

### CABLE FLOAT LEVEL SWITCH

#### DESCRIPTION

The Float Level Switch is made of chemical resistant polypropylene. It is durable, low-cost, and specially designed to solve the long range, multi-points level detection in liquid and liquid with pump or granule instances.

#### APPLICATION

LSFC: Suitable for pump control

LSFR/ P / D/ E: Suitable for pump control in waste water with low Specific Gravity.

LSFS: High temperature

LSFL/ J: Clean water, and installation with small process connection.

It is suggested to apply Reed Switch contact model in PLC or DCS control.

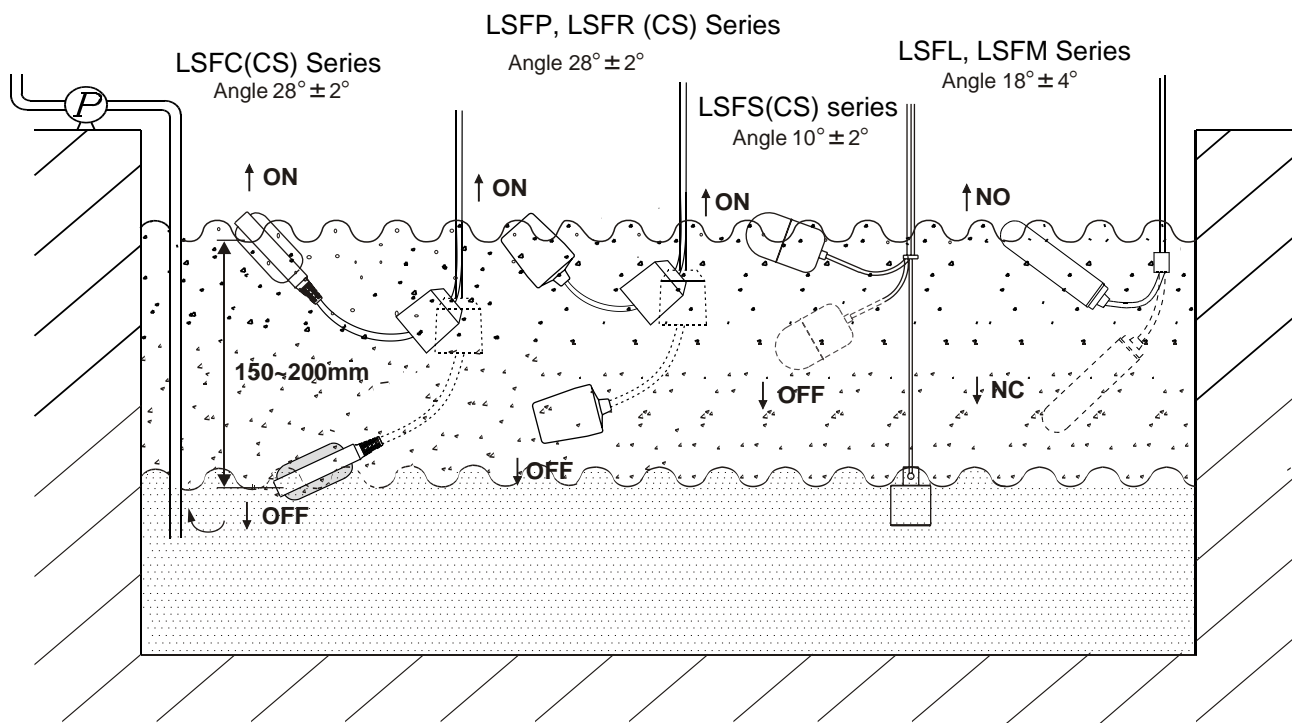
#### PRINCIPLE

The Cable Float Level Switch is simple- structured by using micro switch or proximity switch or reed switch to control the contact and it is user-friendly designed for level measurement.

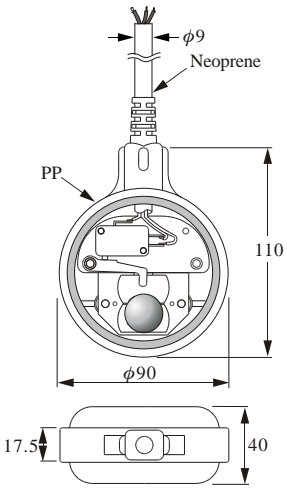
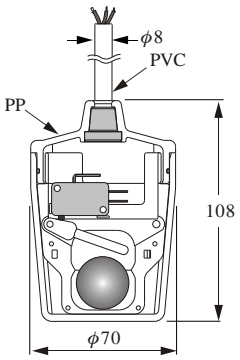
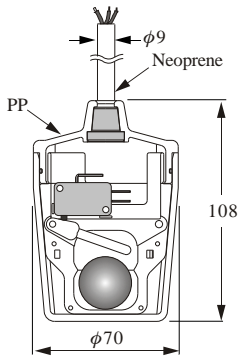
The switches will send out ON or OFF contact signal output when the floating angle is larger than a certain degree where the state of the iron ball and reed switch will be changed for actuation.

