

# HT16E<sub>w</sub>

## Wireless RH/T Transmitter

Measure. Log. Display. Transmit



Model HT16E<sub>w</sub> is state of the art wireless Transmitter to measure, display and transmit Relative Humidity and Temperature with high accuracy, the data is streamed wirelessly over Zigbee network at set interval. Even if the user wishes to push the data in between of set interval than it can be done by pressing the front key. The unit has low power consumption, operates on 2 pair of AA Lithium cells and is housed in an elegant wall mount IP62 enclosure.

At the heart of the Transmitter is the built-in RH & Temperature sensor chip, highly accurate with excellent long term stability, the measurements are displayed on a custom built LCD display with engineering units and 0.1 resolution, besides the real time values the unit also captures and displays statistical Min and Max values.

The custom built display of HT16E<sub>w</sub> indicates the RH and Temperature values along with Battery status & wireless signal strength.

The Data transmission is based on ZigBee protocol, the preferred protocol for low power devices, and the transmission frequency is on the license free 2.4GHz ISM band, the transmission range is 90 meters typically without line of sight the data is pushed by the individual Transmitters to the logger/PC at set interval, Routers/Repeaters can be used to increase the network range.

HT16E<sub>w</sub> Transmitter communicates with Receiver over Zigbee protocol. If communication breaks between Transmitter and Receiver than HT16E<sub>w</sub> will log the data in its internal memory and when communication re-establishes between both devices, HT16E<sub>w</sub> will send all data to Receiver.

Model HT16E<sub>w</sub> is typically a battery operated low powered device giving battery life of close to 2 years, as it transmits the data at 1min interval with exception based protocol. Also the configuration port gives the option of using power supply via USB adaptor wherever mains power is available

### Features

- Water and dust resistance IP62 based design
- ZigBee wireless RH/T transmitter with Integral display
- Operates License free ISM Band of 2.4GHz
- Low Power Battery consumption leading to long Battery life
- Max and Min readings
- Hi/Lo Alarms
- Battery Status and Signal strength indication
- Configuration port for Mains Adaptor, Zigbee configuration & log data retrieval
- Custom built LCD display
- Can operate both in Star & Mesh network
- Configurable by front keypad Supported by Masibus Wireless Logger and PC software
- Auto back filling feature for data assurance

### Applications

- Pharmaceutical Industry
- Clean Rooms & Warehouses
- Food Industry
- Building Automation
- HVAC Systems
- Cold Storages
- Energy Management
- Laboratory & Medical Industries

# TECHNICAL SPECIFICATIONS

Sensors: Internal ( Factory Default ) / External ( on request )

## Temperature

Measurement Range	-10° to 60°C
Resolution	0.1°C
Accuracy	±0.3°C Typical, ±0.4°C Max
Long-term drift	<0.03°C /year

## Humidity

Measurement Range	0 to 100% RH
Resolution	0.1% RH
Accuracy @ 25°C	±2% RH (0-80%), ±4% RH (80-100%)
Response Time	8 Sec to achieve 63% of step change in Humidity
Long-term drift	<0.25% RH/year

## Wireless

Frequency Band	ISM 2.4 GHz
Protocol	ZigBee (IEEE 802.15.4 standard)
Transmit Power	63 mW (+18 dBm)
Receiver Sensitivity	-101 dBm
Line of sight Range (outdoors)	3000 m typically (without any obstacles)
Indoor Range	90 m typically
Connectivity	Up to 12 such Transmitters can be connected to one receiver *(Excluding repeaters)
Antenna	Dipole pluggable external

## Data Logging

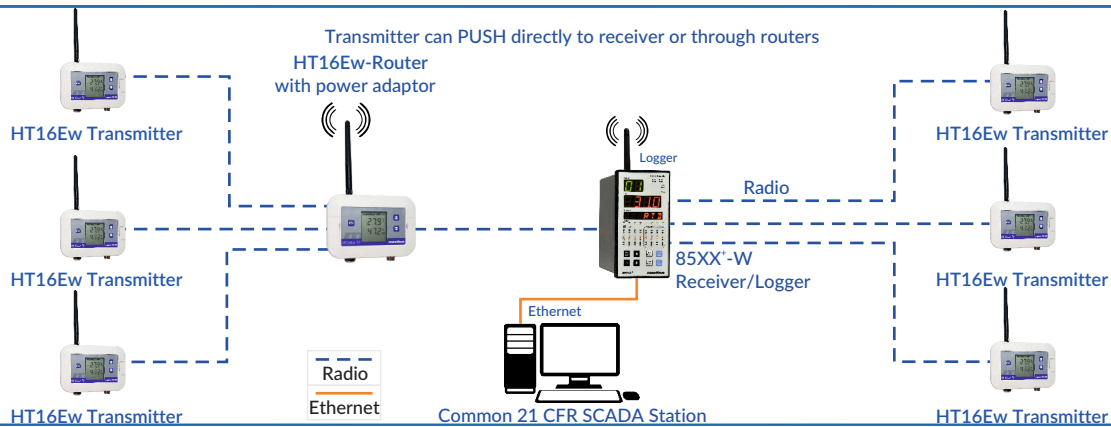
Memory	64 Mbits
Record Type	Date/ Time/ Temperature/ Humidity/ Alarms Status/ Battery Status/ RF Signal Strength
Total Records	Up to 400000
Record Transmit Interval	User Settable from every 1 Min to 2880 Min (upto 48 hours)

## General

Display	LCD, 7 segments with symbols
Keys	Menu, Up & Down
Indication Symbols	Battery Status, RF signal strength, Max/Min, Engineering Units
Alarm Set points	Hi/Lo for Temperature & Humidity
Local alarm facility	Available at receiver end
Configuration Port	Mains Power Adapter, Zigbee configuration & log data retrieval
Battery Type	4 X AA Lithium Cells
Battery Life (with exception based protocol)	24 months @1Min Transmit interval (standard exception band ± 0.5°C & ± 2% RH)
Battery Life (without exception based protocol)	24 months @15Min Transmit interval
Enclosure type	IP62 Self-extinguishing ASA UL 94 V0
Color	White Grey
Mounting	Wall mount ( Mounting bracket)
Size (in mm)	90(H) x 130(W) x 25(D)
Weight	Approx 300g

## Environment

Operating Temperature	-10° to 60°C
Storage Temperature	-10° to 70°C
Humidity	0 - 100 % RH



Model	Input Types
HT16Ew	X
	I Internal Sensor Chip
	E External Sensor Probe
	R Router

### Accessories On request

- 5V, >1A Power Adaptor
- HT16Ew configuration/Power cable

Note 1: External probe Comes with Sintered SS Filter ( Cable Length 2 Meters )

Note 2: HT16Ew comes with Standard Wall Mounting Bracket & Screws (65mm x 45mm)

#Masibus model CDU & 85XX'-W will be used as receiver cum data logger please refer its catalogue for more details

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All specifications are subject to change without notice due to continuous improvements.  
 Doc. Ref. HT16Ew/ROF/O618