

SFLS200 Series Connecting Rod Float Level Switch/Transmitter

MAIN FEATURES

- It can be used for multi-point control, and the control switch position can be customized according to the user's needs
- Using magnetic spring switch does not need power supply, contact life can reach 2 million times
- Comparison of multiple switch control points with other types of liquid level switch
- There are PVDF, PP, PVC plastic materials and SUS304, SUS316 metal materials, because acid and alkali, high temperature environment can be used
- The magnetic spring switch is completely separated from the conductor from the liquid. It can also be used in high temperature and high voltage equipment
- Simple structure, stable and reliable performance, convenient installation



OVERVIEW

In a closed metal or plastic pipe, one or more magnetic spring switches are set, and then the tube is penetrated through one or more floating balls with a hollow and annular magnet inside. A fixed ring is used to control the floating ball and the magnetic spring switch at the relevant positions to make the floating ball float up and down within a certain range. The magnet in the floating ball is used to attract the contact point of the magnetic spring switch to generate the action of opening and closing, so as to control or indicate the liquid level.

APPLICATION:

It is suitable for shipbuilding industry, generator equipment, petrochemical industry, food industry, waste water or water purification equipment, electronic industry, dyeing and finishing industry, chemical industry, rubber and plastic industry, hydraulic machinery, etc.

SPECIFICATION

Measurement range	L: 300~6000mm
Installation height	H ≤ 5700mm; H - L ≤ 200mm
Accuracy	± 1.5% (H ≥ 1000mm), ± 2.5% (H < 1000mm)
Resolution	± 10 mm (common), ± 20 mm, ± 5 mm
Working pressure	≤1.6MPa
Medium	density: ≥ 0.5g/cm ³ , viscosity ≤ 0.07pas
Output signal	Relay alams, 4-20mA more customized as request
Output load	90 ~ 1K Ω, 0 ~ 500 Ω
Power supply	24VDC (12~36V DC)
Power consumption	≤ 720mw
Medium temperature	- 20 ~ 150 °C
Connecting flange	DN100 PN1.6 ball φ 90; DN80 PN0.6 ball φ 76
Explosion proof	flameproof type: Exd II BT4-6; Intrinsic safety type: Exia II CT4-6
Protection grade	IP65
Electrical interface	M20 * 1.5 (internal)

FLOAT SWITCH SELECTION

Please select the specifications of various floating balls provided in the table below according to the service temperature / pressure / specific gravity / acid and alkali resistance of the tested object

Dimension	Φ×H×d (mm)	Material	Deng/cm ³	Temp °C	Kg/cm ²	
S1	Φ24×H24×d9.5	SUS304, 316L	0.8	200	15	
S2	Φ25×H28×d9.5	SUS304, 316L	0.7	200	15	
S3	Φ28×H28×d9.5	SUS304, 316L	0.55	200	15	
S4	Φ38×H26×d9.5	SUS304, 316L	0.7	200	15	
S5	Φ40×H30×d15.5	SUS304, 316L	0.7	200	15	
S6	Φ40×H50×d15.5	SUS304, 316L	0.55	200	15	
S7	Φ45×H56×d15.5	SUS304, 316L	0.55	200	15	
S8	Φ30×H29×d9.5	SUS304, 316L	0.6	200	30	
S9	Φ52×H52×d15.5	SUS304, 316L	0.7	200	40	
S10	Φ52×H62×d15.5	SUS304, 316L	0.7	200	40	
S11	Φ75×H75×d15.5	SUS304, 316L	0.7	200	40	
S12	Φ125×H125×d15.5	SUS304, 316L	0.7	200	40	
P1	Φ40×H35×d18	PP	0.65	75	5	
P2	Φ40×H52×d20	PP	0.65	75	5	
P3	Φ48×H52×d20	PP	0.65	75	5	
F1	Φ55×H70×d23	PVDF	0.85	120	5	

***Special specification floating ball can be customized**

1. Temperature: the maximum temperature of PVDF is 120 ° C, PP is 80 ° C, SUS304 / 316 is 200 ° C
2. Pressure: the maximum pressure resistance of plastic floating ball is 5kg / cm², and that of SUS floating ball is 40kg / cm²
3. Adhesion: the floating ball with large diameter and small specific gravity should be selected to overcome the surface tension of liquid.
4. Acid and alkali resistance: plastic material is suitable for acid and alkali occasions. If there is temperature, PVDF should be selected.
5. Oil essence: metal material should be used.
6. The specific gravity of the floating ball must be less than the measured liquid body, otherwise the floating ball will not float
7. In order to facilitate users to order correctly, special attention should be paid to the specification, material characteristics and floating ball specifications of flange, mouth, junction box.

