

Ultrasonic Level Sensor



Product Description



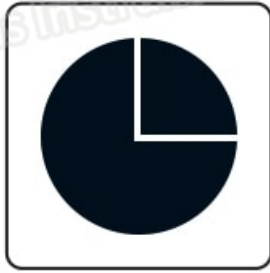
Level Transmitter

Ultrasonic level meter

- ✓ Sewage tank level
- ✓ Material/solid tank level
- ✓ River/lake/reservoir level
- ✓ Acid base solution level



Used for various working conditions



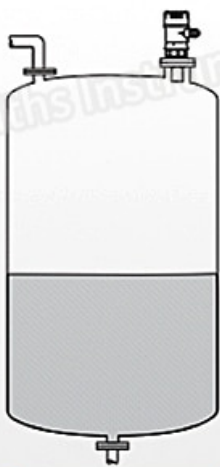
Solid



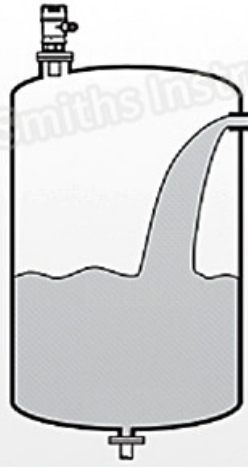
Liquid



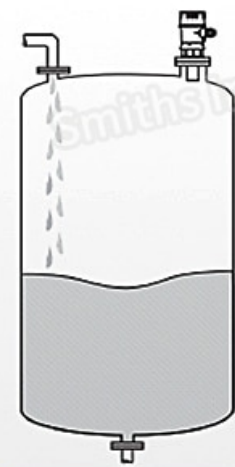
Gel



Calm liquid level



Rapidly changing liquid level



Agitated liquid level



Stiring tank



Standard solid



Dust solid

1>>. Ultrasonic level gauges/Ultrasonic level transmitter includes several proprietary technologies, is safe and clean, with high precision and long service life, stable and reliable, and convenient to install and maintain, and is applicable to various fields of acid, alkali, salt, anticorrosion, and high

temperature.

2>>. The meter's all input and output lines must be with such protection functions as lightning protection and short circuit prevention. Ultrasonic wave spread speed among gas is influenced by gas temperature, When level meter works, it measures gas temperature needing, compensates for the velocity of sound, so as to ensure the precision of measuring.

Product Features



Product Features

● LCD display

Height & Level displayed simultaneously,
Easy to read the value.



● Fine components, triple protection





Protective shell

Waterproof & dustproof,
protect internal circuit



Electrical interface

ABS material,
impact resistance,
aging resistance



Sealing ring

Internal coil shockproof protection,
stable and firm,
strong overall sealing



● **Fully enclosed integrated probe**



Adopting fully enclosed integrated probe,
good physical sealing,
protect the internal circuit.

● Imported chip



Measuring range **1~15m**,
various types available,
suitable for all kinds of corrosive
chemical places.

● Intelligent temperature compensation

NTC temperature compensation element & algorithm
are built inside, which can automatically
correct the sound speed error caused by environmental changes.





● Intelligent acoustic technology

Intelligent acoustic wave technology will analyze the echo, improve the accuracy upto **0.5%FS**, and resist all kinds of interference waves.



Product Selection



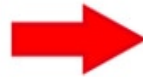
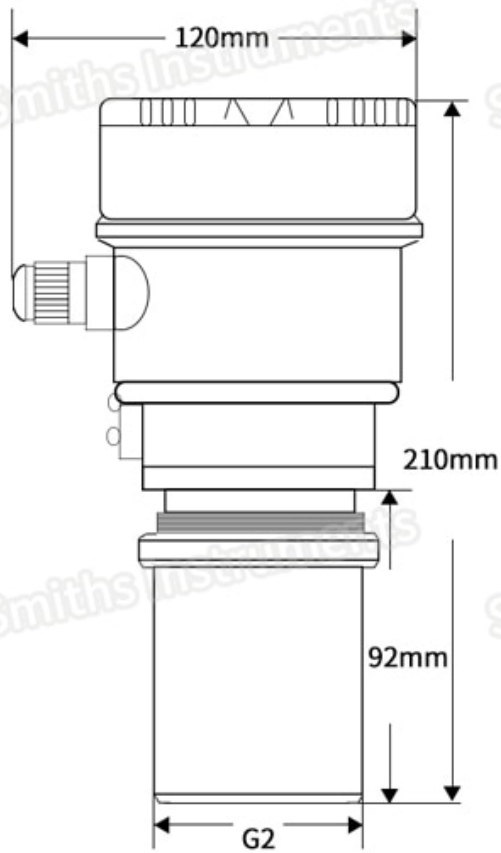
Product Selection

