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

From Robot Wiki



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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

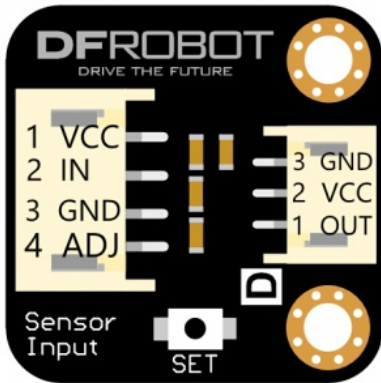
- Operating Voltage (InVCC) : DC 5 ~ 24 v
- Current consumption: 5 mA
- Output voltage (high level) : InVCC
- Output voltage (low level) : 0V
- Output current: 1 ~ 50 mA
- Response time: 500 ms
- Operating Temperature : 0 ~ 105 °C
- Range for thickness of induction (sensitivity): 0 ~ 13 mm
- Humidity: 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

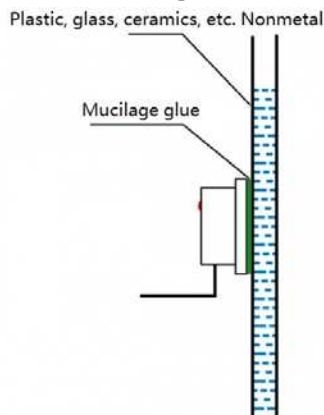
| Liquid Level Sensor-XKC-Y25-T12V Pin definition | | |
|---|------|--|
| Num. | Name | Description |
| Left_1 | VCC | InVCC (range: +5V~+24V) |
| Left_2 | OUT | Liquid level sensor signal output |
| Left_3 | GND | GND |
| Left_4 | ADJ | Sensor sensitivity adjusting switch (Adjust the sensor sensitivity, 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

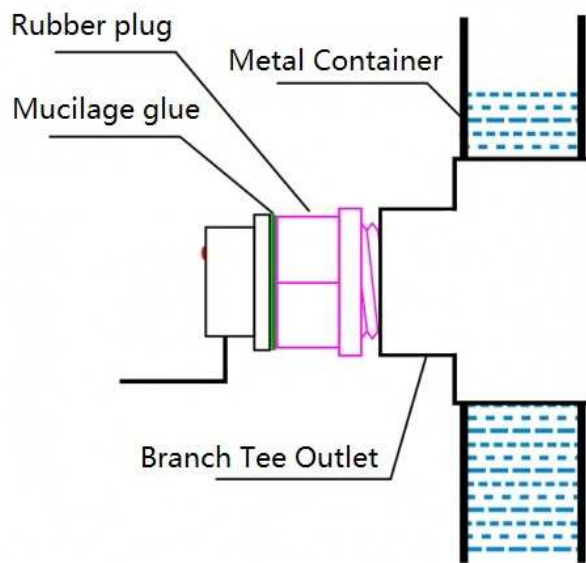
Requirements

- **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)
<https://www.arduino.cc/en/Main/Software>

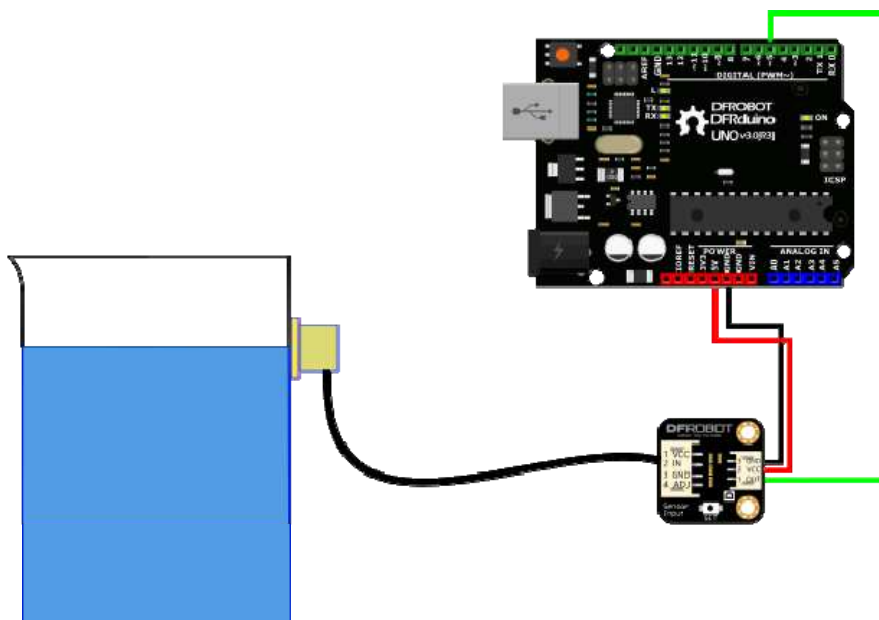
Connection Diagram



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

```
1  /*****
2  * Liquid Level Sensor-XKC-Y25-T12V
3  * ****
4  * This example is to get liquid level
5
6  * @author jackli(Jack.li@dfrobot.com)
7  * @version V1.0
8  * @date 2016-1-30
9
10 * GNU Lesser General Public License.
11 * See <http://www.gnu.org/licenses/> for details.
12 * All above must be included in any redistribution
13 * ****/
14 int Liquid_level=0;
15 void setup() {
16   Serial.begin(9600);
17   pinMode(5, INPUT);
18 }
19
20 void loop() {
21   Liquid_level=digitalRead(5);
22   Serial.print("Liquid_level= ");
23   Serial.println(Liquid_level, DEC);
24   delay(500);
25 }
```

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.