

HYGROLOG NT

HYGROCLIP®

Humidity goes Digital



Advanced Humidity / Temperature data logger

- Relative humidity, temperature, dew point or other calculated parameter
- Proven sensor technology provides maximum accuracy of ± 1.0 % RH / $\pm 0.2^\circ\text{C}$
- Wide array of HygroClip probe options
- Multi-probe capability
- Wide measuring range: maximum $-50\dots 200^\circ\text{C}$ / $0\dots 100\%$ RH
- Networkable, data retrieval via a network (Ethernet/RS485)
- FDA 21 CFR Part 11 and GAMP 4 compliant software
- Compact Flash memory card for virtually unlimited logging capacity
- Available with Bluetooth wireless transceiver

rotronic®

LEADING IN HUMIDITY MEASUREMENT

The Digital Advantage

The HygroLog NT uses the latest in digital technology. Digital signal processing of the HygroClip probes significantly benefits humidity and temperature measurement in the following key areas:

Measurement Accuracy – Digital processing of the sensor signals by the HygroClip probe and associated electronics provides more scope and greater flexibility when compensating sensor characteristics such as linearity and temperature coefficient. The ROTRONIC HYGROMER® capacitive humidity sensor has always been the leader in both precision and stability. With the application of digital technology, sensor performance is now further enhanced.

Maintenance and Calibration – Unique HygroClip® digital technology virtually eliminates downtime during maintenance. When it is time for a scheduled calibration, the HygroClip probe can be “hot swapped” in seconds with a calibrated replacement HygroClip probe. There is no need to remove the complete instrument to the calibration laboratory.

The HygroLog NT family

With a variety of models and options the HygroLog NT is suitable for a large variety of industrial, research, and commercial applications. The HygroLog NT features up to 7 probe inputs, network capability, and complies with FDA 21 CFR Part 11 and GAMP4 requirements.



Common features:

- Relative humidity, temperature, dew point or other calculated parameter
- Measuring range: 0..100%RH and -50..200°C (-58..392°F) with external probe
- Interchangeable humidity-temperature HygroClip probes for fast and easy maintenance
- Wide range of available probes to fit every application
- Available with LC display and multi-function keypad
- Large recording capacity with removable flash memory card
- Operates with a 9 VDC standard or rechargeable battery
- Data download without interrupting the measurements
- Full featured, windows based software
- Monitoring of up to two external contacts (door, relay contact, etc.)





HygroLog NT Features

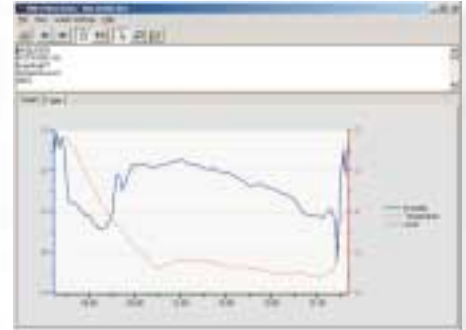
HygroLog NT2 Features

- Single probe input
- Full probe adjustment functions directly from keypad
- Remote mode allows model with display and keypad to read / configure models w/o display and keypad
- Available with Bluetooth transceiver (display and keypad required)
- Complies with FDA 21 CFR Part 11 when used together with the ROTRONIC HW4 Professional software



HW4 Software

ROTRONIC HW4 software is a new development based on the Microsoft.NET platform. Two versions are available: HW4 Standard and HW4 Professional. The standard version is designed for single users, and the professional edition is made for multiple users and for management by an administrator. HW4 Professional is fully FDA 21 CFR Part 11 and GAMP4 compliant.



HygroLog NT3 Features

- All the features of the HygroLog NT2 plus 2 additional probe inputs (HygroClip probes)

Additional Probe options

Any HygroClip probe can be used with the HygroLog-NT. HygroClip probes are available to meet virtually every application requirement. Contact Rotronic with your application requirements for probe recommendations.