Model	ELLT600		
Measuring range	0~20 meters		
Output signal	O1: 4~20mA O4: RS485	O2: 0~5Vdc O5: 2 relays	O3: 0~10Vdc
Power supply	P1: DC24V	P2: AC220V	
Electrical interface	M20*1.5 (2 groups)		
ELLT600	5m	O1	P1
eg: ELLT600, measuring range 5m, output 4-20mA, power supply DC12-24V			

Product Dimension



Product Dimension



Product Wiring



Wiring Diagram

ALL products are 4 wires connection



Notes:

1. Power: L(+), N(-) DC/AC.

Default power supply is DC24V, AC220V is optional, pls contact me.

2. 4~20mA analog output.

Max load should be less than 500Ω.

3. RS485 output.

Pay attention to the positive & negative poles when wiring.

4. Relay output(K1,K2).

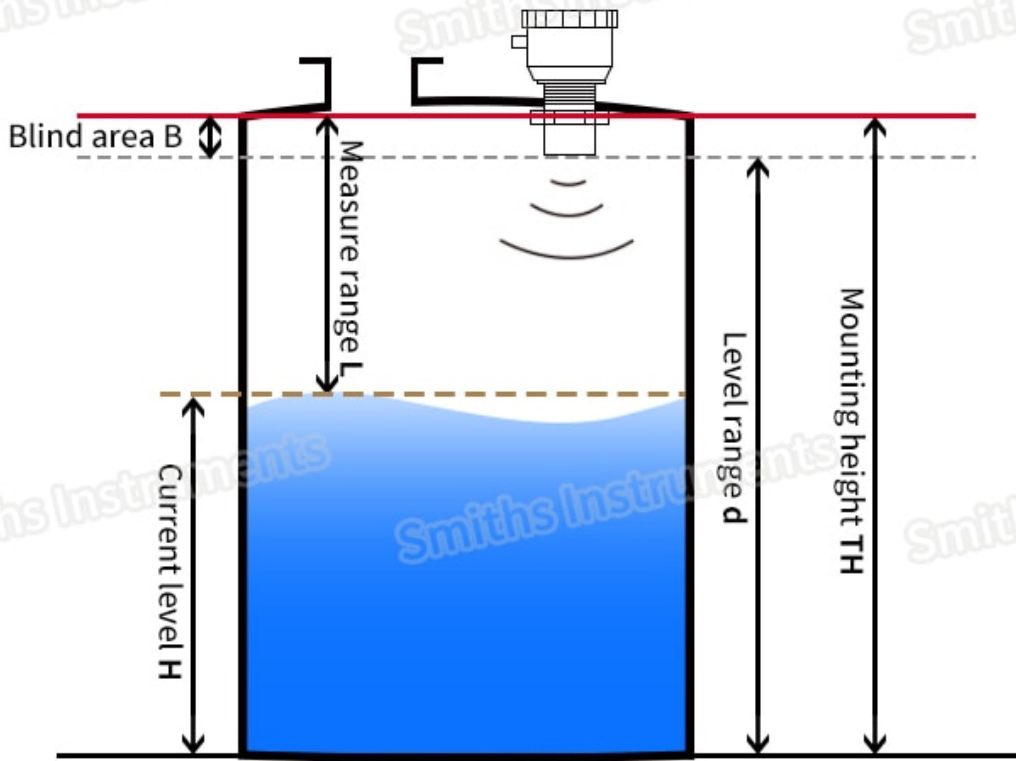
Relay is optional, pls contact me.

Product Installation



Product Installation

Installation Principle Diagram



$$H \text{ (Current level)} = TH \text{ (Mounting height)} - L \text{ (Measure range)}$$

$$d \text{ (Level range)} = TH \text{ (Mounting height)} - B \text{ (Blind area)}$$

Probe Mounting Methods

1. In an open environment, bracket installation is generally adopted and the locking nut of the instrument is used to fix it. During installation, the probe of the instrument must be perpendicular to the measured liquid level.



