

Products and Solutions

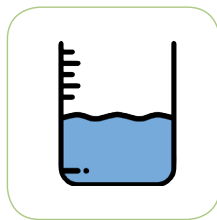
To Measure, Monitor and Control



Flow



Pressure



Level



Temperature



Analytical

For The Process Industries

■、 Overview

UQK series floating ball liquid level transmitters are suitable for industrial and civil construction water towers, water tanks, water collection pits and industrial sewage treatment departments. It is widely used in sectors such as oil refining, chemical industry, metallurgy, electric power, papermaking, food and industrial sewage treatment.

This series can be adapted to various liquid media: water, oil, alkali, acid, sewage and other conductive and non-conductive liquid levels. False liquid level suspended matter has no influence on the measurement. Explosion-proof and safety transmitters can also be used in explosive situations.

This series of products are simple in structure, easy to install, reliable in work, can be displayed on the spot, and can output standard current signals, and the transmission distance is up to 2 kilometers. Equipped with our company's XMT series universal display meter, it can realize three-wire and two-wire connection. The display has three types: pointer type, digital type and beam type. The latter two can display the percentage height and absolute height of the liquid level at the same time. It has upper, lower limit, upper upper limit, lower lower limit, and relay contact signal output, which is used for dangerous liquid level alarm, patrol inspection and control. It is welcomed by users and design units.

■、 Main technical parameter

- 1、 Measuring range: 0—0.5m~0—6m
- 2、 Accuracy: $\pm 1.5\%$ ($H \geq 1.0m$) $\pm 2.5\%$ ($H < 1m$)
- 3、 measure medium temperature: $-20 \sim 125^{\circ}\text{C}$
- 4、 Pressure: $0 \sim 600\text{Kpa}$ (can choose 2.5MPa)
- 5、 Measuring medium specific gravity: ≥ 0.68 Viscosity $\leq 0.05\text{Pa}\cdot\text{S}$
- 6、 Use environmental conditions: temepature: $-10 \sim 55^{\circ}\text{C}$, humidity $\leq 95\%$, No strong vibration。
- 7、 Load Resistance

AE FLOAT LEVEL METER

Order sheet:

UQK float level meter								
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UQK 1 A 3 M L=1800mm, H=1650mm	example							

AE FLOAT LEVEL METER

1. Structure composition and working principle

UQK It is composed of magnetic float, measuring pipe, signal unit, electronic unit, junction box and installation parts.

