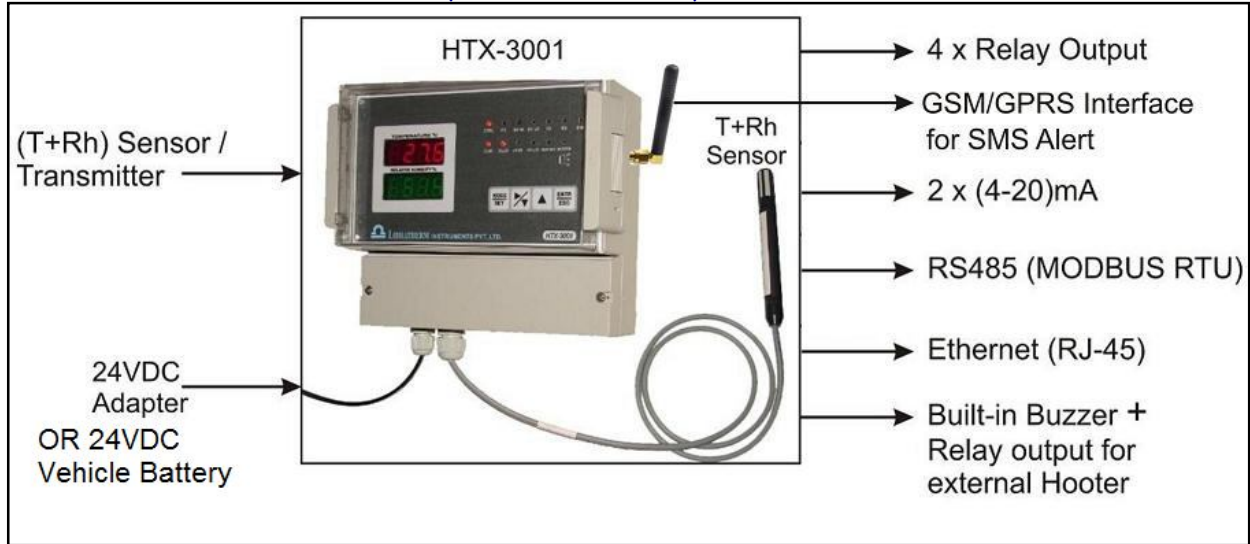


Temperature / Humidity Monitoring system with Alarms and Serial Interface (Product Code 16.13)



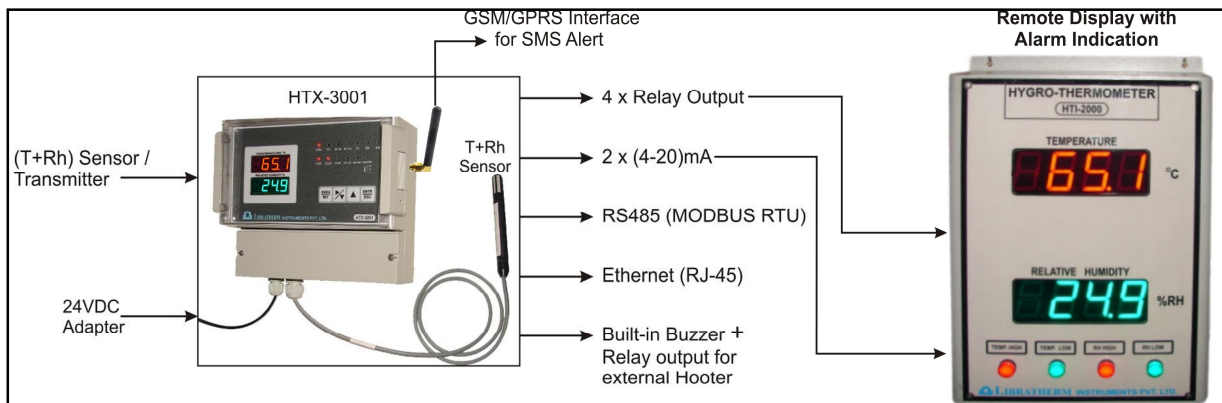
Description:

Libratherm offers micro-controller based (T + Rh) monitoring system, model **HTX-3001** with digital display, High and Low alarm relays, 4-20mA output, RS 485 and Ethernet outputs as per the requirement. Even SMS alert can be sent to 5 different users using GSM interface.

