

UQK-03 系列  
UQK-03 SERIES

# 浮球液位控制器

FLOATING BALL LIQUID LEVEL CONTROLLER

## 使用说明书

INSTRUCTION MANUAL

辽阳双华仪表有限公司  
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## 一. 用 途

UQK-01、02、03 型浮球液位控制器属于两位式物位仪表，适用于对铜、铝、不锈钢等材料不起腐蚀作用的容器内液位的控制。当液位到达高、底极限位置时，控制器输出触电开关信号，实现液位的报警或启停电泵。可广泛应用于石油、化工等工业部门中。UQK-01、02、03-C 型应用于海洋船舶中。

## 二. 型号及主要技术指标

型 号	UQK-03-C
动作界限	10-1000mm
整定方式	无级可调
安装方式	垂 直
额定压力	≤1MPa
额定温度	≤120° C
电源电压	AC220V DC24V
触点容量	AC220V/10A DC24V/1A

## 三. 结 构 原 理

控制器由浮球组件与转换机构两部分组成。当被测液位变化时，浮球随之上下移动，使其连杆端部的磁钢做相反方向移动。到达液位两个控制点时，通过同极性磁力的排斥作用，使转换机构中的磁钢迅速被排斥到另一边，使微动开关接通或断开，输出开关信号，用以实现报警或自动控制。

控制器结构，工作原理图见次页。

## 四. 使用须知

1. 被控制介质中，不应含有导磁杂质。
2. 被控介质的液面波动频率及幅值不能太大。
3. UQK-03-C型控制器浮球直径若大于法兰孔径时，容器盖必修是可以拆卸的。

## 五. 定货须知

请注明型号规格、法兰规格，如无特殊要求，将按标准法兰供货。

## I . APPLICATION

The floating ball liquid level controller series UQK-01, 02, 03, which is belonged to two-digit material level instrument, is fit for the liquid level control in the vessels the non-corroded material for copper, aluminium and stainless steel, When the liquid reaches the upper/lower limit level the controller will output a switching signal of contactor to realize the liquid level alarm of start/stop the electric pump, They are suitable for use in Dept of Petroleum, Chemical Industry etc and in Ocean Ships

## II . TYPE AND MAIN TECHNICAL PARAMETER

Type	UQK-03-C
Scope	10-1000mm
Adjustment	non-level
Install	vertical
The rated pressure	≤1MPa
The rated temperature	≤120° C
Voltage	AC220V DC24V
Contact Cap	AC220V/10A DC24V/1A

## III. CONSTRUCTION PRINCIPLE

The controller is made up of the floating ball group and the switching mechanism, when the checked liquid level changes, the floating ball will go up and down and the magnetic steel in the connecting rod will move downwards. Then when the floating ball reaches the two controlling point, the magnetic steel of the switching mechanism will be repelled to the another point according to the principle of the like pole magnetic repulsion. Therefore, the 1-1 or 2-2 contactor will switch on or turn off, and the switching on/off signal will be input to realize level alarm and automatic control,

There aren't mechanical movement between the switching mechanism and the floating ball. The switching mechanism is fully separated by the checked liquid level in order not to effect its normally working because of the impurity of the agent, We say, quick operating, reliable working and long servicing life

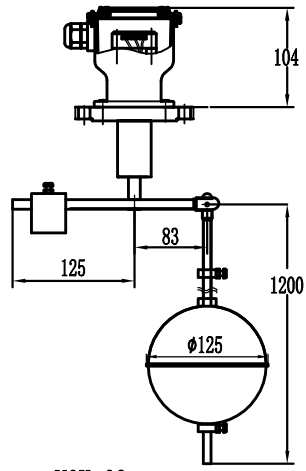
The construction of the controller is shown in fig,1 fig,2 fig,3 The working principle is shown in fig,4.

## IV. USAGE NOTE

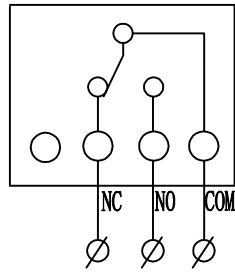
1. There aren't magnetic impurity in the measured agent
2. The frequency and the amplitude of the level fluctuation of agent measured shouldn't be too much
3. If the diameter of the UQK-03 type controller's floating ball is bigger than the bore diameter of the flange, the cover of the vessel can be unloaded.

## V. ORDER GUIDE

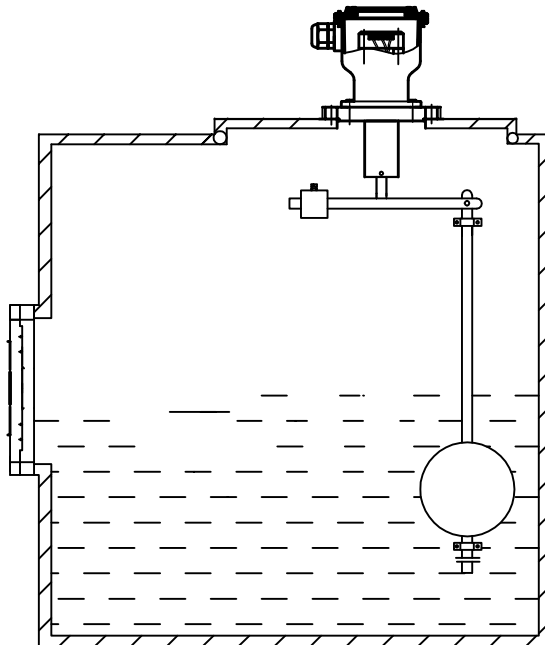
When you place an order, please specify the type, the flange standard and specification. If you haven't special requirement, we will supply the order according to the nonstandard.



UQK-03



原理图 Schematic diagram



安装示意图 Installation diagram

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