



ACI Inc.

333 Hudson Street, Suite#1004
New York, NY 10013 USA
E-mail: sales@acinstrument.org
Web: www.acinstrument.com

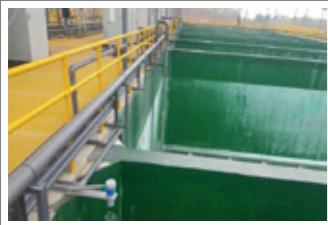
Ultrasonic Level Meter

Overview

Ultrasonic level meter emit ultrasonic pulses by sensor(transmitter) and the pulses are received by same sensor (receiver) after it reflected from the liquid surface. The pulses are converted into electrical signal through piezoelectric crystal. According to principle that the propagation time of acoustic wave emitted to the surface of the object is proportional to the distance between the transmitter and receiver, so the distance between sensor and liquid level can be calculated by the propagation time of receiver and transmitter.



Application



Tap water, sewage treatment level detection



Level detection in food processing



Collector Wells, Biochemical tank liquid level detection



Various kinds of slurry liquid level measurement

Features

1. Strong anti-interference ability, can be applied to Serious environment for liquid level measurement.
2. Built-in temperature sensitive components, have real-time and auto Temperature Compensation function.
3. Various types of output to meet the needs of different industrial field interface.
4. High-tech to reach Minimum blind area is only 6mm.

Specification

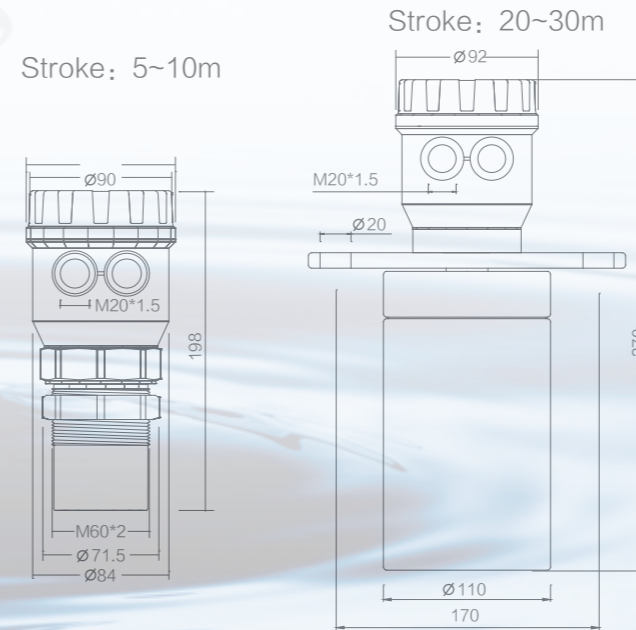
Pictures				
Types	Standard Integrated	Mini type with displayer	Mini type without displayer	Separated
Stroke	5m, 8m, 10m, 12m, 15m, 20m, 25m, 30m	1m, 2m		5m, 8m, 10m, 12m, 15m, 20m, 25m, 30m
Blinding Area	≤0.25~1.5m (By Stroke)	≤0.06~0.15m (By Stroke)		≤0.3~1.5m (By Stroke)
Emit Angle	<10°	<6°		<12°
Accuracy	±0.3%F.S	±0.1% (±1mm or ±1.5mm)		±0.3%F.S
Resolution	1mm	1mm		1mm
Power Supply	DC12—24V or AC220V Power: <1.5W	DC12—24V Power: <1.5W		DC12—24V or AC220V Power: <5W

Output	Current: 4~20mA, 0~20 mA Voltage: 0~5V, 0~10V Digital: RS485 (Modbus), GPRS Wireless On/off: 2 NPN, 2-way Relay (AC:5A/250V, DC:10A/24V)	Current: 4~20mA, 0~20 mA Voltage: 0~5V, 0~10V Digital: RS485 (Modbus) On/Off: 3 NPN	Current: 4~20mA, 0~20 mA Voltage: 0~5V, 0~10V Digital: RS485 (Modbus), HART, GPRS, MiniSD, USB On/OFF: 4 Chunnel Relay (AC:5A/250V, DC:10A/24V)
Connection	5~10m: M60*2 20~30m: DN80 Flange	M30*1.5	5~10m: M60*2 20~30m: DN80 Flange
Enclosure Rating	Whole: IP65 or IP66/67, Sensor IP68	Whole: IP65 or IP66/67, Sensor IP68	Whole: IP65 or IP66/67, Sensor : IP68
EX Grade	Exia IIB T4 Gb	Exia IIB T4 Gb	Exia IIB T4 Gb Exd IIB T4
Working Condition	Normal temp. and pressure	Normal temp. and pressure	Normal temp. and pressure
Temperature compensation	Auto in full scale	Auto in full scale	Auto in full scale
Storage Humidity	≤80%RH,No condensation	≤80%RH,No condensation	≤80%RH,No condensation

