 **CATALOG**
ULTRASONIC LEVEL METER



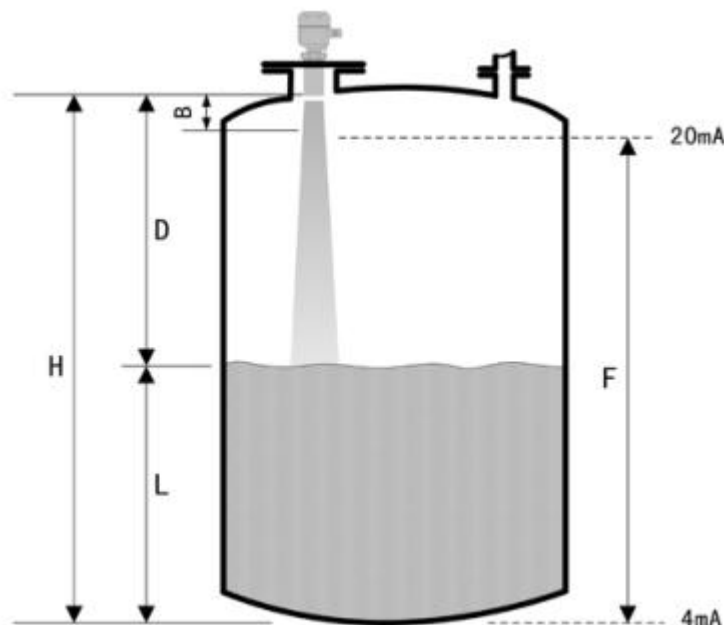
❖ Features

- Integrated design, installed conveniently;
- Protected in the excessive voltage and current;
- Protected in the thunder and lightning;
- The big show window of LCD is easy to debug and observe;
- Over-voltage over-current protection, lightning protection;
- Advanced since the clamp type terminal, to ensure that wiring never loose;
- Intellectual signal treatment technology, guarantee that the instrument meets various kinds of operating occasion;
- All plastic probe, acid and alkali resistant, adapt to bad environment;

❖ Principle

The sensor of the meter pulses in the direction of the product surface. There, they are reflected back and received by the sensor. The meter measures the time t between pulse transmission and reception. The meter uses the time t (and the velocity of sound) to calculate the distance D between the sensor membrane and the product surface:

$D = c \cdot t / 2$. As the device knows the empty distance H from a user entry, it can calculate the level as follows: $L = H - D$.



B: Blanking distance
H: installation height

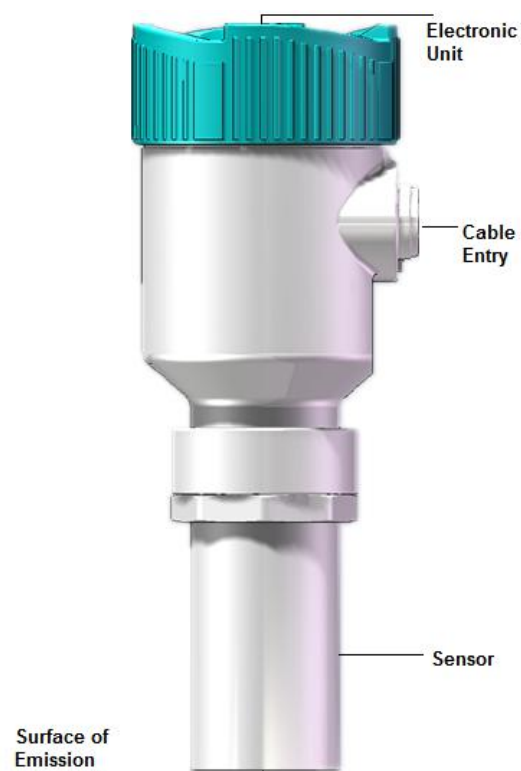
D: distance value
F: level span

L: level value

The ultrasonic velocity in gas is influenced by the gas temperature, So the level meter need to detect the gas temperature at work. So the material level meter need to detect the gas temperature at work, compensation for sound velocity.

Blanking distance: Span F may not extend into the blanking distance B. Level echo from the blanking distance cannot be evaluated due to the transient characteristics of the sensor.

