



35 x 90mm

Features :

- Draining & Filling simultaneously with single device
- Trip relay & Alarm relay indication
- Manual start switch facility
- Power On & Trip indication LED's
- Used for two tank & single tank water level monitoring
- Selectable Suction and Delivery mode in single tank operation

Technical specifications

Display specifications

Type	Analog
No. of LED	4
No. of knob	1

LED indication chart

LED Colour	Notation	Indication
Green	ON	Power ON
Yellow1	S	Suction tank level indication
Yellow2	D	Delivery tank level indication
Red	R	Relay indication

Input specifications

Functions	Level Monitoring of Conductive Liquid One Level or Two level monitoring One tank or Two Tank Level monitoring Using Suction Logic & Delivery Logic
Input sensor	Stainless steel prods
Time setting	
Trip settings	According to the levels of sensor placed in the water tank
Recovery time	2sec
Reset	Automatic
Trip time delay	2sec (approx)
Accuracy	
Time accuracy	±5% ±2 sec

Output specifications

Relay contact	1 N / O (Resistive)
Relay rating	5A@250VAC / 28VDC

Auxiliary supply specifications

Supply voltage	85 to 270V AC / DC
Frequency	50 / 60Hz
Power consumption	4VA max

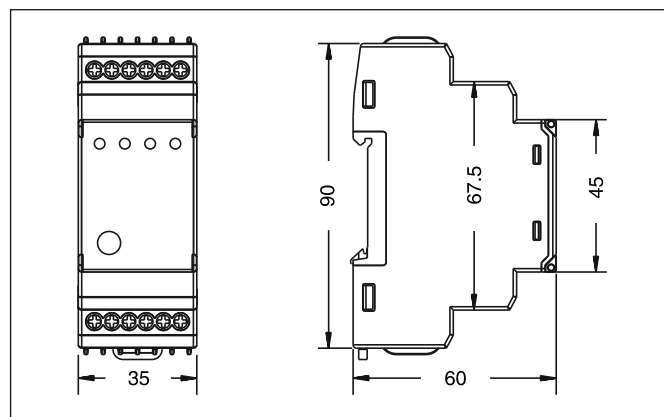
Environmental specifications

Temperature	Operating : 0 to 50°C, Storage: -20 to 70°C
Humidity (non - condensing)	95% RH
Pollution degree	
For PCB	2
For product	3
Degree of protection devices	IP20

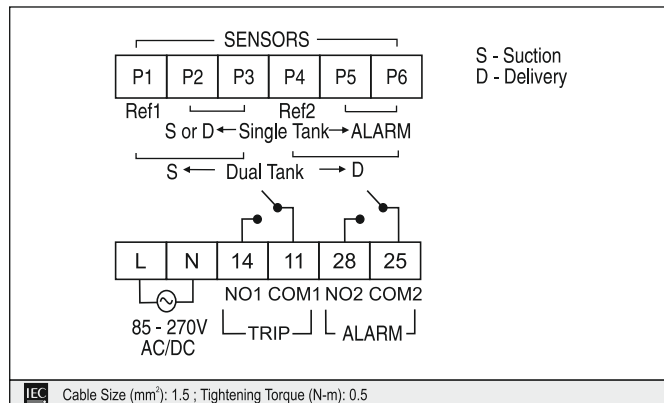
Mechanical specifications

Mounting	DIN rail mount
Weight	Sensors : 50 g each Unit : 100 g
Screw tightening torque	0.5 NM

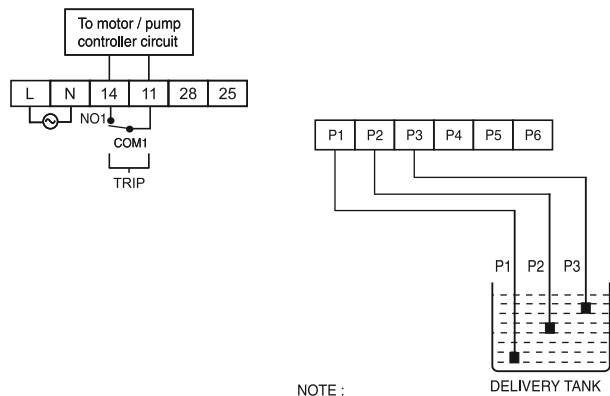
Dimensions (All are in mm)



