

Capacitive Pipeline Liquid Level Sensor

SEN0509

Product Overview

11-11-2022

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

Description

The DFRobot Capacitive Pipeline Liquid Level Sensor is suitable for non-metallic pipes with a diameter of 6mm. The sensor outputs digital high/low level (low when liquid is detected) and adopts a 3-pin DuPont connector. The connector can be used in beverage machines, small water pipe level detection, and infusion pipe level detection scenarios.



Features

- High sensitivity
- Adopts 3-pin DuPont connector

Specifications

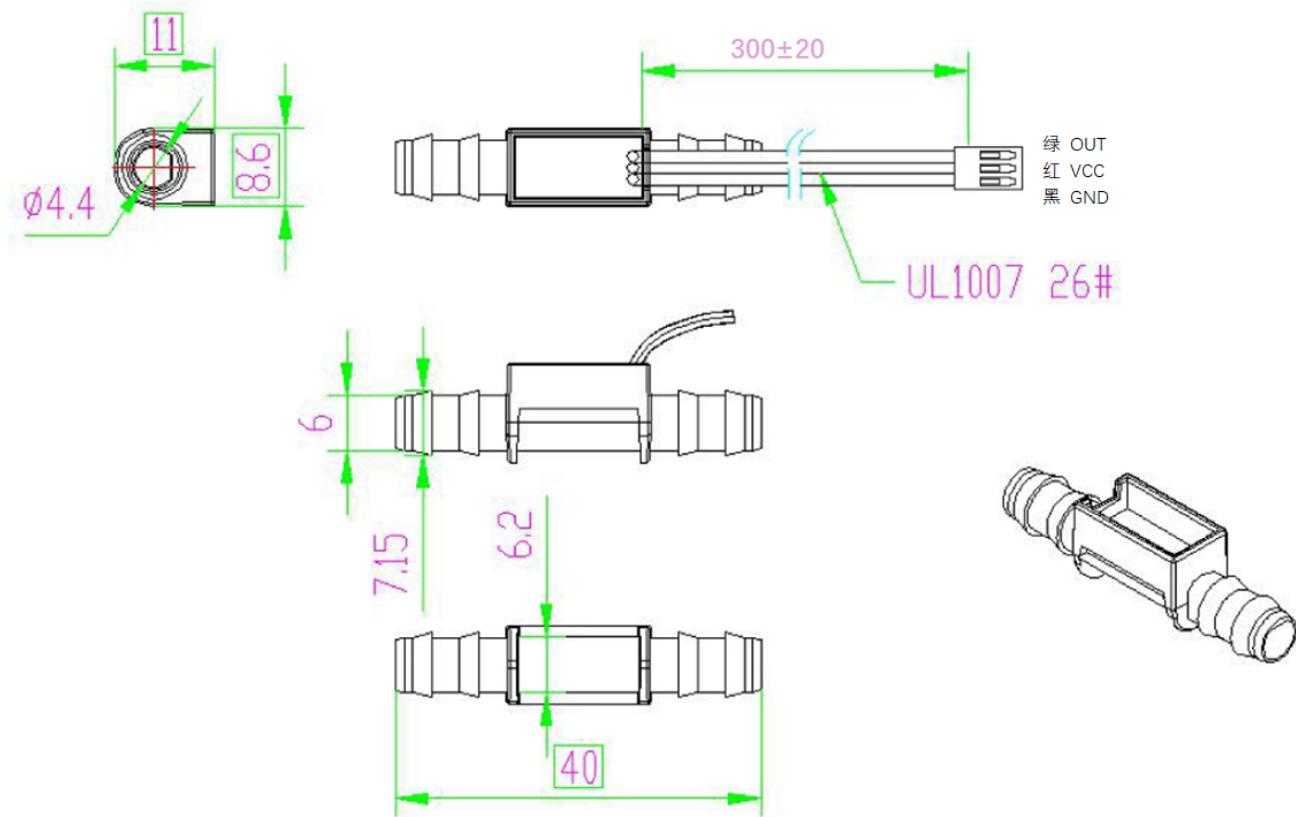
- 2.5~5.5VDC working voltage
- 5V 290 μ A 3V 235 μ A working current
- Output: Low (liquid detected), high level (no liquid detected)
- $\pm 0.25\%$ FS hysteresis
- Interval medium: plastic
- Protection Level: IP62
- 20°C~100°C operating temperature range
- Weight: 3g