Docking Station options:

- Up to 4 additional external probes: HygroClip probes, third party analog probes or 4-wire RTD probes
- Monitoring of up to two external contacts (door, relay contact, etc.)
- Power the HygroLog NT and docking station with an AC adapter
- Data download without interruption of the measurements
- Networking (RS485 or Ethernet)
- Wall mounting with locking mechanism

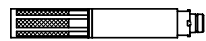


HygroLog NT Ordering Information

ORDER CODE	DESCRIPTION
HygroLog NT dataloggers	
HYLOG-NT2	Includes internal HygroClip S probe – no display
HYLOG-NT2-NP	Data logger only – no display (order probe separately)
HYLOG-NT2D	Includes internal HygroClip S probe – with display and keypad
HYLOG-NT2D-NP	Data logger only – with display and keypad (order probe separately)
HYLOG-NT2D-BT	Includes internal HygroClip S probe – with display and keypad, includes Bluetooth transceiver
HYLOG-NT2D-BT-NP	Data logger only – with display and keypad (order probe separately), includes Bluetooth transceiver
HYLOG-NT3	Includes internal HygroClip S probe – no display
HYLOG-NT3-NP	Data logger only – no display (order probe separately)
HYLOG-NT3D	Includes internal HygroClip S probe – with display and keypad
HYLOG-NT3D-NP	Data logger only – with display and keypad (order probe separately)
HYLOG-NT3D-BT	Includes internal HygroClip S probe – with display and keypad, includes Bluetooth transceiver
HYLOG-NT3D-BT-NP	Data logger only – with display and keypad (order probe separately), includes Bluetooth transceiver
HygroLog NT Docking Stations	
DS-NT1	Basic docking station - provides a receptacle to connect an AC adapter to power the HygroLog NT
DS-NT2	Same as DS-NT1 plus one serial port (RS232) and one RS485 port
DS-NT3	Same as DS-NT1 plus one USB port and one RS485 port
DS-NT4	Same as DS-NT1 plus one RJ45 connector (Ethernet) and one RS485 port
DS-U-1	Same as DS-NT2 plus four probe connectors (HygroClip or analog probe) and one connector for up to two digital input signals.
DS-U-2	Same as DS-NT3 plus four probe connectors (HygroClip or analog probe) and one connector for up to two digital input signals.
DS-U-4	Same as DS-NT4 plus four probe connectors (HygroClip or analog probe) and one connector for up to two digital input signals.
DS-PT-2	Same as DS-NT3 plus four connectors for RTD probe (direct 4-wire connection) and one connector for up to two digital input signals.

HygroLog NT Probe Options

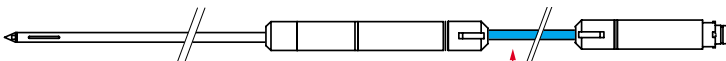
The ROTRONIC HygroClip digital probes are available in different configurations so as to meet the requirements of each application. Additional probes are available. Contact Rotronic for recommendations for your application.



L. 100mm (3.9") Dia. 15mm (0.6")

HygroClip S

for measurement in air, max. 85°C (185°F) wire mesh filter



Tube L. 200mm (7.9")
Dia. 5mm (0.2")

Cable 2m (6.5ft)

HygroClip SP05

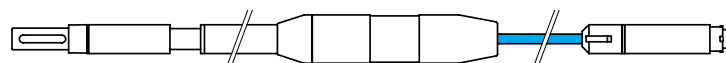
for measurement in air ducts, max. 85°C (185°F)



Dia. 5mm (0.2")
Cable 2m (6.5ft)

HygroClip SC05

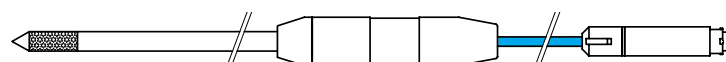
for measurement in tight spaces, max. 100°C (212°F)



Tube L. 250mm/400mm (9.8/15.7") Dia. 15mm (0.6) Cable 2m (6.5ft)

HygroClip HK25 / HK40

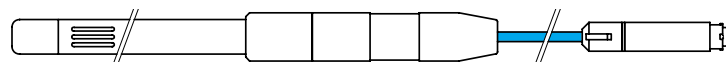
air probe for measurement at high temperature HK25: max. 150°C (302°F)/HK40: max. 200°C (392°F) wire mesh filter



Tube L. 280mm (11") Dia. 10mm (0.4) Cable 2m (6.5ft)

HygroClip HP28 insertion probe

for measurement of materials in bulk, max. 85°C (185°F) sintered steel filter



Blade L. 280mm (11") W. 18mm (0.7") T. 4mm (0.16") Cable 2m (6.5ft)

HygroClip HS28 sword probe

for measurement of paper stacks/rolls, max. 85°C (185°F)

