Water Level Sensor Module

Description:

The water level sensor is a device that measures the liquid level in a fixed container.

The level sensor is a device designed to monitor or measure liquid levels. When the liquid level is detected, the sensor converts the sensed data into an electrical signal. Level sensors are mainly used for monitoring reservoirs, oil tanks or rivers.

Features:

1. No moving parts.
2. Water resistant enclosure.
3. Rugged design for long term use.
4. Precise measurement.
5. Instantaneous results.
6. Output Voltage is proportional to liquid level.
7. Can Measure large changes in water level.
8. Low cost.

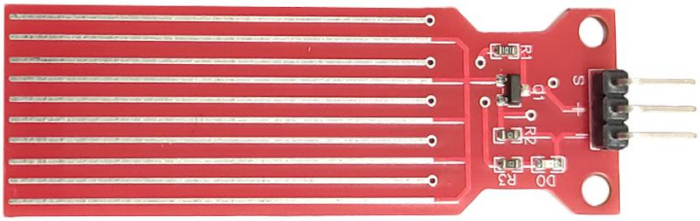
Specifications:

- Operating voltage: DC 3-5V
- Operating current: less than 20mA
- Sensor Type: Analog
- Operating temperature: 10℃-30℃
- Humidity: 10% -90% non-condensing

How it works:

The sensor has ten exposed copper traces, five of which are power traces and the remaining five are sense traces. These traces are interlaced so that there is one sense trace between every two power traces.

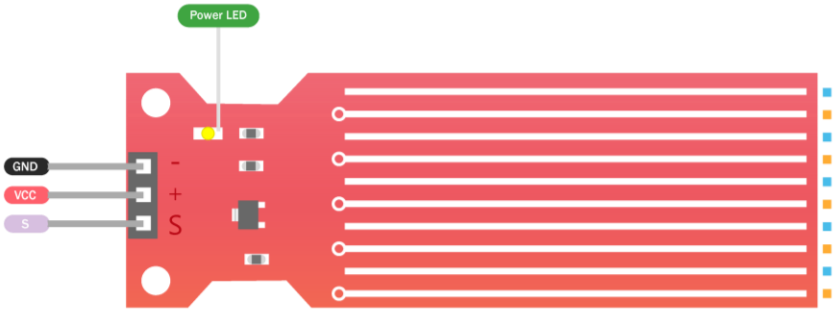
Normally, power and sense traces are not connected, but when immersed in water, they are bridged.



- The more water the sensor is immersed in, the better the conductivity and the lower the resistance.
- The less water the sensor is immersed in, the poorer the conductivity and the higher the resistance.

The sensor generates an output voltage proportional to the resistance; by measuring this voltage, the water level can be determined.

Pin Configurations:



VCC: VCC pin provides power to the sensor. It is recommended that the sensor be powered from 3.3V to 5V. Please keep in mind that the analog output will vary depending on the voltage supplied to the sensor

GND: Ground pin

S: Signal pin is an analog output pin that will be connected to one of your Arduino's analog inputs.

Advantages:

- Compact and light weight
- Reading will be linear

Application:

- Water level alarm for moisture-sensitive environments
- Stream-level indicator when used in a controlled reservoir (stream well)
- Used with a microcontroller to actuate a pump, an indicator