



Grown...to meet challenges

30+ years in Process Control Instrumentation

## SLC - Capacitance Level Switch

Version 2.1

Sapcon's capacitance level limit switch offers a solution for level limit detection of fine, coarse, bulky solids, non-sticky slurries and liquids. The measuring system consists of an evaluation unit, an electronic insert and a probe. It works by utilizing the dielectric property of the application material.

### Principle

The probe comprises of a sense electrode, electrically isolated from the metallic tank by means of a suitable insulator. The sense electrode and the vessel wall serve as the two electrodes of a capacitor with the service material acting as the dielectric. A change in the level of material causes a change in the dielectric, which in turn causes the value of this tank capacitor to change.



**Approvals** CE Marking, Flameproof Enclosure (Gas Groups IIA, IIB, IIC), RoHS Compliance

### Features

- Power Supply: 24 V DC, 110 V AC, 220 V AC, 230 V AC
- Ignores build-up of material on vessel wall
- High temperature durability
- Sustains temperatures upto 600°C (non-conductive liquids)
- No moving parts, no mechanical wear-and-tear
- System fault indication for added reliability

### Applications

- Milk
- Diesel
- Juice
- Chemicals
- Water
- Fuel
- Alcohol

### 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.

### Mounting Arrangement

The mounting arrangement for SLC is explained in Figure 1.

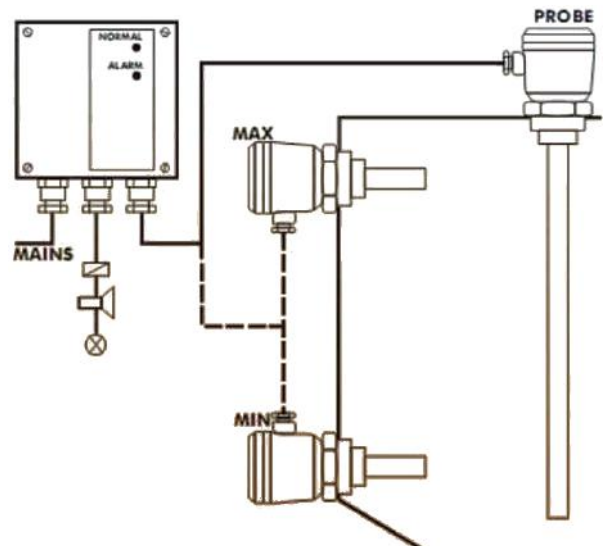


Figure 1: System Diagram of SLC

Manufacturing Level Instruments & Speed Monitoring Systems

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## Technical Specifications

### Mechanical Specifications

<b>Probe Length:</b>	Rod: 50 mm to 3000 mm Rope: 400 mm to 12000 mm
<b>Enclosure:</b>	W: Weatherproof P5: IP-65 weatherproof FA: Flameproof (Gas groups IIA and IIB)
<b>Versions:</b>	Integral: Electronics integrated with probe Remote: Electronics separated by 3-core ordinary cable
<b>Mounting Arrangement:</b>	Threaded: 1, 1-1/2", 2" BSP/NPT Flanged: As per specification Tri-clover: As per specification SMS union coupling type
<b>Insulation:</b>	PTFE (up to 250°C), Ceramic (up to 600°C), Other
<b>Wetted Parts:</b>	S4: SS-304 S6: SS-316 SL: SS 316 L
<b>Process Temperature:</b>	A: Ambient, below 80°C H1: High temperature, upto 150°C H2: High temperature, upto 250°C H3: High temperature, upto 600°C

### Electrical Specifications

<b>Power Consumption:</b>	5 W
<b>Fail-safe Settings:</b>	Field-selectable
<b>Minimum:</b>	Fail-safe Low
<b>Maximum:</b>	Fail-safe High
<b>Response Time:</b>	0.5 – 2 seconds
<b>Time Delay Settings:</b>	Cover And Uncover Delay: 0.5 to 60 seconds, through potentiometer
<b>Sensitivity Setting:</b>	Field-selectable (through toggle switches)
<b>Resonant Frequency:</b>	500 KHz
<b>Outputs:</b>	1- Single relay 2- Double relay 3- Single relay with time delay 5- Single relay with pump control logic 6- Two relay with time delay 7- Two relay with pump control logic 8- Two channel, model, one separate relay per set point (only in separate model) 9- Three channel model, one separate relay per set point (only in separate model)

## Model Selection

MODELS	SLC 122	SLC 222	SLC 322	SLC 522	SLC 622	SLC 722	SLC 822	SLC 922	SLC 130	SLC 230	SLC 330	SLC 630	SLC 830
SEPERATE EVALUATION UNIT & PROBE	✓	✓	✓	✓	✓	✓	✓	✓					
INTEGRAL EVALUATION UNIT & PROBE									✓	✓	✓	✓	✓
FLAMEPROOF EVALUATION UNIT	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓
1 RELAY	✓		✓	✓					✓		✓		
2 RELAY		✓			✓	✓	✓	⊙		✓		✓	✓
TIME DELAY			✓		✓		✓	✓			✓	✓	✓
MULTI POINT							✓	✓					
FLAMEPROOF PROBE HEAD	✓	✓	✓	✓	✓	✓	✓	✓					
PUMP CONTROL LOGIC				✓		✓							✓
INDEPENDENT SWITCH	✓	✓	✓		✓		✓	✓	✓	✓	✓	✓	✓

✓ - Indicates a valid combination that is available.

⊙ - Indicates a 3-Relay combination that is valid and available.

## Connect to us

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