For different temperature of waste water & application, the materials of the float can be chosen from plastic to stainless steel. The cable float level switch not only can be used in clear liquid but also can be used in granular liquid to control the detection of long distance and multi-point contacts. Mostly the cable float level switch is applied in petrochemical industry, chemical industry and other related industry.

#### APPLICATION



# SPECIFICATION

Dimensions (Unit:mm)			
	<b>Model</b>	<b>LSFC A/B/C/ Round Type</b>	<b>LSFP A/B/C/ Cup type</b>
<b>Switch</b>	Micro switch	Micro switch	Micro switch
<b>Float Material</b>	P.P.		
<b>Cable Spec</b>	Neoprene Cable 1mm <sup>2</sup> x3C or 2C	PVC Cable 1.25mm <sup>2</sup> x3C or 2C	Neoprene Cable 1mm <sup>2</sup> x3C or 2C
<b>Contact Rating</b>	10A/ 250Vac (std.) or 15A/ 250Vac		
<b>Contact Form</b>	N.O or N.C or SPDT		
<b>Operating Temp.</b>	-10°C~80°C	0°C~60°C	-10°C~80°C
<b>Specific Gravity</b>	0.6	0.6	0.6
<b>Weight Approx.</b>	770g/5M	290g/1M	290g/1M
<b>Pressure</b>	2 kg/cm <sup>2</sup>	2 kg/cm <sup>2</sup>	2 kg/cm <sup>2</sup>
<b>Wire Voltage</b>	600 Vac	600 Vac	600 Vac
<b>Isolation Resistance</b>	Min 100 MW	Min 100 MW	Min 100 MW
<b>Contact Resistance</b>	Max. 100mW	Max. 100mW	Max. 100mW
<b>Actuation Angle</b>	28° ± 2°	28° ± 2°	28° ± 2°
<b>Protection</b>	IP68	IP68	IP68

## Float Type Code

LSFCA □□...PP Float

Cable length  
 x6---0.6M 10--- 10M  
 03--- 3M Max. 20M  
 05--- 5M  
 Contact form A--- N.O  
 (Micro switch) B--- N.C  
 C--- SPDT  
 Cable material  
 C ---Neoprene  
 <HAR>HO7RN

LSFPA □□...PP Float

Cable length  
 x6---0.6M 10--- 10M  
 03--- 3M Max. 20M  
 05--- 5M  
 Contact form A--- N.O  
 (Micro switch) B--- N.C  
 C--- SPDT  
 Cable material  
 P --- PVC

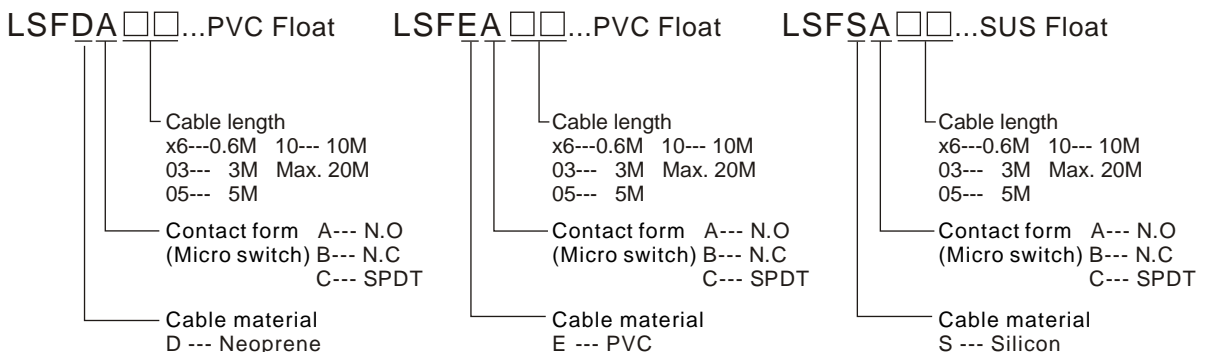
LSFRA □□...PP Float

Cable length  
 x6---0.6M 10--- 10M  
 03--- 3M Max. 20M  
 05--- 5M  
 Contact form A--- N.O  
 (Micro switch) B--- N.C  
 C--- SPDT  
 Cable material  
 R ---Neoprene  
 <HAR>HO7RN

