

UHZ-50/S-U_k 插入式磁性浮球控制器

UHZ-50/S-UK Insert Type Magnetic Floating Ball Controller

概述

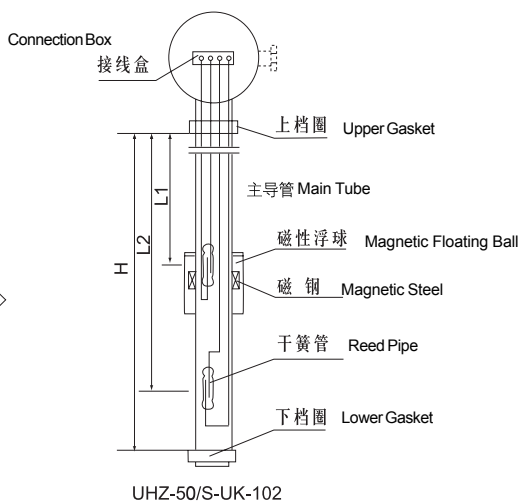
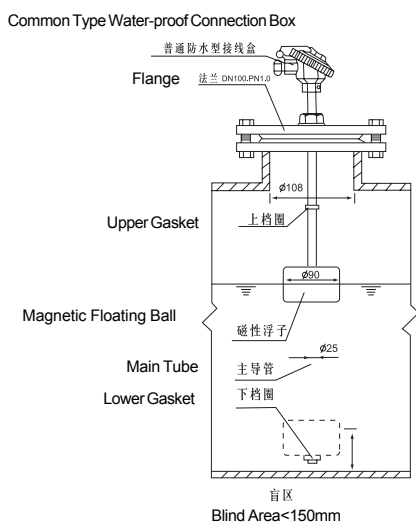
UHZ-50/S-U_k系列插入式磁性浮球控制器输出液位的开关信号，可用于石油、化工、环保、造船、民用建筑等企业，承压和敞口容器的液位控制和报警。

优点：

1. 结构简单安装方便维护简易
2. 使用范围广适用多种介质的液位 控制
3. 一个控制器可最多控制 4 个点
4. 重复动作精度高
5. 耐腐蚀性强
6. 特殊要求可协商订制

结构原理（图十五）

利用磁性浮球随液位升降使处在主导管内设定位置的干簧管开关动作发出接点开关转换信号。



图十五结构原理图 Figure 15 Structure & Theory

General Description

UHZ-50/S-UK series insert type magnetic floating ball controller is used to transmit switch signal of liquid level for control and alarming of liquid level of container under pressure or with mouth open in petrochemical industry, environment protection, shipbuilding, civil construction, etc.

Advantages:

1. With simple structure, easy for installation and convenient for maintenance
2. With wide application, suitable for liquid level control of various media
3. Liquid level control at 4 points could be realized with one controller.
4. High accuracy for repetition
5. Strong resistance against corrosion
6. Special demands of customer could be met under technical agreements.

Structure Theory (Figure 15)

Magnetic floating ball rises and falls as change of liquid level, which results in sending out switch signal at contact point with reed pipe action.

主要技术参数

1. 公称长度: 70-3000mm mm
 2. 控制误差: $\pm 10\text{mm}$ mm
 3. 触点容量: 220VA.C/A(阻性)
24VD.C 0.5A
 4. 防爆等级: ExdIICT6
 5. 介质比重: $>0.55\text{g/cm}^3$
 6. 工作压力: 1.0、1.6、2.5MPa
 7. 工作温度: $0^{\circ}\text{C}\sim+80^{\circ}\text{C}$
 8. 介质粘度: $\leq 0.4\text{Pa.S}$
- 出线接口螺纹: M20 $\times$ 1.5 内螺纹

Main Technical Parameters

1. Nominal Length: 70-3000mm
2. Control Error: $\pm 10\text{mm}$
3. Contact Volume: 220V A. C/A (Resistance)
24VD.C 0.5A
4. Explosion-proof Class: ExdIICT6
5. Medium Specific Gravity: $>0.55\text{g/cm}^3$
6. Operation Pressure: 1.0、1.6、2.5MPa
7. Operation Temperature: $0^{\circ}\text{C}\sim+80^{\circ}\text{C}$
8. Medium Viscosity: $\leq 0.4\text{Pa.S}$
9. Outlet Thread: M20 $\times$ 1.5 Inner Thread

