

CABLE FLOAT LEVEL SWITCH

PRODUCT INTRODUCTION

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

FAC: Suitable for pump control

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

FAS: High temperature

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

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

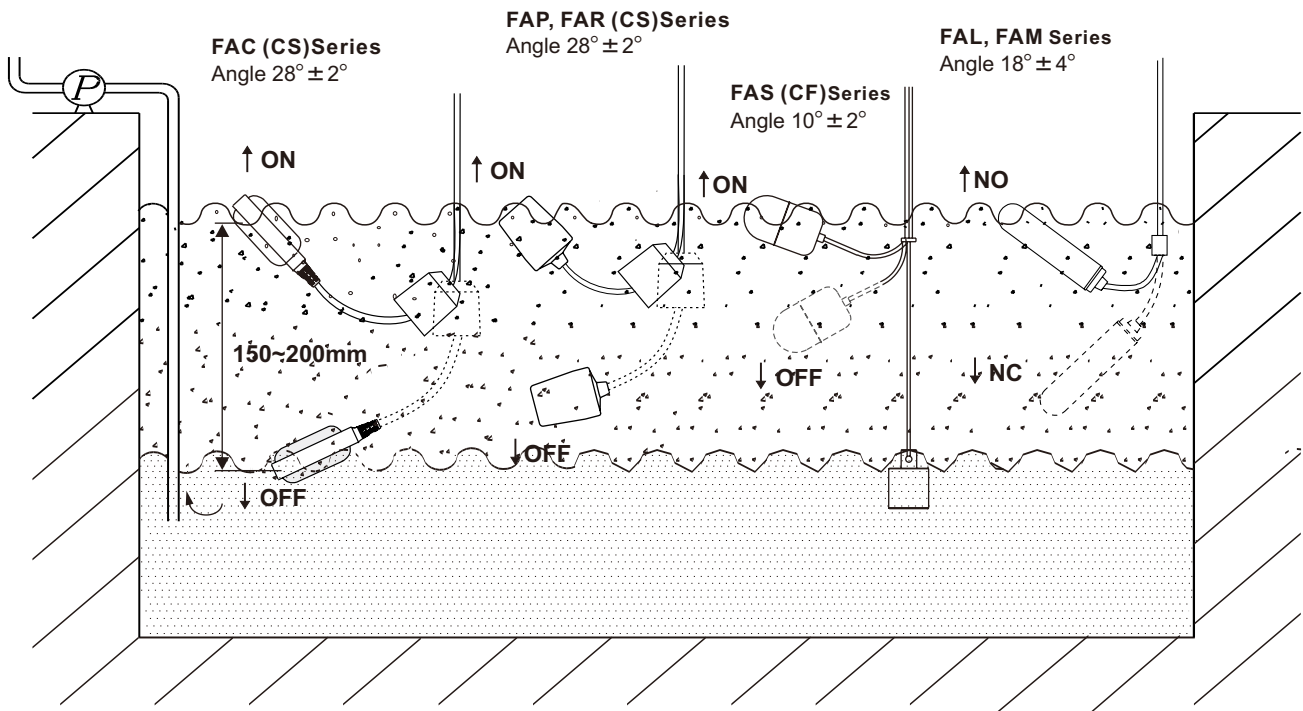
PRINCIPLE

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

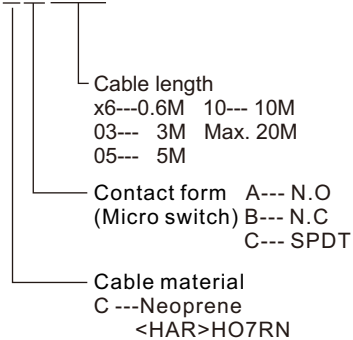


SPECIFICATION

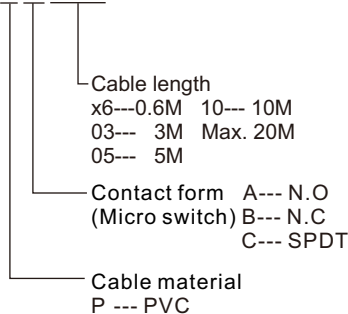
Dimensions (Unit:mm)			
	Model	FAC A/B/C Round type	FAP A/B/C Cup type
Switch	Micro switch	Micro switch	Micro switch
Float Material	P.P.		