Applications

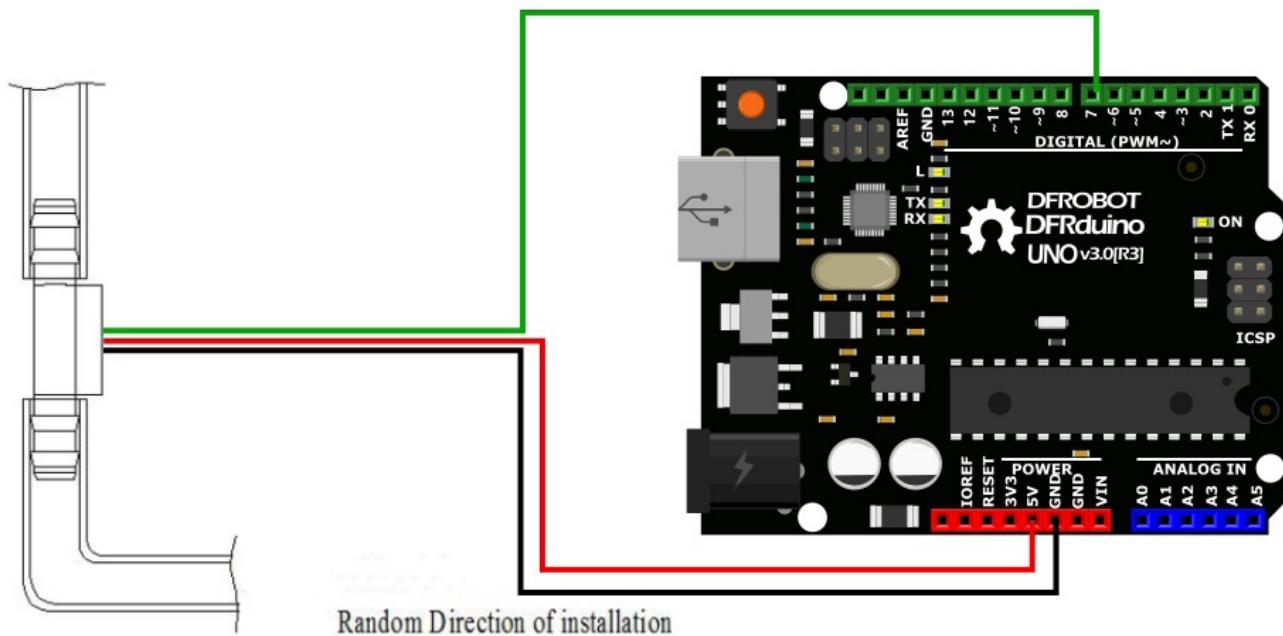
- Beverage machines
- Small water pipe level detection
- Infusion pipe level detection scenarios

Working Principle

The liquid level sensor uses the sensing capacitance of water to detect the presence of liquid. When there is no liquid approaching the sensor, the sensor has a certain static capacitance due to the distributed capacitance. When the liquid level slowly rises close to the inductor, the parasitic capacitance of the liquid will be coupled to the static capacitor, causing the final capacitance of the inductor to become larger. The changed capacitance signal is then input to the control IC for signal conversion, which will change. The capacitance is converted into the amount of change of an electrical signal, and then a certain algorithm detects and judges the degree of the change. When the amount of change exceeds a certain threshold, the liquid level is considered to reach the sensing point.



Connection Diagram



Mouser Part Number

[View Part](#)

To learn more, visit <https://www.mouser.com/new/dfrobot/dfrobot-capacitive-liquid-level-sensor/>