# Leaf temperature moisture sensor

## Model ES-S225B

## Main features

- Imitate leaf surface features to quickly and accurately measure temperature and humidity.
- Denseer leaf veins (15 veins/cm) can detect smaller droplets and more sensitive measurements.
- Sensitive humidity measurement, can accurately detect leaf surface humidity.
- High accuracy, fast response, good interchangeability.
- Epoxy resin encapsulation, waterproof and moisture-proof, longer life.

## Compliance

The electromagnetic compatibility in accordance with the following applicable directives:
EMC 2014/30/EU Electromagnetic Compatibility
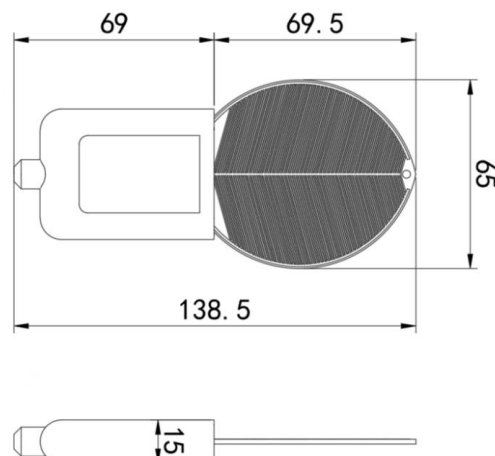EMC 2014/35/EU Electromagnetic Compatibility

## Introduction

ES-S225B Leaf temperature moisture sensor consists of a high-precision thermistor and a transmitter, which can accurately measure the temperature in the entire range. The humidity sensor is based on the dielectric constant measurement principle, simulates the shape of the leaf, and truly simulates the surface characteristics of the leaf. The humidity can be accurately measured by the change of the dielectric constant on the leaf surface. With good sensitivity, it can detect trace moisture residue on the leaf surface. The leaf temperature and humidity transmitter adopts a waterproof design, low power consumption, and can be continuously monitored for a long time. It is easy to install and can be hung inside the greenhouse or on the branches of trees for long-term uninterrupted monitoring.

## Application

It is widely used to measure the surface humidity of plants or objects in greenhouses, laboratories, breeding, production environments, artificial climate rooms, etc.

## Dimension

Unit:mm

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## Specification

| ITEMS | Temperature | Moisture |
|---|---|---|
| Range | 0-100%RH | -40-+80°C |
| Accuracy | ±3%（@0-50%，25°C） | ±0.5°C（@25°C） |
| Resolution | 0.1%RH | 0.1°C |
| Power supply | RS485 output:DC 5-30V; 0-5V/4-20mA output:10-30V; 0-10V output: 18-30V ||
| Max. Power consumption | RS485 output: 0.75W (12V DC power supply); Current/voltage output: 0.9W ||
| Operating temperature | -40°C-+60°C ||
| Sealing material | Black flame retardant epoxy resin ||
| Signal output | RS485 (ModBus protocol); 4-20mA, 0-5V/0-10V ||
| Dimensions | 65 * 15 * 138.5mm ||
| Protection | IP67 ||
| Cable length | 2m, cable length can be customized according to requirements ||

## Order guide

| ES-S225B | Leaf temperature and moisture sensor ||||
|---|---|---|---|---|
| | CODE | Functions |||
| | A | Temperature |||
| | B | Temperature and moisture |||
| | | CODE | Signal output ||
| | | 1 | RS485 ||
| | | 2 | 4~20mA ||
| | | 3 | 0~10V ||
| | | 4 | 0~5V ||
| ES-S225B | B | 1 | Order example ||

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