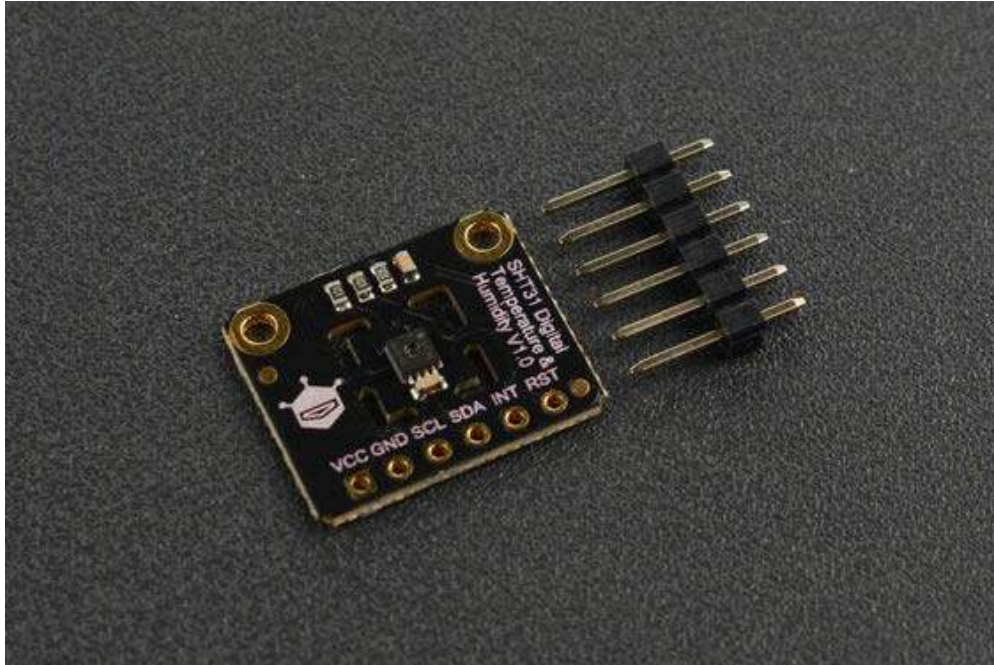




DFROBOT
DRIVE THE FUTURE



SHT31 Digital Temperature & Humidity Sensor Breakout

SKU:SEN0331

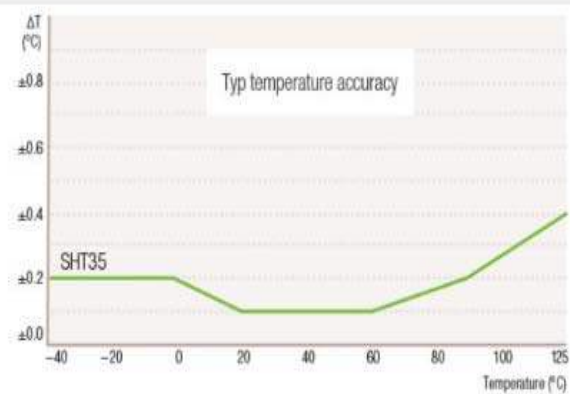
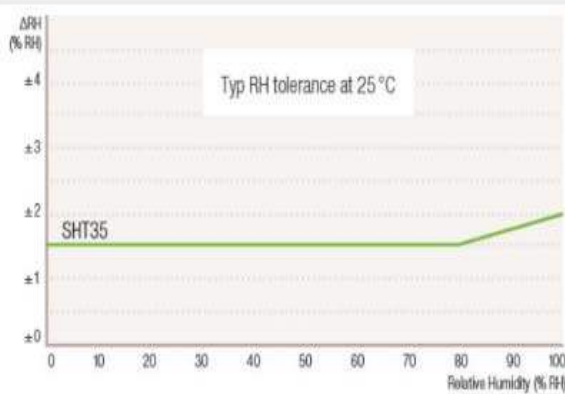
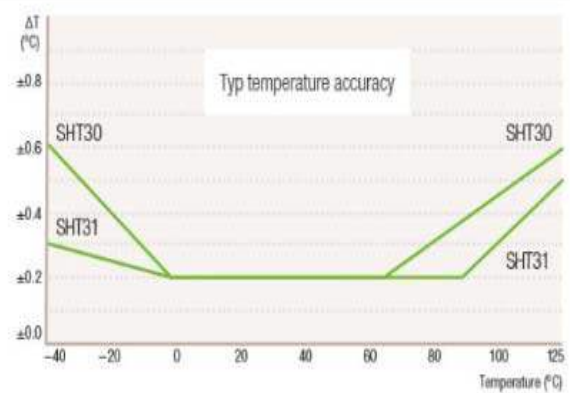
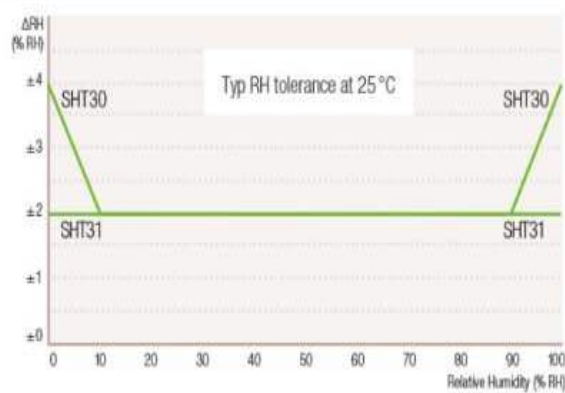
INTRODUCTION