产品结构形式及安装型式

1: 结构型式

因浮球的外观体积与被测介质的比重有关, 故控制器的结构形式也有所不同 (表五) (图十六)

Structure & Installation Way

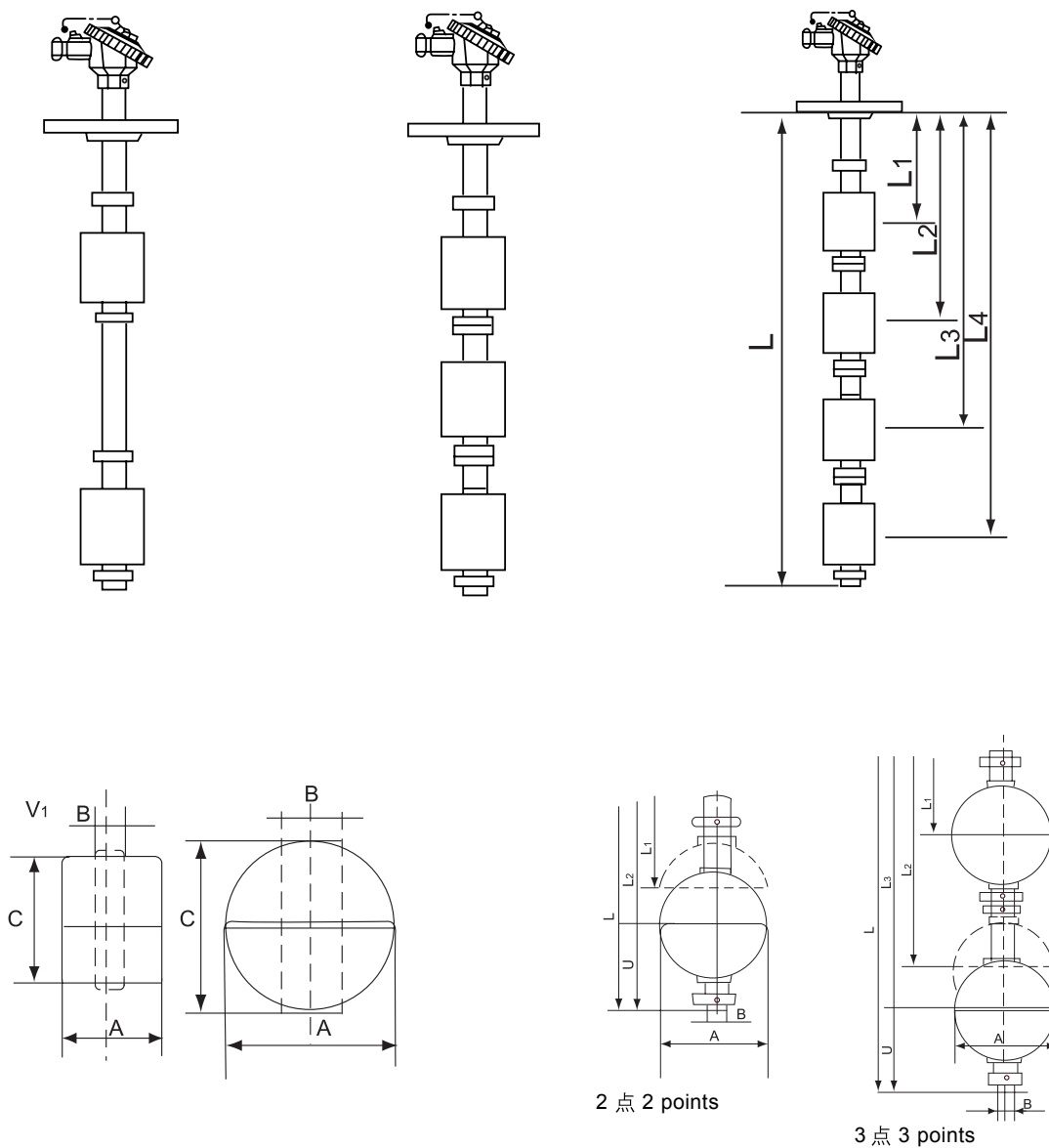
1.Structures

Outer appearance and volume of floating ball concern specific gravity of medium to be tested, so the controller structure remains different from each other. (Form 5) (Figure 16)