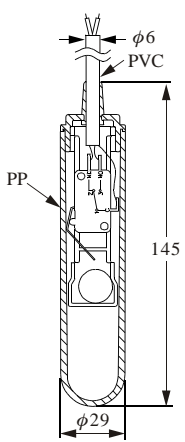
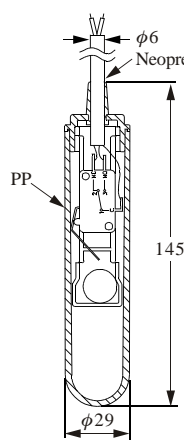
# SPECIFICATION

<b>Dimensions (Unit:mm)</b>			
	<b>Model</b>	<b>LSFD A/B/C Round type</b>	<b>LSFE A/B/C Cup type</b>
<b>Switch</b>	Micro switch	Micro switch	Mercury switch
<b>Float Material</b>	PVC		SUS304
<b>Cable Spec</b>	Neoprene Cable 1mm <sup>2</sup> x3C or 2C	PVC Cable 1.25mm <sup>2</sup> x3C or 2C	Silicon Cable 0.75mm <sup>2</sup> x3C or 2C
<b>Contact Rating</b>	10A/ 250Vac (std.) or 15A/ 250Vac		1A/ 230Vac
<b>Contact Form</b>	N.O or N.C or SPDT		N.O or N.C or SPDT
<b>Operating Temp.</b>	-10°C~80°C	0°C~60°C	0°C~170°C
<b>Specific Gravity</b>	0.6	0.6	0.5
<b>Weight Approx.</b>	290g/1M	290g/1M	480g/5M
<b>Pressure</b>	2 kg/cm <sup>2</sup>	2 kg/cm <sup>2</sup>	2 kg/cm <sup>2</sup>
<b>Wire Voltage</b>	600 Vac	600 Vac	300 Vac
<b>Isolation Resistance</b>	Min 100 MW	Min 100 MW	—
<b>Contact Resistance</b>	Max. 100mW	Max. 100mW	Max. 1W
<b>Actuation Angle</b>	28° ± 2°	28° ± 2°	10° ± 2°
<b>Protection</b>	IP68	IP68	IP68

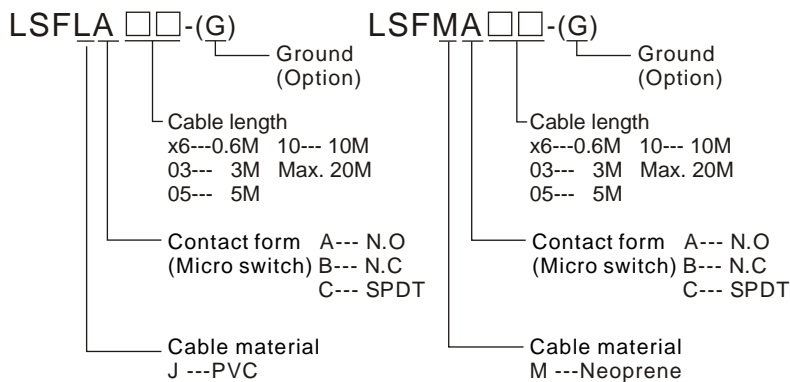
## Float Type Code



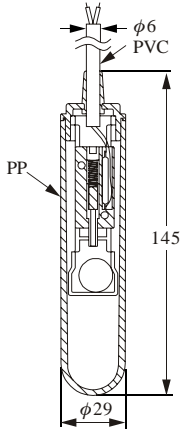
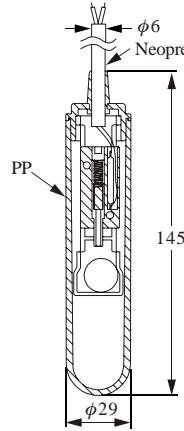
# SPECIFICATION

Dimensions (Unit:mm)		
	<b>Model</b>	<b>LSFL A/B/C Bar type</b>
<b>Switch</b>	Micro switch	
<b>Float Material</b>	P.P.	
<b>Cable Spec</b>	PVC Cable 0.75mm <sup>2</sup> x3C	Neoprene Cable 0.75mm <sup>2</sup> x3C
<b>Contact Rating</b>	3A/ 125Vac	
<b>Contact Form</b>	N.O or N.C or SPDT	
<b>Operating Temp.</b>	-0°C~60°C	-10°C~80°C
<b>Specific Gravity</b>	0.8	
<b>Weight Approx.</b>	113 ± 2g/1M Cable	
<b>Pressure</b>	4.5 kg/cm <sup>2</sup>	
<b>Wire Voltage</b>	600 Vac	
<b>Isolation Resistance</b>	Min 100 MW	
<b>Contact Resistance</b>	Max. 100mW	
<b>Actuation Angle</b>	Up 18° ± 4°/ Down 3° ± 3°	
<b>Protection</b>	IP68	

