

# Ultrasonic Level Transmitter



## Introduction

Ultrasonic level meter is designed to provide accurate and reliable level sensing for difficult to monitor fluids, where contact with media is not desirable from the extremes of sending: ultrapure to corrosive or even dirty where coating or scaling is possible. Ultrasonic level meter have no moving parts, easy to install and simple to use.



## Features

- 01 Integrated design, installed conveniently.
- 02 The big show window of LCD is easy to debug and observe.
- 03 Over-voltage over-current protection, lightning protection.
- 04 Advanced since the clamp type terminal, to ensure that wiring never loose.
- 05 Intellectual signal treatment technology, guarantee that the instrument meets various kinds of operating occasion.
- 06 ABS probe, PTFE probe selectable, acid and alkali resistant, adapt to bad environment.



## Features

01

Non-contact measurement,  
no need maintenance.

02

Stable measurement, not  
influenced by the measuring  
medium properties.

03

For simple application,  
lower costs.



## Technical Specifications

Level Range	4, 6, 8, 10, 12, 15, 20, 30M
Accuracy	0.5%-1.0%
Resolution	3mm or 0.1%
Display	LCD Display
Output	Two-wire 4~20mA / 250Ω Load, HART
Relay Output	High and Low
Connection	Thread, flange

Power Supply	Standard 24 VDC
Ambient Temperature	Transmitter: -20~+60°C Sensor: -20~+80°C
Protection Grade	Transmitter IP65, Sensor IP68
Probe	ABS, PVC, PTFE
Transmitter	Alluminium Alloy
Structure	Compact, remote
Standard Cable	10m, others on request



## Principle

**Tips:** As the product is updated constantly, there is no guarantee the product specification and installation is fully consistent with the latest products. The part change contains but not limited to the following sections.

- ① Blind zone, performance parameter, function, structure, shape, color and so on.
- ② Software function, structure, display mode, operating habits and so on.

And please be noted:

- ① For any operation of the hardware, it must be done after the power off. It is not within the warranty if short-circuit or the other faults due to the operation with electricity.
- ② Please power off before opening the cover, and it is not allowed liquid flow into the meter.

For ultrasonic level meter, under normal circumstances, after installing it correctly based on manual, you only need to set the following parameters, the meter will working normally.

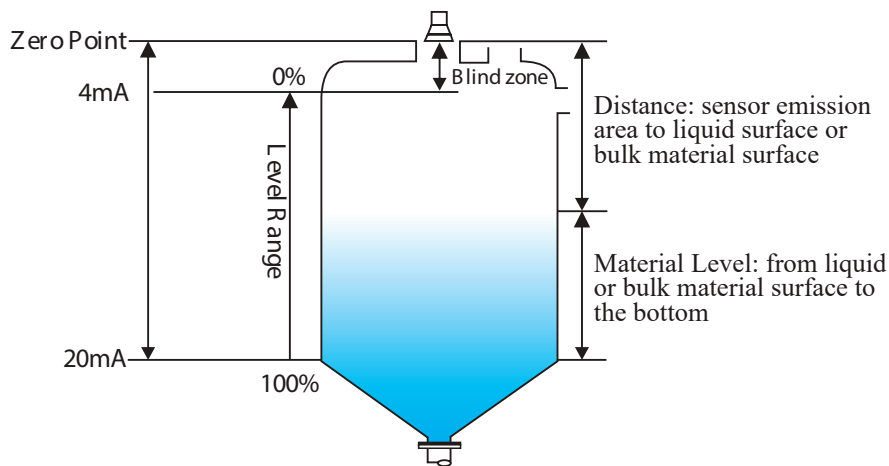
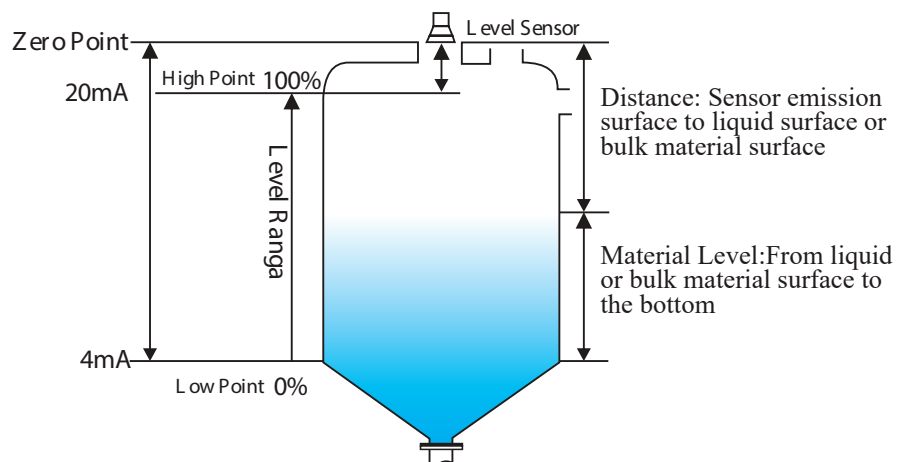


