

MICROPROCESSOR BASED TEMPERATURE / HUMIDITY DATALOGGER (Product code 15.1 to 15.3)



Model wise descriptions:

Sr.No.	Model	Product Description
15.1	HTLOGGER-P-X	Microprocessor based Temperature & %RH Logger with Printer port and Extra 128KB of memory bank. (X = 2,4,6,8)
15.2	HTLOGGER-S-X	Microprocessor based Temperature & %RH Logger with RS-485/RS-232 Serial port and Extra 128KB of memory bank (X = 2,4,6,8)
15.3	HTLOGGER-PS-X	Microprocessor based Temperature & %RH Logger with Printer port, RS-485/RS-232 Serial port and Extra 128KB of memory bank. (X = 2,4,6,8)

Description:

Libratherm offers Microprocessor based Temperature and Humidity Scanner / Data logger Model HTLOGGER, for monitoring temperature and humidity at maximum 8 various locations or at various points in the stability chamber or in the walk in chamber, storage rooms, computer server rooms, or other similar systems requiring simultaneous and accurate measurement and logging of T and Rh.

HTLOGGER is 8 channel data logger and it can accept 1 to 8 (T + Rh) inputs from combined sensor or transmitter. For Small distance direct sensor can be used and for distance longer than 5 meters, the sensor with transmitter is recommended. The instrument displays the temperature / %Rh values on 4 digit 7-segment Red LED display with respective channel number and unit of measurement oC / %Rh.

In addition to this the HTLOGGER has many other useful features such as Separate display to indicate Real time clock / calendar. In-built data storage facility, which can be retrieved on demand or can be down loaded on to a computer or on a printer for hard copy via the printer port in both off line and on line mode. The data storage capacity depends on the log interval and the number of channels. Internal 128KB of memory allows 3000 records of storage.

This instrument is provided with a Serial communication port RS 232 / RS 485 for interfacing to a computer for data logging and storage. Specially written window based software does the on line data logging and plot the graph with respect to the time on the PC screen.

Features:

- ❖ Microprocessor based design.
- ❖ Separate display for Temperature/RH, process point and Channel and real time clock.
- ❖ Easy front panel keyboard programmable.
- ❖ Channel Hold/Scan facility.
- ❖ Programmable scan time, log time and data storage interval

Applications:




- Validation of HVAC systems
- Environmental Test Chambers
- Walk In Chambers
- BOD Incubator etc...

Technical Specifications:

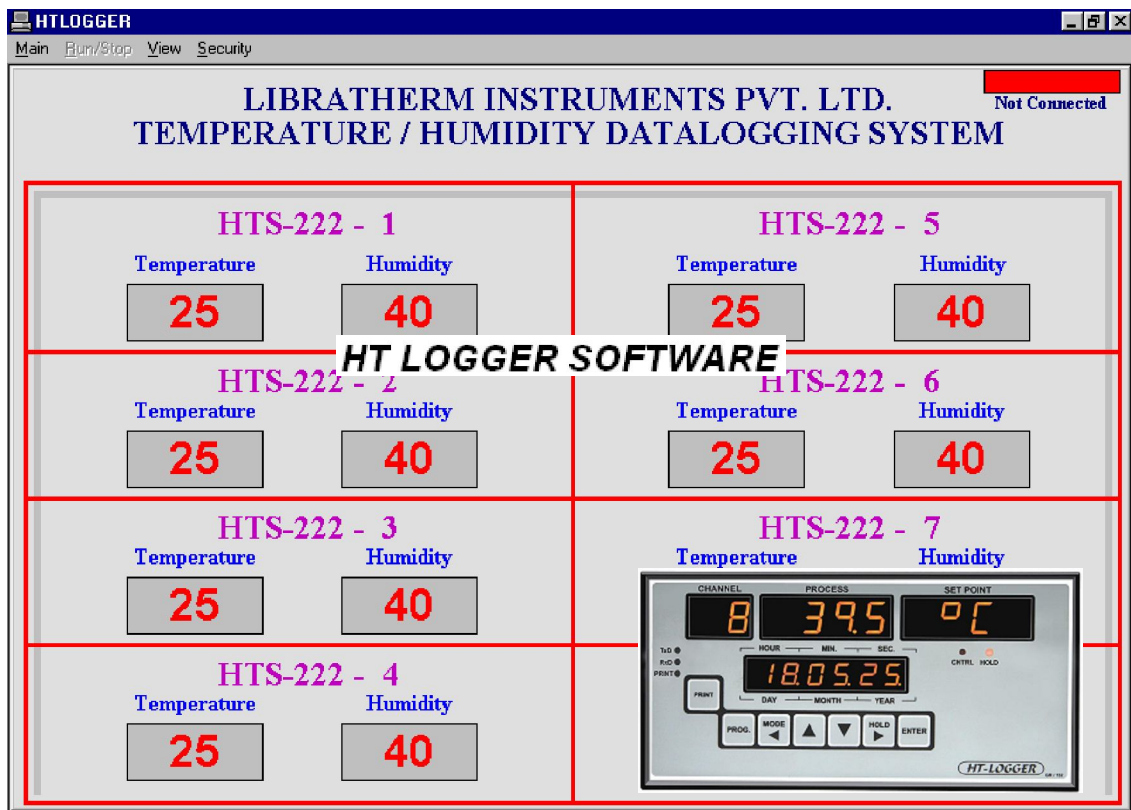
No. Of Inputs	2, 4, 6, 8, (2T + 2RH to 8T + 8RH).
Input	Temperature and %RH sensor / Transmitter (Refer table given below).
Range	-40.0 to 100.0 °C or 150.0 °C and 0.0 to 100.0 %RH. (Subject to type of input – refer table given below)
Resolution	0.1 °C or %RH
Accuracy	Better than $\pm 0.1\%$ for temperature and linear to the %RH input
Display	2 digit 0.5" Red 7-segment LED display for channel no. 4 digit 0.5" Red 7-segment LED display for process parameter. 4 digit 0.5" Red 7-segment LED display for process value. 6 digit 0.3" Red 7-segment LED display for Real Time Clock / Calander
Open Sensor Indication	Display shows fault message.
Settings	Using front panel membrane keyboard to set the various parameters, to configure the channel and to manually scan and hold the channel number.
Memory Backup	Retention of PID and set values in the non-volatile memory in the event of power failure.
Alarm Outputs	2 Extra Relay outputs, which can be used as High/Low Alarms (Relay changeover contacts rated for 5A @ 230VAC). Max. 16 Open collector output can also be provided for external relays. (optional)
Data Logging	Real Time with programmable log interval and storage time.
Data Storage	128K-memory bank. (Duration of storage depends on log interval)
Serial / Parallel Interface	Parallel Centronics port (25 pin D connector) for 40 or 80 column dot-matrix printer. Serial (RS232 4 wire or RS485 2 wire)port on modbus ASCII protocol. USB interface can also be optionally provided.
Supply	230VAC / 110 VAC $\pm 10\%$ (10VA), 50/60Hz or 24VDC @ 500mA.

