost point. These loggers give you the accuracy and reliability to measure and record your essential data whether it be in pharmaceutical clean rooms, storage facilities, manufacturing areas, buildings, museums or any other critical area. The HL20 and HL21 are fully compliant with FDA 21 CFR part 11 and GAMP 4 requirements for electronic records and electronic signatures (ERES).

### AirChip3000

- Temperature compensates humidity with over 30000 reference points
- Dew/frost point calculation
- Sensor auto-diagnostics and automatic correction
- Active alarming and information
- Conforms to FDA21 CFR Part 11 and GAMP4 (audit trail)



### Optional display

- Display of data on a clear, backlit graphic display
- Battery charge indicator
- Display of measured and calculated data
- Function key to start and stop logging
- Display resolution to 2 decimal places



### Data logging function

- Logs up to 20,000 value pairs, relative humidity and temperature
- Each record is date and time stamped (real-time clock)
- Adjustable log interval
- Two data recording modes: (start-stop or loop)

### Alarm function

Visible alarm can be programmed for the HL20 detects the following:

- Out-of-limits value (defined with HW4 software)
- Communication loss with the probe
- Sensor failure and sensor drift

## APPLICATIONS.

Long term recording of humidity and temperature measurements is essential in many production, storage, transportation, display and test applications as well as in buildings and museums. They provide valuable information on the levels and variation of humidity and temperature which can have a significant impact on people, materials and objects.

## Relative humidity and temperature logger.

### HygroLog HL20(D)



HygroLog HL20

Order codes:  
HL-20 (without display)



HygroLog HL20D

Order codes:  
HL-20D (with display)

### HygroLog HL20(D)-Set

- Set:
- HL20 or HL20D
  - HW4 software
  - Cable AC3006



Order codes:  
HL-20-Set  
HL-20D-Set

## TECHNICAL INFORMATION.

### Data Logging.

The values stored in the HygroLog can be displayed graphically using the HW4 software. You can determine the storage interval, the alarm limits, the recording mode and much more.



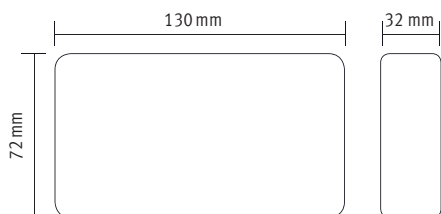
HygroLog HL20



HygroLog HL20D



### Dimension



Device type	Humidity-temperature data logger with internal sensor(s)
Battery type	3 x AA (1.5 V) alkaline
Battery life	Depends on log interval and other settings. Examples based on a 30 minutes log interval: - Models w/o LC display: 20 months - Models with LC display, display sleep function set to 1 minute: 13 months
Low battery indication	Yes (with HW4 software or with optional display)
Measuring range	0...100 %RH / -10...60 °C
Measurement accuracy at 23 °C	±1.3 %RH @ 0..10 %RH / ±0.3 °C ±0.8 %RH @ 10..60 %RH / ±0.3 °C ±1.3 %RH @ 60..100 %RH / ±0.3 °C
Repeatability	0.3 %RH / 0.05 °C
Long term stability	<1 %RH / year / < 0.1 °C / year
Response time	Humidity: typical 3 min. Temperature: typical 10 min. (both depend on air flow)
Psychrometric calculations	Dew or frost point (user configurable setting)
Start-up time	1.9s (typical)
Data refresh rate	1.7s (typical)
Recording capacity	20,000 value pairs
Real time clock	Yes, accuracy 2 s/year
Logging modes	Start-stop (recording stops when memory is full) Loop: oldest data is dumped to make room for latest data
Log interval	Min. 5 sec, up to 1 hour in 5 sec. increments
Interface type	UART requires service cable AC3006
Optional display	LC, 1 or 2 decimal resolution, backlight, alarm and low battery indication
LED indicator	5 sec. green flash when recording data 5 sec. red flash for out-of-limit value or logger problem
Housing material	ABS
Housing protection grade	IP40
Weight	About 210 g (7.4 oz)
Solder type	Lead free (RoHS directive)
FDA / GAMP directives	Compatible
Operating limits	-10...60 °C (models w/o display) 0...50 °C (models with display) 0...100 %RH, non condensing
Overall dimensions	130 x 72 x 32 mm (5.1 x 2.8 x 1.3")

Interested in further information? A complete and up-to-date overview of our HygroLog HL20 series is available on our web site [www.rotronic.com](http://www.rotronic.com). We would also be happy to advise you on the phone.



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