Cable Spec	Neoprene Cable 1mm ² x3C or 2C	PVC Cable 1.25mm ² x3C or 2C	Neoprene Cable 1mm ² x3C or 2C
Contact Rating	10A/ 250Vac (std.) or 15A/ 250Vac		
Contact Form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

Float Type Code

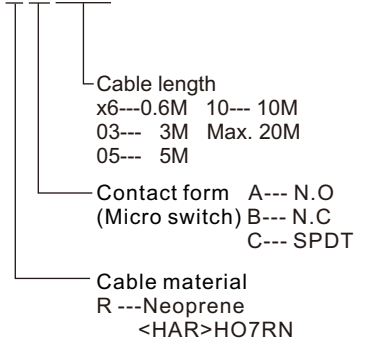
FACA□□...PP Float



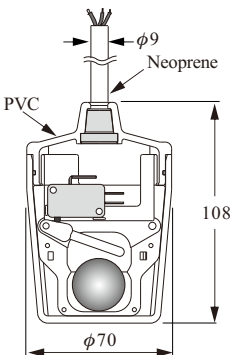
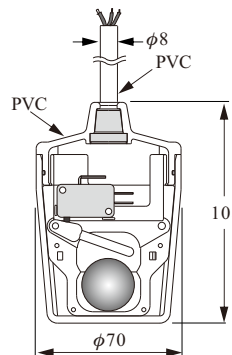
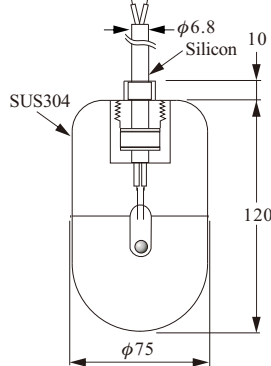
FAPA□□...PP Float



FARA□□...PP Float



SPECIFICATION

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

Float Type Code

FADA□□...PVC 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
D --- Neoprene

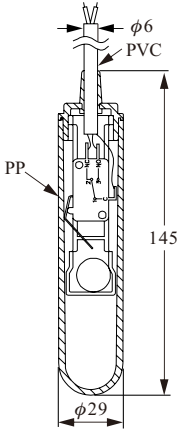
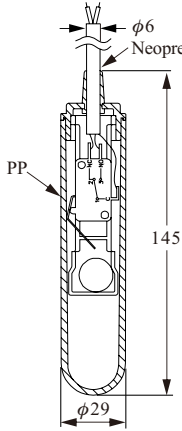
FAEA□□...PVC Float