Terminal connection



SINGLE TANK TWO LEVEL_DELIVERY LOGIC

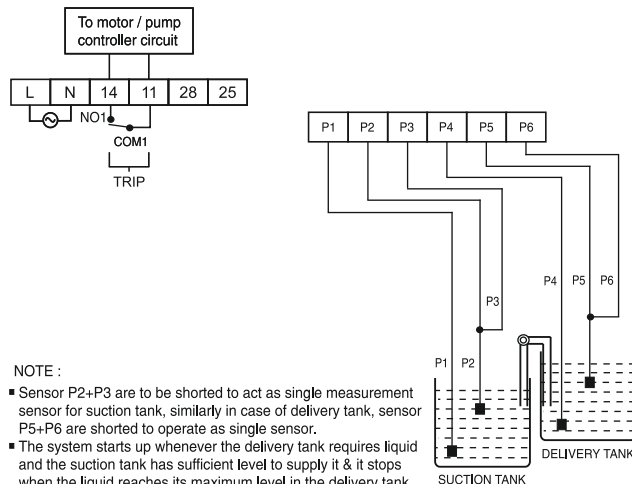


- NOTE :
- P4, P5 & P6 are kept open.
 - Measurement is done with sensor P2 & P3 for different liquid levels, considering P1 as reference.

TESTING CHART

Sr.No.	P1	SENSOR CONDITION		Relay1 Status	Relay2 Status	LED1 Power ON	LED2 Suction	LED3 Delivery	LED4 Relay
		P2	P3						
1	IN	OUT	OUT	ON	ON	ON	OFF	Fast Blinking	ON
2	IN	IN	OUT	ON	ON	ON	OFF	Slow Blinking	ON
3	IN	IN	IN	OFF	ON	ON	OFF	ON	OFF
4	IN	IN	OUT	OFF	ON	ON	OFF	Slow Blinking	OFF
5	IN	OUT	OUT	ON	ON	ON	OFF	Fast Blinking	ON

TWO TANK SINGLE LEVEL

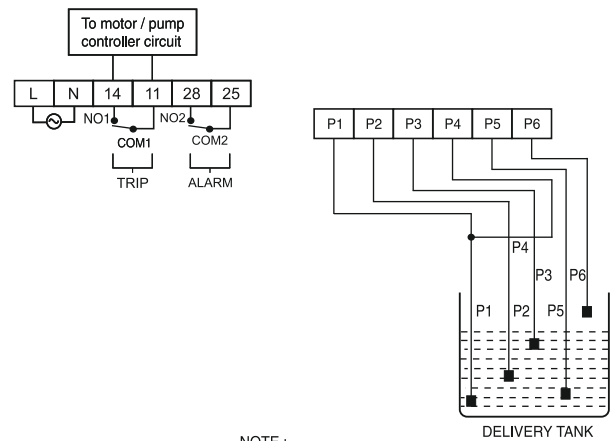


- NOTE :
- Sensor P2+P3 are to be shorted to act as single measurement sensor for suction tank, similarly in case of delivery tank, sensor P5+P6 are shorted to operate as single sensor.
 - The system starts up whenever the delivery tank requires liquid and the suction tank has sufficient level to supply it & it stops when the liquid reaches its maximum level in the delivery tank or if the suction tank reaches its minimum level.

TESTING CHART

Sr. No.	SENSOR CONDITION				Relay1 Status	Relay2 Status	LED1 Power ON	LED2 Suction	LED3 Delivery	LED4 Relay
	P1 (Ref1)	P2=P2+P3 (Ref2)	P4 (Ref2)	P5=P5+P6						
1	IN	OUT	IN	OUT	OFF	OFF	ON	Fast Blinking	Fast Blinking	OFF
2	IN	IN	IN	OUT	ON	OFF	ON	ON	Fast Blinking	ON
3	IN	IN	IN	IN	OFF	OFF	ON	ON	ON	OFF
4	IN	OUT	IN	IN	OFF	OFF	ON	Fast Blinking	ON	OFF

SINGLE TANK TWO LEVEL with alarm_DELIVERY LOGIC

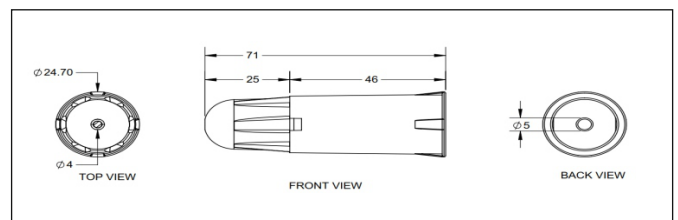


- NOTE :
- Sensor P1+P4 are shorted so as to act as single reference.
 - Sensor P5 & P6 are considered to indicate alarm condition. Measurement is done with sensor P2 & P3 for different level indication.