This DFRobot SHT31 digital temperature and humidity sensor is based upon the Sensirion SHT31 sensor IC. Thanks to Sensirion's CMOSens® technology, highly integrated capacitive humidity sensing components and band-gap temperature sensing components, the SHT31 offers high reliability and long-term stability with low power consumption, fast response and strong anti-interference ability. The sensor supports I2C communication, and is compatible with 3.3V/5V controllers like Arduino, micro:bit, ESP32. It is easy to achieve precise and high-reliability temperature and humidity sensing for urban environment monitoring, intelligent buildings, industrial automation, smart home and other Internet of Things applications.

SHT31 is the standard version of the SHT3x series. It provides humidity accuracy $\pm 2\%RH@0\% RH\sim 100\% RH$ (at 25°C), and temperature accuracy $\pm 0.2^{\circ}C@ 0^{\circ}C \sim 90^{\circ}C$ (typical).

Digital Temperature and Humidity Sensor Selection Guide

Product Name	SHT30	SHT31	SHT31-F	SHT35
SKU	SEN0330	SEN0331	SEN0332	SEN0333
IC Type	SHT30-DIS-B	SHT31-DIS-B	SHT31-DIS-F	SHT35-DIS-B
Typ. RH Accuracy (%RH)	±2@10-90%RH	±2@0-100%RH	±2@0-100%RH	±1.5@0-80%RH
Typ. Temperature (°C)	±0.2@0-65°C	±0.2@0-90°C	±0.2@0-90°C	±0.1@20-60°C
Price	\$6.9	\$8.9	\$9.7	\$16.9
Feature	Cheap	Cost-Effective	IC Dustproof	High Accuracy



FEATURES

High precise, internal auto-calibrated, digital output

Low power consumption, fast response, and strong anti-interference

Compatible with 3.3V/5V controllers

APPLICATIONS

Urban Environmental Monitoring

Intelligent Building, Smart Home

Grain Storage

Plant and animal breeding System

SPECIFICATION

Operating Voltage: 2.15~5.5V

Operating Current: <1.5mA

Humidity Detection Range: 0%RH~100%RH

Humidity Accuracy: $\pm 2\%RH@0\%RH\sim 100\%RH$ (at 25°C)

Temperature Detection Range: -40°C~125°C

Temperature Accuracy: $\pm 0.2^{\circ}C@0^{\circ}C\sim 90^{\circ}C$ (Typical)

Communication: I2C

Outline Dimension: 19x16mm/0.75x0.63"

Mounting Hole Size: 2mm/0.08"

Mounting Hole Pitch: 15mm/0.59"



<https://www.dfrobot.com/product-2013.html/5-28-20>