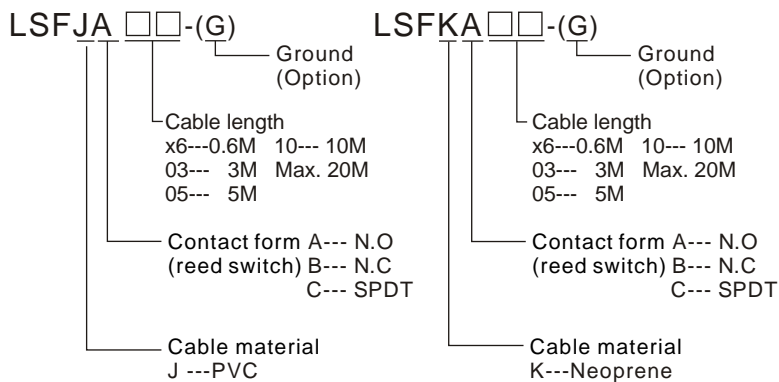
## Float Type Code



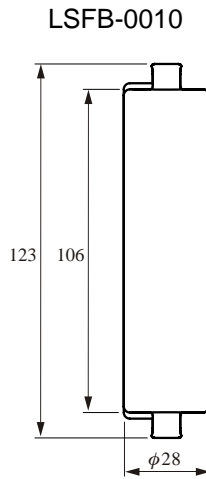
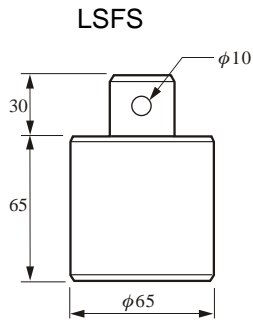
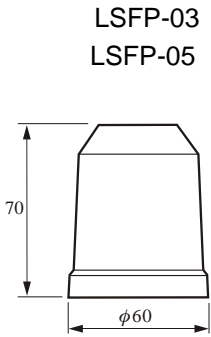
# SPECIFICATION

Dimensions (Unit:mm)		
	<b>Model</b>	<b>LSFJ A/B/C Bar type</b>
<b>Switch</b>	Reed Switch	
<b>Float Material</b>	P.P.	
<b>Cable Spec</b>	PVC Cable 0.75mm <sup>2</sup> x3C	Neoprene Cable 0.75mm <sup>2</sup> x3C
<b>Contact Rating</b>	AC70 VA / DC50 W(N.O), 20W(N.C, SPDT)	
<b>Contact Form</b>	N.O or N.C or SPDT	
<b>Operating Temp.</b>	-0°C~60°C	-10°C~80°C
<b>Specific Gravity</b>	0.8	
<b>Weight Approx.</b>	115 ± 2g/1M Cable	
<b>Pressure</b>	4.5 kg/cm <sup>2</sup>	
<b>Wire Voltage</b>	300 Vac/ 350Vdc(N.O), 150 Vac/ 200Vdc(N.C, SPDT)	
<b>Isolation Resistance</b>	Min 100 MW	
<b>Contact Resistance</b>	Max. 100mW(N.O), Max. 150mW(N.C, SPDT)	
<b>Actuation Angle</b>	Up 18° ± 4° / Down 3° ± 3°	
<b>Protection</b>	IP68	

## Float Type Code



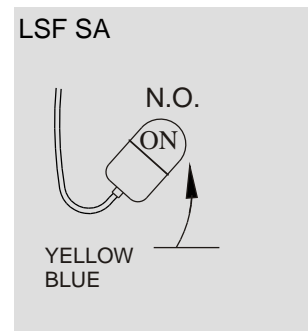
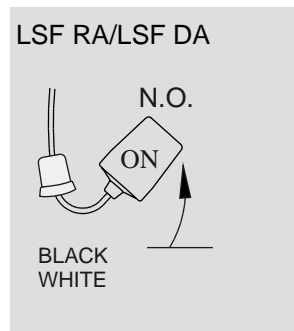
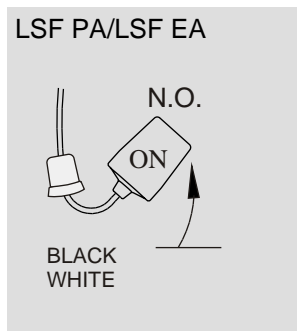
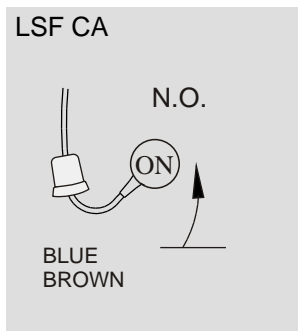
**DIMENSION OF WEIGHT**