- 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
E --- PVC

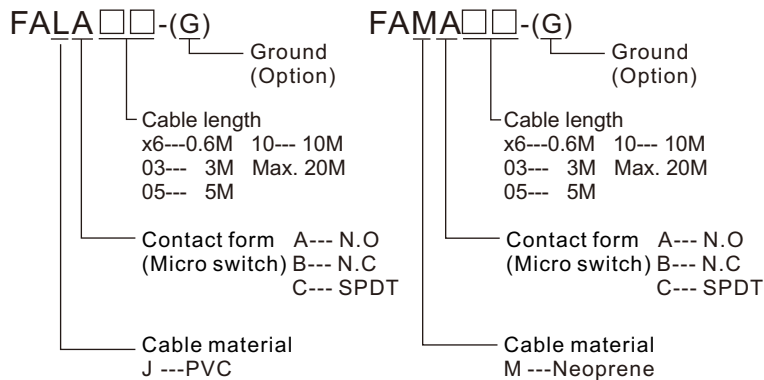
FASA□□...SUS Float

- 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
S --- Silicon

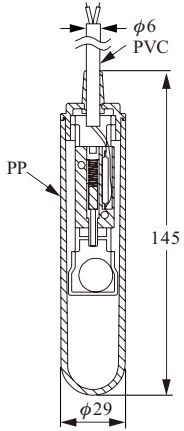
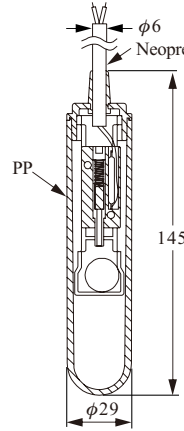
SPECIFICATION

Dimensions (Unit:mm)		
	Model	FAL A/B/C Bar type
Switch	Micro switch	
Float Material	P.P.	
Cable Spec	PVC Cable 0.75mm ² x3C	Neoprene Cable 0.75mm ² x3C
Contact Rating	3A/ 125/250Vac	
Contact Form	N.O or N.C or SPDT	
Operating Temp.	-0°C~60°C	-10°C~80°C
Specific Gravity	0.8	
Weight Approx.	113 ± 2g/1M Cable	
Pressure	4.5 kg/cm ²	
Wire Voltage	600 Vac	
Isolation Resistance	Min 100 MW	
Contact Resistance	Max. 100mW	
Actuation Angle	Up 18° ± 4° / Down 3° ± 3°	
Protection	IP68	

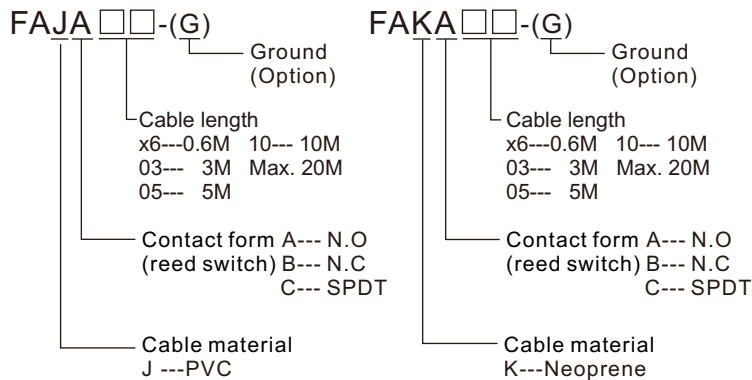
Float Type Code



SPECIFICATION

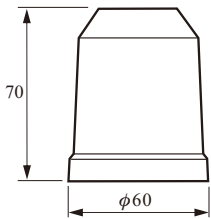
Dimensions (Unit:mm)		
	Model	FAJ A/B/C Bar type
Switch	Reed Switch	
Float Material	P.P.	
Cable Spec	PVC Cable 0.75mm ² x3C	Neoprene Cable 0.75mm ² x3C
Contact Rating	AC70 VA / DC50 W(N.O), 20W(N.C, SPDT)	
Contact Form	N.O or N.C or SPDT	
Operating Temp.	-0°C~60°C	-10°C~80°C
Specific Gravity	0.8	
Weight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

Float Type Code

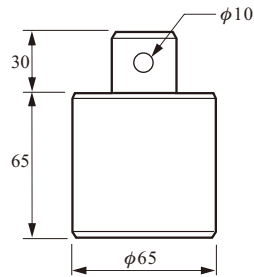


DIMENSION OF WEIGHT

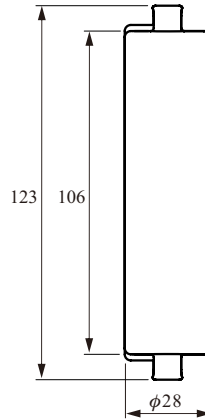
**FAPW-03
FAPW-05**



FASW



FAB-0010

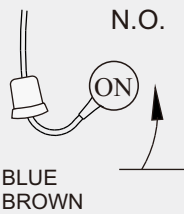


Type	Material	Weight
FAPW-03 FAPW-05	PP	0.3kg 0.5kg
FASW	SUS304	1.8kg
FAB-0010	PP	0.15kg