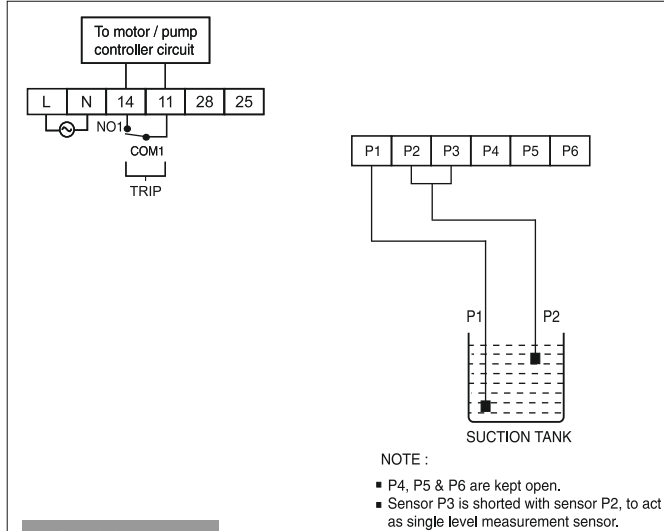
TESTING CHART

Sr. No.	P1=P1+P4	SENSOR CONDITION				Relay1 Status	Relay2 Status	LED1 Power ON	LED2 Suction	LED3 Delivery	LED4 Relay
		P2	P3	P5	P6						
1	IN	OUT	OUT	OUT	OUT	ON	ON	ON	OFF	Fast Blinking	ON
2	IN	OUT	OUT	IN	OUT	ON	OFF	ON	OFF	Fast Blinking	ON
3	IN	IN	OUT	IN	OUT	ON	OFF	ON	OFF	Slow Blinking	ON
4	IN	IN	IN	IN	OUT	OFF	OFF	ON	OFF	ON	OFF
5	IN	IN	IN	IN	IN	OFF	ON	ON	OFF	ON	OFF
6	IN	IN	IN	IN	OUT	OFF	OFF	ON	OFF	ON	OFF
7	IN	IN	OUT	IN	OUT	OFF	OFF	ON	OFF	Slow Blinking	OFF
8	IN	OUT	OUT	IN	OUT	ON	OFF	ON	OFF	Fast Blinking	ON
9	IN	OUT	OUT	OUT	OUT	ON	ON	ON	OFF	Fast Blinking	ON

Input Sensor Dimensions



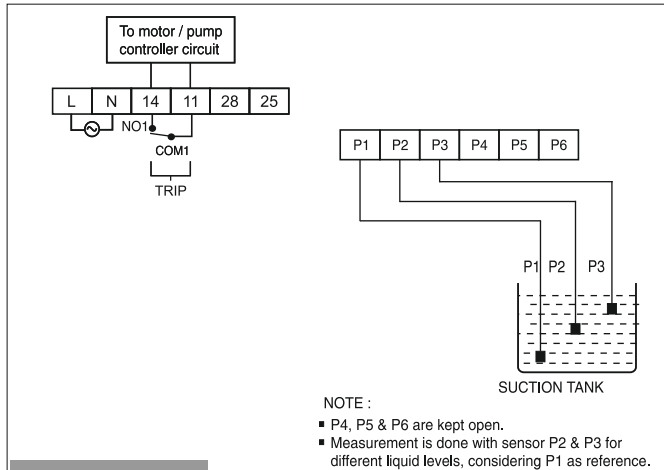
SINGLE TANK SINGLE LEVEL_SUCTION LOGIC



TESTING CHART

Sr. No.	P1	P2= P2+P3	Relay1 Status	Relay2 Status	LED1 Power ON	LED2 Suction	LED3 Delivery	LED4 Relay	Remark
1	IN	OUT	OFF	ON	ON	Fast Blinking	OFF	OFF	Relay2 will be OFF Continuously
2	IN	IN	ON	ON	ON	ON	OFF	ON	

