Non-contact Liquid Level Sensor XKC-Y25-T12V SKU: SEN0204

From Robot Wiki

Contents

Introduction

The non-contact liquid level sensor utilizes advanced signal processing technology by using a powerful chip with high-speed operation capacity to achieve non-contact liquid level detection. No contact with liquid makes the module suitable for hazardous applications such as detecting toxic substances, strong acid, strong alkali and all kinds of liquid in an airtight container under high pressure. There are no special requirements for the liquid or container and the sensor is easy to use and easy to install.
The liquid level sensor is equipped with an interface adapter that makes it compatible with DFRobot "Gravity" interface. There are 4 levels of sensitivity which are set by pressing the **SET** button.

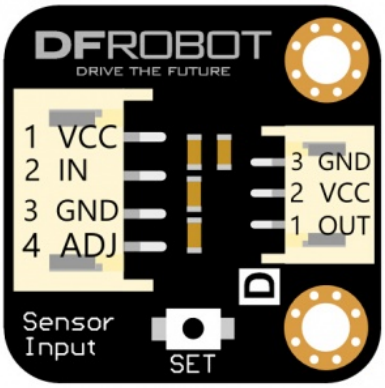
Specification

- Operating Voltage (InVCC) : DC 5 ~ 24 v
- Current consumption: 5 mA
- Output voltage (high level) : InVCC
- Output voltage (low level) : 0V
- Output current: 1 ~ 50 mA
- Response time: 500 ms
- Operating Temperature : 0 ~ 105 ℃
- Range for thickness of induction (sensitivity): 0 ~ 13 mm
- Humidity: 5% ~ 100%
- Material: ABS.
- Waterproof performance: IP67
- Dimension : 28 * 28 mm / 1.1 * 1.1 inches

Pin Description

Non-contact Liquid Level Sensor probe XKC-Y25-T12V

Liquid Level Sensor-XKC-Y25-T12V Pin defination		
Num.	**Name**	**Description**
1 (Brown)	VCC	InVCC (range: +5V~+24V)
2 (Yellow)	OUT	Liquid level sensor signal output
3 (Blue)	GND	GND
4 (Black)	ADJ	Sensor sensitivity adjusting switch (Adjust the sensor sensitivity, 4 modes in all. Click the **SET** button on the adapter to set the sensor sensitivity.)



Non-contact Liquid Level Sensor Adapter

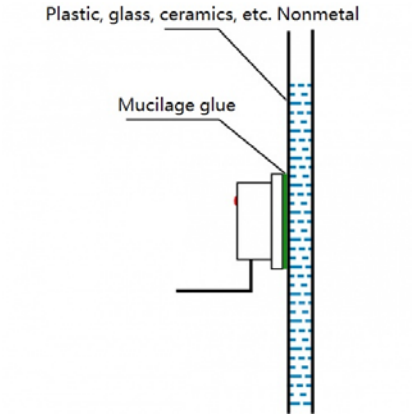
Liquid Level Sensor-XKC-Y25-T12V Pin defination		
Num.	**Name**	**Description**
Left_1	VCC	InVCC (range: +5V~+24V)
Left_2	OUT	Liquid level sensor signal output
Left_3	GND	GND
Left_4	ADJ	Sensor sensitivity adjusting switch (Adjust the sensor sensitivity, 4 modes in all. Click the **SET** button on the adapter to set the sensor sensitivity.)
Right_1	OUT	Signal
Right_2	VCC	InVCC
Right_3	GND	GND