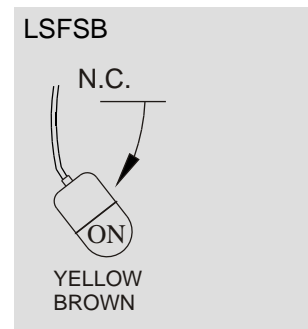
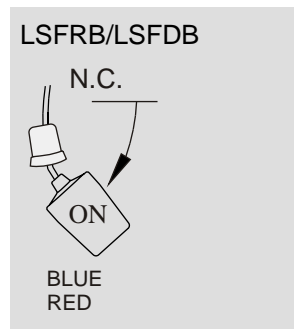
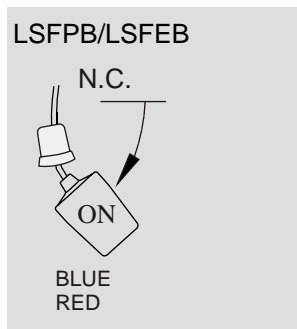
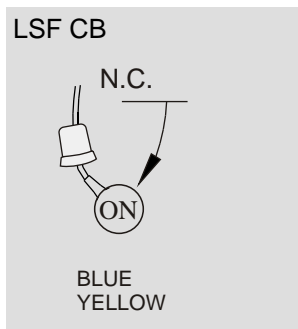
Type	Material	Weight
LSFP-03 LSFP-05	PP	0.3kg 0.5kg
LSFS	SUS304	0.5kg
LSFB-0010	PP	0.15kg

**CONTACT FORM**

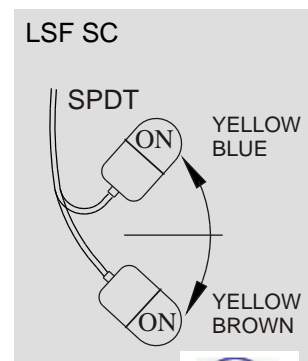
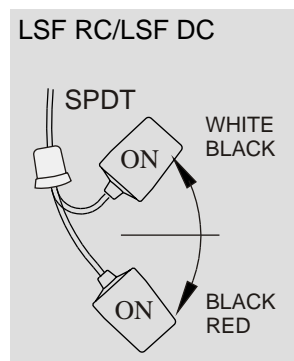
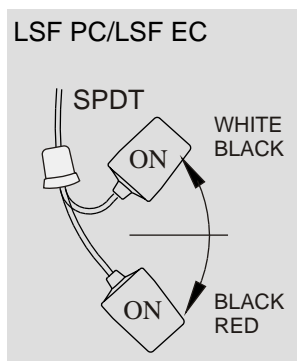
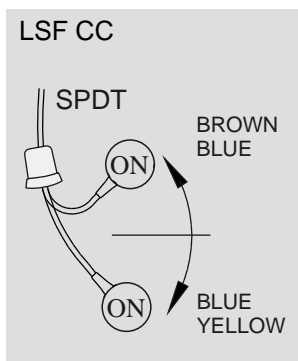
**1. SPDT (N.O)**



**2. SPDT (N.C)**



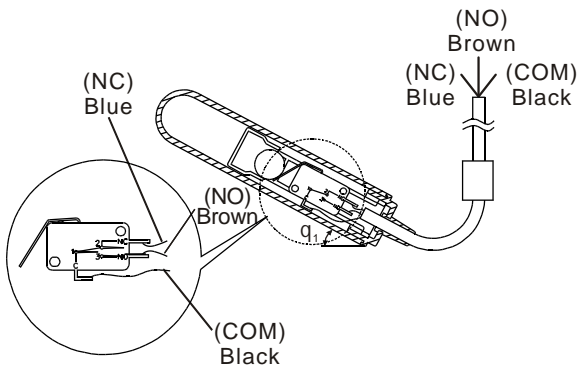
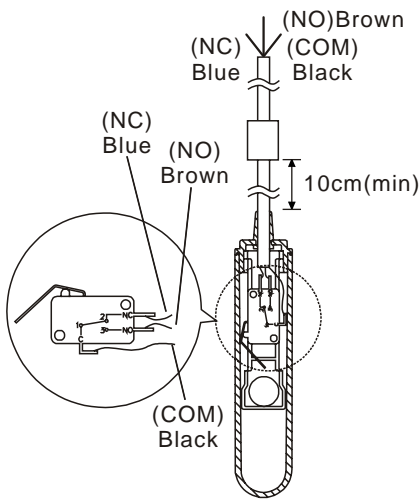
**3. SPDT (1C)**