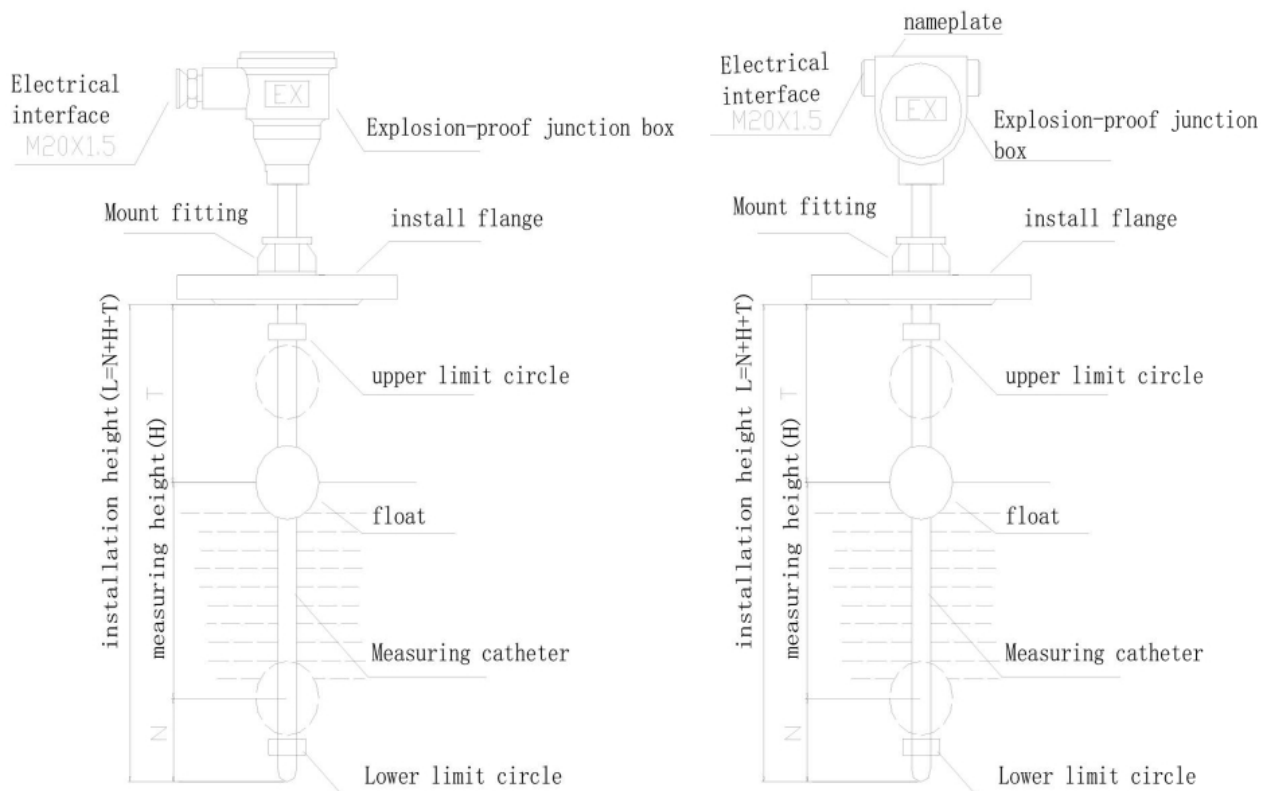


Figure 1, Float level gauge structure diagram

The specific gravity of the magnetic float is less than 0.5, which can float above the liquid surface and move along the measuring tube.

The tube is equipped with a measuring element, which generates a resistance signal proportional to the change of the liquid level under

the action of an external magnetic field, and the strong electronic unit converts it into 4-20mA or other standard signal output (see Figure

2). In the process design, the electronic unit adopts the module circuit of Daming Company, which is moisture-proof, shock-proof and

resistant to acid and mildew corrosion. The circuit is equipped with a constant current feedback circuit. When the power supply voltage

changes from 14V to 45V or the load resistance changes from 0 to 750 ohms (4 to 20mA), the error is not more than 0.5%. When the

internal protection circuit fails, the maximum output current does not exceed 28mA, which can reliably protect the power supply and the

secondary meter from damage.

AE FLOAT LEVEL METER

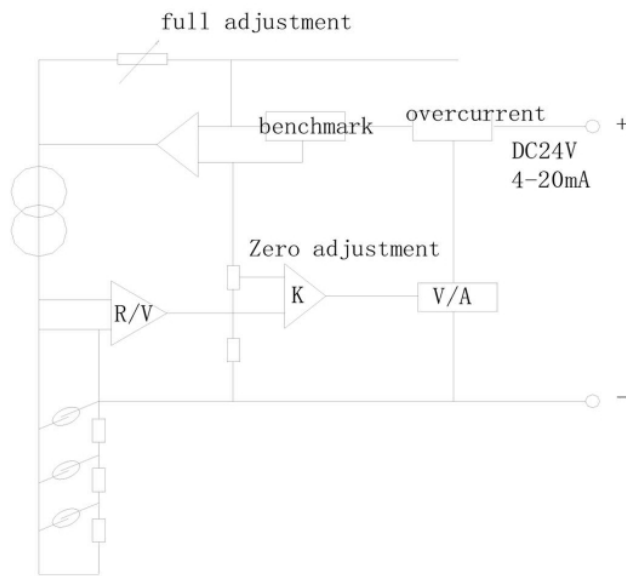


Figure float level meter circuit schematic

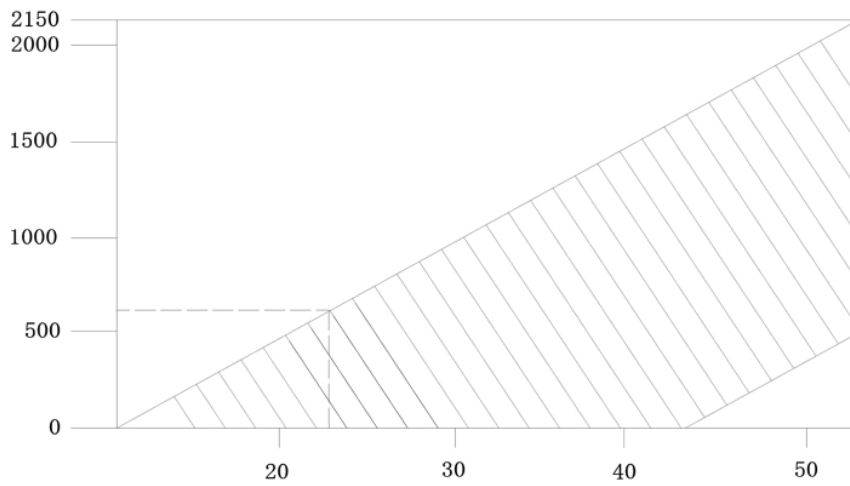


Figure The relationship between power supply voltage and load resistance

AE FLOAT LEVEL METER

Wiring of level meter in system measurement

UQK series level meter have a wide range of compatibility, and can be connected to various secondary meters that receive current and voltage signals. The application is shown in Figure 4 and Figure 5.