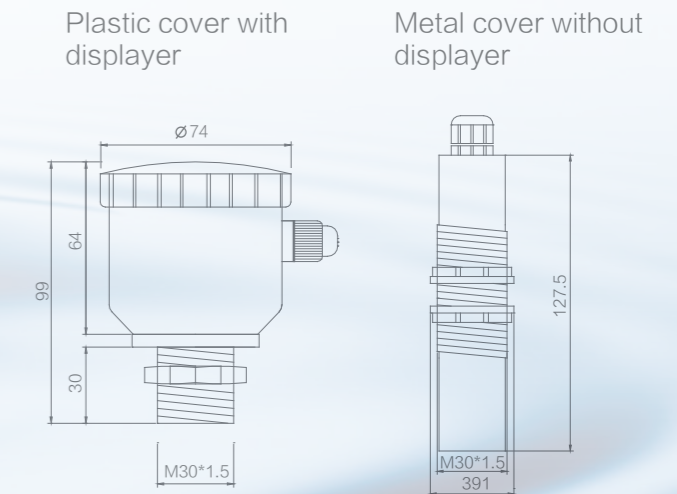
Dimension

Standard Type

Stroke: 5~10m



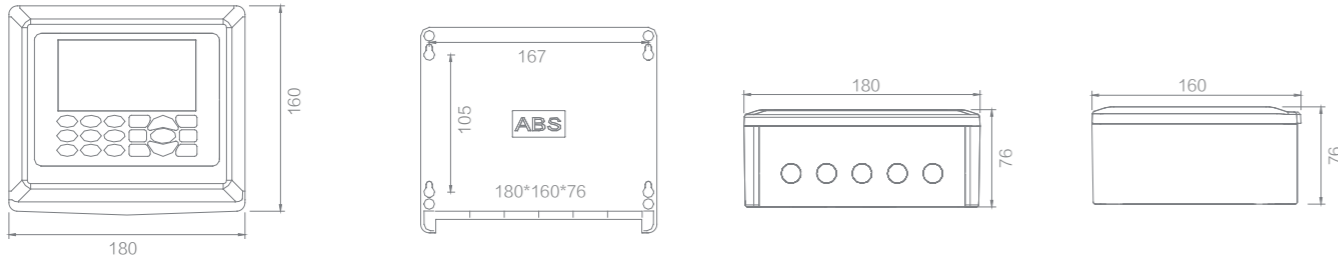
Mini Type



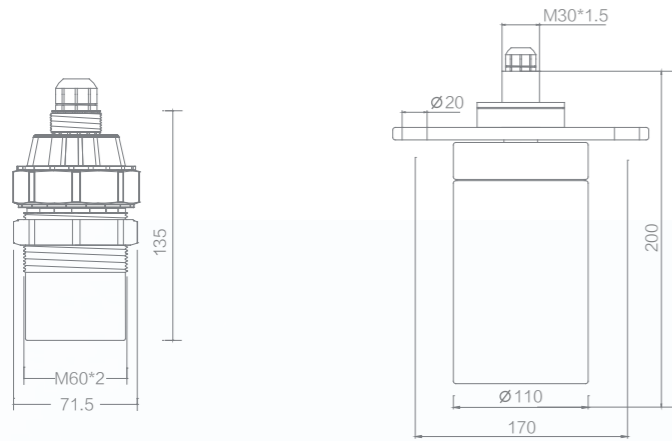
unit: mm

Separated Type

Displayer dimension



Sensor Dimension



Stroke 5~10m

Stroke 20~30m

Connection Definition

Connection box Definition



※ Please ensure the pin connection is consistent to the label inside of the box.

	Definition	Default Configuration
Power supply	5: DC12~24V+, 6: DC12~24V-	■Yes / □No
Current Output	8: 4~20mA+, 9: 4~20mA-	■Yes / □No
Serial-port Output	3: RS485(A), 4: RS485(B)	□Yes / □No
2 Chunnel Relay Output	1: J1_COM, 2: J1_NO	□Yes / □No
	10: J2_COM, 11: J1_NO	

Product Selection Table

A-SFU	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Note	
Structure Type	C																Integrated
	R																Separated
Probe Material	P																PP
	F																PTFE
	S																Stainless Steel
Cover Material	P																PP
	A																Cast Alu
Ex Grade																	Default: No EX
	I																Intrinsically safe
	D																Intrinsically Safe + Flameproof
Stroke						X	X										Unit Meter
Accuracy								X									Default 0.3%FS, S stands for 0.1%
Signal Output										X	X						Table 1
Mechanical Connection												X	X				Table 2
Electrical Connection															D		Aviation Connector
															P		Bare Wire+ PVC Sleeve
															M		Transmitter M20*1.5
															M N		Transmitter 1/2" NPT

Table 1: Output Signal Selection

Signal Output (2 Bit)			
□		□	
Output Type	Code	Code (Output Parameter)	
On/Off	K: Relay	1: Normally Open 2: Normally Close	
	N: NPN	Default	
Analog	A: Current	1: 4mA~20mA 2: 0mA~20mA	
	V: Voltage	1: 0V~10V 2: 0V~5V	
Bus	Modbus	Data format and Baud Rate	
		RTU Format	ASCII
		0: 2400 1: 4800 2: 9600 3: 19200	A: 2400 B: 4800 C: 9600 D: 19200
Wireless	W: Wireless	H: Hart	W: WiFi G: GPRS

Table 2: Mechanical Connection

Mechanical Connection (2 Bit)				
□		□		
Code	Dimension Code			
M: Standard Thread	Code	OD	DN	Inch
F: DN Flange	B		50	
G: G Thread	C		65	1½"
N: NPT Thread	D		80	
	E		100	
	J	30		
	N	60		

* Standard type Mechanical Connection only M60*2