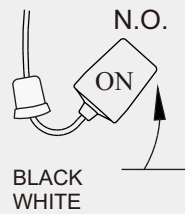
CONTACT FORM

1. SPDT (N.O)

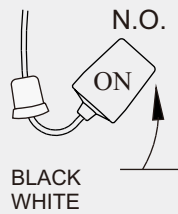
FACA



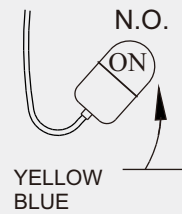
FAPA/FAEA



FARA/FADA

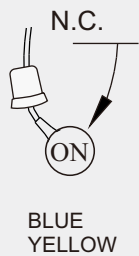


FASA

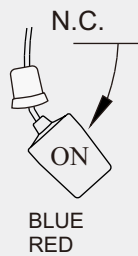


2. SPDT (N.C)

FACB



FAPB/FAEB



FARB/FADB

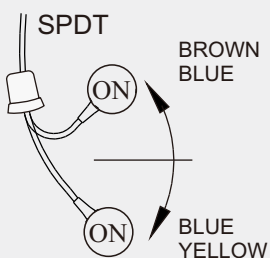


FASB

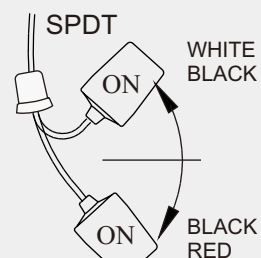


3. SPDT (1C)

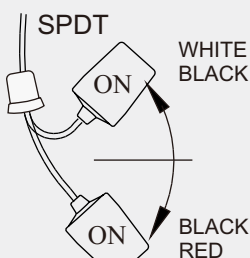
FACC



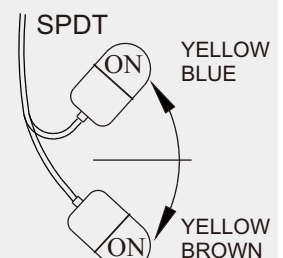
FAPC/FAEC



FARC/FADC



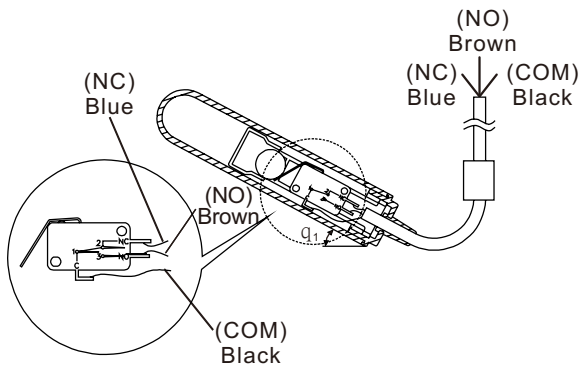
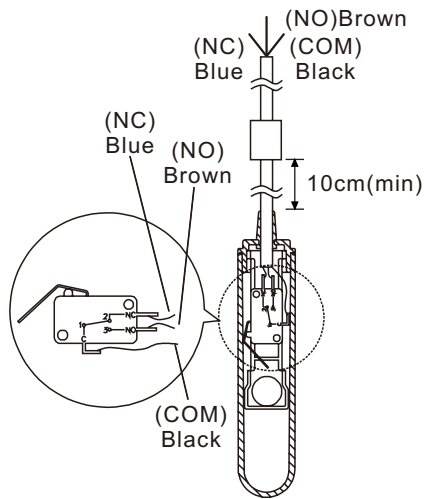
FASC