2. When the probe is installed in the container, it must be ensured that the probe is at least **10mm** out of the container connection.

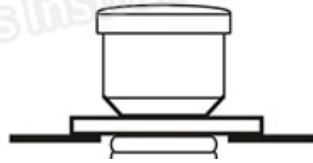
Pipe mounting



Bracket mounting



Direct mounting



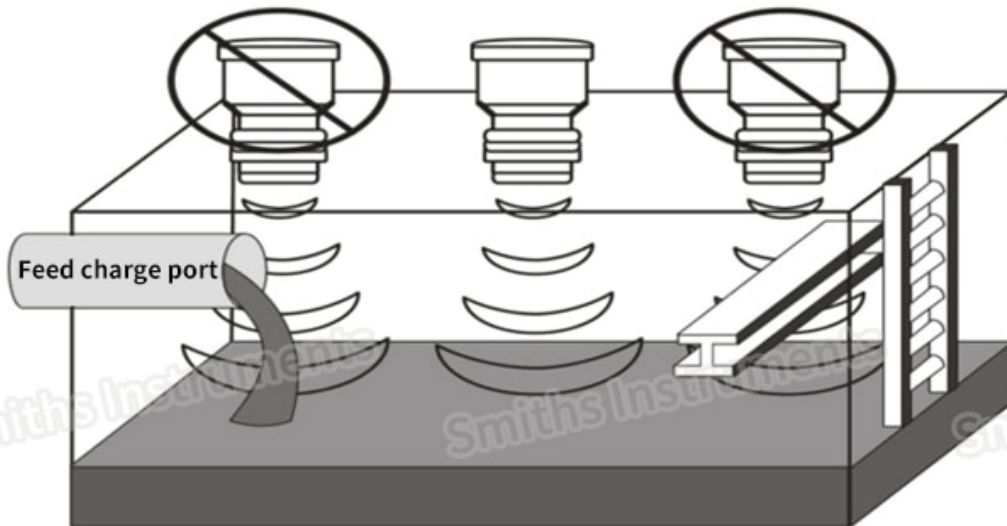
Threaded mounting



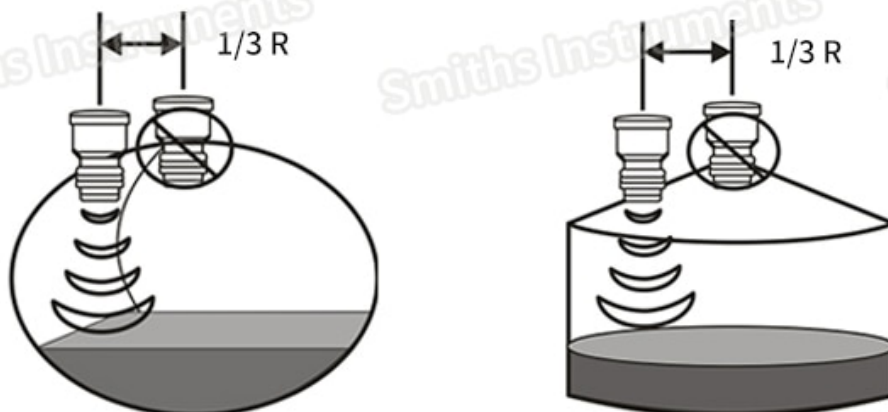


Installation Point Selection

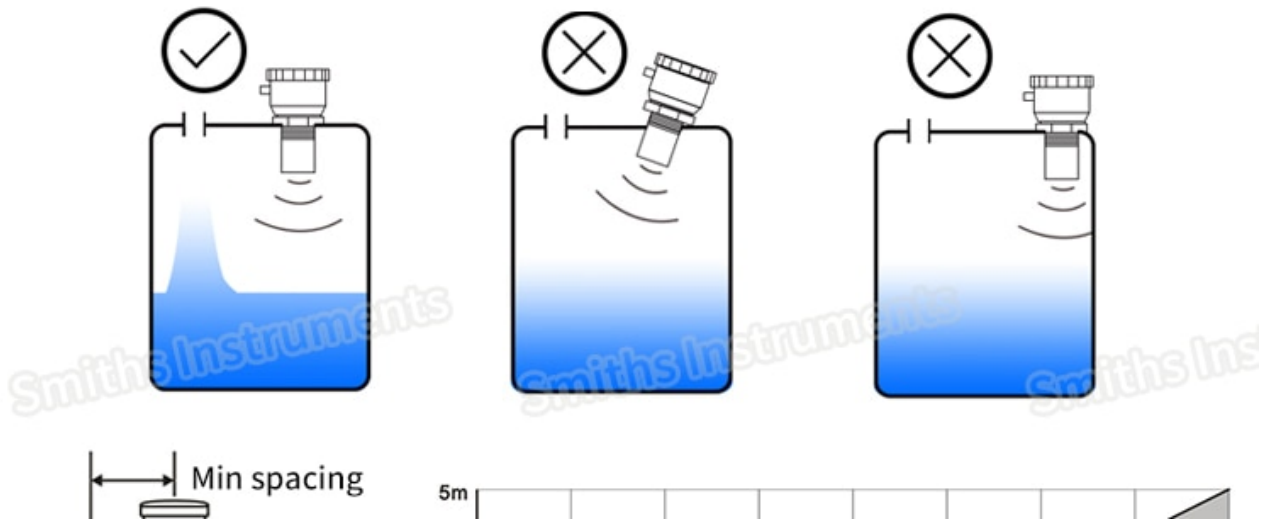
