

# Ultrasonic Level Transmitter



## Introduction:

Ultrasonic level transmitters are used to measure level of all kinds of liquids. The sensor generates ultrasonic sound waves which strikes the medium and returns. The electronics measures the time taken and then computes the distance of measured surface to the sensor. The transmitter generates a 4 to 20 mA current signal proportional to the liquid level, or to the distance of liquid from sensor. This can be connected to a controller or any such device to monitor the liquid level.



## Special Features:

- 1. Easy current setting facility**  
The unit can be “two point” calibrated for 4 mA minimum and 20 mA maximum current at any two user selectable points through the front panel.
- 2. Distance or height**  
The unit can be programmed to display either distance or height, which can again be selected as 4 to 20 or 20 to 4 mA. This gives extremely flexible choice for the end user.
- 3. Sound Filter**  
Special electronic filter is provided to detect the largest target which automatically eliminates false echoes and rejects noise clutter efficiently.
- 4. Inbuilt temperature compensation**  
The device has an internal sensor and a mechanism to compensate against temperature variations.
- 5. Voltage variations**  
The sensor will automatically calibrate itself for voltage variations. If the change is gradual, the sensor automatically compensates itself.
- 6. Over and under current indications**  
While the LCD is programmed to indicated the height of liquid in the tank, the user may not know the actual mA delivered. But while in operation if any of the green LEDs light up, this indicates a fault condition of under or over current.
- 7. Volume computation**  
It is possible to display the liquid volume in containers or tanks with vertical side walls.
- 8. Display filter**  
The rate of updation of measurement can be user selectable based on the application. The filter can be zero, or else in three levels, low, medium and high.

## Specifications:

Electronics Housing	Stainless steel or die cast aluminium, flame proof
Temperature	0 to 65 deg C
Applications	Liquids including hazardous but non-corrosive medium
Input supply	12V/ 24 V DC
Analog Output (Programmable)	1) 4 - 20 mA 2) 20 - 4 mA 3) 0 - 20 mA 4) 20 - 0 mA
Mode	Distance OR Height measurement
LCD screen	8 x 2 alphanumeric display, green or blue screen
Communcation	RS 485 - Modbus
Measuring range	1) 5m 2) 10 m
Resolution	5 mm or 10 mm depending on models
Accuracy	0.5% of FSD
Updation time	150 mS max
Minimum distance	300 mm
Display Filter	None / Low / Medium / High
Temperature compensation	Inbuilt
Voltage variations	Internal calibration and automatic compensation
Process connections	1) 3 inch flange 2) Threaded lock nut - customised
Electrical connections	PG 9 one gland, 2 numbers
Sensor face	Anodised aluminium
Sensor body	PVC

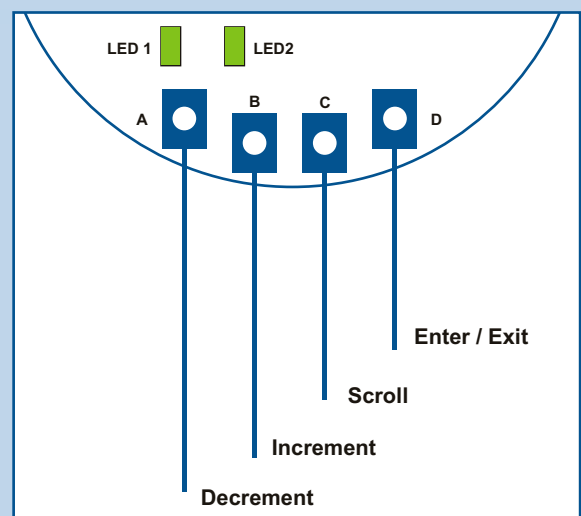
24V – GND - OP	Terminal block for 24 V DC power supply and output
A – B – GND	RS 485 output
PON	12V / 24 V DC Power "ON" LED
F1, F2	Over and under current indicators
A, B, C, D	Key switches for programming

### Ordering Information

FUT - 05 - Measuring Range upto 5mtr.
FUT - 10 - Measuring Range upto 10mtr.

### Parts:

#### Front face electronics :



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