SHT31 Weather-proof Temperature & Humidity Sensor

SEN0385

Product Overview

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For the most up-to-date information, visit www.mouser.com or the supplier's website.

Description

DFRobot SHT31 Weather-proof Temperature & Humidity Sensor is housed in a weather-proof enclosure and designed to use safely in outdoor projects. This sensor is waterproof, but is not suggested to submerge in water. For in-water measurement, the DS18B20 sensor is highly recommended. The sensor uses Sensirion's CMOSens® technology, highly integrated capacitive humidity sensing components, and band-gap temperature sensing components.

The SHT31 sensor offers high reliability and long-term stability with low power consumption, fast response, and strong anti-interference ability. The sensor supports I^{2}C communication and is compatible with 3.3V/5V controllers like Arduino, micro: bit, and ESP32. The SHT31 is the standard version of the SHT3x series. It provides humidity accuracy of ± 2% RH @ 0% RH ~ 100% RH (at 25°C), and temperature accuracy of ±0.2°C @ 0°C ~ 90°C (typical).

Note: Although the temperature measurement range of the sensor is -40°C ~ 125°C, it is recommended not to place the sensor at a temperature higher than 80°C, since its shell is made of PE material.

Features

- Weather-proof
- High precise, internal auto-calibrated, and digital output
- Low power consumption, fast response, and strong anti-interference

Specifications

- 3.3V ~ 5V operating voltage range
- <1.5mA operating current
- 0%RH ~ 100%RH humidity detection range
- Humidity accuracy of ±2%RH @ 0%RH ~ 100%RH (at 25°C)
- -40°C ~ 125°C temperature detection range
- Temperature accuracy of ±0.2°C @ 0°C ~ 90°C (typical)
- I^{2}C communication
- Cable length of about 1m

Mouser Part Number

View Part

To learn more, visit https://www.mouser.com/new/dfrobot/dfrobot-sht31-temperature-humidity-sensor/