1. Do not install the ultrasonic level meter above the Feed charge port or obstacles, to ensure that you are measuring the media surface and not the incoming level or obstacles level.

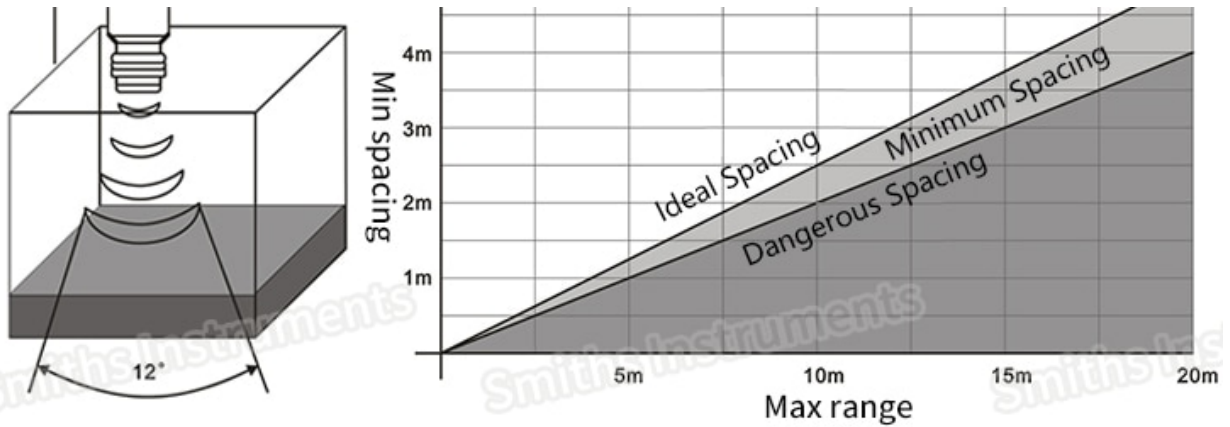


2. Do not install the ultrasonic level meter in the center of the arc or the center of the dome because it will cause multiple echo reflections. It is recommended that the distance between the tank wall and the ultrasonic level meter be $\frac{1}{3}$ of the tank diameter.