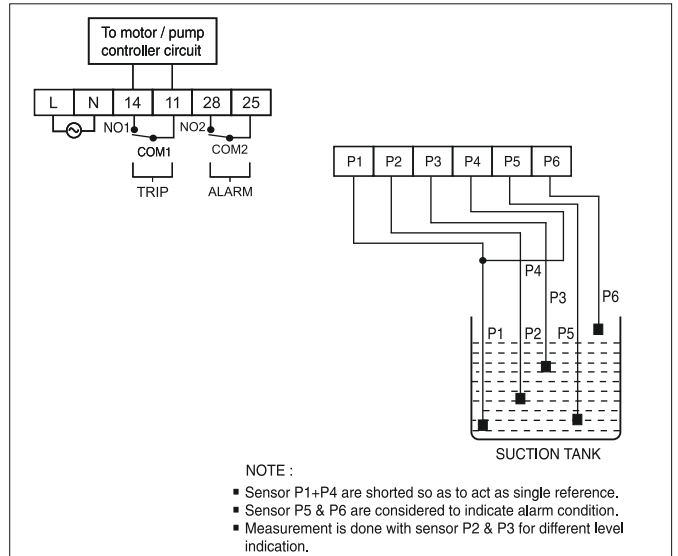
SINGLE TANK TWO LEVEL_CONTROLLER_SUCTION LOGIC



TESTING CHART

Sr.No.	P1	SENSOR CONDITION		Relay1 Status	Relay2 Status	LED1 Power ON	LED2 Suction	LED3 Delivery	LED4 Relay
		P2	P3						
1	IN	OUT	OUT	OFF	ON	ON	Fast Blinking	OFF	OFF
2	IN	IN	OUT	OFF	ON	ON	Slow Blinking	OFF	OFF
3	IN	IN	IN	ON	ON	ON	ON	OFF	ON
4	IN	IN	OUT	ON	ON	ON	Slow Blinking	OFF	ON
5	IN	OUT	OUT	OFF	ON	ON	Fast Blinking	OFF	OFF

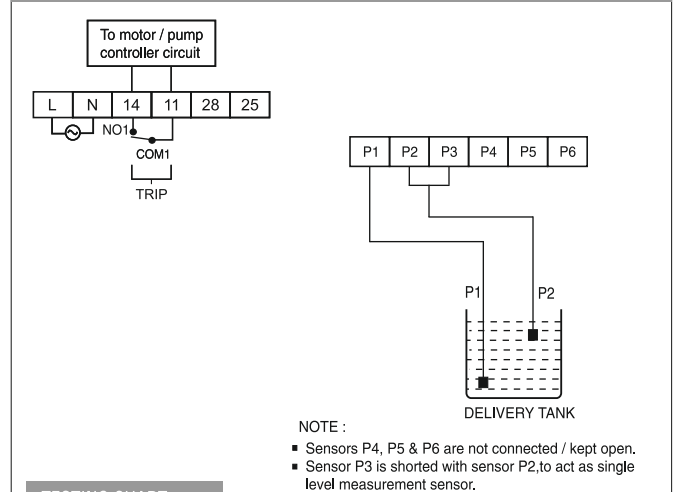
SINGLE TANK TWO LEVEL with alarm_SUCTION LOGIC



TESTING CHART

Sr.no.	P1= P1+P4	SENSOR CONDITION				Relay1 Status	Relay2 Status	LED1 Power ON	LED2 Suction	LED3 Delivery	LED4 Relay
		P2	P3	P5	P6						
1	IN	OUT	OUT	OUT	OUT	OFF	ON	ON	Fast Blinking	OFF	OFF
2	IN	OUT	OUT	IN	OUT	OFF	OFF	ON	Fast Blinking	OFF	OFF
3	IN	IN	OUT	IN	OUT	OFF	OFF	ON	Slow Blinking	OFF	OFF
4	IN	IN	IN	IN	OUT	ON	OFF	ON	ON	OFF	ON
5	IN	IN	IN	IN	IN	ON	ON	ON	ON	OFF	ON
6	IN	IN	IN	IN	OUT	ON	OFF	ON	ON	OFF	ON
7	IN	IN	OUT	IN	OUT	ON	OFF	ON	Slow Blinking	OFF	ON
8	IN	OUT	OUT	IN	OUT	OFF	OFF	ON	Fast Blinking	OFF	OFF
9	IN	OUT	OUT	OUT	OUT	OFF	ON	ON	Fast Blinking	OFF	OFF

