# INTRODUCTION

This is a non-contact liquid level sensor with status indicator and adjustable sensitivity. It can be used in liquid detection of non-metallic container or pipe(outer diameter>11mm), suitable for all types of detection of curved or flat surfaces, arcs, cylindrical containers, or piping fluids. The status feedback of the sensor can be given in real-time. Besides that, the sensor comes with a 4pin sensor adaptor that can directly collect digital signal, convenient for connecting with [Arduino](#) or other main-controllers. This liquid level sensor can be widely used in liquid detection of a tank, water dispenser, etc.

This non-contact liquid level sensor is developed on advanced signal process technology by high-speed signal processing chip. It can measure the liquid level of a closed container without the influence of corrosive liquids like strong acid and alkali, or other impurities.
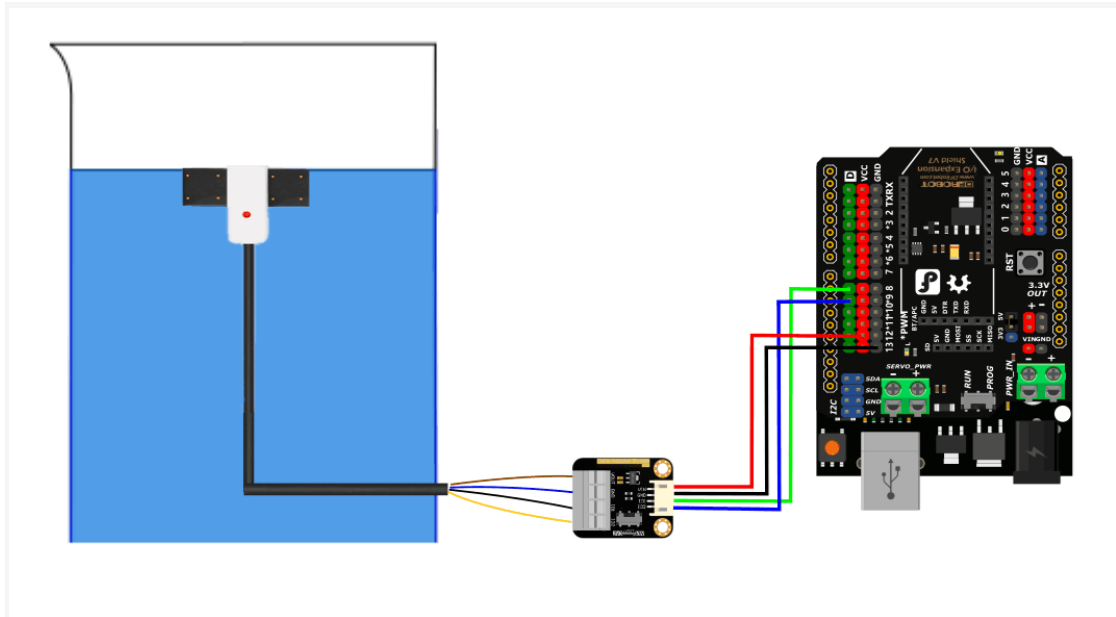
Sensitivity Adjustment