Diagram of Distance Measurement

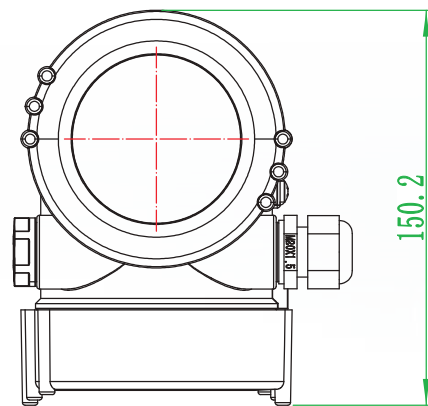
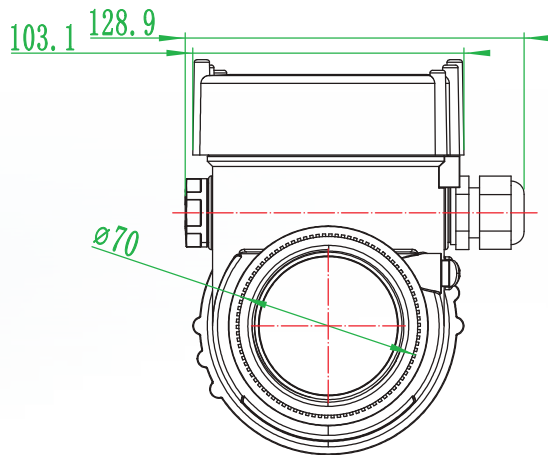
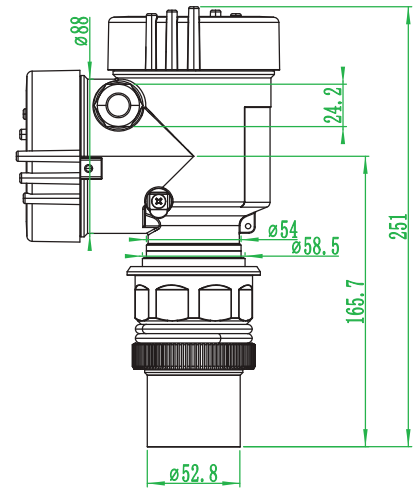
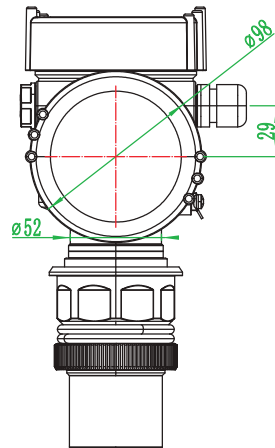
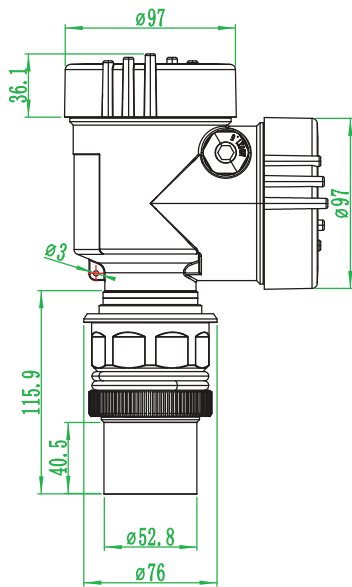
Distance Measurement: From Sensor emission area to liquid surface, 4-20mA output is corresponding to the distance high level and low level.

Level Measurement: From water surface to bottom, 4-20Ma output is corresponding to the water high level and low level.





## Structure





## Interface & Operation

### Interface in Operation Mode

There are two working modes: operation and setting. It will enter into operation mode automatically and start measuring data after the device is powered on and the initialization process is completed. At this time, the measurement is level measurement mode. And the relative output is 4-20mA. The output current is proportional to the level.



