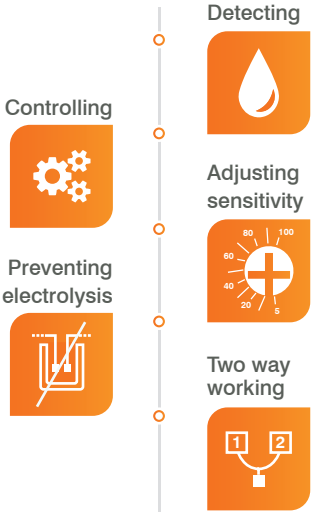
Klemsan®

LC3 Liquid Level Controller

Defining LC3 in simple terms

LC3 is an electronic device which monitors liquid levels in a tank and keeps it into desired limits through relay output.

Which actions are executed?



LC3 detects liquid level when it reaches our minimum or maximum limits

It controls the actuation of pumps or valves to regulate liquid levels.

Sensitivity adjustment provides reliable operation in a variety of conductive liquids.

LC3 applies AC signal to liquid in order to prevent and avoid electrolysis.

LC3 allows to be operated in two ways, either with 2 probes or 3 probes.

Which market are they used frequently?

- *Wastewater treatments*
- *Pump stations*
- *Chemically pure water*
- *Tank level controlling*
- *Wet well applications*

Benefits and Advantages

- *A widely range of power supply (150-500VAC)*
- *2 probes and 3 probes operation modes*
- *Sensitivity adjustment (5-100kΩ)*
- *High level of Electromagnetic compatibility (EMC) i.e. maximum immunity to interferences*
- *Perfect to fit in modular enclosure*
- *High mechanical endurance*
- *Sensitive timing range (0.1-10sec)*
- *36 mm wide housing and compact design*
- *Self-Extinguishing plastic housing*

Tank Application

It can be used to control liquid level in a tank. Sensitivity resistance can be adjusted thus there is no need to change models to match different liquid types and concentrations.

Wet Well Level Control

In order for pumps to be controlled automaticlly, they should be activated or deactivated by an external control unit. Klemsan LC3 instrument allows pump motors to be controlled with perfect timing for wet well areas.

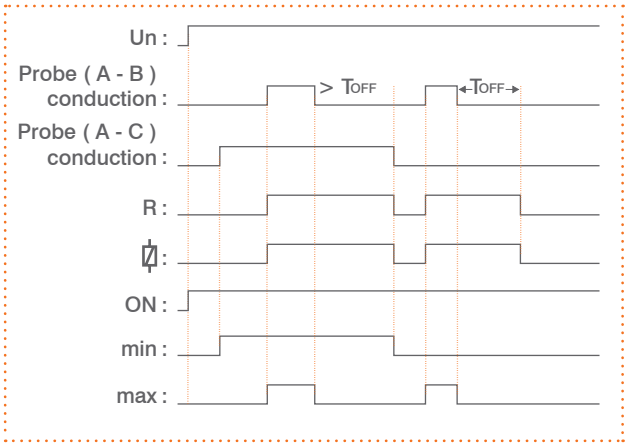
Wastewater Treatments

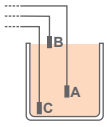
Level monitoring and control is a fundamental requirement in any wastewater treatment process. Level controls and instrumentation play an important role in management of wastewater treatment process because operators have only limited or emergency control over treatment plant influent.
At this point Klemsan LC3 controller presents the simpliest and most effective solution for wastewater plants.

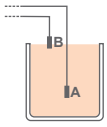
Water Storage

Level monitoring is essential for large and small water storage tanks in order to prevent overflows and keep water into desired limits

FIGURE and LED INDICATION







3 electrodes mode:

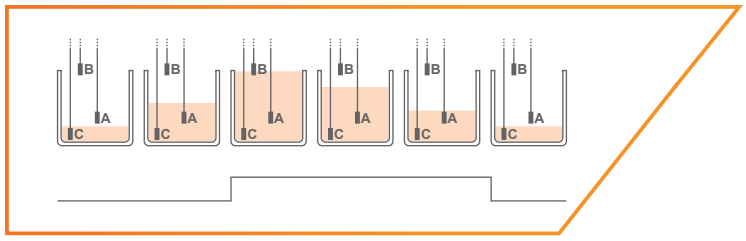
When the level of liquid in the tank reaches to electrode B, the output relay is activated and stays in this position even if the level drops below the electrode B level. The output relay is deactivated when the liquid level drops below electrode A level. Re-activation occurs when the level reaches to the electrode B level.

2 electrode mode:

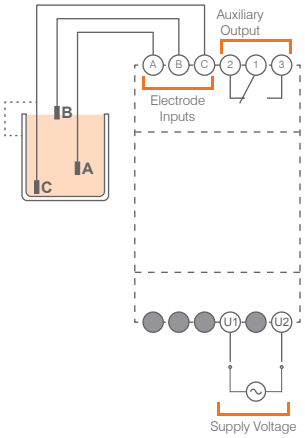
For 2 electrodes mode of operation, A and B electrodes are used. When level of liquid in the tank reaches to electrode B, output relay is activated. When the liquid level drops below electrode B and continually stays there for the adjustable time delay (adjusted on the front panel knob); output relay will be de-energized.

The status change of output relay with respect to liquid level :

Output relay contacts 1 - 3 / 1 - 2 :



		LC3
		
Definition		Liquid Level Controller
Order Number		270001
Casing Width(mm)		36
Connection		Screw terminal
Mounting		Rail Mount
Supply Voltage		150-500VAC
Power Consumption		<7VA
Output Relay	Electrode Voltage	5VAC>, 160Hz
	Type	1C/O (SPDT)
	Max. Ratings	5A, 250V; 1250VAC
	Mechanical Life Time	$\geq 10^7$
Sensitivity Adjustment Range		5-100kΩ
Time Delay Adjustment Range		0.1-10sec
Weight		82gr
Protection Class		IP20
Temperature Range		-20 to 60 °C (during operation), -20 to 70 °C (during storage)
EMC Certificate		55011/A1, 61000-4-2, 61000-4-3/A1, 61000-4-4, 61000-4-5, 61000-4-6, 61000-4-8, 61000-4-11

		LC3
		
Accessories	Definition	Liquid Level Probe 
	Stock Code	280610
	Package Unit	1 pc.
	Schematics	
	Dimensional Drawings