# WIRING

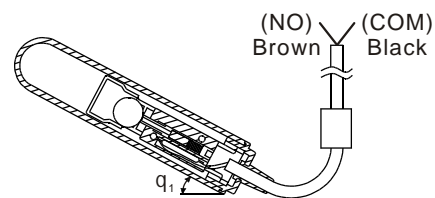
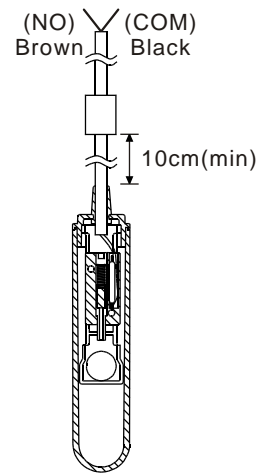
## Micro Switch

When float is not in contact with liquid, the blue and black wires are in open state. Contact form is in NC mode. When liquid rises and lifts the float up until it reaches the actuation angle, the brown and black wires will be in open state. Contact form is in NO mode.



## Reed Switch

When liquid is in low level, metal ball stays away from sensing range. Brown and black wires are in open state, which is NC mode. When liquid rises and lifts the float up until it reaches the actuation angle, reed switch will be actuated. Brown and black wires will be in open state, which is NO mode.

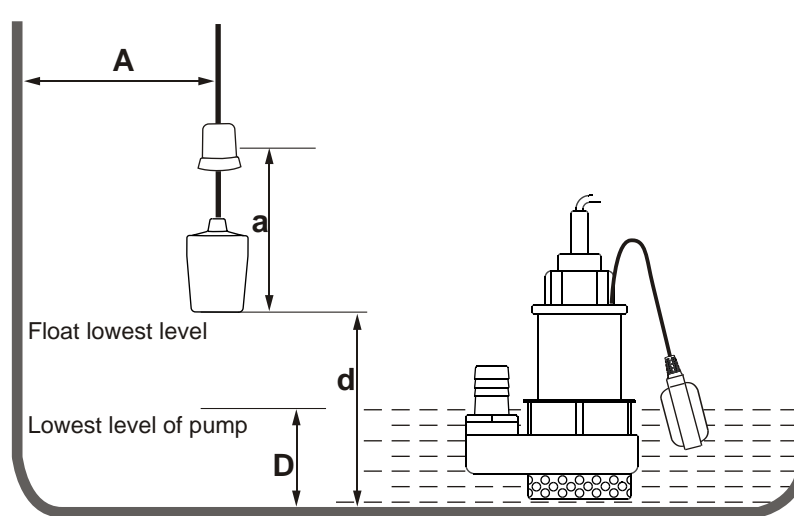


## Installation guide

### DIMENSION FOR INSTALLATION

The float action length (a) must be shorter than the distance between wall and cable (A) ; if not, it will cause wrong action.

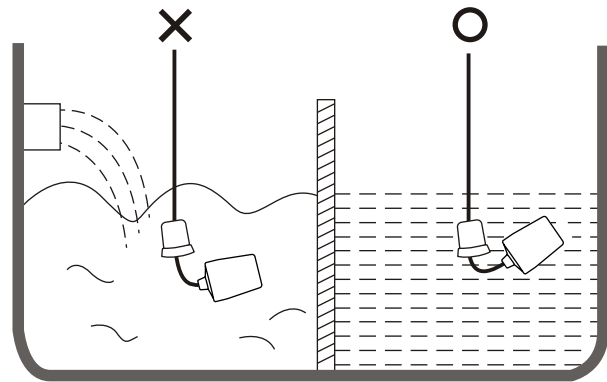
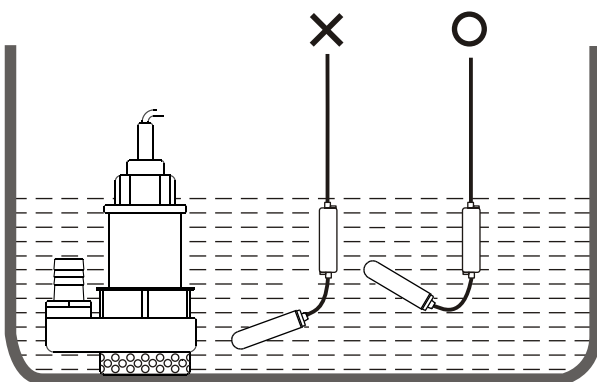
The lowest float level (d) must be higher than the lowest water level of pump (D).



