

ULT700

Ultrasonic Level Transmitter

Measurement Range: Liquid: 0.4...5m/0.4...10m/0.5...15m



Product Overview

Technology:

Ultrasonic sensor

Applications:

Liquids and bulk solids in small vessels level measurement

Features:

- Non-contact level metering
- Narrow 5° beam angle
- Fully temperature compensated electronics,
- Quick-set menu for efficient installation
- 4 to 20 mA / HART interface
- Measurement Range: Liquid: 0.4...5m/0.4...10m/0.5...15m
- Process Connection: Thread, flange
- Housing Material of Transducer: PA66+GF30,PTFE

Principle of Operation

The sensor transmits ultrasonic pulses to the measurement target. The pulses are reflected from the surface of the target and received back by the sensor. The running time is converted into the distance and it shows as level or volume on the display.

$$D=(C \cdot T) / 2$$

D: distance

C: sound velocity

T: time of flight

Distance: from the sensor bottom to surface of the target

Level: from the bottom of storage to surface of the target

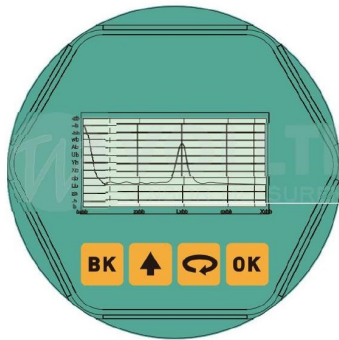
Empty: from the sensor bottom to the bottom of storage

Performance Specifications

Model	ULT705	ULT710	ULT715
Measurement Type	Ultrasonic non-contacting	Ultrasonic non-contacting	Ultrasonic non-contacting
Liquid Measuring Range	0.4...5m	0.4...10m	0.5...15m
Dead Band	0.4m	0.4m	0.5m
Accuracy	0.25%F.S,0.5%F.S	0.25%F.S,0.5%F.S	0.25%F.S,0.5%F.S
Output option		(4~20)mA/HART/Two-wire (4~20)mA/Four-wire	
Power Supply	24VDC, AC220V	24VDC, AC220V	24VDC, AC220V
Process Temp.	-40~+70°C	-40~+70°C	-40~+70°C
Process Pressure	-0.2~1bar	-0.2~1bar	-0.2~1bar
Protection Class	IP65,option IP67	IP65,option IP67	IP65,option IP67
Process Mount	Thread M66x2,flange	Thread M66x2, flange	Thread M95x2, flange
Display	Yes	Yes	Yes
Material of sensor	PA66+GF30,PTFE	PA66+GF30,PTFE	PA66+GF30,PTFE

Notes: The listed specifications and dimensions are subject to change without prior notice

Display/Adjustment Module



- OK** Keypad
 - Enter programming mode;
 - Confirm programming options;
 - Confirm modifications to parameters.
- ↻** Keypad
 - Choose programming options;
 - Choose the digit of parameters to edit
 - Display the contents of parameters.
- ↑** Keypad
 - Modify parameter values.
 - Choose display mode
- BK** Keypad
 - Programming mode exit;
 - Return to higher menu level.
 - Shortcut
 - Display Echo wave

Ordering Information

Model	ULT705	Ultrasonic Level Transmitter(Liquid: 0.4...5m)
	ULT710	Ultrasonic Level Transmitter(Liquid: 0.4...10m)
	ULT715	Ultrasonic Level Transmitter(Liquid: 0.5...15m)
	S	Standard (Non-explosion-proof)
Transducer Material/Process Temperature/Protection Level	A	PA66+GF30/(-40~70)°C
	B	PTFE/(-40~70)°C
Electronic Component	B	[4~20]mA/Two-wire/24VDC
	C	[4~20]mA/HART/Two-wire/24VDC
	D	[4~20]mA/Four-wire/220VAC
	R	[4~20]mA/Four-wire/24VDC
Housing/Protection Level	A	Aluminum/IP67
	B	Plastic/IP65
	D	Aluminum (Two-chamber) /IP67
	G	Stainless Steel/IP67
Process Connection	M1	M66x2
	M2	M95x2
	FL	Flange
	DJ	Suspension bracket
Cable Entry	M	M20x1.5
	N	½NPT
Display/Programming	A	Yes
	X	No
For example		ULT705-S-A-B-A-M1-M-A