WIRING

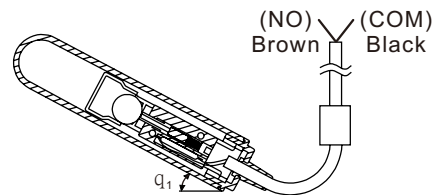
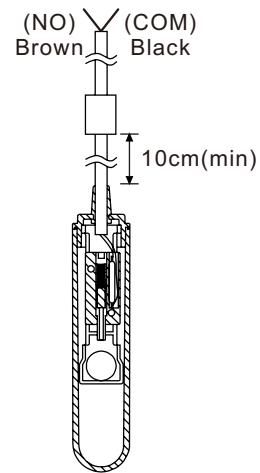
Micro Switch

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.

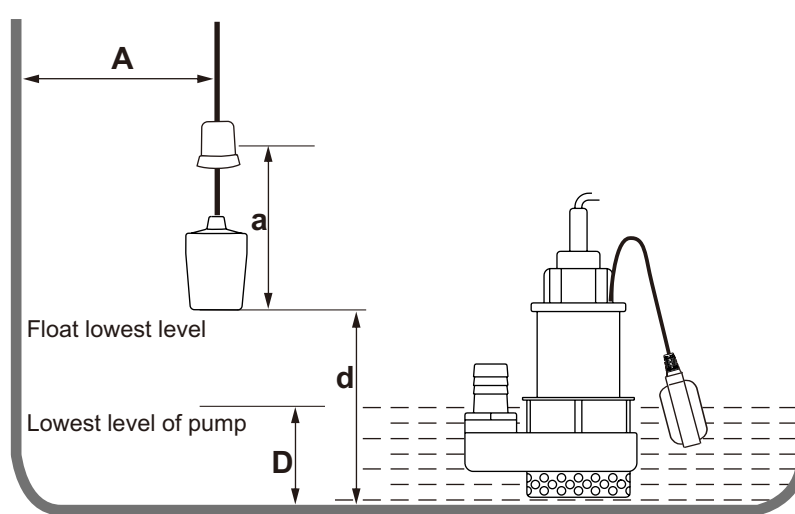


Installation guide

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.

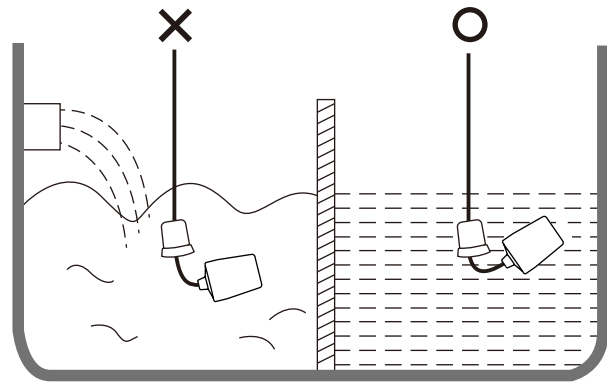
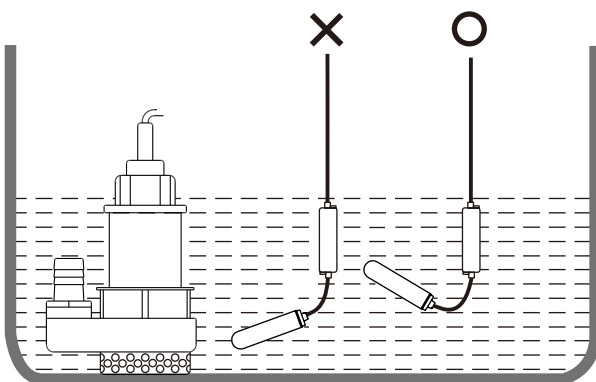
The lowest float level (d) must be higher than the lowest water level of pump (D).



