

# Liquid Level Controller 3P

Product code : REDPLL300

## Features:

- One/Two level detection of water in a tank.
- One / Two Tank monitoring for draining or filling or draining and filling the water.
- Supports to externally connected 6 stainless steel sensors prob of 70mm.
- Support up to 1000m length cable for long cable distance prob sensing.
- Safe probe signals.
- DOL Starter operate by relay.
- Relay on indication, Each level indication using led.
- Manual start and stop switch for manual operation of pump.

## Application:

The device monitor the water level in the tanks and controls the actuation of pumps or electric valves to regulate water levels in tank according to use of mode, it is also designed to protect submersible pumps against "Dry running" when lower tank is empty.

This unit is used in both place industrial and domestic. for control water level.

## Device controlling mode:

1. Draining from lower tank and filling in upper tank.
2. Filling only one tank with 2 levels monitoring.
3. Filling only one tank with 1 level monitoring.
4. Draining only one tank with 2 levels monitoring.
5. Draining only one tank with 1 level monitoring.

## Precautions:

- Keep device away from direct water fall or rain.
- keep safe from direct sun light.
- make screw tight properly.
- Keep wiring of sensor probes away from live/power wire. keep sensor wire insulation proper for better performance.

## PRODUCT SPECIFICATION

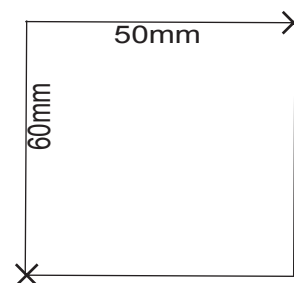
<b>Product code</b>	REDPLL300
<b>Supply Characteristics</b>	
<b>Supply Voltage</b>	415VAC, +-20%
<b>Supply Frequency</b>	47-63 Hz.
<b>Power consumption</b>	2.5VA (max at relay operate condition)

## DEVICE Characteristics

<b>Sensor Probes</b>	Stainless steel Ss304, 6 Probes
<b>Prob Length</b>	70mm
<b>Probe voltage</b>	9V DC. < 1mA
<b>Prob cable</b>	Cable gauge (min) 0.5mm <sup>2</sup> with good insulation
<b>Led Indication</b>	Led 1 : red : OH (Overhead High)
	Led 2 : red : OL (Overhead Low)
	Led 3 : red : UH (Underwater High)
	Led 4 : red : UL (Under water Low)
	Led 5 : green : On
	Led 6 : red : Start
<b>Output mode</b>	Relay On / Off (DOL Starter on off)
<b>Contact Ratings</b>	1 N/O, 5 Amp @ 250VAC,
<b>Electrical life</b>	10,00,000 Operation
<b>Mechanical life</b>	10,00,000 Operation
<b>Operating Temperature</b>	-10°C to +60°C

<b>Storage Temperature</b>	10°C to +70°C
<b>Weight Approx.</b>	500 gm.
<b>Relative Humidity</b>	5 to 15% RH (non condensing)
<b>Mounting type</b>	Base mount / Dinrail mount
<b>Start Switch</b>	To start the unit in manual mode.

## DRILL DIAGRAM



Specification are subject to change without notice due to continuous improvement

Terminal Detail	
OH	Over head tank High Level
OL	Over head tank Low Level
C	Common terminal for both
UL	Underwater tank High level
UH	Underwater tank Low Level

Function Sequencel				
UL	UH	OL	OH	Relay Status
OUT	OUT	OUT	OUT	OFF
IN	OUT	OUT	OUT	OFF
IN	IN	OUT	OUT	ON
IN	IN	IN	OUT	ON
IN	IN	IN	IN	OFF
IN	IN	IN	OUT	OFF
IN	IN	OUT	OUT	ON
IN	OUT	OUT	OUT	ON
OUT	OUT	OUT	OUT	OFF

UL	UH	OL	OH	Relay Status
OUT	OUT	OUT	OUT	OFF
IN	OUT	OUT	OUT	OFF
IN	IN	OUT	OUT	ON
IN	IN	IN	OUT	ON
IN	IN	IN	IN	OFF
IN	IN	IN	OUT	OFF
IN	IN	OUT	OUT	ON
IN	OUT	OUT	OUT	ON
OUT	OUT	OUT	OUT	OFF

### Prob Installation Instruction:

- Fix-up **OH, OL, & C** probes in overhead tank considering following points.
  - **OH** probes should be installed at maximum level at which you want to stop pump. Keep probe slightly lower than overflow level.
  - **OL** prob should be installed at level which you want start pump. **OL** prob should be such that it will keep some reserve stock in tank. Difference between **OL** and **OH** prob should not be very less otherwise it operates pump frequently.
  - **C** probe should be installed at minimum level in the tank.
  - Keep **OH, OL** and **C** probes away from waterfall from pump.
- Fix-up **UH, UL, and C** probes in underground tank considering following points.
  - Keep **C** prob at lowest level of tank.
  - Fix-up **UL** prob at slightly higher level then foot valve. Pump will stop if water goes down below this level even if overhead tank is empty.
  - fix-up **UH** prob slightly higher then **UL** prob. keep sufficient distance between **UL & UH** so that Pump does not operate frequently.
  - keep **C, UL** and **UH** near to manhole of the tank.
  - keep **C, UH** and **UH** probe away from incoming water fall to the tank.
- **For LLC connection for only upper tank.:** Connect UL & UH terminal to C prob

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### Two step Check unit(ચેક યુનીટ)

1. Short terminal (વાચર જોડો ) UH, UL & C = **Motor On**
2. Short terminal (વાચર જોડો ) UH, UL, C, OH & OL = **Motor Off**