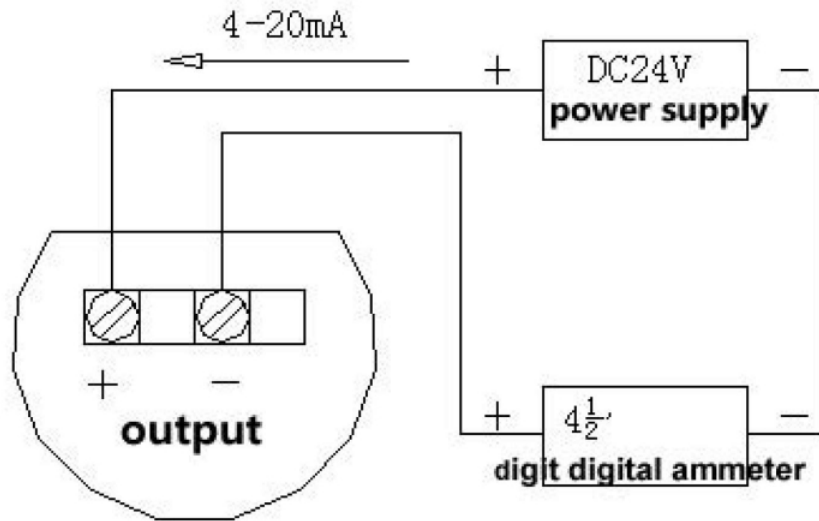


Figure The two-wire transmitter is connected with the XDM-10 liquid level instruction controller, which can save the external 24V power supply

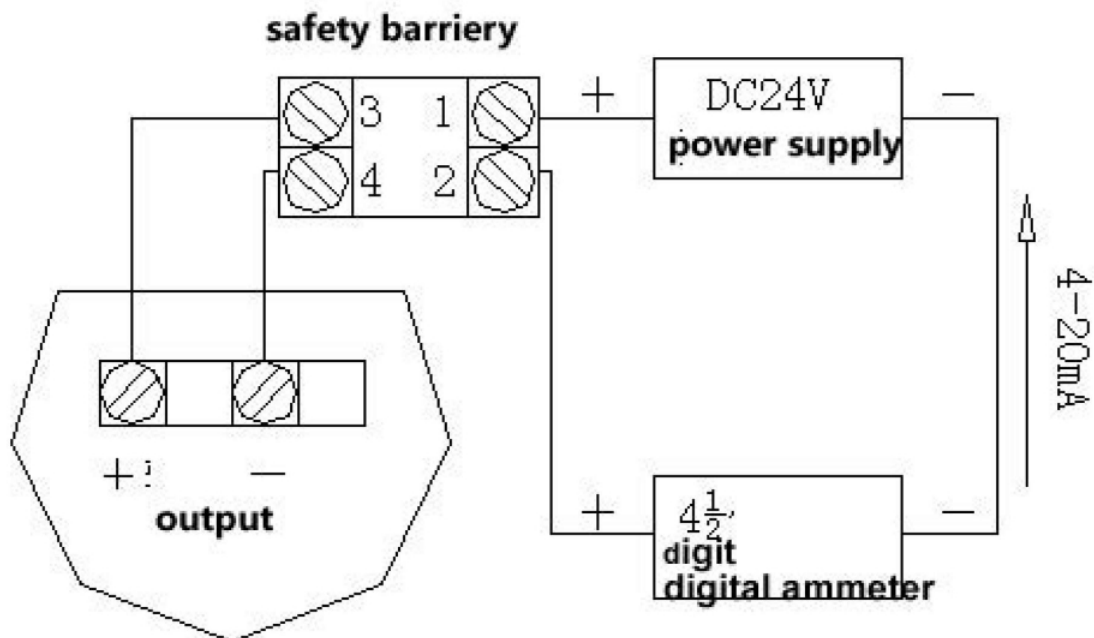


Figure Three-wire and four-wire transmitter wiring terminal arrangement diagram

AE FLOAT LEVEL METER

■、 On-site installation

1. The level gauge should be based on the specific conditions of use, refer to the installation diagram, and choose a reasonable installation method. The installation should be completed by two or more people. When installing a long measuring guide rod, special attention should be paid to avoid bending and shock to prevent damage to the internal measuring element. For anti-corrosion transmitters, the PTFE coating should be protected from being punctured and scratched, so as not to lose its anti-corrosion application. , Shorten the service life of the instrument.

2. Explosion-proof level gauges should be wired and used in accordance with the following regulations to protect the due explosion-proof performance.

3. The transmission cable from the sensor to the indicator should choose a three-core rubber-plastic sheathed cable with $\phi 7.5\sim 8.5\text{mm}$, and the total resistance of the wire should be ≤ 500 ohms;

The cable should be laid through the junction duct or protective pipe, and there is no tension;

The connection point should adopt the type of lugs, and the corresponding wire ends and cable cutting points should be neat and intact



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