CAUTION FOR INSTALLATION

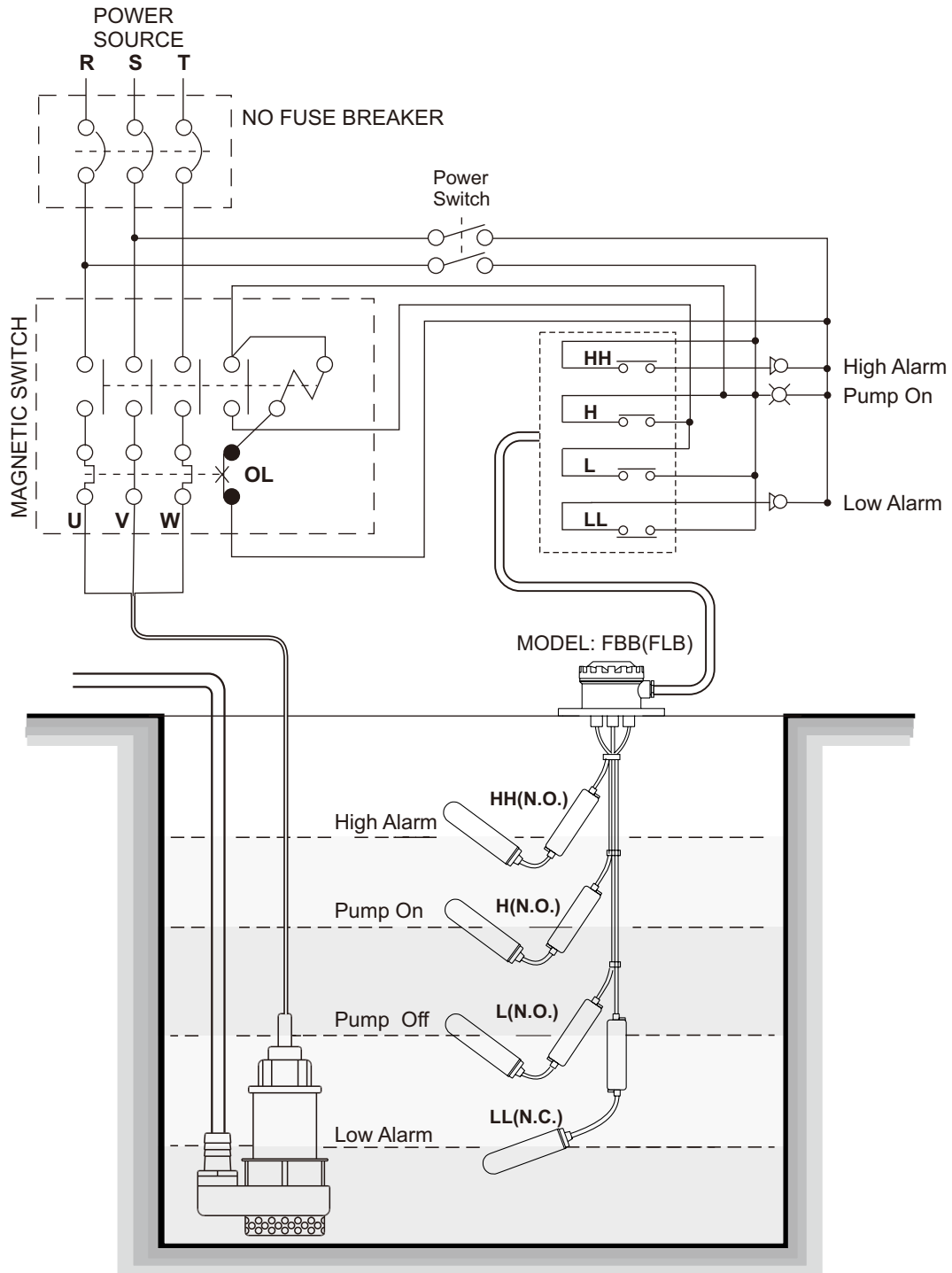
Keep proper distance between installation position and inlet of water pump to prevent float switch being sucked by inlet of water pump.

