

Wireless Temperature/Humidity Sensor

TES-11/HTS-10

data sheet



FEATURES

- › Accurate temperature sensor: +/- 0.2°C
- › Wide temperature range: -20°C to + 60°C
- › Relative humidity accuracy: +/- 3% (normal range)
- › Battery life greater than 10 years (30 minute reporting interval)
- › On-board data logging of up to 10,000 data points
- › Vented ABS plastic enclosure
- › Fully wireless communications
- › Wireless range up to 300m (LoS)
- › Dimensions (LxWxH): 71mm x 71mm x 27mm
- › Self-healing mesh network
- › 2.4GHz ISM band ZigBee® wireless radio
- › Fully secure communications: 128-bit AES encryption
- › Over-the-air software upgrade capability
- › Easy to install and commission; stick on/wall mountable



INTRODUCTION

The TES-11, a fully wireless, accurate ambient Temperature Sensor, can record temperature data at predefined intervals and make this data available via EpiSensor's NGR-30 Smart Gateway. The sensor has on-board wireless communications and is housed in a vented ABS enclosure. The HTS-10 Temperature Sensor also includes a relative humidity sensor.

At 30 minute reporting intervals, the battery can last up to 10 years under normal conditions. The enclosure measures just 71mm x 71mm x 27mm and can be wall mounted using keyhole slots or sticky pads.

APPLICATIONS

The TES-11 and HTS-10 ambient Wireless Temperature Sensors are designed for remotely monitoring temperature and humidity for environmental monitoring and energy management applications.

These products are designed for monitoring ambient temperature and relative humidity in a wide variety of environments such as warehouses, clean rooms, pharmaceutical manufacturing plants, residential or commercial buildings, data centers, hotels and offices, as well as in manufacturing processes that require temperature- or humidity-



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SPECIFICATIONS



Dimensions for TES-11 / HTS-10 Wireless Temperature / Humidity Sensor

Ordering Codes	TES-11 HTS-10	Temperature Temperature & Humidity
Humidity (HTS-10 only)	Full Humidity Range Normal Humidity Range RH Accuracy (normal range) Humidity Resolution Hysteresis Repeatability	0% RH to 100% RH 11% RH to 89% RH +/- 3% RH 0.1% 2% RH +/- 0.5% RH
Temperature	Normal Temperature Range Full Temperature Range Temperature Accuracy (normal range) Temperature Accuracy (full range) Temperature Resolution	-20°C to +60°C -40°C to +85°C +/- 0.2°C +/- 0.4°C 0.1°C
Battery	Lifetime Type	up to 10 years (30 min reporting interval) Lithium Thionyl Chloride (permanent)
Certification	Certification	CE
Wireless Technology	Radio Technology Radio Frequency Channels Max Tx Power Rx Sensitivity Data Rate	ZigBee Pro 2.4 Ghz ISM Band 16 Channels (11 - 26) +3dBm (+5dBm in Boost Mode) -98dBm @ 1% Packet Error Rate up to 250 kbits/sec
Wireless Range	Indoor Range Outdoor Range	up to 50m up to 300m (direct line of sight)
Security	Encryption	128-bit AES Encryption
Physical	Dimensions (LxWxH) Weight Mounting Enclosure Operating Temperature Operating Humidity	71 x 71 x 27 mm 150g Wall Mounting Holes ABS Plastic, Vented -40°C to +85°C up to 100% (non-condensing)