

Soil Moisture Hygrometer Detection Sensor Module W/ Corrosion Resistance Probe DC 3.3-12V for Arduino



Description:

NO.	NO.	Value
1	Name	Soil humidity sensor
2	Size	36157mm
3	Voltage	DC 3.3-12V
4	Current	<20mA; <30mA (output)
5	Interface	+ - DO AO; DO digital value; AO analog value
6	Operating Temperature	-25~85 Celsius

Application:

It is used for detecting soil humidity.

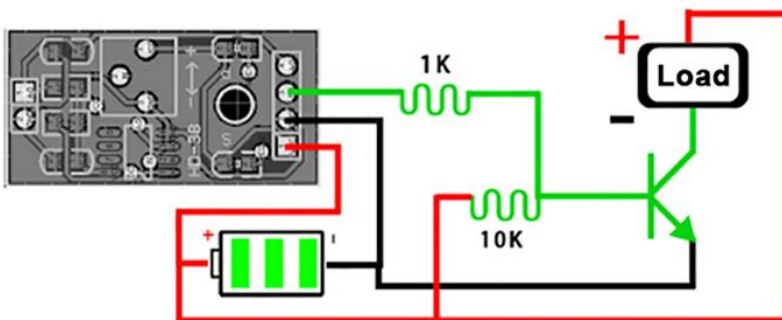
Principle:

The soil humidity probe is for detecting humidity, and the voltage comparator is for judging the humidity amount. When the humidity is larger than set value, DO will output to the low level.

Using Introduction:

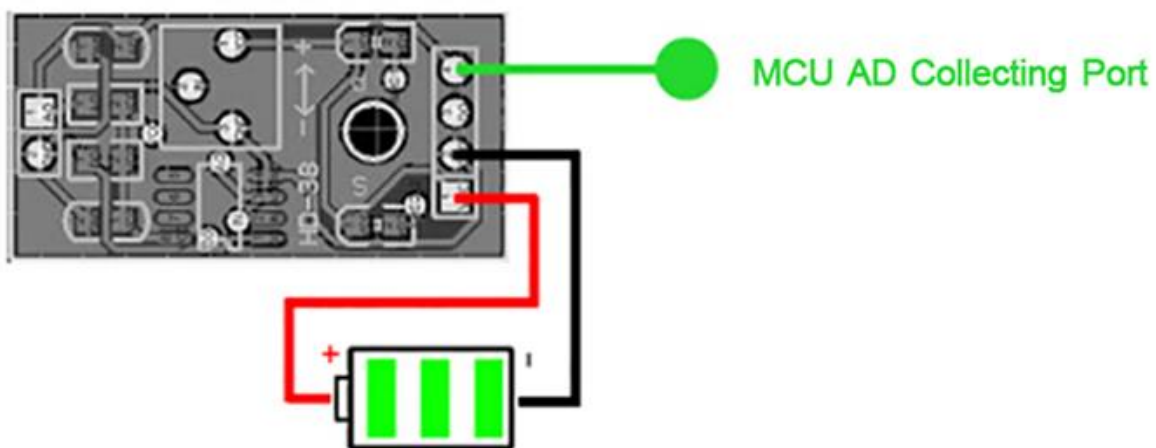
1. "+" connects power positive; "-" connects power negative. Please do not connect reversely, or it will burn the chip. After connection, "P" power indicator lamp will be on and the module will operate normally
2. Clockwise/counter clockwise adjusts the blue potentiometer, and it can improve/reduce the detection sensitivity. Take the "Thermal Sensor" as an example: if it defaults to a 25 Celsius trigger, then the DO output low level is valid. After clockwise adjusting, that is when the temperature is lower than 25 Celsius, it can trigger. If you are counter clockwise adjusting, then higher than 25 Celsius can trigger.
3. When clockwise adjusts the potentiometer so the "S" output indicator is on, it shows that the adjusting range has surpassed the testing threshold. If counter clockwise adjusting is extended to the max, it surpasses the threshold. When adjusting, please do not let them over the threshold, or it cannot be used normally. Potentiometer adjustment is only used for the DO port, and has no relevance to AO output.
4. AO output is analog value (voltage), and it can detect via MCU AD port

Wiring Diagram 1:



When the detected value is more than the set value, DO will output low level, the triode will be connected and the load will operate. 1K is current-limiting resistor, and 10K is pull-up resistor on DO port.

Wiring Diagram 2:



No more complex circuits, AO port can collect voltage via MCU AD port.