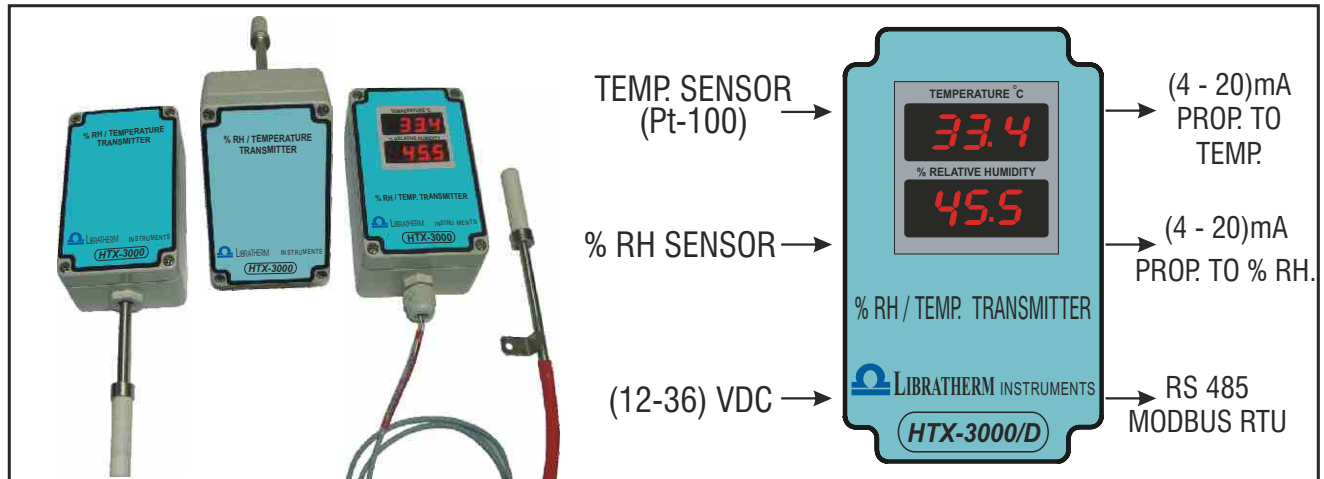


RELATIVE HUMIDITY AND TEMPERATURE TRANSMITTER WITH RS 485 INTERFACE (MODEL HTX-3000)



MODEL WISE DESCRIPTIONS :

HTX - 3000 / D	% RH and Temperature Transmitter - Duct Type
HTX - 3000 / W	% RH and Temperature Transmitter - Wall Type
HTX - 3000 / DD	% RH and Temperature Transmitter - Duct Type with Display
HTX - 3000 / WD	% RH and Temperature Transmitter - Wall Types with Display
HTX - 3000 / F	% RH and Temperature Transmitter - Floating leads
HTX - 3000 / FD	% RH and Temperature Transmitter - Floating leads with Display

PRODUCT DESCRIPTION :

Libratherm offers Relative Humidity and Temperature transmitter model **HTX-3000** for measuring and transmitting the analogue and digital values proportional to these two parameters. HTX-3000 is designed using the latest micro-controller, incorporating Pt-100 class A element for temperature sensing and Monolithic sensor for %RH sensing. The two independent loop current outputs of 4-20mA proportional to both the parameters are available for remote measurement and indication. To suit industrial requirement the transmitter is available in both duct type and wall mounting type assembly, and for the local indication of %RH and Temperature, two independent 4

digit 7 segment red LED displays are provided. For serial interface with PLC or DCS or with any other process controller digital serial communication on RS485 bus with MODBUS RTU protocol in slave mode is also provided. Using RS 485 interface is advantageous, since number of wires as with the three wire of 4-20mA per transmitter can be avoided (3 wires multiply by no. of transmitters), since only two wires can be looped with multiple transmitters in multi-drop wiring. These transmitters finds application in HVAC, Climatic control, Stability chamber, Hospitals, Green houses, useful for Validation agencies and for regulatory requirement of FDA, CGMP, ISO14644 etc....

FEATURES :

- Microcontroller based design
- Built in Temperature /%RH sensor
- Isolated 4-20mA proportional to both temperature and %RH
- RS485 MODBUS RTU serial interface
- Bright red LED display
- Can also accept other brand of temperature and %RH sensor generating voltage or current signal
- Available in wall mounting, Duct mounting and Flying leads versions
- IP 65 plastic enclosure
- Operates on 12 to 36VDC.
- Calibration through software (available on request).

TECHNICAL SPECIFICATIONS:

Temperature Sensor	RTD (Pt-100) Class A / 3 wire
RH Sensor	Laser Trimmed thermo set polymer capacitive element
Temperature Range	-40.0 to 85.0 °C
RH Range	0.0 to 100.0 %RH
Temperature Accuracy	+/-0.3 °C
RH Accuracy	+/- 2% RH, 0-100%RH non condensing @ 25°C
RH Linearity	+/-0.5%RH typical
Temperature Compensation	Built in using software tabulation
Power Requirement	24VDC @ 300mA (12-36) VDC
Temperature Output	4-20mA proportional to 0.0 to 60.0 °C (any other range can also be provided)
RH Output	4-20mA proportional to 0.0 to 100.0%RH
Loop Resistance	RLmax = 150 Ohms with internal 5VDC supply and RLmax = 600 Ohms when external 24VDC is used.
Display	4 digit each - 0.3" red seven segment LED.
Connection	5 wire connection for supply and current output
Serial Communication	Isolated 2 wire RS485 MODBUS RTU Slave protocol
Enclosure (Size)	ABS plastic IP-65 (120 x 80 x 55) mm.
Stem Size	8 x 100 mm for wall type and 8 x 150 mm for duct type