



Introduction

Ultrasonic level meter is based on the Time-of-Flight principle. A sensor emits ultrasonic pulses, the surface of the media reflects the signal and the sensor detects it again. The Time-of-Flight of the reflected ultrasonic signal is directly proportional to the distance traveled. With the known tank geometry, the level can be calculated.



Advantages

- Price-favorable solution for simple applications.
- Maintenance-free operation through non-contact measuring principle.
- Reliable measurement independent of product features.

Application

Ultrasonic level meter for continuous level measurement of liquids or bulk solids. Typical applications are the measurement of liquids in storage tanks or open basins. The sensor is also suitable for the detection of bulk solids in small vessels or open containers. The non-contact measuring principle is independent of product features and allows a setup without medium.

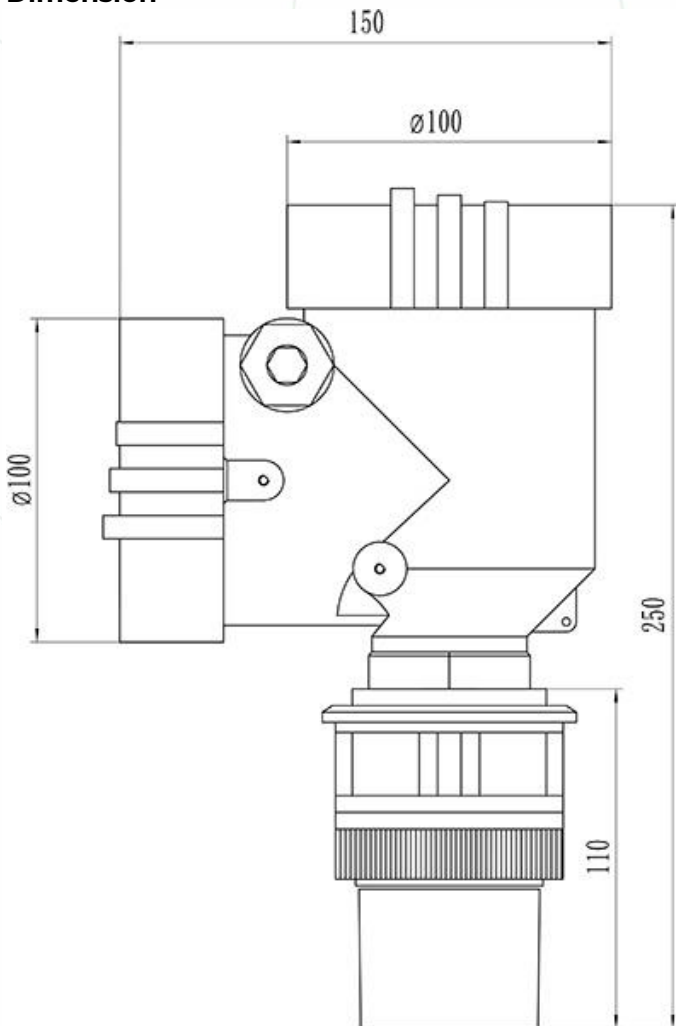
Technical Data

Function	Compact Type
Level Range	4,6,8,10,12,15,20,30m
Accuracy	0.5%-1.0%
Resolution	3mm or 0.1%
Display	LCD Display
Analog Output	Two Wires 4-20mA/250Ω Load
Power Supply	DC24V
Environmental Temperature	Transmitter -20~+60°C , Sensor -20~+80°C



Communication	HART
Protection Class	Transmitter IP65(IP67 Optional),Sensor IP68
Probe Installation	Flange, Thread

Dimension



Model Selection

Measure Range
4 4m
6 6m
8 8m
12 12m
20 20m
30 30m
License
P Standard Type(Non ex-proof)
I Intrinsically safe (Exia IIC T6 Ga)
Energy Transducer Material/Process Temperature/Protection Grade



A ABS/(-40-75)°C/IP67 B PVC/(-40-75)°C/IP67 C PTFE/(-40-75)°C/IP67
Process Connection/Material
G Thread D Flange /PP
Electronic Unit
2 4~20mA/24V DC Two Wire 3 4 20mA/24V DC /HART Two Wire 4 4-20mA/24VDC/RS485 Modbus Four Wire 5 4-20mA/24VDC/Alarm Output Four Wire
Shell / Protection Grade
L Aluminum / IP67
Cable Entry
N 1/2 NPT
Programmer/Display
1 With Display

Installation

1. Keep Ultrasonic Level Transmitter perpendicular to liquid.
2. The transducer should not be mounted too close to the tank wall, the bracket can cause strong false echoes
3. Mount the transducer away from the inlet to avoid false echoes.
4. The transducer should not be mounted too close to the tank wall, the build-up on the tank wall cause false echoes.
5. As is illustrated by the figure on the below, the transducer should be mounted on the top of guide tube to prevent the false echoes from turbulence and foam. The guide tube should come with a vent hole at top of the tube to allow the liquid vapor go out of the tube.
6. When you mount the transducer on the solid tank, the transducer must point to the tank outlet.

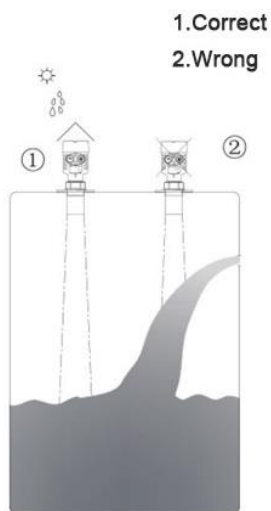


Figure 1

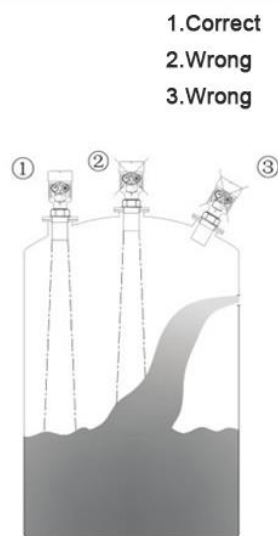


Figure 2

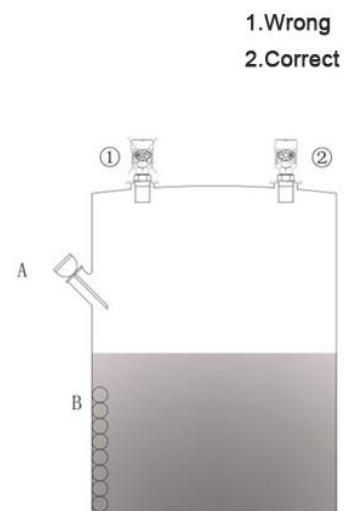


Figure 3