

SLA-Series - Admittance Level Limit Switch

Version 2.1

It consists of an evaluation unit, an electronic insert and a probe. The probe is mounted either from top or side of the vessel. The probe comprises sense and shield electrodes, electrically isolated from the metallic tank by the means of a suitable insulator. The two electrodes form an imperfect capacitor with the service material acting as the dielectric.

Principle

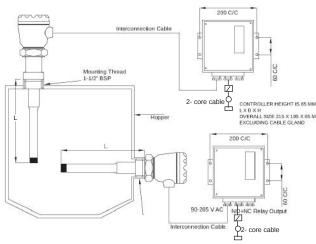
An accurate measurement of change in admittance affords an indirect measure of the level of material in the tank. The electronic insert measures this change accurately by using Radio Frequency (R.F.) technique coupled with coat immunizing circuitry. The change is converted to a DC voltage variation, which is transmitted to the evaluation unit via a 3-core cable for further processing. The processed signal is used to energize or de-energize a relay whose output contacts are available for annunciation and/or control.



Approvals CE Marking, RoHS Compliance

Features

- Coating immunity for viscous liquids & sticky media
- Available in rod as well as rope probe arrangement
- Universal Power supply (90-265 V AC and 24 V DC)
- Calibration possible from remote location
- Fail-safe selection available
- Economical to install using three-core normal cable



Note: Interconnection Cable - Normal 3-core 1.5 sq mm cable

Figure 1: Mounting Arrangement for SLA-Series

Parts

The parts of SLA-Series are explained in Figure 2. The mounting arrangement is described in Figure 1. All dimensions are in millimeters.

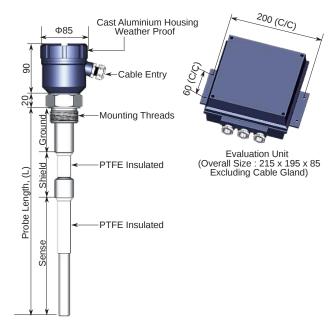


Figure 2: Parts of SLA-Series

Manufacturing Level Instruments & Speed Monitoring Systems

SAPCON INSTRUMENTS PVT. LTD.

An ISO 22000 company

131 Palshikar Colony, Indore, Madhya Pradesh, PIN - 452004, India

+91-731-4757575 (100 lines) Fax: +91-731-2475475 www.sapconinstruments.com Email: sales@sapcon.in





Applications

Poultry industry
 Food industry, FMCG & Sugar

Packaging industryEdible OilFoundry & CastingsBulk material handling

Flour and rice mills
 Liquids and Solids

Technical Specifications

Evaluation Unit

Housing: Cast aluminium weatherproof /

back panel / Integral housing /

Flameproof housing

Cable Entry: 3 No 1/2, 3/4 BSP / NPT / ET,

type SC and DC

Temperature: Ambient: -20°C to + 60°C Mains Voltage: 90 to 265VAC, 24 V DC

Relay Output: 01/02 SPDT Rated on 6A, 230 V

AC, potential-free

Fail-safe: Field Selectable

Minimum: Fail-safe Low

Maximum: Fail-safe High

Indication: LED Indication (Alarm: Red,

Normal: Green, System Fault:

Yellow)

Switching Delay: 0.5-25 seconds (Covered and

Uncovered)

Switching Hysteresis: 0.5 pf Typical

Cable to Elec. Insert: 3 Core cable (Ordinary cable)

Electronic Insert

Housing: Plastic, plotted in epoxy resin

Measuring Frequency: 500 K Hz (app.)

Temperature: Ambient: -20°C to + 80°C **Supply Voltage:** 15 V DC from electronic unit

Output Signal: 3 to 12 V DC

Probe

Enclosure: Cast aluminium IP-65, IP-67,

Flameproof (Gas groups IIA, IIB)

Cable Entry: 01 single / double compression

Mounting Arrangement: Threaded / Flanged as required

Probe Insulation: Part / Full PTFE

Temperature Range: Full / Part PTFE: up to 650°C;

Part Ceramic: 250°C to 600°C

Probe Length: As per requirement

Model Selection

SLA-SERIES

POWER SUPPLY

A- 110V AC, 50Hz B- 230V AC, 50Hz

D- 24 V DC

U- UNIVERSAL POWER SUPPLY (90 - 260 VAC)

ELECTRONICS

- 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 PUNP 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

22- SEPARATE (RF TRANSMISSION VIA SPECIAL

CABLE)

30- INTEGRAL ELECTRONICS UNIT

SERVICE TEMPERATURE

S- STANDARD UPTO 80°C

H1- HIGH TEMPERATURE MAX 150°C

H2- HIGH TEMPERATURE 150°C TO 250°C

H4- HIGH TEMPERATURE 600°C WITH

COOLING FIN

SENSE / EXTENSION ELEMENT TYPE

RP- PART INSULATED ROD PROBE RF- FULL INSULATED ROD PROBE

FP- PART INSULATED FLEXIBLE

ROPE PROBE

PROBE MOUNTING

ARRANGEMENT*

T- THREADED F- FLANGED O- OTHER

WETTED PARTS

S4- SS 304 S6- SS 316 SL- SS 316L



Management: +91 98260 80207 ashwin@sapcon.in Customer Support: +91 80850 77767 support@sapcon.in

SLA U

1

22 H1

RP