### CAUTION FOR INSTALLATION

Keep proper distance between installation position and inlet of water pump to prevent float switch being sucked by inlet of water pump.

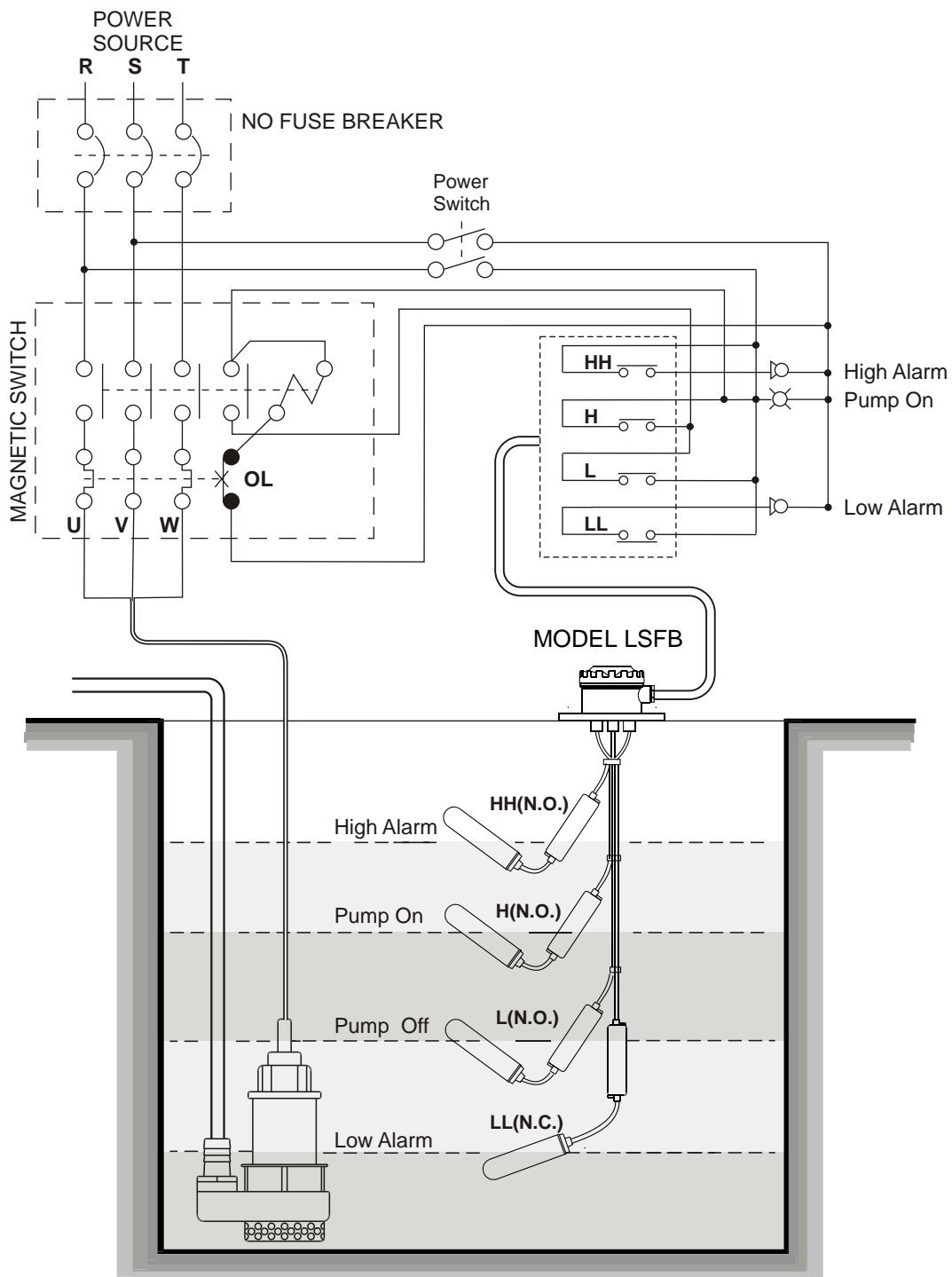
There should be a proper distance between installation position and inlet of water to prevent direct water impact. If it can't be avoided, please install pipe-shield or plate shield for protection.





# APPLICATION

The LSF type is suitable for installation from the roof of tank for level control and monitoring.



# HOW TO ORDER FB TYPE

Various types of multi-point products can be selected to meet on user's demand.

For example:

LSF-B type is suitable for Corrosive liquid.

