

DHT20 Temperature and Humidity Sensor

SEN0497

Product Overview

10-28-2022

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

Description

DFRobot DHT20 Temperature and Humidity Sensor is the newly upgraded version of the DHT11. The DHT20 is a brand new ASIC dedicated chip, an improved MEMS semiconductor capacitive humidity sensor element, and a standard on-chip temperature element. This sensor has improved data accuracy, stability, response speed, and measurement range. The DHT20 temperature and humidity sensor is factory calibrated and characterized by low power, high precision, and strong anti-interference.



The DHT20 temperature and humidity sensor features a 3.3V_{DC} to 5.5V_{DC} operating voltage range, <1mA operating current, I²C (0X38) output signal, and operates between -40°C to 85°C±0.5°C temperature range. This sensor can be used in HVAC, automobiles, data loggers, weather stations, and home appliances applications.

Features

- Factory calibration
- I²C digital output
- Quick response
- Strong anti-interference ability
- Low power and low cost
- Compatible with mainboards like Arduino, micro:bit, ESP32, and Raspberry Pi
- Compatible with 3.3V to 5.5V main controller

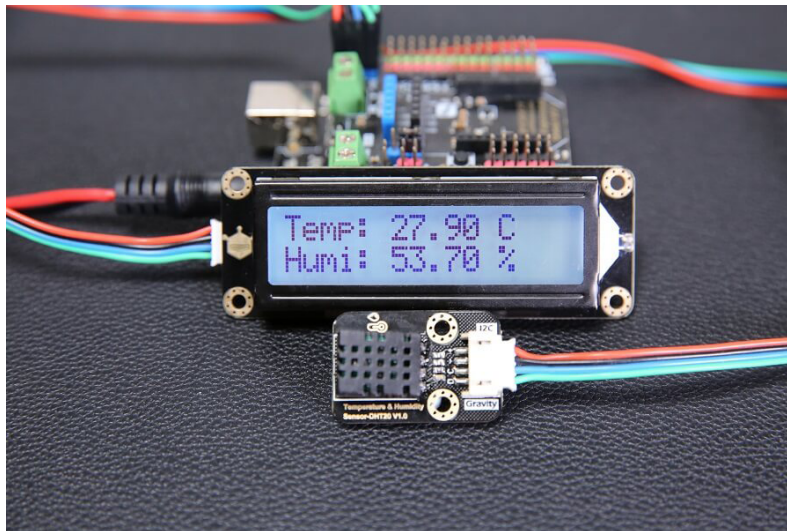
Specifications

- 3.3V_{DC} to 5.5V_{DC} operating voltage range
- <1mA operating current
- I²C (0x38) output signal
- -40°C to 85°C±0.5°C temperature range
- 0%RH to 100%RH ±3%RH (25°C) humidity range
- 22mm x 33mm board dimensions
- 3.1mm inner diameter/6mm outer diameter mounting hole size

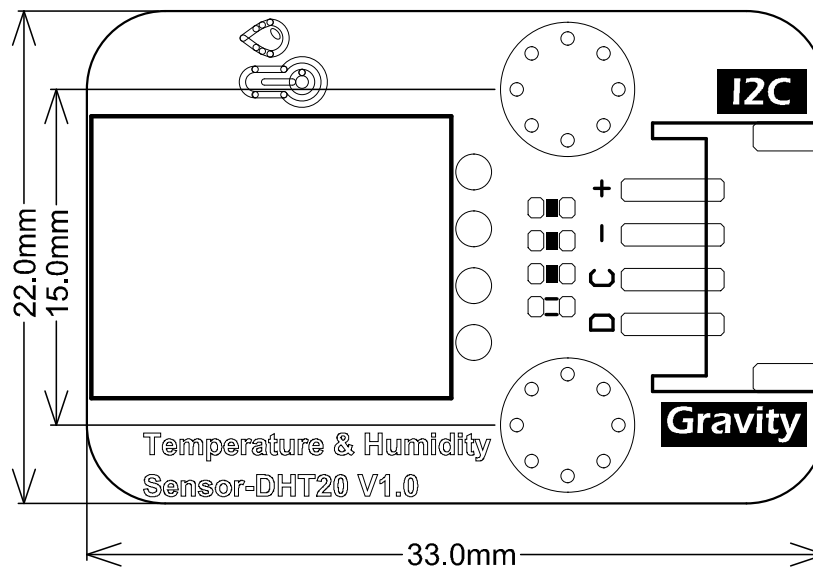
Applications

- HVAC
- Automobiles
- Data loggers
- Weather stations
- Home appliances

Application Overview



Board Dimensions



PCB Information		DFR0497[V1.0]	Thickness: 1.6mm
Engineer:lfvag_CD	Top SolderMask: Black	Bottom SolderMask: Black	
Date:20210709	Top Silkscreen: White	Bottom Silkscreen: White	

Mouser Part Number

[View Part](#)

To learn more, visit <https://www.mouser.com/new/dfrobot/dfrobot-dht20-temperature-humidity-sensor/>