



Grown...to meet challenges

30+ years in Process Control Instrumentation

SLW Series - Conductivity Level Limit Switch

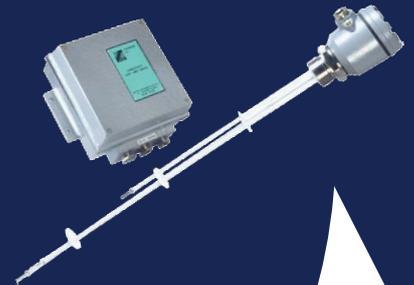
Version 2.1

Conductivity level limit switches are based on the principle of measuring level through the electrical properties of the process material. As the name suggests, the switch senses the level of water or other liquids that have free ions, and are successfully used in processing plants for conductive liquids of conductivity not less than 25 Siemens.

Principle

A low AC voltage is applied between the probe electrode and the tank wall (or reference electrode in case of insulated tanks). When the liquid comes in contact with the electrode tip, a conductive path is established between the sense electrode and the tank wall / reference electrode. This current is sensed, amplified and made to operate a relay whose contacts in turn can be used for annunciation / control.

Approvals CE Marking, RoHS Compliance



Features

- No moving parts, hence free from maintenance
- No special cable required for signal transmission
- Economical to install
- Allows long connectivity between probe and evaluation unit
- AC on probe prevents electrodes' electrolytic deterioration
- Low voltage on probe for operational safety
- Variety of probes for unique process conditions
- Variety of control functions, installation systems

Applications

- Switch pumps off when tank is full, to avoid overflow
- Maintain a constant level to avoid material wastage
- Switch off pumps when running dry
- Identify empty tank to avoid wear-tear, production stoppage

Why Sapcon

- Sapcon ~ Synonymous with Level Measurement.
- Pioneers in this field with over 32 years of expertise.
- Understanding your problems, always ready with solutions.
- Masters in customization.
- Offering accelerated delivery, saving your inventory costs.

Parts

The parts of SLW are explained in the Figure 1. All dimensions are in millimeters. Figure 2 describes the system diagram of SLW.

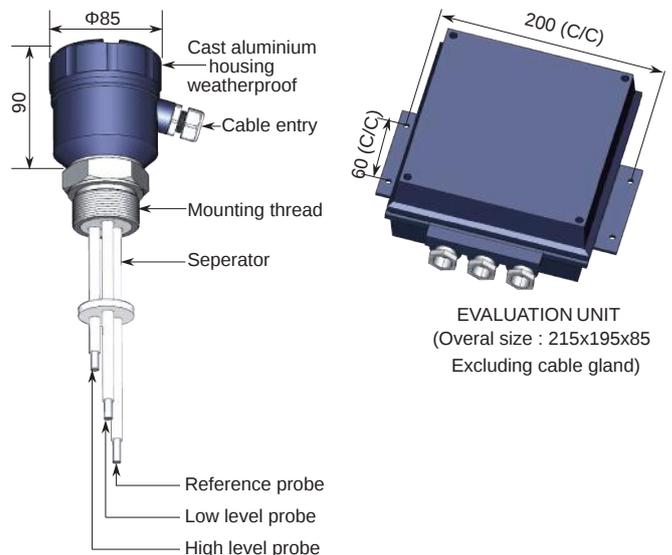


Figure 1: Parts of SLW

Manufacturing Level Instruments & Speed Monitoring Systems

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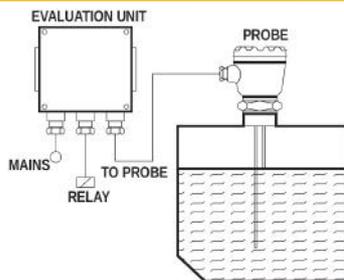


Figure 2: System Diagram of SLW

Technical Specifications

Evaluation Unit

Housing:	Cast aluminium, stoving enamel painted suitable for back panel / wall mounting in safe area
Protection:	IP-65
Cable Entries:	3 * 1/2" NPT, DC gland brass nickel plated
Outputs in Models:	
SLW 121:	1 * SPDT Relay rated at 6A at 230V AC for non-inductive loads
SLW 821:	2 * SPDT Relay rated at 6A at 230V AC for non-inductive loads
SLW 921:	3 * SPDT Relay rated at 6A at 230V AC for non-inductive loads
Mains:	24 V DC
Fail-safe Mode:	Field-selectable (High and Low)
Dimensions:	215 mm * 195 mm * 85 mm
Temperature:	Operating: -20°C to 60°C
Power Consumption:	0.5 W (maximum)
Probe	
Type:	PTFE Insulated Rod / Rope probe SS 316
Housing:	Pressure die-cast aluminium weatherproof stoving enamel painted
Cable Entries:	1 * 1/2" NPT, DC gland brass nickel plated
Probe Orientation:	Top mounting
Probe Temperature:	Standard: Up to 80°C
Insulation:	Part-PTFE (Tip up to 50mm)
Mounting Connection:	Screwed 1 1/2" BSP, Slip on Flange 2" ASA, 10mm thick (with nut, bolt and gasket)
Probe Length:	As per requirement

Model Selection

SLW SERIES

MODEL

- 121- SINGLE POINT SWITCH (1 RELAY)
- 221- SINGLE- POINTSWITCH (2 RELAYS IN PARALLEL)
- 321- SINGLE- POINT SWITCH (WITH TIME DELAY)
- 521- PUMP CONTROL LOGIC (WITH ONE RELAY)
- 721- PUMP CONTROL LOGIC (WITH 2 RELAYS IN PARALLEL)
- 821- TWO-POINT SWITCH (1 RELAY FOR EACH SET POINT)
- 8P1- ONE PUMP- CONTROL + SINGLE- POINT SWITCH
- 8P2- TWO PUMP CONTROL (1 RELAY FOR EACH POINT)
- 921- THREE-POINT LEVEL SWITCH
- 9P1- ONE PUMP CONTROL + 2 POINT SWITCH
- 9P2- SINGLE POINT + TWO PUMP CONTROL
- 9P3- 3 PUMP CONTROL

ENCLOSURE

- W- WEATHER PROOF SQUARE
- PF- FLAMEPROOF PROBE HEAD ONLY

SERVICE TEMPERATURE

- S- STANDARD UPTO 80°C
- H2- HIGH TEMPERATURE 150- 250°C

POWER SUPPLY

- A- 230 VAC
- B- 110 VAC
- C- 24 VDC

PROBE TYPE

- RD- ROD PROBE
- RP- ROPE PROBE

PROBE MOUNTING ARRANGEMENT

- T- THREADED
- F- FLANGED
- O- OTHER

INSULATED MATERIAL

- PV- PVC
- PT- PTFE (TOTAL TEFLON)

WETTED PARTS

- MS- MS (PLATED)
- S4- SS 304
- S6- SS 316SL
- SL- SS 316L
- HC- HASTLE ALLOY C
- PC- PTFE COATED

SLW	121	W	S	A	RD	T	PV	MS
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