❖ Structure



❖ Product Introduction

- **PLUT4**

Application: Industrial Level Measurement, especially for water treatment

Measuring Range: liquid: 0.2-4 m

Process Connection: G2 Thread

Energy Transducer Material:ABS,PVC,PTFE

Temperature:-40~ 75 Deg C (LCD: -20° C~ +70° C)

Temperature compensation:The whole range with automatic compensation

Process Pressure : ± 0.1 MPa

Precision:0.2% of actual range

Signal output:4-20mA (Option:HART)

Power Supply: DC20V~32V ≥ 30 mA

Display Resolution Ratio:1mm

Mode of Indication: 4 Digit LCD

Cable Diameter: \varnothing 6-12mm

Single Wire Diameter: \varnothing 0.5-1.78mm

Cable Entry/Seal:M20/PG13.5

Beam Angle: 8°(3db)

Measurement Cycle: 1.5 second

● **PLUT6**

Application:Industrial Level Measurement,especially for water treatment

Measuring Range: liquid:0.25-6 m

Process Connection: G2 Thread

Energy Transducer Material:ABS,PVC,PTFE

Temperature:-40~ 75 Deg C (LCD: -20° C~ +70° C)

Temperature compensation:The whole range with automatic compensation

Process Pressure : ± 0.1 MPa

Precision:0.2% of actual range

Signal output:4-20mA (option:HART)

Power Supply: DC20V~32V ≥ 30 mA

Display Resolution Ratio:1mm

Mode of Indication: 4 Digit LCD

Cable Diameter: \varnothing 6-12mm

Single Wire Diameter: Ø 0.5-1.78mm

Cable Entry/Seal:M20/PG13.5

Beam Angle: 8°(3db)

Measurement Cycle: 1.5 second

● PLUT8

Application:Industrial Level Measurement,especially for water treatment

Measuring Range: liquid:0.3-8 m

Process Connection: G2 Thread

Energy Transducer Material:ABS,PVC,PTFE

Temperature:-40~ 75 Deg C (LCD: -20° C~ +70° C)

Temperature compensation:The whole range with automatic compensation

Process Pressure :±0.1MPa

Precision:0.2% of actual range

Signal output:4-20mA (option:HART)

Power Supply: DC20V~32V ≥30mA

Display Resolution Ratio:1mm

Mode of Indication: 4 Digit LCD

Cable Diameter: Ø 6-12mm

Single Wire Diameter: Ø 0.5-1.78mm

Cable Entry/Seal:M20/PG13.5

Beam Angle: 8°(3db)

Measurement Cycle: 1.5 second

● PLUT12

Application:Industrial Level Measurement,especially for water treatment

Measuring Range: liquid:0.5-12 m

Process Connection: M95X2.0Thread

Energy Transducer Material:ABS,PVC,PTFE

Temperature:-40~ 75 Deg C (LCD: -20° C~ +70° C)

Temperature compensation:The whole range with automatic compensation

Process Pressure : ± 0.1 MPa

Precision:0.2% of actual range

Signal output:4-20mA (option:HART)

Power Supply: DC20V~32V ≥ 30 mA

Display Resolution Ratio:1mm

Mode of Indication: 4 Digit LCD

Cable Diameter: \varnothing 6-12mm

Single Wire Diameter: \varnothing 0.5-1.78mm

Cable Entry/Seal:M20/PG13.5

Beam Angle: 8°(3db)

Measurement Cycle: 1.5 second

● **PLUT20**

Application:Industrial Level Measurement,especially for water treatment

Measuring Range: liquid:0.8-20 m

Process Connection: M95X2.0Thread

Energy Transducer Material:ABS,PVC,PTFE

Temperature:-40~ 75 Deg C (LCD: -20° C~ +70° C)

Temperature compensation:The whole range with automatic compensation

Process Pressure : ± 0.1 MPa

Precision:0.2% of actual range

Signal output:4-20mA (option:HART)

Power Supply: DC20V~32V ≥ 30 mA

Display Resolution Ratio:1mm

Mode of Indication: 4 Digit LCD

Cable Diameter: \varnothing 6-12mm

Single Wire Diameter: Ø 0.5-1.78mm

Cable Entry/Seal:M20/PG13.5

Beam Angle: 8°(3db)

Measurement Cycle: 1.5 second

● PLUT30

Application:Industrial Level Measurement,especially for water treatment

Measuring Range: liquid:1.2-30 m

Process Connection: M95X2.0Thread

Energy Transducer Material:ABS,PVC,PTFE

Temperature:-40~ 75 Deg C (LCD:-20° C~ +70° C)