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 FBB 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:

FB-B type is suitable for Corrosive liquid.

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

DISTANCE OF CONTROL POINT

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

FB ()

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

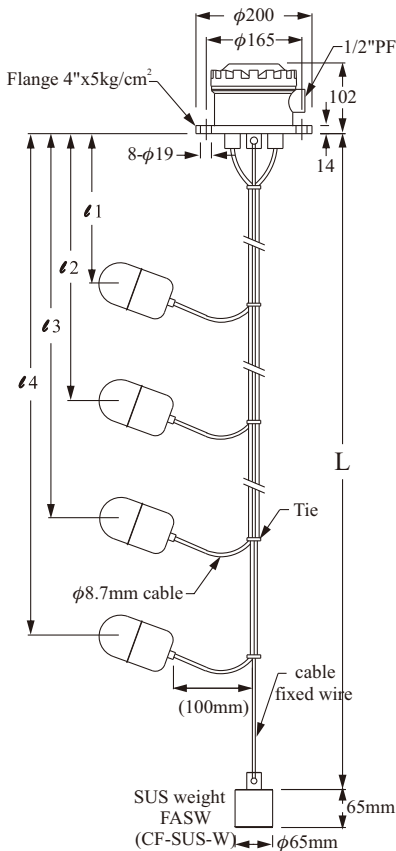
Float material

- 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)

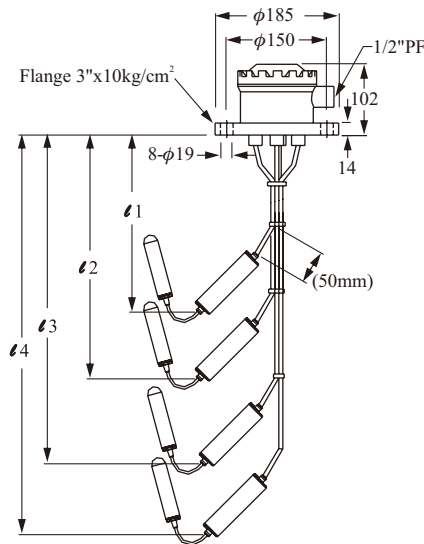
Housing

- A: Aluminum B: Plastic S: SUS304

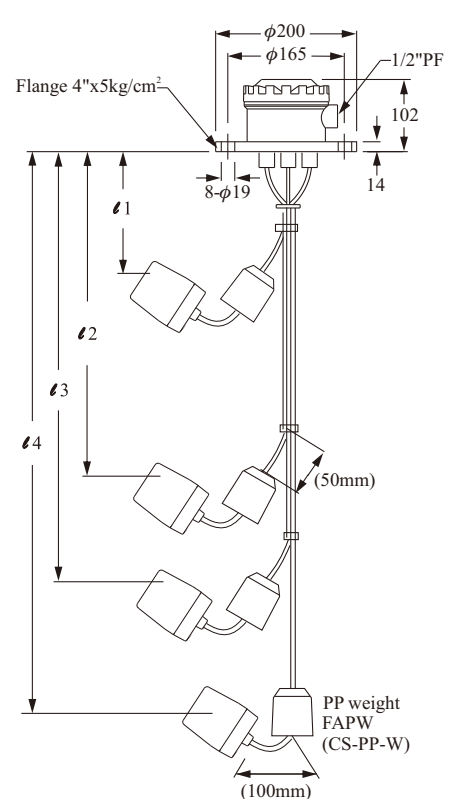
MODEL: FBA (FLA)



MODEL: FBB (FLB)

