# **Hygrolog HL-NT**



# THE INTELLIGENT DATA LOGGER.

INTRODUCING AIRCHIP DIGITAL TECHNOLOGY.

#### INNOVATION IN HUMIDITY AND TEMPERATURE MEASUREMENT

- FDA CFR 21 Part 11 / GAMP 4 compliance
- Outstanding accuracy and long-term stability
- Unlimited memory with Flash Card
- Display of measured values
- Interchangeable sensors for humidity and temperature
- Large range of probes

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rotronic

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• User-friendly, validated HW4 software





### **HygroLog HL-NT**

# SPECIFY THE BEST: HYGROLOG ADVANTAGES AT A GLANCE.

The HygroLog NT series is the latest development in data loggers for relative humidity, temperature and dew point. Thanks to the precision of the new AirChip3000 technology on which they are based, the instruments achieve a degree of accuracy not seen before .

The new HygroLog NT series not only fulfils all FDA and GAMP requirements, but also supports users in validation. With a storage capacity of more than 47,000 data points, the loggers have a virtually unlimited memory. Measurement losses are ruled out by the digital communication interface between the HygroClip2 probe and the loggers.

#### Flexible choice of probe

- Can use all HygroClip2-compatible probes
- HygroLog HL-NT3 with possibility to connect two additional external probes
- Probes changed in just seconds

#### **Functional display**

- Display of data on a clear, backlit graphic display with trend indicator
- Optional display and keyboard for measurement display, status display, operation, adjustment and view of logged data

#### FDA CFR 21 Part 11 and GAMP4 compliance

• Recording of all events such as battery changes, user actions and memory-card changes

#### **Optional docking station**

- Can be used as lockable mechanical holder
- Possible to connect four additional probes
- Monitoring of the digital switch inputs



#### 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



## **APPLICATIONS**.

The data loggers in the HL-NT series are ideal for all application where data and events need to be tracked precisely (GAMP or FDA), e.g. the food and pharmaceutical industries, printing and paper industries, meteorology, agricultural sector, archaeology, climatology, etc. There is hardly a field today in which these parameters may be ignored.

#### HygroLog HL-NT2

 ${\rm Logger}\ {\rm for}\ {\rm interchangeable}\ {\rm probe}$ 



Logger for interchangeable probe as well as two external sensors

HygroLog HL-NT3



#### Range of different docking stations

Please find the product overview at www.rotronic-humidity.com



# PROBES FOR HYGROLOG HL-NT.

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 -50...100 C°, 0...100 %rh



#### High Temperature Probes

Hand-held probes for applications to 200  $^{\rm o}{\rm C}$  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



#### Industrial probe

For fixed mounting Operating range 0...100 %rh,-100...200 °C / 0...400 bar



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

# **TECHNICAL INFORMATION.**

#### Data logging.

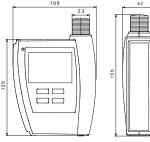
Keep track of the past. The stored values can be displayed graphically with the optional HW4 software. You can define the saving intervals, alarm limits, type of alarm and much more yourself, meaning the HygroLog can be integrated in any application you like.

#### Adjustment.

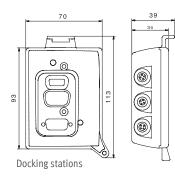
There are three different adjustment profiles for measurement accuracy available as options. With the top version the instrument is adjusted at 20 humidity values and three different temperatures. A further advantage of this version: the data are stored on the AirChip and can therefore be used for audits.

#### **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.



HygroLog HL-NT



ROTRONIC HygroClip 1 4	2 series	
		2
4		3
0100 %rh		
-3070 °C, with display -1060 °C		
-1050 °C (standar	d battery)	
-3070 °C		
Depends on probe, max100200 °C		
Max. ±1.5 %rh / 0.2 K with SCS certificate		
HygroClip2 & Pt100 probes (docking station)		
5 seconds to 24 hours		
Start/Stop/Continuous/Text with timestamp		
Visual indicators (LED, two-coloured) and beeper		
156 x 109 x 42 mm		
ABS		
Protective cap and probe-specific filter		
9 V battery $\geq$ 500 mAh or externally via docking station		
> 1 year (with 1 HygroClip2 probe, 15 min. data saving interval, without display		
LCD full graphic display		
Approx. 300 g		
32 MB Flash Card (up to 1 GB possible)		
With 32 MB Flash Card 800.000 data points		
With 32 MB Flash Ca	ard 1.504.000 data po	oints
All user actions, alarms, programming		
Full FDA CFR 21 Part 11 / GAMP4 compliance		
Probe adjustment in instrument possible		
Via docking station		
AC adapter, RS232, RS485, USB via docking station (depending on model)		
IP65 / Integrated in docking station		
113 x 70 x 39 mm, ca. 175 g / NT-Desk 145 x 140 x 125 mm, ca. 350 g		
Processor	Pentium 1 GHz	
RAM	512 MB	
Monitor	SVGA, 1027 x 768, 1	256 colours, 96 DPI
Harddisk	HW4: 50 MB/ NET2:	
Operating system	Windows XP Service	Pack 2, Windows 2000 Service
		rver 2003, Windows Vista
	-1050 °C (standar -3070 °C Depends on probe, Max. ±1.5 %rh / 0.2 HygroClip2 & Pt100 5 seconds to 24 hou Start/Stop/Continue Visual indicators (LE 156 x 109 x 42 mm ABS Protective cap and p 9 V battery ≥ 500 m > 1 year (with 1 Hygro LCD full graphic disp Approx. 300 g 32 MB Flash Card (u With 32 MB Flash Card With 32 MB Flash Card All user actions, ala Full FDA CFR 21 Part Probe adjustment ir Via docking station AC adapter, RS232, IP65 / Integrated in 113 x 70 x 39 mm, o Processor RAM Monitor Harddisk Operating system	-1050 °C (standard battery)-3070 °CDepends on probe, max100200 °CMax. ±1.5 %rh / 0.2 K with SCS certificateHygroClip2 & Pt100 probes (docking static5 seconds to 24 hoursStart/Stop/Continuous/Text with timestantVisual indicators (LED, two-coloured) and I156 x 109 x 42 mmABSProtective cap and probe-specific filter9 V battery ≥ 500 mAh or externally via do> 1 year (with 1 HygroClip2 probe, 15 min. dLCD full graphic displayApprox. 300 g32 MB Flash Card (up to 1 GB possible)With 32 MB Flash Card 1.504.000 data pointWith 32 MB Flash Card 1.504.000 data pointAll user actions, alarms, programmingFull FDA CFR 21 Part 11 / GAMP4 compliantProbe adjustment in instrument possibleVia docking station113 x 70 x 39 mm, ca. 175 g / NT-Desk 14ProcessorPentium 1 GHzRAM512 MBMonitorSVGA, 1027 x 768,HarddiskHW4: 50 MB/ NET2:Operating systemWindows XP Service

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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