

LEVTESTER SLC Series

SALIENT FEATURES

High Durability and System Reliability

No moving parts, no mechanical wear and tear, Interference-free signal transmission from electronic insert to evaluation unit, system fault indication for added reliability.

Calibration Possible from Remote Location

Evaluation unit can be installed far away from the probe. Calibration controls available in the evaluation unit.

Fail-Safe High/Low Selection Feature Available as Standard

Reduces inventory, since the same evaluation unit can be field configured either for High or Low level fail-safe detection.

Ignores Build Up of Material on Vessel Walls

Uses extended ground technique to create inactive region.

Economical to Install

Uses ordinary 3 core cable for interconnecting the electronic insert with the evaluation unit. A variety of built in multi-point evaluation units available to reduce the number of discrete controllers thereby reducing the overall cost.

Also available in circular enclosures.



APPLICATIONS

- Level limit detection of fine, coarse, bulk solids, liquids and non sticky slurries, conductive or non-conductive, corrosive or non-corrosive in nature.
- For switching off conveyors when the vessel is full, to avoid overflow.
- For indicating an empty tank well in time to avoid production stoppage.
- For protecting pumps from running dry thereby reducing wear and tear .

USAGE

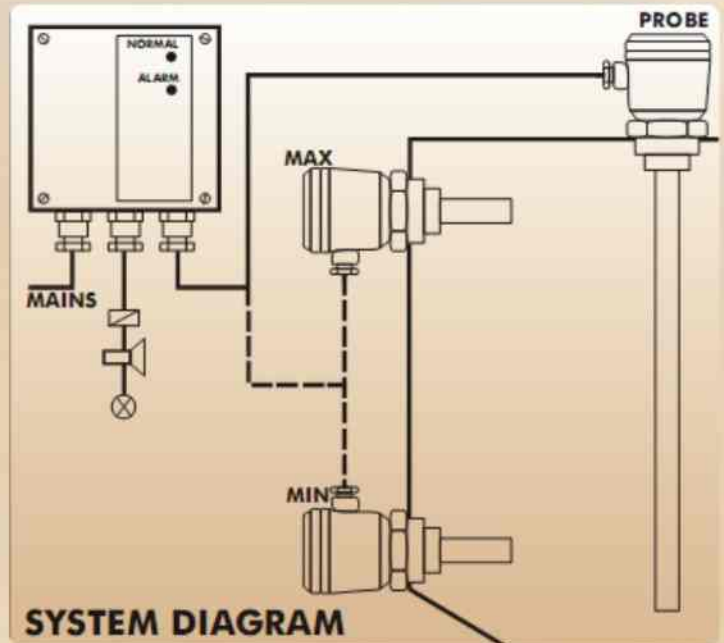
Levtester SLC... series of level switches are successfully used in processing plants for Cement, Plastic, Power , Food, Chemicals, Fertilizer , Sugar , Detergents and for material handling of coal, mineral ores etc.

For high-performance, intelligent, self-checking, microprocessor-controlled, user-friendly level switch, utilizing high reliability 2-wire PFM transmission, please ask for separate literature.

MEASURING SYSTEM

It consists of an evaluation unit, an electronic insert and a probe. The Probe is mounted either from the top or side of the vessel. 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 as the dielectric. A change in material level causes a change in the dielectric, which in turn causes the value of this tank capacitor to change.

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



SYSTEM DIAGRAM

TECHNICAL DATA

Evaluation Unit

Housing Cast Aluminium, Weather proof, back panel/wall mounting

Cable Entry 3 Nos. / 2 Nos.

Max. Amb. Temp. 20 C to + 60 C.

Power Consumption 5 VA approx.

Mains Voltage 230 V or 110 V AC (15% to +10%), 50 Hz; 24 VAC/DC on request (to be specified while ordering)

Relay Output One/two sets of potential free change over contacts rated at 230V AC 6A, 50 Hz for non-inductive load per set point.

Fail-Safe Mode Indication Max. or Min. Field selectable. Red LED for alarm, Green LED for normal, Yellow LED for system fault.

Response Time 0.2 Sec

Switching Delay for SLC 322/622/330/630 Adjustable from 0.5 to 20 Sec. for probe covered or uncovered condition.

Connection to Electronic Insert 3-core unscreened cable.

Initial Capacitance

SLC 122/222 0 to 290 pf. in 3 overlapping ranges.

322/622/822 0 to 1200 pf. in 3 overlapping ranges.

SLC 522/722/922 0.5 pf. typical.

Switching Hysteresis Continuously adjustable over the entire range. A wide variety of probes with different mounting connections are available to suit various process applications. We offer specially designed ceramic insulated rod/rope probes suitable for operating temperatures upto 600 C max.

Probe

MODEL SELECTION

The table below shows possible combinations and their standard model numbers

MODELS	SE	I	F	1R	2R	TD	M	FPH	P	IN
SLC 122	•		•	•				•		•
SLC 222	•		•		•			•		•
SLC 322	•		•	•		•		•		•
SLC 522	•		•	•				•	•	
SLC 622	•		•		•	•		•		•
SLC 722	•		•		•			•	•	
SLC 822	•				•	•	•	•		•
SLC 922	•				■	•	•	•	•	•
SLC 130		•	•	•						•
SLC 230		•	•		•					•
SLC 330		•	•	•		•				•
SLC 630		•	•		•	•				•

SE = Separate Evaluation Unit (Separate from Probe)
 I = Integral Evaluation Unit (Integral with Probe)
 F = Flame Proof Evaluation Unit
 1R = 1 Relay 2R = 2 Relay TD = Time Delay
 M = Multi Point FPH = Flame Proof Probe Head
 P = Pump Control Logic IN = Independent Switching
 Add 'F' to standard model numbers to identify the flame proof versions. e.g. SLC 122F

Electronic Insert - LDC 311

Housing Plastic, potted in epoxy resin.

Frequency 500 kHz. (approximately).

Ambient Temp. 0 to 20 C to 80 C.

Supply Voltage 15 V derived from evaluation unit

Output Signal 3 to 12 V DC.