

IQLT-U

Ultrasonic Level Meter



Integrated type



Separated type

Features

- Automatic echo menu, convenient to query the cause of on-site failure
- Wide measuring range, 1m ~ 50m
- Separated type with wide voltage power supply: 90V ~ 250V AC
- Good anti-interference performance
- Work under strong steam environment
- Probe protection level up to IP68

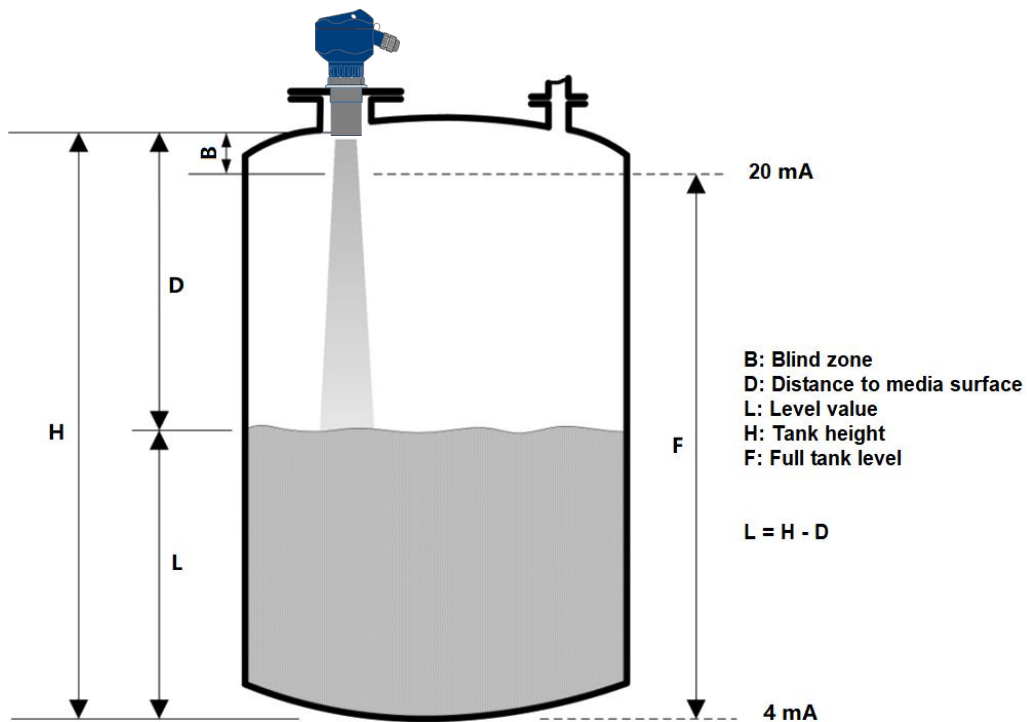
Introduction

IQLT-U Ultrasonic Level Meter (measuring material level and liquid level) is a non-contact, highly reliable, cost-effective, and easy-to-install and maintain level measuring instrument. It is a low-cost measuring equipment for measuring liquid, slurry, and solids on industrial sites and is widely used in water treatment, municipal administration, chemical industry, metallurgy, and machinery manufacturing industries.

Specification

- Level range: 5, 10, 15, 20, 30, 40, 50mH₂O
- Accuracy: $\pm 0.5\%FS \sim \pm 1.0\%FS$
- Resolution: 3mm or $\pm 0.1\%$ (max. value is valid)
- Display: English LCD display
- Analog output: 4mA~20mA DC (510 Ω load)
- Relay output: single channel is 2 groups; dual channel is 4 groups AC 250V/8A or DC 30V/5A state programmable (optional)
- Power supply: 220V AC ($\pm 15\%$, default)
24V DC 120mA (optional)
12V DC, 9V DC, battery powered (customized)
- Ambient temperature: display instrument $-20^{\circ}C \sim 60^{\circ}C$,
probe $-20^{\circ}C \sim 80^{\circ}C$
- Communication interface: RS485 RS232 optional
(manufacturer's protocol)
- Protection: Indicator IP65 (integrated type)
Converter IP65, probe IP68 (separated type)
- Probe cable: up to 100m without electromagnetic interference,
10m as standard (separated type only)
- Probe installation: according to range and probe selection

