



# YPL LEVEL & INSTRUMENTS

## ULTRASONIC LEVEL TRANSMITTER: YPL-ULT39

### Introduction

Ultrasonic level transmitter is a non contact type level measurement transmitter for continuous Monitoring of liquids. It has an integral electronic Module for measuring level along with transceiver. ultrasonic is compact and easy to install measuring Device. ultrasonic is suitable for all non foaming and Non fuming liquid.

### Principle

Ultrasonic works on the principle of Ultrasonic Sound waves. Sensors generate high frequency Sound waves and evaluate the echo which is Received back by the sensor. The device calculates The time interval between sending the signal and Receiving the echo to determine the distance to an Object, by the following formula:  
 $Distance = (Velocity\ of\ Sound \times Time) / 2.$   
 Velocity of sound changes with temperature and Nature of medium.

### Features

- Range 0.45 - 8 meters
- Automatic Temperature Compensation
- Fixed Target Suppression (10 Obstacles)
- Intelligent Noise Cancellation
- Beam Angle 10°
- Plug and Play
- Universal Power Supply AC/DC (on same terminal)
- Analog and Digital Output
- Area of Cross Section Display Output
- RS-485 ASCII Communication Protocol
- Accuracy 0.5% of max range\*
- 50 KHz Operating Frequency
- IP-65 Approved Housing

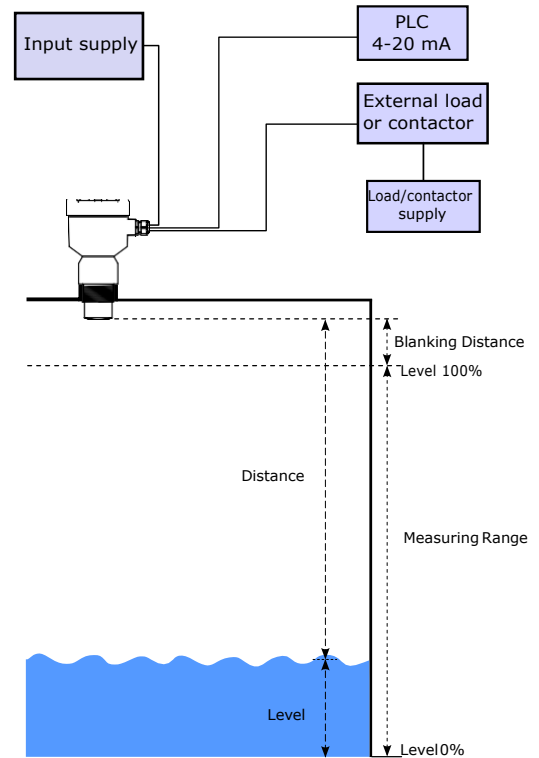


FIG.1

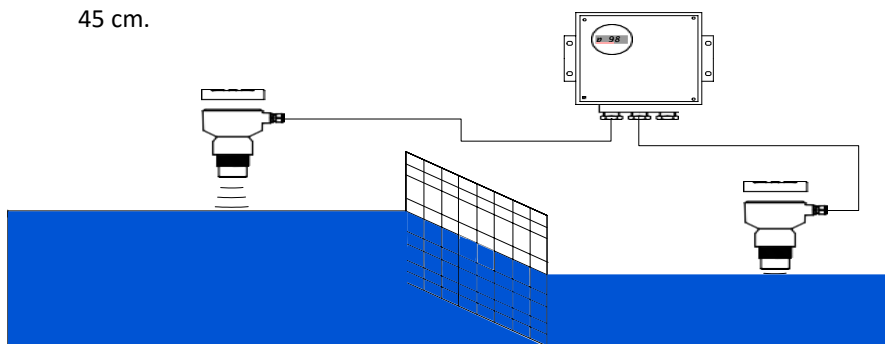
**Technical specification**

**Mechanical**

|                                 |  |
|---------------------------------|--|
| Housing                         | Cast Aluminum Weather Proof IP-65  |
| Mounting                        | Screw 2" BSP/NPT   |
| Cable Entry                     | 2 x PG 13.5  |
| Flange                          | Available as per Specification   |
| Dimension                       | 118 mm x 118 mm x 222 mm   |
| Weight                          | 1.5 kg   |
| Display                         | LCD 8 digit  |
| Input Supply                    | 90-265 VAC / 18-55 VDC<br>(on same terminal)   |
| Current Consumption             | 135mA max. @ 18 VDC with load  |
| Output Analog-                  | 4-20mA<br>(Galvanic isolated / non-isolated)   |
| Digital Switching-              | - RS-485 Custom ASCII<br>One Potential free Relay<br>(Single point / pump control logic)<br>Contact rating 6A , 230 VAC, 50 Hz<br>for non-inductive load |
| Temperature Range               | 0°C to 60°C  |
| Fail Safe Setting               | Field Selectable<br>Min: Fail Safe Low<br>Max: Fail Safe High  |
| Indication Sensor-              | Bi-color LED<br>Red: Pulse, Green: Eco   |
| Switching-                      | Bi-color LED<br>Red: Alarm, Green: Normal  |
| Digital                         | - Two Green LED for<br>Data Transmit & Data Receive  |
| Delay Setting Electronic Insert | Covered and Uncovered 1-99 sec.  |
| <b>Sensor</b>                   |  |
| Operating Frequency             | 50 KHz   |
| Beam Angle                      | 10°  |
| Material                        | PVDF   |
| Temperature Range               | 0°C to 80°C  |
| Blanking Zone                   | 45 cm.   |



**FIG.2**



**FIG.3**