YPL INSTRUMENTS PVT. LTD.

ULTRSONIC LEVEL TRANSMITTER: YPL-ULT23

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 x 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
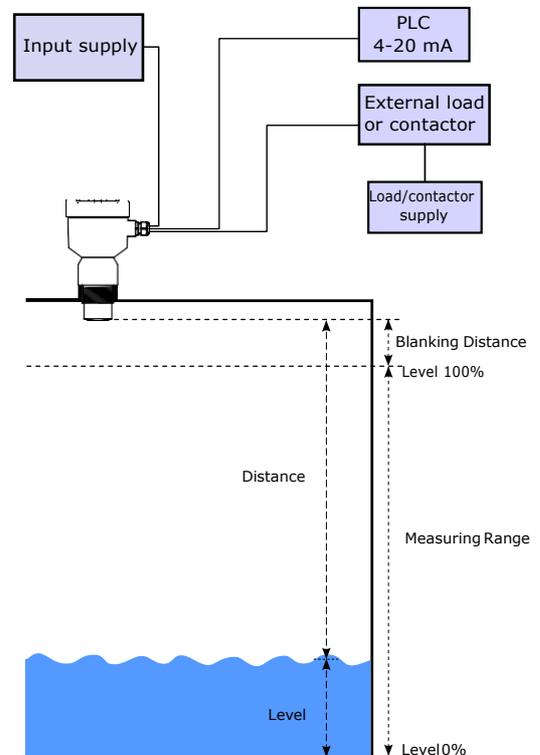• IP-65 Approved Housing

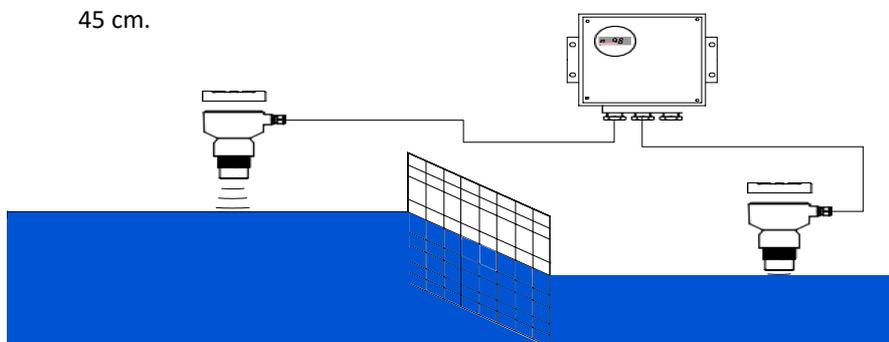**FIG.1**

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 (on same terminal)
Current Consumption	135mA max. @ 18 VDC with load
Output	
Analog-	4-20mA (Galvanic isolated / non-isolated)
Digital	- RS-485 Custom ASCII
Switching-	One Potential free Relay (Single point / pump control logic) Contact rating 6A , 230 VAC, 50 Hz for non-inductive load
Temperature Range	0°C to 60°C
Fail Safe Setting	Field Selectable Min: Fail Safe Low Max: Fail Safe High
Indication	
Sensor-	Bi-color LED Red: Pulse, Green: Eco
Switching-	Bi-color LED Red: Alarm, Green: Normal
Digital	- Two Green LED for Data Transmit & Data Receive
Delay Setting	Covered and Uncovered 1-99 sec.
Electronic Insert	

Sensor

Operating Frequency	50 KHz
Beam Angle	10°
Material	PVDF
Temperature Range	0°C to 80°C
Blanking Zone	45 cm.

FIG.2

FIG.3