

# UQK Float Ball Level Switch

## I. Use

The UQK float ball level switch is suitable for the control of liquid level in open or pressurized containers for industrial production projects. When the liquid level reaches the high and low limit, the relay contact can be used as a switch for signal alarm devices or electric pumps.

## II. Technical Data

### 1. Model / specification

Mode	Action boundary (millimeter)	Setting method	Installation method
UQK-01	10	Non-adjustable	Horizontal
UQK-02	25~550	Level adjustment	Horizontal
UQK-03	8~1000	Stepless adjustment	Horizontal

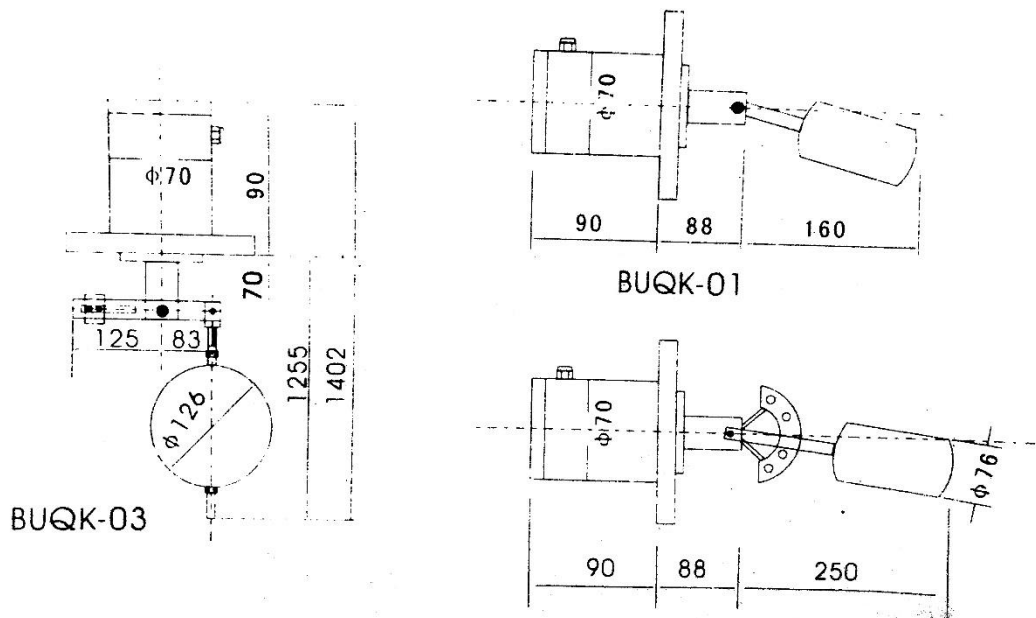
2. Work pressure: 1Mpa

3. Working temperature: 150 °C

4. Power and contact capacity: AC 250V 1A

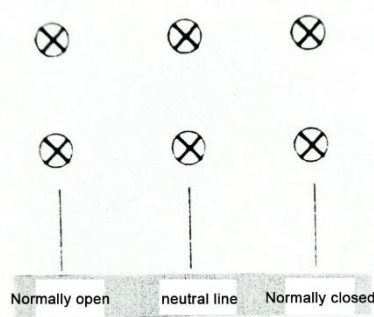
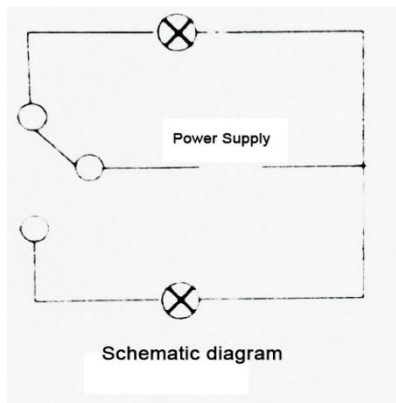
5. Weight: 4-6 kg

Manufactured according to Q/YXBM 254-92 Bureau and international standard IEC/SC65 (SEC) 46



## III. Working Principle

The UQK type float ball level switch consists of two parts of the floating ball group and the contact group, which are isolated from each other. Through the floating ball sensing the change of the liquid level, the liquid level is alarm and controlled through the transmission of the magnetic axis.



When the measured liquid level rises or decreases, the floating ball will rise and fall, so that the magnetic steel at its end swings up and down, and the magnetic steel, which is installed in the same magnetic pole in the shell, swings up and down by magnetic force, prompting the contact switch action, making it connected or disconnected, and then sending out light or sound signals in the signal device in the circuit, or starting an electric pump. Liquid or discharge.

When floating ball rises and falls with the liquid level, it will only be used when it is in the up and down maximum position of the Action range, the contact switch will change from normally closed state to normally open state, and then send out a signal, and in the process of rising and falling, there is no signal generated.

The floating parts of the switch are isolated from each other, thus avoiding the defect of general liquid level instrument leakage.

#### IV. Installation And Use

- 1.UQK float ball level switch adopts standard flange and connected with the switch.
- 2.UQK-01 and UQK-02 float level switches are installed horizontally and UQK-03 float level switches are installed vertically.
- 3.When installing the UQK-03 float level switch, because the float diameter is larger than the flange hole diameter, the container cover should be detachable.
- 4.The adjustment of the action range of the UQK-02 float ball level switch is a step adjustment with a maximum action range of 550 mm.

Action range adjustment method: when use, it can be achieved by adjusting the relative position of the upper and lower two positioning screws on the fan lever (Change the swing angle of the floating ball) or dismantling the opening pin to replace the connecting rod of different lengths (changing the swing radius of the floating ball).

- 5.The setting of the action range of the UQK-03 float ball level switch is stepless adjustment, and the maximum action range is 1000mm

The adjusting method of action range is achieved by changing the relative position of the positioning screws on the floating ball guide rod and the balance block on the lever.

- 6.The switch is non -waterproof structure, not suitable for outdoor use.

7. When the switch is installed, the metal shell should be reliably grounded (usually connected to the flange) to ensure the safety of electricity

8. The controlled medium should not contain any magnetic impurity, and the fluctuation frequency of the liquid level should not be too large.

9. The instruments in use should be checked regularly.