Measuring Principle



As shown above, the spatial distance D of the measuring medium surface is proportional to the travelling time T of the sound wave:

$$D = V \times T / 2 \quad (V \text{ is sound speed}).$$

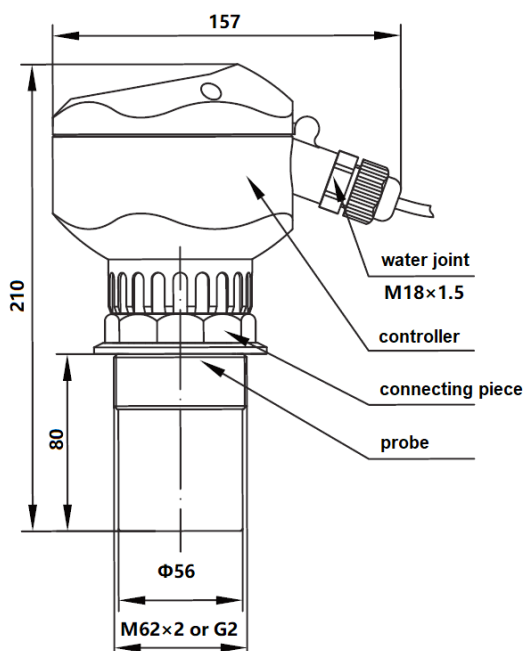
The distance E of the empty tank is known, the material level or liquid level L is:

$$L = H - D$$

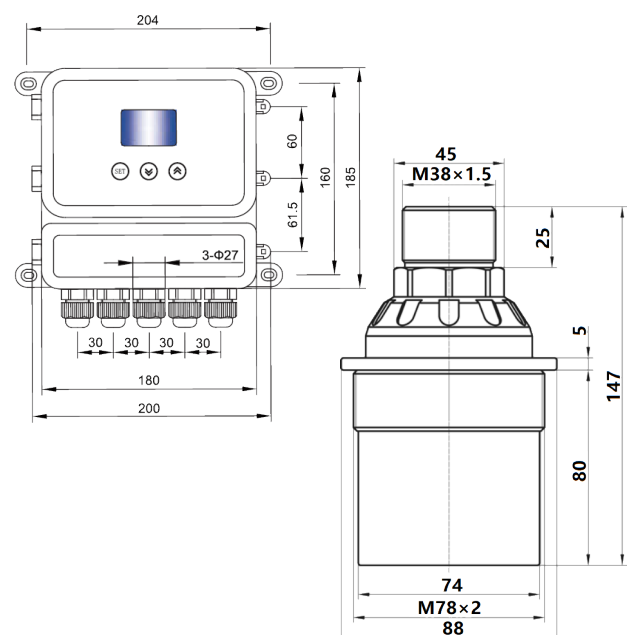
After setting the empty tank value, full tank value and other application parameters, the instrument electronic unit automatically converts the pulse travelling time T to the corresponding level value L and output the corresponding 4mA ~ 20mA DC signal.

Outline Construction (unit: mm)

Integrated type



Separated type



Order Guide

IQLT-U	Ultrasonic Level Meter													
	Code	Type												
	W	Integrated												
	F	Separated												
	Code	Type												
	YW	Ultrasonic liquid level meter												
	WW	Ultrasonic material level meter												
	CJ	Ultrasonic differential level meter												
	Code	Level range												
	--	2 numbers, eg: 05 is 5m, 30 is 30m.												
	Code	Probe material												
	A	ABS												
	E	PE												
	F	PTFE												
	V	PVDF												
	S	SS												
	T	Others												
	Code	Probe mounting dimension												
	A	M48×2mm												
	B	M60×2mm												
	C	M78×2mm												
	D	M108×2mm												
	E	M98×2mm												
	F	G1-1/2, Amajor diameter: Φ47.8mm												
	G	G2A, Amajor diameter: Φ59.6mm												
	H	1-1/2"NPT, Amajor diameter: Φ48.1mm												
	I	2"NPT, Amajor diameter: Φ60.1mm												
	T	Others												
	Code	Mounting methods												
	N	non flange mounting type												
	B	DN40 flange												
	C	DN50 flange												
	D	DN65 flange												
	E	DN80 flange												
	F	DN100 flange												
	G	DN125 flange												
	H	DN150 flange												
	I	DN200 flange												
	Code	Thread length of Extended probe												
		Null, standard probe												
	---	3 numbers indicate thread length (probe length included), unit: mm, eg: 100, indicating thread length of extended probe is 100mm												
	Code	Power supply												
	DCSP	12V DC, 9V DC, battery supply												
	DC	24V DC (4-wire)												
	AC	220V AC (4-wire)												
	TC	24V DC (2-wire)												
	Code	Relay quantity												
	R0	no relay												
	R1	1												
	R2	2												
	R3	3												
	R4	4												
	Code	Output signal												
	MA	4mA ~ 20mA DC												
	C2	RS232												
	C4	RS485												
	C2MA	4mA ~ 20mA DC +RS232												
	C4MA	4mA ~ 20mA DC +RS485												
	HTMA	4mA ~ 20mA DC +HART												
	TS	Others												
	Code	Probe quantity												
	S1	1												
	S2	2												
	SN	N												
	Code	Electronic housing material												
	PL	ABS												
	AI	Aluminum casting												
	F4	Polytetrafluoroethylene												
	S4	SS304												
	S6	SS316												
	Code	Probe cable length												
	00	no cables (generally for integrated type)												
	---	3 numbers, eg: 010 indicates probe with 10m cables												
	200	200 max. cable length is 200m												
IQLT-U	-W	-WW	-15	A	C	N	-	TC	R0	MA	S1	PL	00	The whole spec.