表5 Form 5

型号 Type	外观尺寸 Sizes A $\times$ B $\times$ C	压力 Pressure MPa	温度 Temperature $^{\circ}\text{C}$	重量 Weight g	体积 Volume cm^3	比重 Specific Gravity g/cm^3
V1 圆柱型 Cylinder	60 $\times$ 5 $\times$ 90	2.5	120	134	226	0.8
V2 球形 Spherical	110 $\times$ 5 $\times$ 110	1.6	120	227	676	0.45
V3 球形 Spherical	110 $\times$ 3 $\times$ 110	1.6	120	255	654	0.52

球形 Spherical	A	B	L1	V	一球二接点距离 Distance(1 ball 2 contact point)	二球二接点距离 Distance(2 balls 2 contact points)
V1	$\phi 60$	$\phi 12$	50	100	60	125mm
V2	$\phi 110$	$\phi 12$	90	120	60	150mm
V3	$\phi 110$	$\phi 18$	90	120	60	150mm



图十六结构形式

Figure 16 Structures (Flange Connection)

2.安装使用和维护（图十 七）

控制器的安装应避免被测介质的进液口处以减少介质对磁性浮球的冲击引起控制误差。

2.Installation, Usage & Maintenance (Figure 17)

The controller should be installed keeping distance from the entrance of liquid medium in order to lower control error resulted from shock of liquid medium on floating ball.

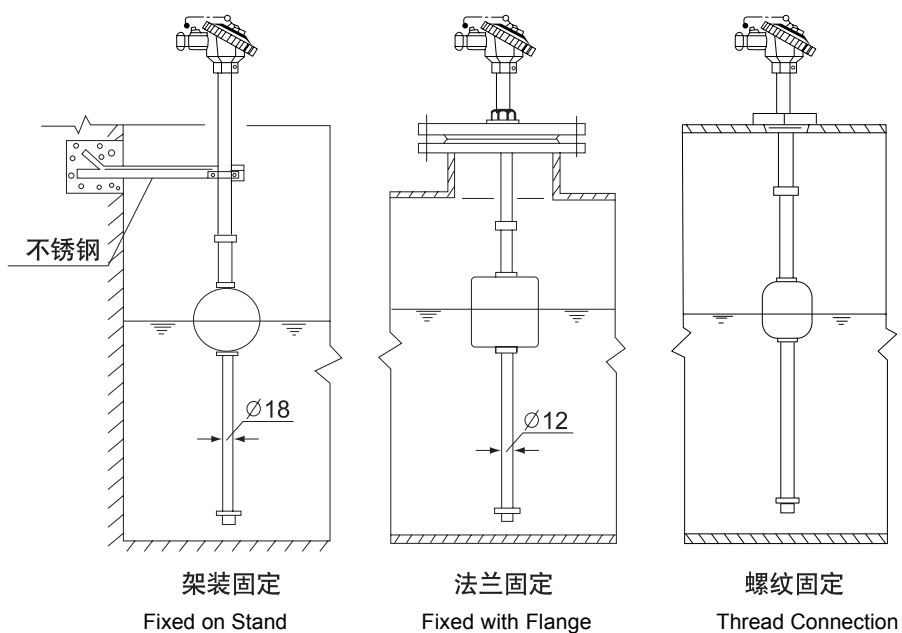


Figure 17 Installation Ways

产品选型标记（选型表一、表二）

Type Selection (Selection Form 1 & 2)