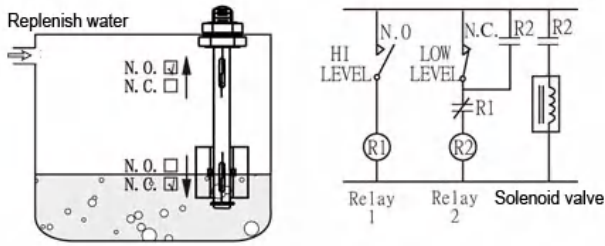
JUNCTION BOX SPECIFICATION

Material: aluminum alloy baking paint Protection grade: IP65 Temperature: - 20 ~ 100 °C	Material: 70mm aluminum alloy baking paint Protection grade: IP65 Temperature: - 20 ~ 100 °C	Material: thermocouple junction box Protection grade: IP65 Temperature: - 20 ~ 100 °C
Material: stainless steel SUS304 (EX) Protection grade: IP65 EXDIIBT4 Temperature: - 20 ~ 200 °C Max 2 action points of explosion-proof junction box	Material: ABS Hirschmann Protection grade: IP65 Temperature: - 20 ~ 80 °C	Material: PE Protection grade: IP65 Temperature: - 20-80 °C

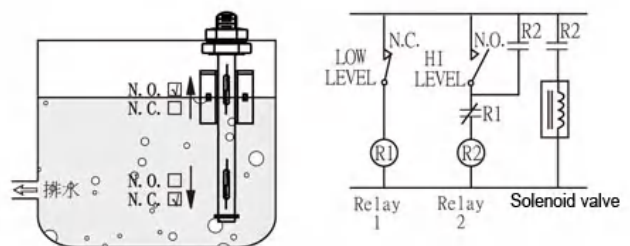
PRODUCT STRUCTURE

<p>SUS304/SUS316</p>	<p>SUS304/SUS316</p>	<p>SUS304/SUS316</p>
<p>SFLS201</p>	<p>SFLS202</p>	<p>SFLS203</p>
<p>SUS304/SUS316</p>	<p>SUS304/SUS316</p>	<p>SUS304/SUS316</p>
<p>SFLS204</p>	<p>SFLS205</p>	<p>SFLS206</p>
<p>PP/PVDF</p>	<p>PP/PVDF</p>	<p>PP/PVDF</p>
<p>SFLS207</p>	<p>SFLS208</p>	<p>SFLS209</p>

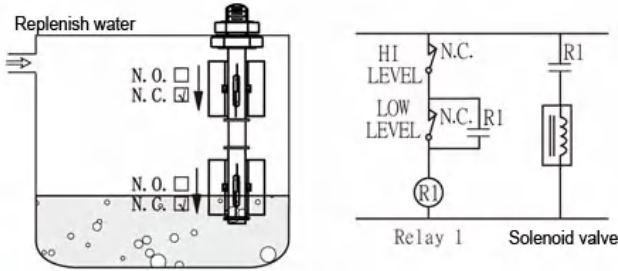
APPLICATION



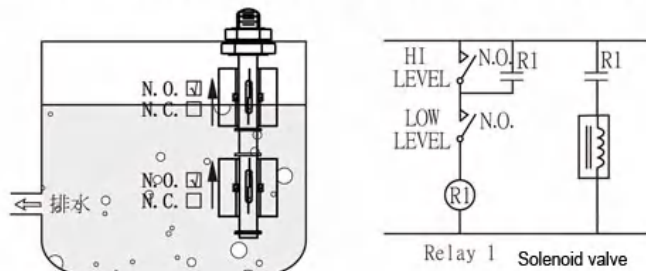
Single floating ball, two magnetic spring switch water supply control circuit



Drainage control circuit of single floating ball and two magnetic spring switches

