



Electrode Type Level Switch

Model : SEC/SH

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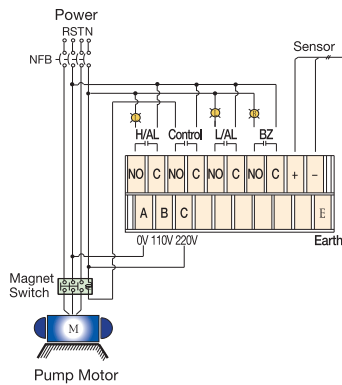
Electrode Type Level Switch

Introduction

This level sensor and controller is designed to detect the liquid level by electrical conductivity.

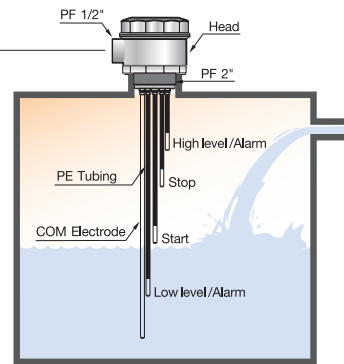
Operation

Low voltage is applied across the electrodes of different lengths. When the liquid level rises, electricity flows through the liquid and the controller is activated.



Features

- Applicable to municipal water and storage water tanks.
- It is designed to keep the water vapor out of the holder to prevent corrosion and malfunction.
- The single-chip CPU design enables selection of highly reliable multiple programs possible.
- The PCB can be removed from the terminal block without disconnecting the wires.(2-wire type)



Specifications

► Switch

DESCRIPTION	Type	Multi - Wire	2 - Wire
Wire Connection		3 - Wire ~ 8 - Wire	2 - Wire
Loop Impedance		500Ω(15V DC)	700Ω(20V AC)
Application Temperature Limits		Head : -10 ~ +80°C, Electrode : -10 ~ +80°C	
Operation Pressure		2kgf /cm ²	
Measuring Range		5m Max. (20m for Wire -Type)	
Material		Head : ABS Resin, ADC Electrode : 304SS , 316LSS, Teflon Wire	

► Level Controller

DESCRIPTION	Type	Multi-Wire	2 - Wire
Switch(Output Voltage)	SEC-3U 12V AC	15V DC	20V AC
	SQ-2U 12V DC		
Contact Rating		250V AC, 5A	
Power Supply	110 or 220V AC±10%, 50/60Hz	110/220V AC±10%, 50/60Hz	
Ambient Temperature		-10 ~ +60°C	
Control Output	SEC-3U : Control (Supply) SQ- 2U : Control (Drain)	SEC- 5U -5W : L / AL, Control, H/ AL SMA-4P-5W : L L , L , H , HH (A L 1 , A L 2 , A L 3 , A L 4)	SEC- 5U- 2W : Bz, L / AL, Control, H/ AL SLA -4P -E : L L , L , H , HH (Bz, C 1 , C 2 , H/ AL)
Fuse Rating		250V AC, 0.25A	
Material	Base Plate : ABS+Glass Cover : ABS	Unburnable ABS	
Mounting Method	Rack / Wall Mount	Wall Mount	
Dimensions (mm)	49(W)×60(H)×69(D)	87(W)×156(H)×68.2(D)	

Overall Dimensions

SH - 1	SH - 3	SH - 4
<p>A, B TYPE</p> <p>C, (D) TYPE</p>		
SH - 5	SH - 7	SH - 6**E

Precaution

- Use a wire-type where the ceiling level is low.
- Do not install the switch close to the water inlet.
The position of High Alarm /Stop must be set lower than that of overflow.
- Do not use this model for high temperature and/or high pressure tanks.
- This model is not intended for use in non-conducting or high viscosity liquids. It should not be used for oils and chemicals.
- Do not apply it to condensing water tanks or vapor generating water tanks.
- When the electrodes are assembled at the job site, remove the tubing completely from common electrode E1.
Peel back at least 2cm from the end for the other electrodes.
- Electrodes must be cleaned periodically.

Ordering Information

■ Electrode Type Level Switch

SH- 5 B 1 A 2 A 1

HEAD & POLES

2 = ABS & 2 Poles
 3 = ABS & 3 Poles
 4 = ABS & 4 Poles
 5 = ABS & 5 Poles
 6 = ADC & 4 Poles
 7 = ADC & 5 Poles
 8 = ADC & 6 Poles
 9 = ADC & 7 Poles
 10 = ADC & 8 Poles
 OP = etc.

TYPE OF WIRE CONNECTION

A = Multi Wire
 B = 2 Wire (SH-5S)

HEAD TYPE

1 = ABS Standard Holder
 2 = ADC Special Holder
 ※ ADC Head (Multi wire type only)

CONDUIT CONNECTION

A = PF 1/2" (Std.) E = NPT1/2"
 B = PT 1/2" F = NPT3/4"
 C = PF 3/4" OP = etc.
 D = PT 3/4"

ELECTRODE CONNECTORS

1 = None
 2 = Brass/Ni plated
 3 = 304SS
 4 = 316LSS

WET PART MATERIAL

A = 304SS P.E Tubing 2M (Std.)
 B = 316LSS P.E Tubing 2M
 C = 304SS P.T.F.E Tubing 2M
 D = 316LSS P.T.F.E Tubing 2M
 E = Wire Electrode Teflon 3.5 SQ (With weight)
 OP = etc.

MOUNTING SIZE

1 = PF 2" ABS (Std.)
 2 = PF 2" ABS with JIS 10K 80A FF HDPE Flange
 3 = PF 2" ABS with JIS 10K 80A FF PVC Flange
 4 = PF 2" ABS with JIS 10K 100A FF HDPE Flange
 5 = PF 2" ABS with JIS 10K 100A FF PVC Flange
 OP = etc.

■ Special Ass'y Model (Overflow Detector)

SH-1S A 1 A 1 A

OPERATING TEMP' & PRESSURE

A = Max. 60°C / Max. 2 kgf/cm²
 B = Max. 80°C / Max. 10 kgf/cm²
 C = Max. 260°C / Max. 50 kgf/cm²
 D = Max. 560°C / Max. 300 kgf/cm²

MOUNTING SIZE

1 = PT 1" (Std.)
 OP = etc.

INSERTION LENGTH

A = 50 ~ 200mm (A, B Type)
 B = 200 ~ 500mm (A, B Type)
 C = 47.5mm (C Type Only)
 D = 70mm (D Type Only)

CONDUIT CONNECTION

A = PF 1/2" (Std.)
 B = PT 1/2"
 C = PF 3/4"
 D = PT 3/4"
 E = NPT1/2"
 F = NPT3/4"
 OP = etc.

ENCLOSURE

1 = Weather Proof (ADC-12)

■ Special Ass'y Model : SH-1S (Applicable to over flow detection type)

Wet Part Material : 304SS, 316LSS & UHMW-PE (Min.50mm)

■ When placing an order, selected ordering number should be indicated on the purchase order sheet.



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■ Specifications subject to change without notice