Temperature compensation:The whole range with automatic compensation

Process Pressure:±0.1MPa

Precision:0.2% of actual range

Signal output:4-20mA (option:HART)

Power Supply: DC20V~32V ≥30mA

Display Resolution Ratio:1mm

Mode of Indication: 4 Digit LCD

Cable Diameter: Ø 6-12mm

Single Wire Diameter: Ø 0.5-1.78mm

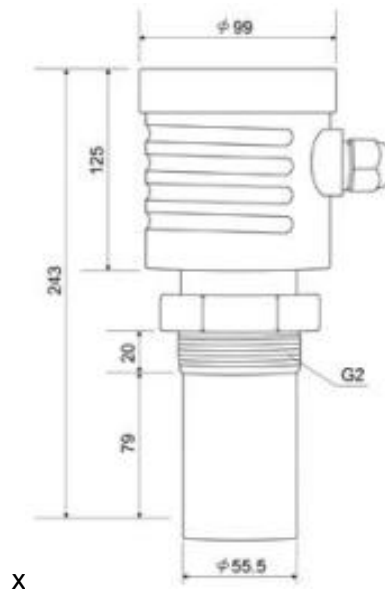
Cable Entry/Seal:M20/PG13.5

Beam Angle: 8°(3db)

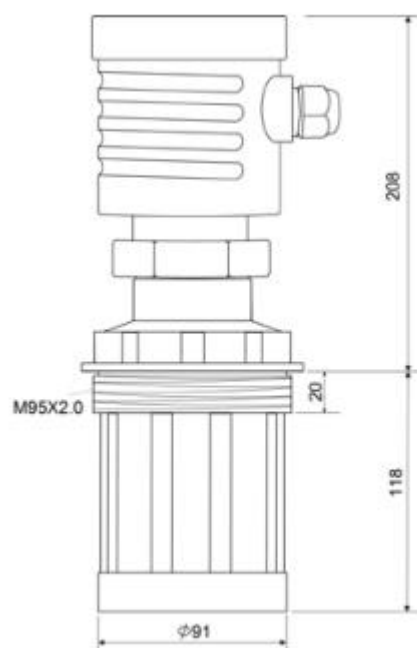
Measurement Cycle: 1.5 second

❖ Dimension

- PLUT4,PLUT6,PLUT8 Type

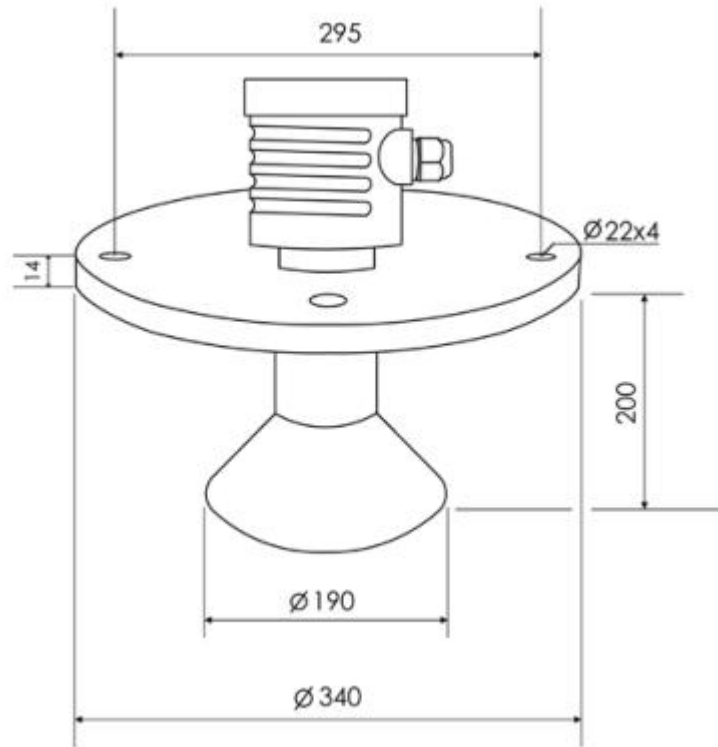


- PLUT12 Type



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- PLUT20,PLUT30 Type



❖ Model Selection

● PLUT4 Model Selection

License
P Standard Type(Non ex-proof)
I Intrinsically safe (Exia IIB 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
Shell / Protection Grade
L Aluminum / IP67
Cable Entry
M M20*1.5
Programmer/Display
A With Display