**Integral Version**



**Remote Version**



**LCD Display**

### Button Operation

There are F1、F2 and F3 three buttons

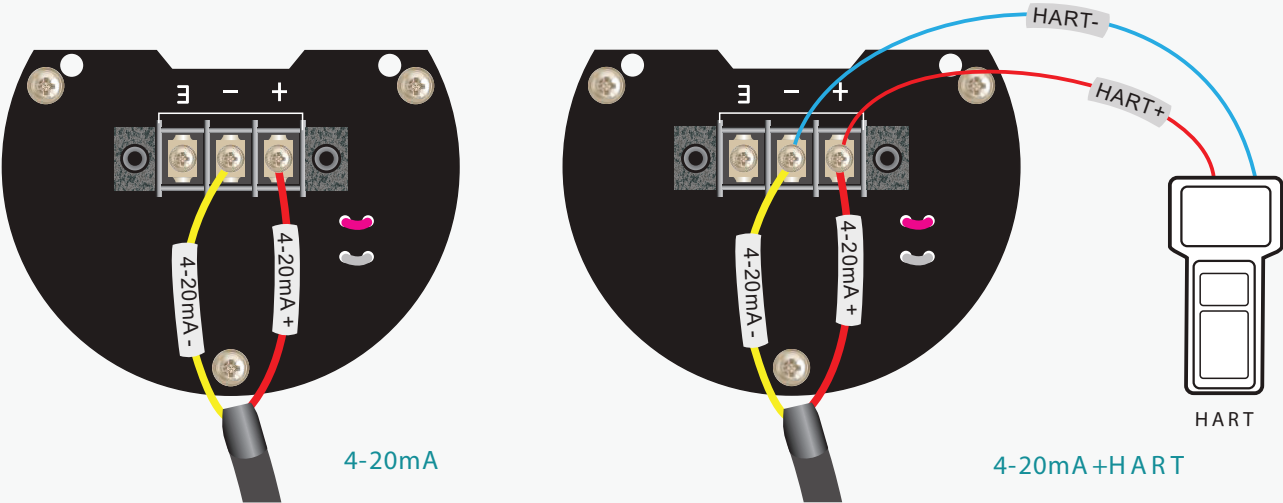


- Press F3, enter setting function, can view and modify the parameters.
- Press F1, page down (back to previous menu), press F2, page up (turn to the next menu).
- Press F1 for three seconds, enter the current menu setting, when the underline goes to the second line, indicating the parameters can be modified.
- Setting data: press F1 modify current data, press F2 right shift setting. Change the options: press F1 page up, press F2 page down.
- Save data: press F1 for three seconds to save the setting, meanwhile underline return to the first line, then can scroll down the menus by F1 and F2.
- Exit setting: press F3, discard the current setting data, or return to previous menu / exit the setting.

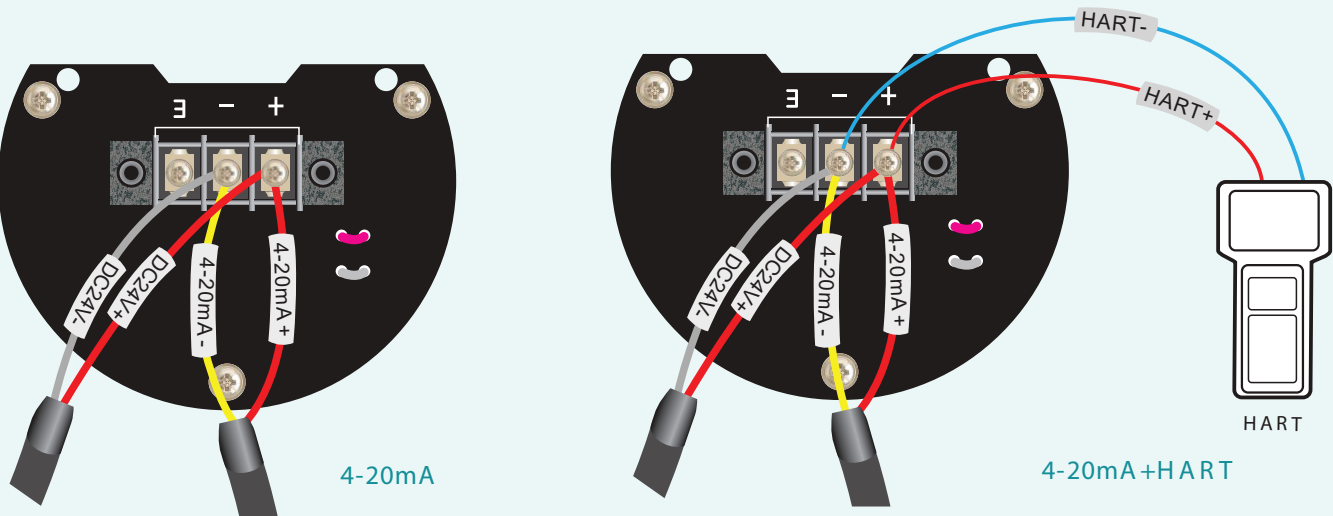


Wiring

Output Active



Output Passive





## Model Selection

### PROLEVEL 1000 Model Selection

Range	4M	6M	8M	12M	20M	30M
	4	6	8	12	20	30

PROLEVEL 1000		X	X	X	X	X	X
Explosion Proof	Standard Type(Non ex-proof)	P					
	Intrinsically safe (Exd IIC T6 Gb)	I					
Probe Material	ABS / (-40-75)°C / IP67		A				
Process Temperature	PVC / (-40-75)°C / IP67		B				
Protection Grade	PTFE / (-40-75)°C / IP67		C				
Process Connection	Thread			G			
	Flange / PP			D			
Electronic Unit	4-20mA / 24 VDC Two-wire				1		
	4-20mA / 24 VDC / HART Two-wire				2		
	4-20mA / 24 VDC / HART Two-wire				3		
	4-20mA / 24 VDC / HART Four-wire				4		
	4-20mA / 24 VDC / Alarm				5		
Shell / Protection Grade	Aluminum Alloy / IP65					L	
Structure	Compact						C
	Remote						R