DS18B20-P2M

Introduction

This product is the waterproof version of the DS18B20 temperature sensor, specifically designed for temperature measurements in distant or humid environments. This temperature & humidity sensor has a wide temperature range of -55°C to 125°C, but we recommend keeping the included PVC jacketed cable below 100°C to ensure optimal performance and durability.

The DS18B20 **waterproof temperature sensor** is a digital sensor that maintains signal integrity even over long distances. It utilizes a 1-Wire interface, connecting to a central microprocessor through a single wire (along with a ground wire). This design simplifies installation and connection, making it particularly suitable for systems operating within the 3V~5.5V range.

Each DS18B20 temperature sensor has a unique silicon serial number, useful for verifying its authenticity and enabling the connection of multiple sensors on a single 1-Wire bus. This feature facilitates the installation of temperature sensors in various locations for applications like indoor temperature monitoring, smart home integration, object temperature detection, greenhouse farming, and more.

With our plugable terminal, there is no soldering required to connect to our IO Expansion Shield. This allows you to conveniently integrate the DS18B20 temperature sensor into your project, saving you time and effort.

Specification

Usable with 3.0V to 5.5V power/data
±0.5°C Accuracy from -10°C to +85°C
Usable temperature range: -55 to 125°C (-67°F to +257°F)
9 to 12 bit selectable resolution
Uses 1-Wire interface- requires only one digital pin for communication
Unique 64 bit ID burned into the chip
Multiple sensors can share one pin
Temperature-limit alarm system
Query time is less than 750ms
3 wires interface:

Type A
  Red wire - VCC
  Black wire - GND
  Yellow wire - DATA

Type B (Recently there's a series of sensors using this pin mapping.)
  Red wire - VCC
  Yellow wire - GND
  Green wire - DATA

Stainless steel tube 6mm diameter by 35mm long
Cable diameter: 4mm (0.16)
Length: 95cm (37.4")