产品选型标记（表一）

Selection Form 1

型 号 Type	内 容 Content	
U _K -01	单只磁性浮球, 1 个控制点	Single magnetic floating ball, one control point
U _K -02	单只磁性浮球, 2 个控制点	Single magnetic floating ball, two control points
U _K -03	单只磁性浮球, 3 个控制点	Single magnetic floating ball, three control points
U _K -04	单只磁性浮球, 4 个控制点	Single magnetic floating ball, four control points
U _K -02	2 只磁性浮球, 2 个控制点	Two magnetic floating balls, two control points
U _K -03	3 只磁性浮球, 3 个控制点	Three magnetic floating balls, three control points
U _K -04	4 只磁性浮球, 4 个控制点	Four magnetic floating balls, four control points

选型标记 Type Selection Example

UHZ-50/S-U _k 插入式磁性浮球液位计 UHZ-50/S-U _k Insert Type Magnetic Floating Ball Liquid Level Indicator				
YOX	Y X	表示磁性浮球数 表示控制点数	Magnetic Floating Ball Number Control Point Number	输出信号 Output Signal
主体材质 Main Body Material	1	1Cr18Ni9Ti (连接法兰为碳钢) (Carbonized steel for connection flange)		
	2	全(Whole)1Cr18Ni9Ti		
	3	316		
	4	316L		
	5	PVC	适用防腐型 Suitable with corrosion-proof type	
	6	PP		
1 法兰连接材质为碳钢 2 法兰连接材质为不锈钢 3 架装固定 4 螺纹连接测量范围 <500 常温常压		Carbonized steel for flange connection material Stainless steel for flange connection material Fixed on stand Thread connection measuring range < 500 under normal temperature and pressure		安装型式与材质 Installation Way& Material
O 无防爆要求 D 隔爆型 ExdIIBT4~6 E 本安型 ExiaIICT4~6		Without explosion-proof demands Explosion Isolation Type ExdB II BT4~6 Intrinsic Safety Type Exia II CT4~6		防爆要求 Explosion-proof Demands
量程高度 (插入最大深度) Measuring Height (Max. Insert Depth) mm				
K 自上向下第一控制点为常开 B 自上向下第一控制点为常闭		Open for the highest control point Close for the highest control point		控制高度 Control Height
K 自上向下第二控制点为常开 B 自上向下第二控制点为常闭		Open for the second highest control point Close for the second highest control point		
D 开口容器 □ 工作压力		Container with open mouth Working Pressure		工作压力 MPa Working Pressure MPa
工作温度℃ Working Temperature ℃				
介质密度 g/cm ³ Medium Density g/cm ³				
UHZ-50/S-U _k □ □ □ □ □ / □ □ □ □ □				

选型举例:

Example:

测量地下水池，采用插入式磁性浮球控制器。控制上、下两位（上 500，下 800）
常温常压，法兰连接材质为不锈钢，总高度 1500。
UHZ - 50/S - U_k - 102 · 2 · 2 · 0 - 1500 - 500K/800B
- D - 0 - 1.0

Insert type magnetic floating ball controller is used to control liquid level of water pond underground at upper and lower position (upper 500, lower 800) under normal temperature and pressure, stainless steel for flange connection material, 1500m for total height.
To be described as:UHZ - 50/S - U_k - 102 · 2 · 2 · 0 - 1500 - 500K/800B - D - 0 - 1.0

应用须知

- 1: 不适用于含有悬浮杂质和亲磁物质的液体介质，这些物质对浮球造成卡阻现象。
- 2: 因该控制器输出开关触点功率较小，在使用过程中最好采用中间继电器。

订货须知

- 1: 规格型号
- 2: 量程范围及控制高度
- 3: 工作压力
- 4: 工作温度
- 5: 介质名称及密度
- 6: 材质要求
- 7: 特殊要求协订

Notices in Usage

- 1.It is not suitable with liquid medium with floating impurity or magnetic affinitive material, which might obstruct the floating ball.
- 2.Adoption of relay is recommended.

Notices for Order

1. Type & Specification
2. Measuring Range & Control Height
3. Working Pressure
4. Working Temperature
5. Medium Description & Density
6. Demands on Material
7. Special Demands