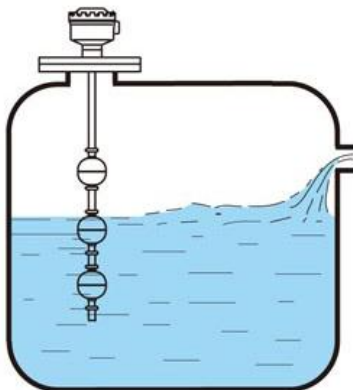


Two floating ball, two magnetic spring switch water supply control circuit

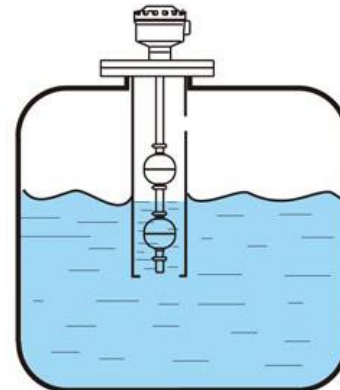


Drainage control circuit of two floating balls and two magnetic spring switches

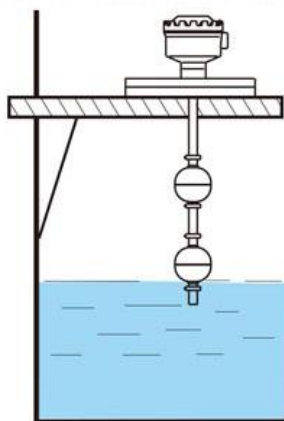
INSTALLATION



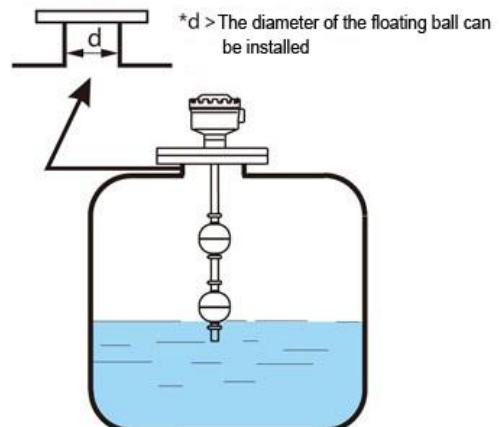
The installation position should be far away from the water inlet, otherwise the switch will cause misoperation due to the fluctuation of water inlet



If the switch device is in the mixing area, wave proof pipe or baffle can be installed



The sky pass is located on the concrete pool wall, and L-shaped angle steel support can be installed



First select the flange connection pipe whose diameter is greater than the diameter of floating ball

ORDER GUIDE

SFSL200	Float Level switch/transmitter							
	CODE	Junction box type						
	A	Aluminum alloy junction box						
	B	70mm aluminum alloy wire box						
	C	Thermocouple box						
	D	Stainless steel explosion proof wire box						
	E	Hirschmann junction box						
	F	PE junction box						
	G	Aviation plug						
	CODE	Range						
	-	300~6000mm						
	C	More range customized						
	CODE	Pipe diameter and material						
	0~4	Diameter: 0=8mm, 1=12.7mm, 2=14mm, 3=17mm, 4=25mm						
	M/N/P/F	Material: M= stainless steel SUS304, N=stainless steel SUS316, P=PP, F=Teflon						
	CODE	Floating ball specifications						
	Sx	Stainless steel: S1, S2, S3, S4, S5, S6, S6, S8, S9, S10, S11, S12						
	Px	PP: P1, P2						
	Fx	Teflon: F1						
	CODE	Number of float						
	1~4	1~4						
		Flange	Flange / mouth size	Flange / mouth specification				
			A:3/8" (10A) B:1/2" (15A) C:3/4" (20A) D:1"(25A) E: 1-1/2"(40A) F:2"(50A) G: 2-1/2"(65A) H:3" (80A) I:4"(100A) J:5"(125A) K:6"(150A) 50: Sanitary joint S: Special specifications	M: 5kg/cm2 N: 10kg/cm2 O: 150Lbs P: 300Lbs Q: Pt (external teeth) R: PF (g) (external teeth) T: BSP (external teeth) U: NPT (external teeth) W:PN1.0 X: PN1.6 Y: PN2.5 Z: PN4.0 S: special specifications A: 1 inch sanitary connector B: 2 inch sanitary connector C: 3 inch sanitary connector D: Special specifications				
SFSL200	A	500	1-N	S1	A	/	A	M