Status Indicator

TR < 20mm
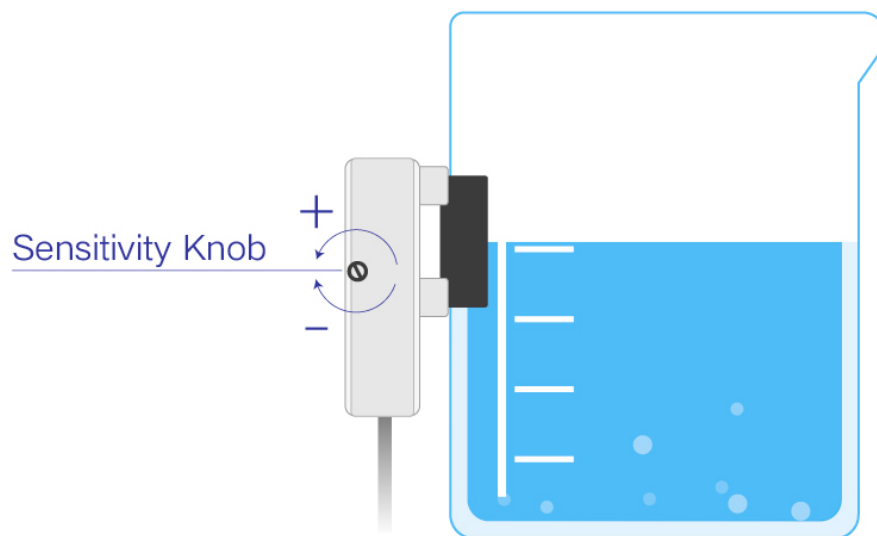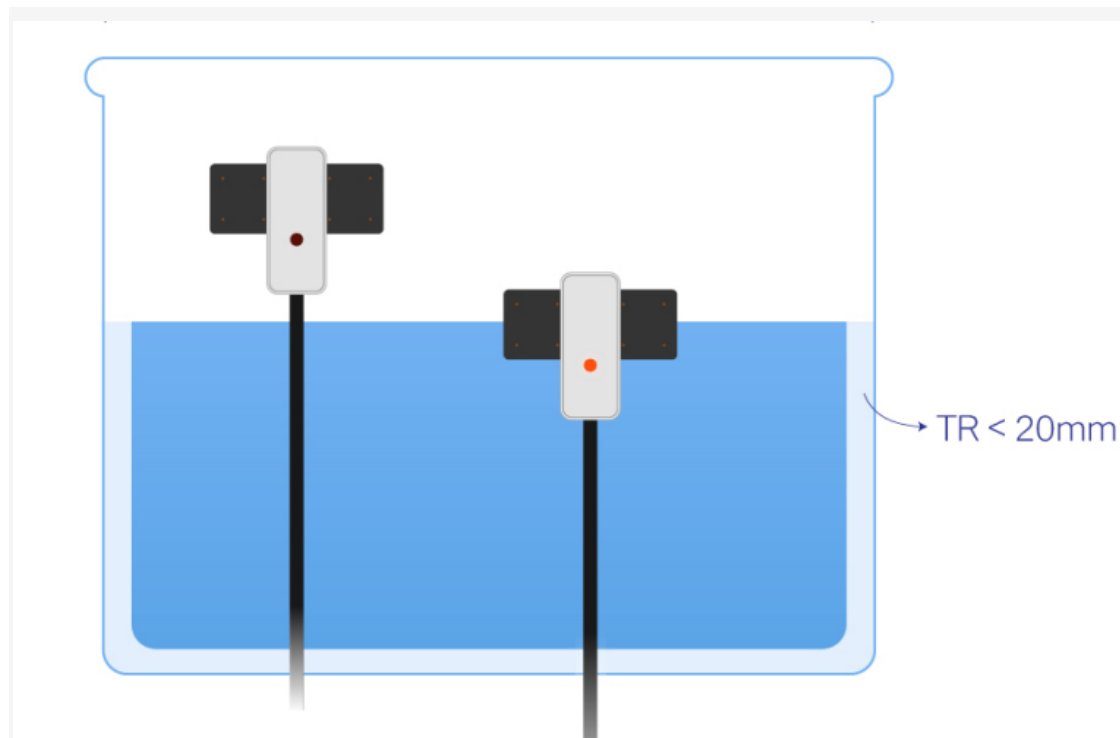
Working Principle

A Non-contact liquid level sensor is used for detecting whether there is liquid by water induction capacitor. When there is no liquid approaching the sensor, there will be some certain static capacitance to ground on the sensor due to the presence of distributed capacitance. When the liquid level rises slowly to approach the sensor, the liquid parasitic capacitor will be coupled to the static capacitance so that the final capacitance value will increase. The changed capacitance signal will be input to the control IC for signal conversion, by which to transform the changed capacitance value into the variation of certain electric signal. Then the degree of the variation can be detected and determined through specific algorithms. When the variation exceeds a threshold value, it means the liquid level reaches the sensing point.

Connection Diagram

FEATURES

- High stability and sensitivity

- Adjustable sensitivity

- With status indicator

- Can be used in liquid detection of non-metallic container or pipe(outer diameter>11MM), non-contact detection, and will not be affected by corrosive liquids like strong acid and alkali, or other impurities

- Accurate detection can detect the liquid level of boiling water

- Pure electronic circuit structure, non-mechanical structure, stable performance, and long working life

- High sensitivity and strong anti-interference ability, not affected by external electromagnetic interference, special treatment for power frequency interference, and common mode interference.

- Strong compatibility, penetrate all kinds of non-metallic container pipes, such as plastic, glass, ceramic, and other containers. The thickness of pipe the sensor can detect reaches up to **20mm**;

- Suitable for all types of detection of curved or flat surfaces, arcs, cylindrical containers or piping fluids

- 5~12V wide voltage range, suitable for various circuits or applications.

SPECIFICATION

- Power Supply: 5~12V

- Output Mode: switch quantity (high-level output)
- Response Time: 500ms
- Operating Temperature: -5~105°C
- Liquid Level Error: ±1.5mm
- Thickness Range(TR): ≤20mm
- Suitable Container OD: **≥11mm**
- Response Time: 500ms
- Waterproof Performance: **IP65**

PROJECTS

Project 1. Saving Plants - DIY Plant Watering Device
Introduction:
To avoid ending up with yellow and dead leaves, this project introduce to make an auto plant watering device to save the plants.

DOCUMENTS

- Product Wiki

SHIPPING LIST

- Non-contact Capacitive Liquid Level Sensor for Container OD>11mm x1
- 4Pin Sensor Adapter x1
- Screwdriver x1
- Cable Tie Black x1