Icstation Non-contact Liquid Level Sensor Switch NPN Output

Features

1.It is applicable to non-metal outer wall, not necessary to directly contact with liquid, so that it can avoid liquid corrosion of strong acid or alkali, or the influence by scale or other impurities.

2.Intelligent liquid level benchmark adjustment and liquid level memory function. It can achieve multi-point serial connection and support NPN output.

3.Accurate and stable detection, it can detect boiling water liquid surface. With pure electronic structure and non-mechanical operation way, it has stable performance and long life.

4.High stability, high sensitivity, strong anti-interference capacity. it will not be affected by power frequency interference and common mode interference due to special disposals so as to compatible with 5-24V power adapter.

5.Strong compatibility, and it can penetrate into non-metal tube, such as plastic, glass, ceramic etc. Its sensing tube wall thickness can be up to 20mm and it is applicable to different shapes of container or tube level's liquid level detection.

Operating Principle:

Intelligent non-contact liquid level sensor is for detecting whether there is liquid by water induction capacitor.

When there is no liquid to approach the sensor, sensor will generate certain static capacitance because of the capacitor distribution; when the liquid rises slowly to approach the sensor, the liquid parasitic capacitor will coupling to this static capacitor so that the terminal capacitance of sensor will increase.

The changing capacitance signal will be input to control IC and achieve signal switch, then transform the changing capacitance value into variation of certain electric signal. By using certain algorithm to detect and judge the degree of the variation, when the variation has surpassed certain threshold value, then it means the liquid level reaches sensing point.
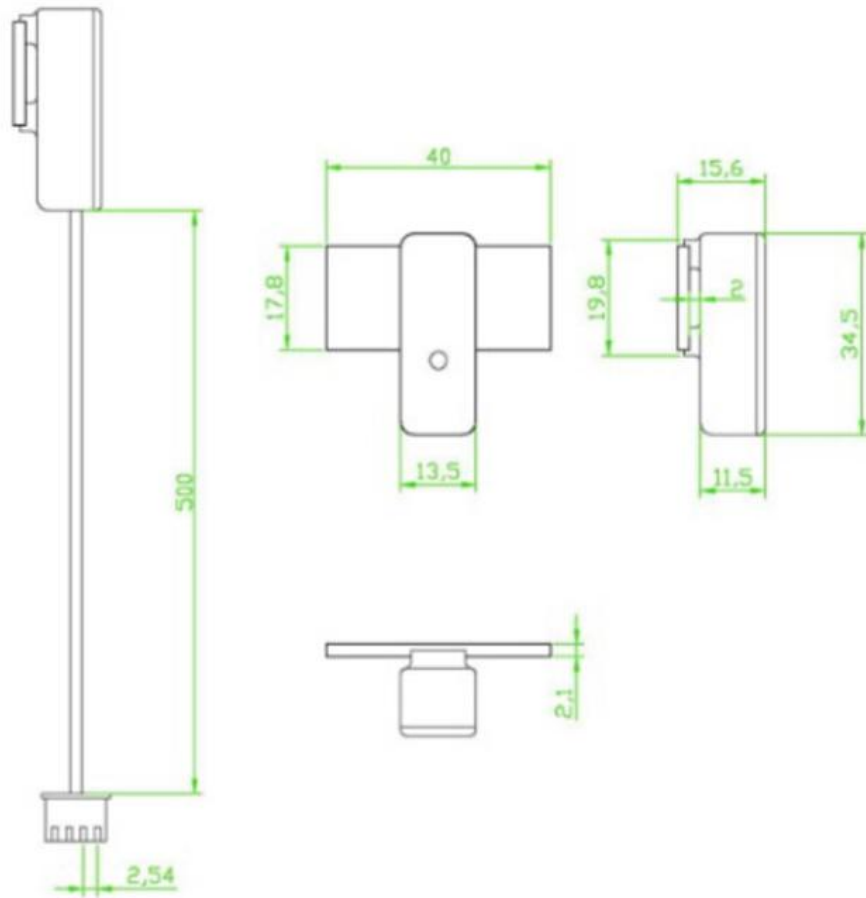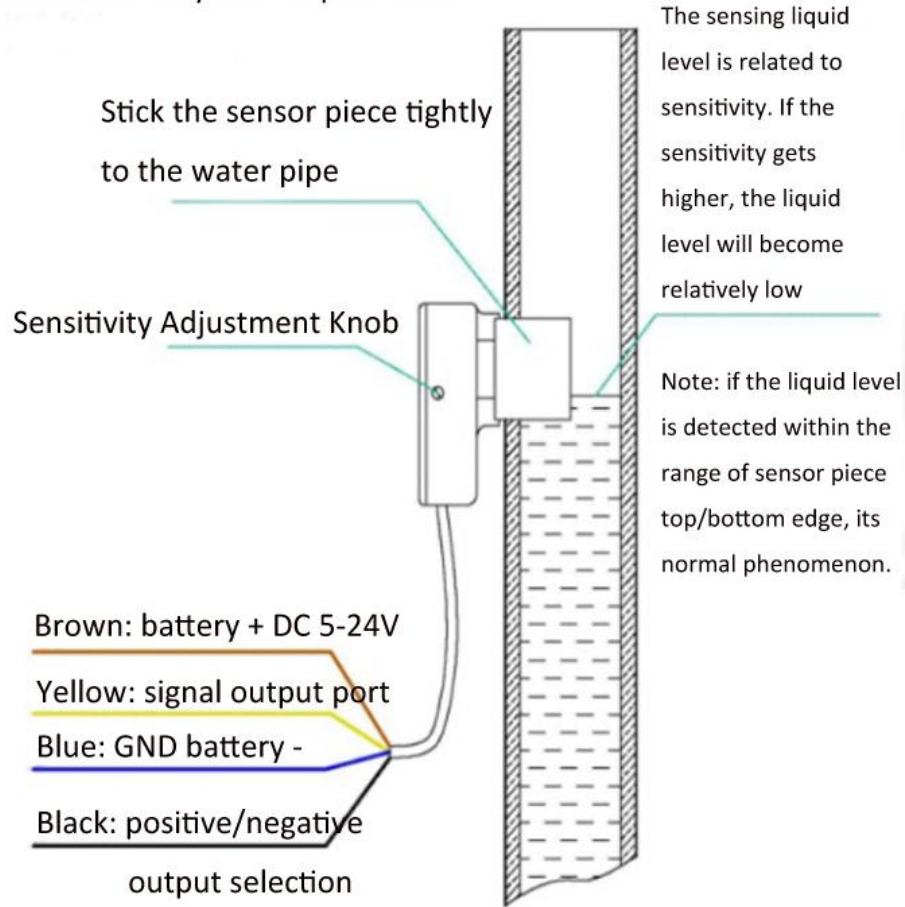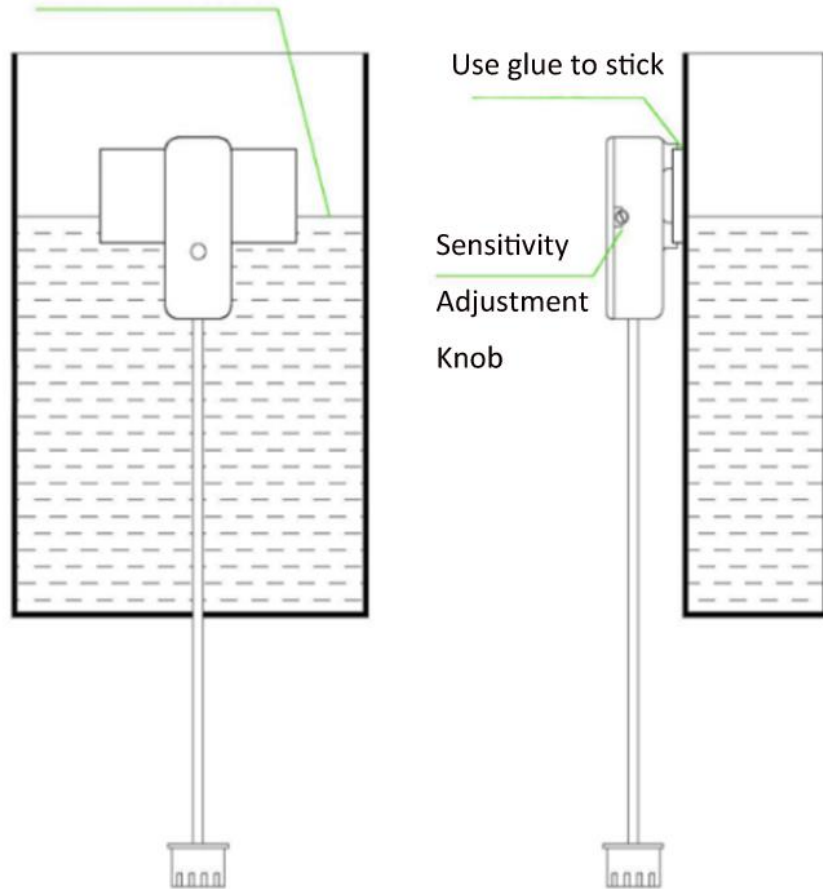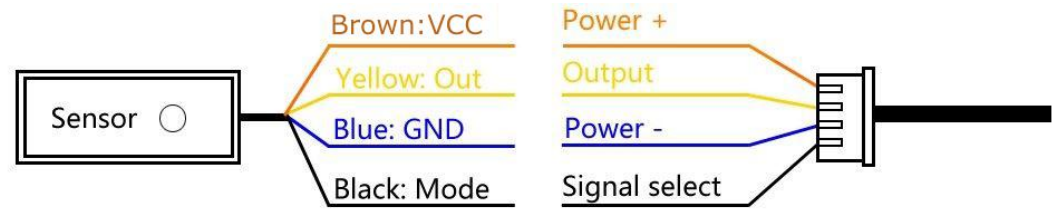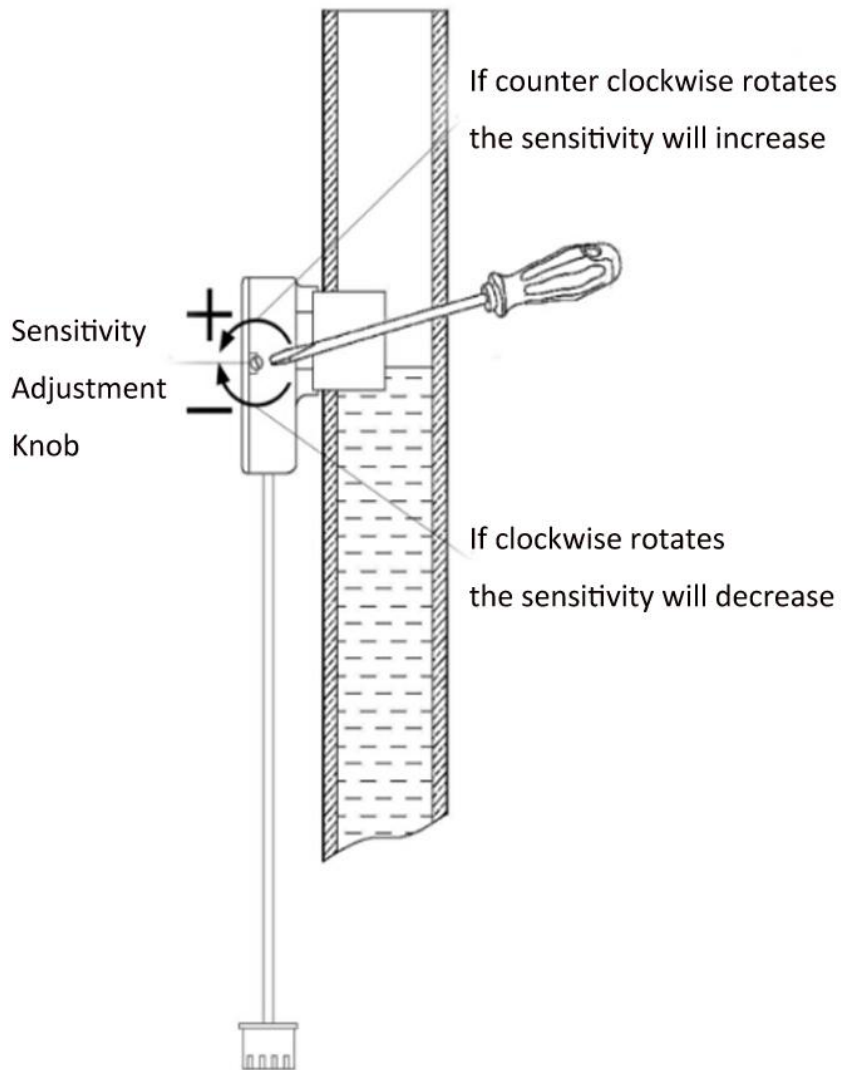
Product Introduction:

1.Model: XKC-Y26-NPN

2.Input Voltage: DC 5-24V (Suggest DC 5-12V)

3.Power Consumption: 5mA

4.Output Voltage (high level): Vin

5.Output Voltage (low level): 0V

6.Output Current: 1-100mA

7.Response Time: 500ms

8.Operating Ambient Temperature: 0~85 Celsius

9.Sensor Sensitivity: tube outer diameter (D:mm); sensor max tube wall (L:mm)

D>=100; 20+/-2

100>D>=80; 15+/-2

80>D>=60; 12+/-1.5

60>D>=40; 7+/-1.0

40>D>=30; 5+/-1.0

30>D>=20; 3+/-1.0

20>D>=10; 1.5+/-0.5

10.Applicable Tube Diameter Range: >=10mm

11.Liquid Error: =/-1.5mm

12.Humidity: 5%-100%

13.Material: ABS

14.Waterproof Performance: IP65

Installation Way and Requirements

Stick the sensor piece tightly
to the water pipe

Sensitivity Adjustment Knob

Brown: battery + DC 5-24V

Yellow: signal output port

Blue: GND battery -

Black: positive/negative
output selection

The sensing liquid
level is related to
sensitivity. If the
sensitivity gets
higher, the liquid
level will become
relatively low

Note: if the liquid level
is detected within the
range of sensor piece
top/bottom edge, its
normal phenomenon.

The sensing liquid level height
is related to sensitivity

Use glue to stick

Sensitivity
Adjustment
Knob

If counter clockwise rotates
the sensitivity will increase

Sensitivity
Adjustment
Knob

If clockwise rotates
the sensitivity will decrease

Sensor ○

Brown:VCC
Yellow: Out
Blue: GND
Black: Mode

Power +
Output
Power -
Signal select

Forward/NO Output:Black Hanging;
Reverse/NC Output: Black connect to Bule cable.

DC 5-24V

Y26 Sensor

NPN Output

Brown
Blue 0V GND
Yellow

Load
>200mA

+
−

Black NO/NC select
NO:Not connected
NC:Connect to Blue
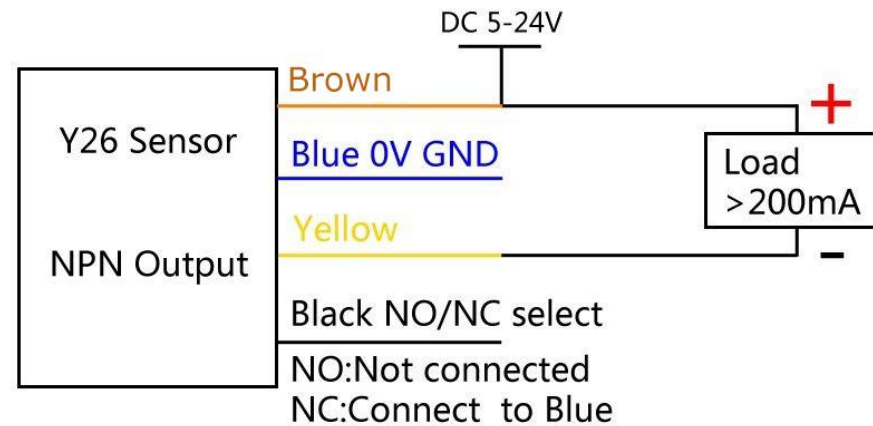
NPN Output: Received an induction signal and output a low level.

NO:The sensor senses the liquid level and outputs a low level.
NC:The sensor does not sense the liquid level and outputs a
low level.

NOTE:
1.The Load can be Relay,Buzzer,Speaker,LED indicator;
2.The maximum output current is 200mA;
3.Pay attention to the polarity of the load and power supply.

Substantial and Specialized Supplier:

✓ ICStation has 9 years exprience about electronic industry products

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✓ Employ engineers to provide technical assistance

✓ After-sales service, all customers' email will be follow up in 12 hours even in holidays

✓ Take charge of all defective items by provide replacement or refund service

✓ Looking forward to your inquiry and hope to built long term cooperation relationship with you!