LSF-A type is suitable for high-temperature waste water

## DISTANCE OF CONTROL POINT

		NO	NC
1 : _____ mm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 : _____ mm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 : _____ mm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 : _____ mm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
L : _____ mm			

LSF      (      )

**Cable Fixed Wire Length (unit: mm)**

- 0500: 500mm up
- 1000: 501~1000mm
- 1500: 1001~1500mm
- ※ 500mm per Unit
- ※ Use English letter as first code for probe length over 10m.
- A150 represents 15m, A200 represents 20m

**Cable Fixed Wire Material**

- S: Stainless N: Nylon

**Weight Quantity**

- 1~4

**Weight Material**

- C: P.P. P: PPφ28x106
- S: SUS304

**Float Quantity**

- 1~4

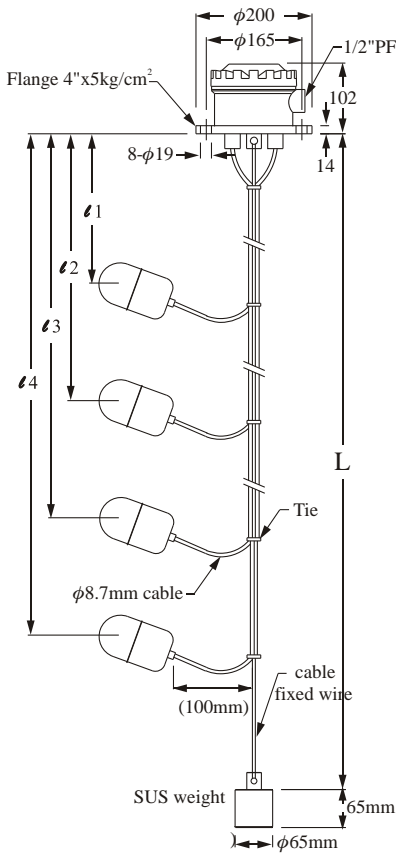
**Float material**

- C: P.P. (φ90x110 Neoprene cable) L: P.P. (φ29x145 PVC cable)
- P: P.P. (φ70x108 PVC cable) M: P.P. (φ29x145 Neoprene cable)
- R: P.P. (φ70x108 Neoprene cable) G: P.P. (φ29x145 PVC cable)
- S: SUS(φ75x120 Silicon cable) H: P.P. (φ29x145 Neoprene cable)
- D: PVC(φ70x108 Neoprene cable) J: P.P. (φ29x145 PVC cable)
- E: PVC(φ70x108 PVCcable) K: P.P. (φ29x145 Neoprene cable)

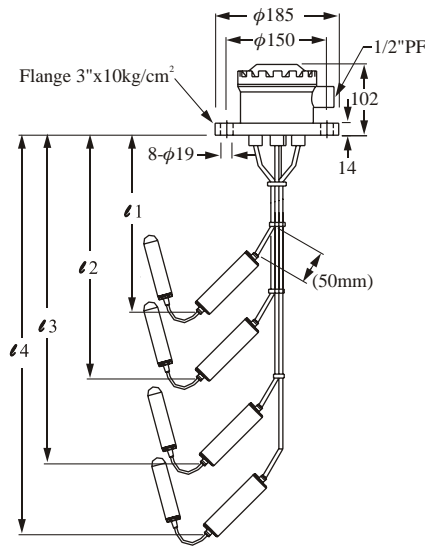
**Housing**

- A: Aluminum B: Plastic S: SUS304

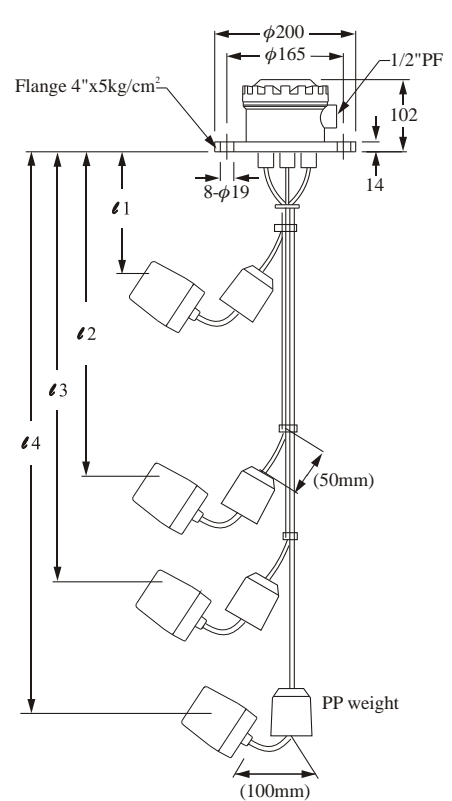
**MODEL: LSFA(FLA)**



**MODEL: LSFB (FLB)**



**MODEL: LSFS(FLB)**



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