



TES-11

Temperature Sensor

○ INTRODUCTION

EpiSensor's TES-11 Indoor Temperature sensor is a fully wireless device which can monitor ambient temperature and make this data available on the web using EpiSensor's SiCA Platform.

It uses secure & reliable Zigbee communications to send data to a central location through a SiCA Gateway.

The TES-11 has a range of up to 300m outdoors, or 50m indoors and has a battery life of up to 10 years under normal operating conditions.

○ APPLICATIONS

The TES-11 can be used in temperature tracking or building management applications to deliver accurate temperature data to a central location in real-time.

Schedules and events can be driven by data readings collected by this device which allows operators to have maximum freedom and flexibility when designing monitoring and control systems with the SiCA Platform.

The reporting interval of the device can easily be modified using EpiSensor's SiCA Studio software.

○ FEATURES

Fully wireless sensor

Easy to install and configure

Vented indoor enclosure

Range of up to 300m outdoors, 50m indoors

Battery lasts up to 10 years

Secure & reliable Zigbee communications

Track temperature in real-time via the web

Variable reporting interval

Fully SiCA Platform Compatible

○ SPECIFICATION

Wireless: IEEE 802.15.4 (ZigBee PRO)

Radio Frequency: 2.4 Ghz ISM Band

Security/Encryption: 128bit AES Encryption

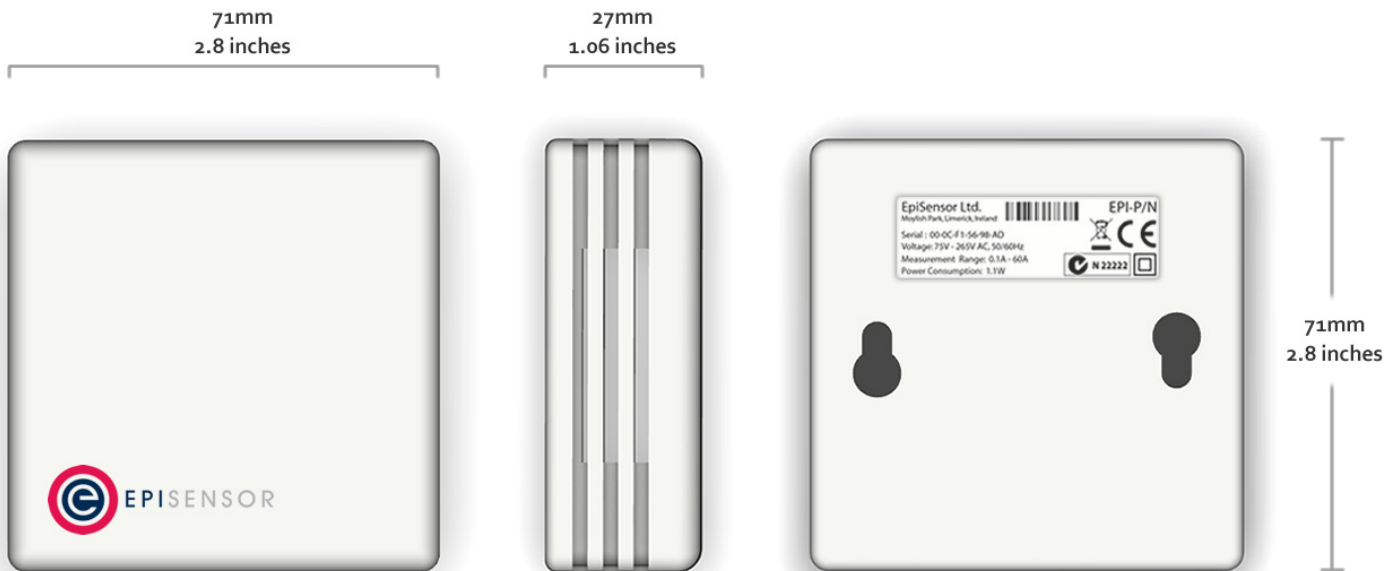
Dimensions: 70 x 70 x 30 mm

Temperature Range: -40°C to +85°C

Accuracy: +/- 0.2 °C (normal range)

Temperature Resolution: 0.1 °C





○ TEMPERATURE SENSOR

Parameter	Value
Temperature Range	Normal: -20°C - +60°C, Full: -40°C - +85°C
Temperature Accuracy	+/- 0.2°C (Normal), +/- 0.4°C (Full)
Temperature Resolution	0.1°C
Battery Life	Up to 10 Years (10min reporting interval)
Battery Type	Lithium Thionyl Chloride (permanent)
Certification	CE

○ WIRELESS

Parameter	Value
Max Tx Power	+3dBm (+5dBm in Boost Mode)
Rx Sensitivity	-98dBm @ 1% Packet Error Rate
Radio Frequency	2.4 Ghz ISM Band
Channels	16 Channels (11 - 26)
Data Rate	up to 250 kbits/sec
Encryption	128bit AES Encryption
Indoor Range	up to 50m
Outdoor Range	up to 300m (direct line of sight)

○ PHYSICAL

Parameter	Value
Dimensions	71 x 71 x 27 mm
Weight	150g
Mounting	Wall Mounting Holes
Enclosure	ABS Plastic
Operating Temperature	-40°C to +85°C
Operating Humidity	up to 80% (non-condensing)

○ APPLICATIONS

- Domestic Temperature Monitoring
- Data centre monitoring
- Advanced Manufacturing
- Cold Storage Monitoring
- Asset & Inventory Management
- Energy Efficiency Analysis
- Environmental Monitoring

○ APPLICATION AREAS

- Public, Commercial & Industrial Buildings
- Utilities (domestic temperature monitoring)
- Manufacturing, Logistics
- Retail, Hospitality