Tutorial

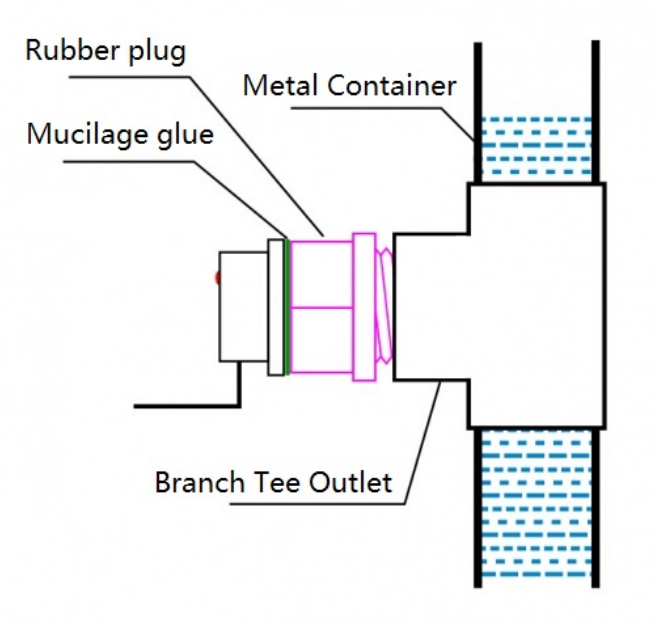
Requirements

- **Hardware**
  - Arduino UNO x1
  - Liquid level sensor x1
- **Software**
  - Arduino IDE V1.6.5 Click to Download Arduino IDE from Arduino® https://www.arduino.cc/en/Main/Software

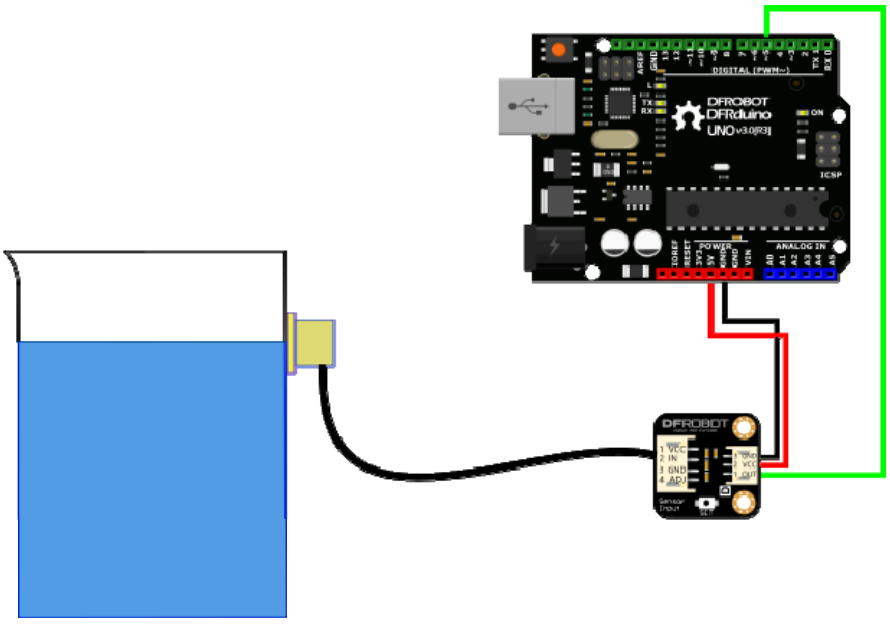
Connection Diagram



Non-contact Liquid Level Sensor-XKC-Y25-T12V Installation Instruction (Nonmetal)



Non-contact Liquid Level Sensor-XKC-Y25-T12V Installation Instruction (metal surface)



Non_contact Liquid Level Sensor-XKC-Y25-T12V Connection diagram

Sample Code

```
/*************************************************
* Liquid Level Sensor-XKC-Y25-T12V
* *************************************************
* This example is to get liquid level

* @author jackli(Jack.li@dfrobot.com)
* @version  V1.0
* @date  2016-1-30

* GNU Lesser General Public License.
* See <http://www.gnu.org/licenses/> for details.
* All above must be included in any redistribution
* *************************************************/
int Liquid_level=0;
void setup() {
 Serial.begin(9600);
 pinMode(5,INPUT);
}

void loop() {
Liquid_level=digitalRead(5);
Serial.print("Liquid_level= ");
Serial.println(Liquid_level,DEC);
delay(500);
}
```

Results

If the liquid level sensor detects the liquid level, it will output HIGH and turn the LED ON. If no liquid is detected it output LOW and turn the LED off.