

Float Type Level Switch

ST - POINT

Installation Manual

DT-001

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1. Introduction

When this switch detect measurement, it output signal at the mounted point. This switch can measure the amount of measurement or control minimum level and maximum level of object in the tank or hopper.

2. Features

- 1) Easy installation
- 2) Accurate output contact point

3. Principles of operation

Hermetically-sealed reed switches inside the stem are activated by the permanent magnet inside the float which rises and falls with the changes of liquid Level.
Resistance value is changed according to the operation of reed switches.
Total resistance value is selected bt the unit and transmit relay output.

4. Specifications

4.1 Model & Range

ST-POINT / 0~4.9m(Max.) 0~3.9(Max.-PVC)

4.2 Electric Specifications

- 1) Output Signal : Reed S/W Contact Point
- 2) Contact Rating :
 - Max. Switching Voltage : 250V DC / 250V AC
 - Max. Switching Current : 0.5A DC / 0.5A AC

4.3 Operation Condition

■ Level Switch

Description \ Type		304SS	316SS	PVC	PTFE
Contact Capacity		350V DC, 0.7A / 300V AC 0.5A			
Temperature	Electronics	-10℃~+60℃			
	Probe	-10℃~+100℃		-10℃~+60℃	-10℃~+100℃
Operating Pressure		10 kgf/cm ² Max.		2 kgf/cm ²	
Specific Gravity		0.65 Min.		0.5 Min.	0.75 Min.
Enclosure		Weather Proof, Explosion Proof (Ex II C T6, IP65)			

4.4 etc.

- 1) Measurement : Liquid
- 2) Material : ① Head : ADC9, ② Probe : 304SS, 316SS, PVC, PTFE
- 3) Mounting Size : JIS 10K 80 A or 100K 100A or Option
- 4) Conduit Connection : PF 1/2" (Option PF 3/4")

⚠ The installation of Float Type Level Switch (ST-POINT) should always be followed by the instructions on this manual.

5. Installation

5.1 Precaution

- 1) Confirm the specification of purchased products when it uses in high temperature and pressure.
- 2) Caution for the stem not to be bended.
- 3) Do not any damage to sensor.
- 4) Do not use it to high viscosity material.
- 5) Do not use it to the material mixed much slurry.
- 6) Do not use it to the PVC float to oil.
- 7) Refer to Liquid and Material Table when it applies to chemical or corrosive material.
- 8) Check the specific gravity of material.
- 9) When the distance between mounting position and ceiling is lower, order to the flange separation type.
- 10) Install protection cover for head housing of sensor when it is installed on outside.
- 11) Use an arrester when the sensor is in the surge area. (Refer the wiring.)
- 12) Do not move the position of stopper.

5.2 Installation

- 1) Install it like as shown on following Fig1.
- 2) Confirm the both flange.
- 3) Insert the sensor into tank.
- 4) Lock the bolts, and the sensor should be perpendicular to the surface of the measurement.
- 5) Confirm wiring according to terminal block in the head and wiring terminal block of Level Control Unit. (Refer the manual of Level Control Unit)

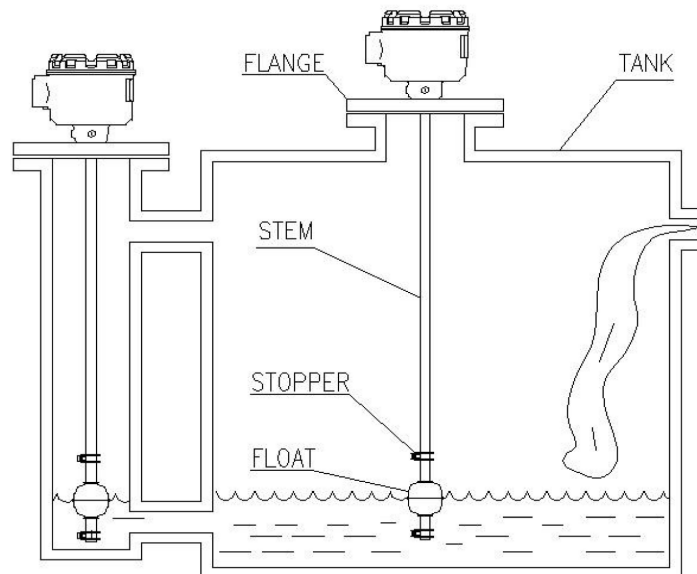


Fig. 1

6. Notice

6.1 Handling Precautions

- 1) Do not drop Level Switch down or do not damage to Level Switch.
- 2) Be careful of bending of stem. (In case of stem is long, Particularly be careful)
- 3) Do not fall Float down to stopper or flange.
- 4) Confirm wiring to Level Control Unit.

6.2 General

- 1) Do not arbitrarily change the structure or inside circuit.
- 2) Terminal block in the Head should connect Earth.
- 3) Conduit connection should be certified cable grand applicable to EX "d".

7. Check Point

- 1) If you fix Level Switch on power down, confirm stability of circuit.
Especially, in case of power is on, be careful with main circuit.
- 2) Remove foreign matter on the float or stem.
- 3) If you need change of stopper or float, you should use the part of ours.
- 4) If power is on, do not disassemble this instrument.
- 5) In hazard area, be careful of the spark by friction.
- 6) Used measuring instrument or tool In the hazard area certified explosion proof.

8. Troubleshooting

- 1) Confirm power supply. (DC 15V~32V)
- 2) Confirm stopper status.
- 3) Confirm that displace float smoothly in accordance with change of measurement level.
- 4) When measuring material is in the inside of stem, dry and clean the sensor and use it again.
- 5) If Current of damaged Reed S/W is soar, immediately contact us. (The current increase is 50 mA in maximum.)