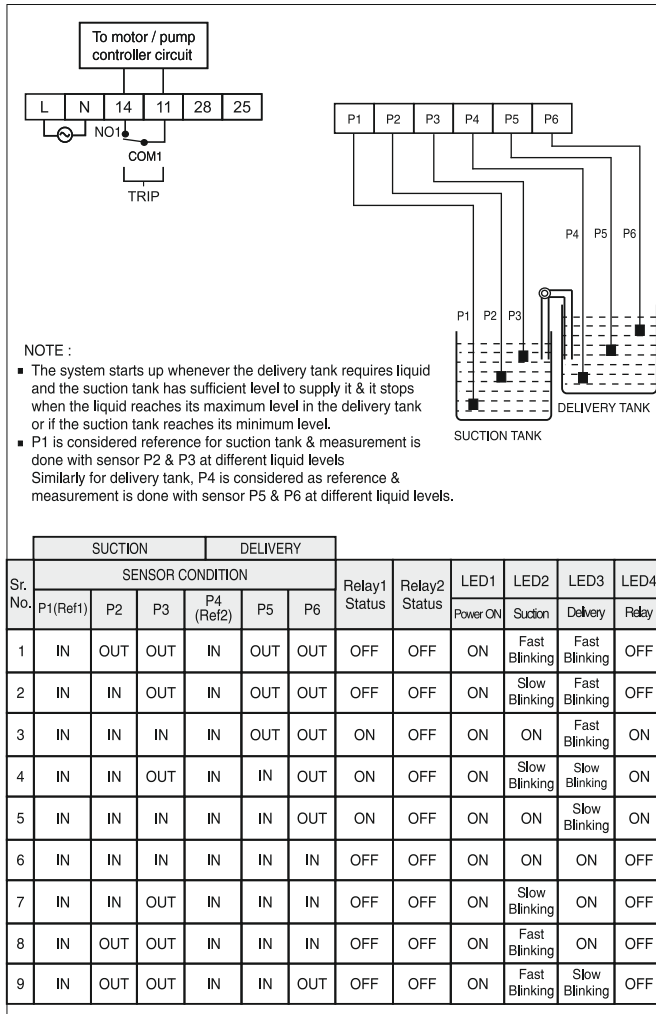
SINGLE TANK SINGLE LEVEL_DELIVERY LOGIC



TESTING CHART

Sr. No.	P1	P2= P2+P3	Relay1 Status	Relay2 Status	LED1 Power ON	LED2 Suction	LED3 Delivery	LED4 Relay
1	IN	OUT	ON	ON	ON	OFF	Fast Blinking	ON
2	IN	IN	OFF	ON	ON	OFF	ON	OFF

TWO TANK TWO LEVEL



Compliance

Applicable EMI / EMC standards

Product standard : IEC 60947-5-1

Category	Reference standards	Testing level
Conducted Emissions	CISPR-11	Class A
Conducted Susceptibility	IEC 61000-4-6	Level III
Electrical Fast Transient	IEC 61000-4-4	Level IV (Auxiliary Supply) Level III (Signal & Control Port)
Electrostatic Discharge	IEC 61000-4-2	Level IV (Contact Discharge) Level III (Air Discharge)
Radiated Emission	IEC 61000-4-20	Class A
Radiated Susceptibility	IEC 61000-4-3	Class A
Surge Immunity	IEC 61000-4-5	Level IV (Auxiliary Supply) Level III (Signal & Control Port)
Power Frequency Magnetic Field Immunity	IEC 61000-4-8	Level IV
Voltage Dips, Short Interruption & Voltage Variations Immunity Test	IEC 61000-4-11	Level III
AC Voltage Test	IEC 61010-1	Clause 6.7
Resistance To Heat Test	IEC 61010-1	Clause 10.5
Single Fault Test	IEC 61010-1	Clause 4.4 and 10
Temperature Rise Test	IEC 61010-1	Clause 10.1 - 10.4

Ordering information

Product code	Supply voltage	Certification
WLCA-2M-U-CE	85 to 270V AC / DC	CE

Accessories

Product Code	Description
WLC Sensor	Set of 3 stainless sensor