Size	192 w x 96 h x 200 d mm
Panel cut out	188 x 92 mm +/- 0.5 mm.
Enclosure	Metal Powder coated with ABS front and polycarbonate graphic.

Input Sensor / Transmitter and Range Selection Table: (Which can be used with above HT Logger)

Sensor / Transmitter	A1	A2	A3
Model	HYGROTX-3000	HYGRO CLIP –CP	H290
Type	Transmitter	Sensor	Transmitter
Make	Libratherm	Rotronic – Swiss make	Rotronic
Temp. Sensor	Hygroclip-CP	In-built	In-built
Supply	18-24VDC	(5-24) VDC	(5-24) VDC
%Rh O/P	4-20mA	0 TO 1 VDC	(4-20) mA DC
% Rh Range	0 to 100%	0 to 100%RH	0 to 100%
Accuracy	+/- 1.5% @ 23°C	+/- 1.5 %RH @23°C	+/- 1% RH
Temp. O/P	4-20mA	0 to 1 VDC	(4-20) mA DC
Temperature	-40 to 60°C	-40 to 60°C	-40 to 150°C.
Accuracy	+/- 0.5%	+/- 0.5%	+/- 0.5%
Std. Cable Length	1 meter with sensor	2 meter	2 meter
Transmitter Enclosure	ABS IP 65	--	ABS-IP65
Transmitter Size (mm)	85 x 85 x 55 mm.	--	120 x 85 x 55
Sensor Size (mm)	15 x 140	15 x 140	15 x 200
			

HT-LOGGER Software - designed to interface with our **HT-LOGGER**, monitors and displays the temperature and humidity values at 8 different locations, which are updated every 1 second. Facility to view the real time line graph of both temperature and humidity values, can zoom in or zoom out with auto scaling of x or y co-ordinates, the data base is created in back ground which can also be seen in the tabular format with real time and date. The records can be easily searched by date, time or by the customized and user selectable field. The software can be customized to group the monitoring of single or multiples systems with suitable identifications. This computerized data logging system is suitable for validation of stability or environmental or walk-in chamber, cold storage rooms in Pharma, food, petroleum and other industries.



Ordering Information:

MODEL	NO. OF CHANNELS	A - SENSOR INPUT	B- SUPPLY
HTLOGGER-P-X	2 CH (2+2)	A1 -(HYGROCLIP)	B1 - (230VAC)
HTLOGGER-S-X	4 CH (4+4)	A2 -(HYGROT X)	B2 - (110VAC)
HTLOGGER-PS-X	6 CH (6+6)	A3 -(H290)	
	8 CH (8+8)		
P - Printer interface S - Serial Interface X - No.of Channels			

Examples:

MODEL	NO. OF CHANNELS	A - SENSOR INPUT	B - SUPPLY
HTLOGGER-P	2CH (2+2)	A1	B1
HTLOGGER-S	4CH (4+4)	A2	B2
HTLOGGER-PS	6CH (6+6)	A3	B2
HTLOGGER-PS	8CH (8+8)	A1	B1

Example	Ordering Code	Description
1	HTLOGGER-P-2CH(2+2)-A1-B1	This is two channel (2T + 2RH) Logger with Hygroclip sensor and printer interface operating on 230VAC supply.
2	HTLOGGER-S-4CH(4+4)-A2-B2	This is four channel (4T + 4RH) Logger with Hygotx transmitter and PC interface operating on 110VAC supply.
3	HTLOGGER-PS-6CH(6+6)-A3-B2	This is six channel (6T + 6RH) Logger with H290 transmitter and Printer cum PC interface operating on 110VAC supply.
4	HTLOGGER-PS-8CH(8+8)-A1-B1	This is 8 channel (8T + 8RH) Logger with Hygroclip sensor and Printer cum PC interface operating on 230VAC supply.

REMARK :