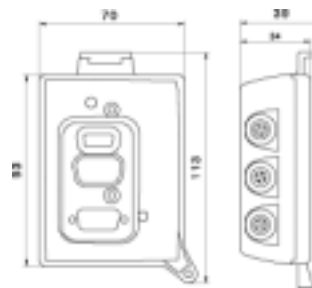
HygroLog NT Accessories

ORDER CODE	DESCRIPTION
HW4-E	HW4 Edition software (CD ROM)
HW4-P	HW4 Professional software (CD ROM)
AC-NT16MB	Industrial grade Compact Flash card – 16 MB
AC-NT32MB	Industrial grade Compact Flash card – 32 MB
AC-NT64MB	Industrial grade Compact Flash card – 64 MB
MOK-02-DAT05	Extension cable for HygroClip probes with DAT05 connector (use for input 1 of the HygroLog NT2 / NT3). Cable length 2 meter (6.5 ft)
MOK-02-B5	Adapter cable for HygroClip probes with DAT05 connector (use for inputs 2 to 7). Cable length 2 meter (6.5 ft)
T7-03-B5	Adapter cable for HygroClip probes with T7 connector (use for inputs 2 to 7). Cable length 3 meter (9.8 ft)
NT-Desk	Desktop stand for HygroLog NT with docking station
AC1211	AC adapter 12VDC / 200mA
11.01.6218	Data cable RS232 - docking station to PC (length 1.8 m / 5.9 ft)
11.02.9018	Data cable USB type A-B - docking station to PC (length 1.8 m / 5.9 ft)
AC1614-02	RS-485 cable with 3-pin connector and tinned ends. Suitable for connecting to a terminal box. Length 2 meter / 6.5 ft.
AC-NT-REM	Remote mode cable for HygroLog NT
AC-NT-BT	Bluetooth transceiver, connects to USB port on PC

HygroLog NT



Docking Station



dimensions in mm





HygroLog NT Specifications



MODEL	HYGROLOG NT2	HYGROLOG NT3
Probe inputs	1	3
Internal humidity / temperature probe	Plug-in ROTRONIC HygroClip S	
Operating limits electronics	0...100 %RH / -30...70 °C (-22...158°F) / -10...60 °C (14...140°F) with display	
Operating limits battery		
Alkaline battery	-10...+50 °C (14...122°F)	
Lithium battery	-30...+70 °C (-22...158°F)	
Measuring range		
Internal probe	0...100 %RH, same temperature limits as logger	
External probes	HygroClip probes are available for temperatures within the range of -50...200°C / 58...392°F. Contact Rotronic for further information	
Accuracy at 23°C (internal probe)	±1.5 %RH / ±0.2°C	
Logger interface	UART, Bluetooth (option)	
Docking station	RS232 or USB , RS485, Ethernet	
Internal power supply	9V battery = 500 mAh	
External power supply	Via docking station (allows use of a rechargeable battery)	
Battery lifetime	> 1 year - w/o display, 1 probe, 15 min. log interval	
Display	Graphic LC display (option)	
Event logging	Last 170 events such as configuration changes, alarm, etc.	
Internal menu	Simplified functions, viewing of logged data	
Internal probe adjustment	Direct from internal menu	
External probe adjustment	Direct from internal menu (HygroClip probes only)	
Docking station	Up to 4 probes – HygroClip probes, analog probes or RTD probes (Pt100) and 2 digital signals (depends on model)	
Plug-in memory card	Compact flash memory card (16 MB standard - up to 1 GB)	
Memory capacity (16 MB compact card)	400,000 data points in text file format 752,000 data points in encoded binary format (protected)	
Internal memory	EEPROM	
Log interval	Programmable from 5 sec to 24 hours	
Log mode	Start / Stop, with programmable date and time	
Alarm function	Optical and acoustical - programmable	
Housing	ABS, protection grade IP65 /NEMA 4	
Logger dimensions		
Logger	155 x 106 x 37 mm	
Docking station	110 x 70 x 37 mm	
Weight		
Logger	about 300 g	
Docking station	about 175 g	
NT desk stand	about 350 g	
Conformance	FDA 21 CFR Part 11 / GAMP4	
CE Approvals	EN 61000-6-3, EN 61000-6-1, EN 61000-6-4, EN 61000-6-2	
System requirements for HW4	Pentium 2 with min. 450 MHz. Min. 128 MB RAM, Min. 50 MB free hard disk, VGA or SVGA monitor. Operating systems: Windows 98SE, XP, NT4, with service pack 6a or higher Windows 2000-family with service pack 2 or higher, Windows Server 2003 or higher	