- **PLUT6 Model Selection**

License
<ul style="list-style-type: none"> P Standard Type(Non ex-proof) I Intrinsically safe (Exia IIB T6 Ga)
Energy Transducer Material/Process Temperature/Protection Grade
<ul style="list-style-type: none"> A ABS/(-40-75)°C/IP67 B PVC/(-40-75)°C/IP67 C PTFE/(-40-75)°C/IP67
Process Connection/Material
<ul style="list-style-type: none"> G Thread D Flange /PP
Electronic Unit
<ul style="list-style-type: none"> 2 4~20mA/24V DC Two Wire 3 4 20mA/24V DC /HART Two Wire
Shell / Protection Grade
<ul style="list-style-type: none"> L Aluminum / IP67
Cable Entry
<ul style="list-style-type: none"> M M20*1.5
Programmer/Display
<ul style="list-style-type: none"> A With Display

- **PLUT8 Model Selection**

License
<ul style="list-style-type: none"> P Standard Type(Non ex-proof) I Intrinsically safe (Exia IIB T6 Ga)
Energy Transducer Material/Process Temperature/Protection Grade
<ul style="list-style-type: none"> A ABS/(-40-75)°C/IP67 B PVC/(-40-75)°C/IP67 C PTFE/(-40-75)°C/IP67
Process Connection/Material
<ul style="list-style-type: none"> G Thread D Flange /PP
Electronic Unit
<ul style="list-style-type: none"> 2 4~20mA/24V DC Two Wire 3 4 20mA/24V DC /HART Two Wire
Shell / Protection Grade
<ul style="list-style-type: none"> L Aluminum / IP67
Cable Entry
<ul style="list-style-type: none"> M M20*1.5
Programmer/Display
<ul style="list-style-type: none"> A With Display

- **PLUT12 Model Selection**

License
<ul style="list-style-type: none"> P Standard Type(Non ex-proof) I Intrinsically safe (Exia IIB T6 Ga)
Energy Transducer Material/Process Temperature/Protection Grade
<ul style="list-style-type: none"> A ABS/(-40-75)°C/IP67 B PVC/(-40-75)°C/IP67 C PTFE/(-40-75)°C/IP67
Process Connection/Material
<ul style="list-style-type: none"> G Thread D Flange /PP
Electronic Unit
<ul style="list-style-type: none"> 2 4~20mA/24V DC Two Wire 3 4 20mA/24V DC /HART Two Wire
Shell / Protection Grade
<ul style="list-style-type: none"> L Aluminum / IP67
Cable Entry
<ul style="list-style-type: none"> M M20*1.5
Programmer/Display
<ul style="list-style-type: none"> A With Display

- **PLUT20 Model Selection**

License
<ul style="list-style-type: none"> P Standard Type(Non ex-proof) I Intrinsically safe (Exia IIB T6 Ga)
Energy Transducer Material/Process Temperature/Protection Grade
<ul style="list-style-type: none"> A ABS/(-40-75)°C/IP67 B PVC/(-40-75)°C/IP67 C PTFE/(-40-75)°C/IP67
Process Connection/Material
<ul style="list-style-type: none"> G Thread D Flange /PP
Electronic Unit
<ul style="list-style-type: none"> 2 4~20mA/24V DC Two Wire 3 4 20mA/24V DC /HART Two Wire
Shell / Protection Grade
<ul style="list-style-type: none"> L Aluminum / IP67
Cable Entry
<ul style="list-style-type: none"> M M20*1.5
Programmer/Display
<ul style="list-style-type: none"> A With Display

- **PLUT30 Model Selection**

License
<ul style="list-style-type: none"> P Standard Type(Non ex-proof) I Intrinsically safe (Exia IIB T6 Ga)
Energy Transducer Material/Process Temperature/Protection Grade
<ul style="list-style-type: none"> A ABS/(-40-75)°C/IP67 B PVC/(-40-75)°C/IP67 C PTFE/(-40-75)°C/IP67
Process Connection/Material
<ul style="list-style-type: none"> G Thread D Flange /PP
Electronic Unit
<ul style="list-style-type: none"> 2 4~20mA/24V DC Two Wire 3 4 20mA/24V DC /HART Two Wire
Shell / Protection Grade
<ul style="list-style-type: none"> L Aluminum / IP67
Cable Entry
<ul style="list-style-type: none"> M M20*1.5
Programmer/Display
<ul style="list-style-type: none"> A With Display