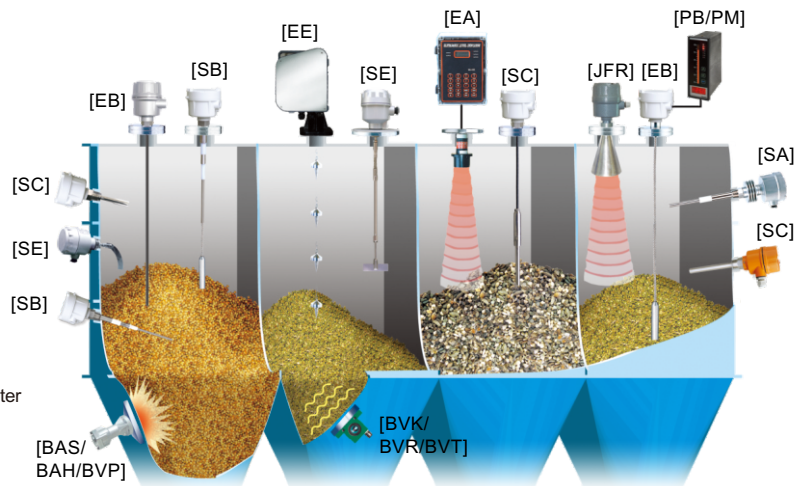
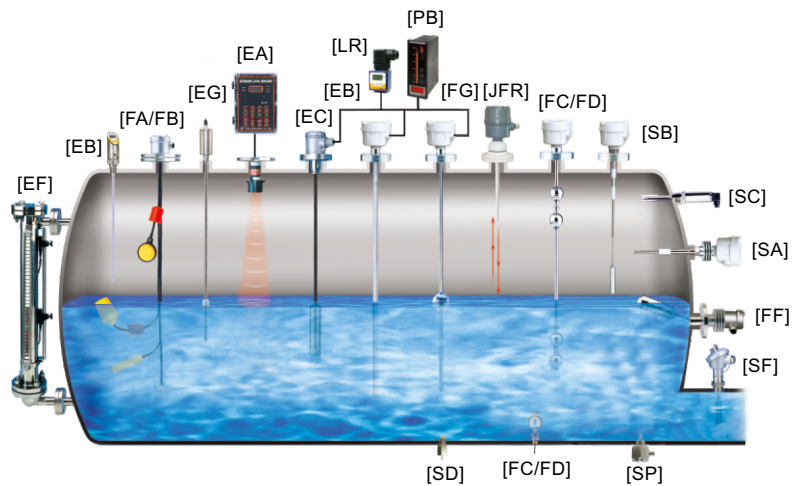


MODEL: FBS (FLB)



EXAMPLES-OF-TANK-MOUNTING

- [FC/FD] Mini Float/Magnetic Float Level Switch
- [FG] Magnetic Float Level Transmitter
- [FF] Side Mounting Float Switch
- [FA/FB] Cable Float Level Switch
- [SP] Thermal Dispersion Flow Switch
- [SF] Paddle Flow Switch
- [SD] Optical Level Switch
- [SE] Rotary Paddle Level Switch
- [SA] Capacitance Level Switch
- [EC] Pressure Level Transmitter
- [LR] Loop Power Indicator
- [SC] Vibrating Probe Level Switch
- [SC] Tuning Fork Level Switch
- [EB] RF-Capacitance Level Transmitter
- [SB] RF-Capacitance / Admittance Level Switch
- [EG] Magnetostrictive Level Transmitter
- [EF] By-Pass Level Transmitter
- [MEF] Mini By-Pass Level Transmitter
- [EA] Ultrasonic Level Transmitter
- [JFR] FMCW Radar Level Transmitter
- [EE] Electromechanical Level Measuring System
- [ED] Speed Monitor
- [SRT/SRS] Conveyor Belt Misalignment Switch & Safety Cable Pull Switch
- [PB/PM] Microprocessor Based Bargraphic Display Scaling Meter
- [BRD/AE] Valve and Controller for Dust Collector System
- [BAS/BAH/BVP] Air Hammer
- [BVK/BVR/BVT] Pneumatic Vibrator



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