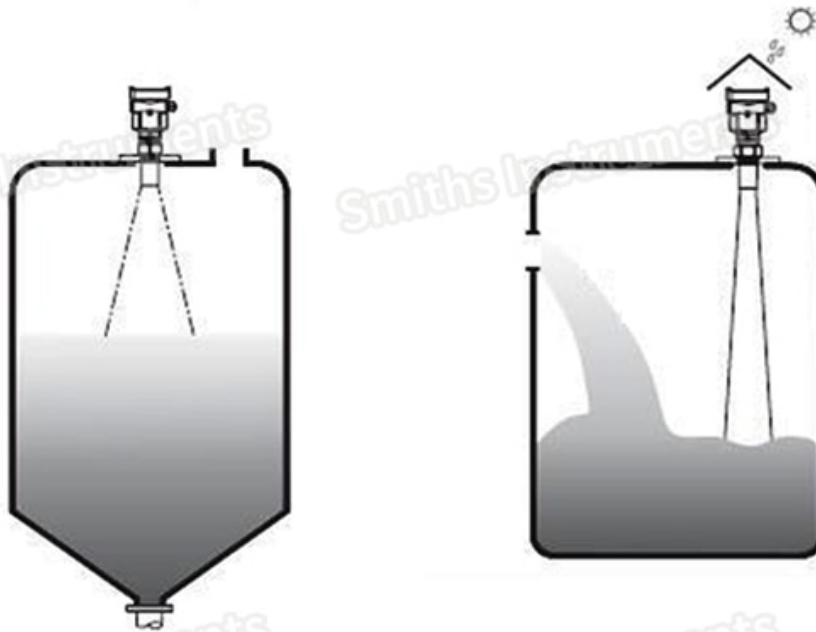


3. Make the probe of the ultrasonic level meter perpendicular to the liquid level as far as possible. The ultrasonic liquid level gauge must be kept at a certain distance from the tank wall. The specific distance required is shown in the following table.





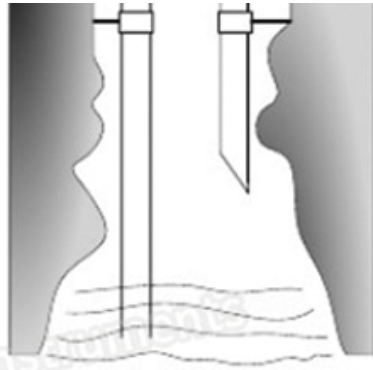
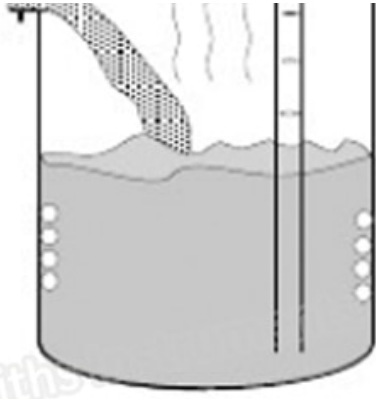
4. For conical vessels with a flat top, the best place to install the instrument is in the center of the top of the vessel to ensure that the bottom of the vessel is measured. Outdoor installation of the instrument shall be sunshade and rainproof measures.



5. For the liquid level fluctuation is particularly large, there are a large number of bubbles, and more steam, ultrasonic level meter should be equipped with a waveguide tube, the top of the tube to leave a vent.

6. For containers with uneven mounting ports and uneven sides, Extension tube should be installed. Such as PE or PVC sewage pipe (Min diameter 150mm, Length 0.45~0.6 meters). The surface of the extension tube is as smooth as possible, and a 45 degree bevel at the orifice is ideal.





Product Application



Field Installation



Irrigation project



Water conservancy

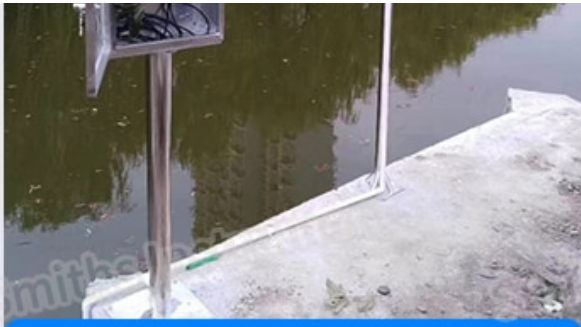


Sewage disposal



Pool monitoring





River monitoring



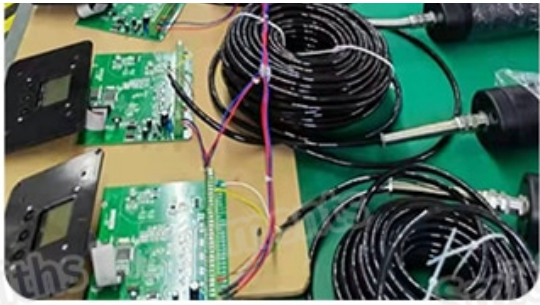
Deep well measurement

Real Workshop



Workshop Production





Good Package