This model find its application in Green House, Storage rooms, Server room, data centers, Sterilizers, Pharmaceutical and Food product storage or manufacturing plants, Cold chain vehicles and all such similar areas where the measurement is important and critical and required to be strictly maintained at the desired levels. For sensing (T + Rh) in vacuum system, specially designed suitable sensor assemblies are also available.

Features:

- ❖ Microcontroller based design.
- ❖ Elegant appearance, easy to operate and compact in size.
- ❖ Highly accurate and sturdy in operation.
- ❖ Dual display for simultaneous indication of T and RH.
- ❖ Relays, 4-20mA, RS485 and Ethernet, GSM interface.
- ❖ Easy to mount and install.



Technical Specifications:

Sensor	T + Rh sensor / transmitter
Temperature Range	-40.0 to 60.0 °C / -20.0 to 80.0 °C / 0.0 to 60.0 °C / 0.0 to 100.0 °C (User to specify the display range)
Temperature Accuracy	+/- 0.3 °C
%RH Range	0.0 to 100.0 %RH
RH Accuracy	+/-1.5 %RH @ 23.0 °C .
Display for T and %RH	4 digit each – 0.5” seven segment LED, red for Temperature and green of %Rh
Power Requirement (*)	24VDC +/- 10% @ 150mA .
Output 1 for Temperature	4-20mA proportional to -40.0 to 60.0 °C / -20.0 to 80.0 °C / 0.0 to 100.0 °C Or for any other range – please see the Ordering Information table given below (this output has 12 bit resolution)
Output 2 for %RH	4-20mA proportional 0.0 to 100.0 %RH (12 bit resolution)
Load Resistance	RLmax. = 400 Ohms @ 24VDC.
Relay Outputs	2 nos. High/Low alarm relay each for T and RH - Total 4 nos.
Audio Output	Built in Buzzer + Single Relay to activate audio alarm.
Serial Output (optional)	Isolated 2 wire RS485 interface on MODBUS RTU protocol (slave mode)
Ethernet Port (optional)	Ethernet port on RJ-45 jack with TCP/IP protocol.
GSM Interface (optional)	Allows user to send SMS alert on 5 cell nos. – in the event of temperature or humidity going outside the preset limits. (This is for preventive measures)
Key board	Membrane key board is provided for programming the MODBUS address and for calibration.
Enclosure (Size)	ABS plastic with transparent protection cover 212(W) x 185(H) x 106(D) mm.
Sensor Stem Size	15 x 140 mm + 2meter long cable for HTX-3001
24VDC Adapter (Optional)	24VDC adapter working on 90-250VAC can be supplied along with HTX-3001 as shown above or external 24VDC can be used.
Mounting	Suitable for Wall mounting.

Ordering Information:

MODEL	A - Temp. Range	B - %RH Range	C - RS 485	D- Ethernet	E- GSM interface	E-24VDC Adapter
HTX-3001	A1- (-40.0 to 60.0 °C) A2- (-20.0 to 80.0 °C) A3- (0.0 to 100.0 °C) A4- (0.0 to 60.0 °C)	B1- (0.0 to 100.0%)	C1-(Yes) 00-(None)	D1- (Yes) 00-(None)	E1 – (yes) 00 – (None)	E1-(Yes) 00-(None)

Note : Dual 4-20mA and 4 relay outputs are available as standard.

Examples:

MODEL	A - Temp. Range	B - %RH Range	C - RS 485	D- Ethernet	E- GSM interface	F-24VDC Adapter
HTX-3001	A1	B1	00	D1	E1	F1
HTX-3001	A3	B1	C1	00	00	00

Example	Ordering Code	Description
1	HTX-3001-A1-B1-00-D1-E1-F1	This is wall mounting type T + RH transmitter with 4-20mA proportional to -40.0 to 60.0 °C and 0.0 to 100.0% and with Ethernet and GSM interface and 24VDC adapter.
2	HTX-3001-A3-B1-C1-00-00-00	This is T + RH transmitter with 2 meter sensor cable, with 4-20mA proportional to 0.0 to 100.0 °C and 0.0 to 100.0%Rh and RS 485 interface.

