

Product Overview

Ultrasonic Level Transmitter

RF Admittance Level Transmitter

RF Admittance Level Switch

Focus On Level Measurement



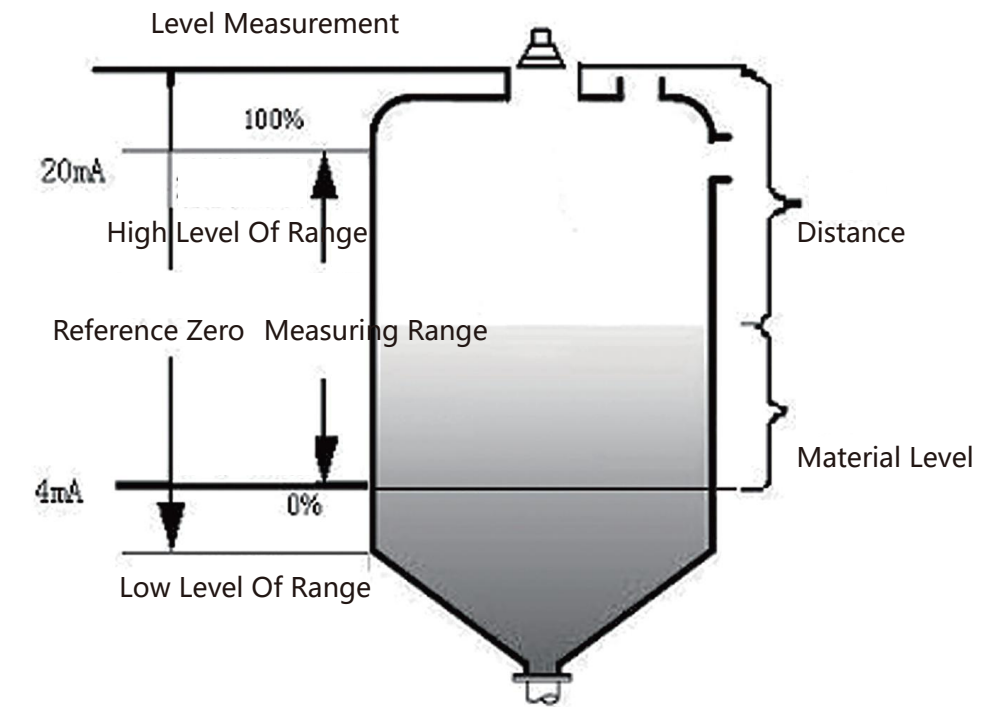
Ultrasonic Level Transmitter

Overview

Ultrasonic level transmitter is a non-contact, high reliability, cost-effective, easy to install and maintain level measurement instrument. It is a low-cost measuring device for measuring liquids, slurries and solids at industrial sites. It is widely used in water treatment, municipal, chemical, metallurgical and mechanical manufacturing industries.

Principle

The ultrasonic material/level transmitter is installed on the upper part of the container under the control of the electronic unit, and the probe emits a pulse of ultrasonic waves to the object to be measured. The sound waves are reflected by the surface of the object, and the partially reflected echoes are received by the probe and converted into electrical signals. From the time the ultrasonic wave is transmitted to the time it is received again, its time is proportional to the distance from the probe to the object being measured. The electronic unit detects the time and calculates the measured distance based on the known speed of sound so that the level value can be calculated. Since temperature has an effect on the speed of sound, the meter should measure the temperature to correct the speed of sound.



VSAN-ULT- 200 Ultrasonic Level Transmitter



Application	Liquids
Measuring Range	10m
Connection Process	Thread/flange
Process Pressure	≤0.3MPa
Accuracy	0.5%-1.0%
Protection Grade	IP68
Signal Output	RS485 MODBUS RTU
Explosion-Proof Grade	/

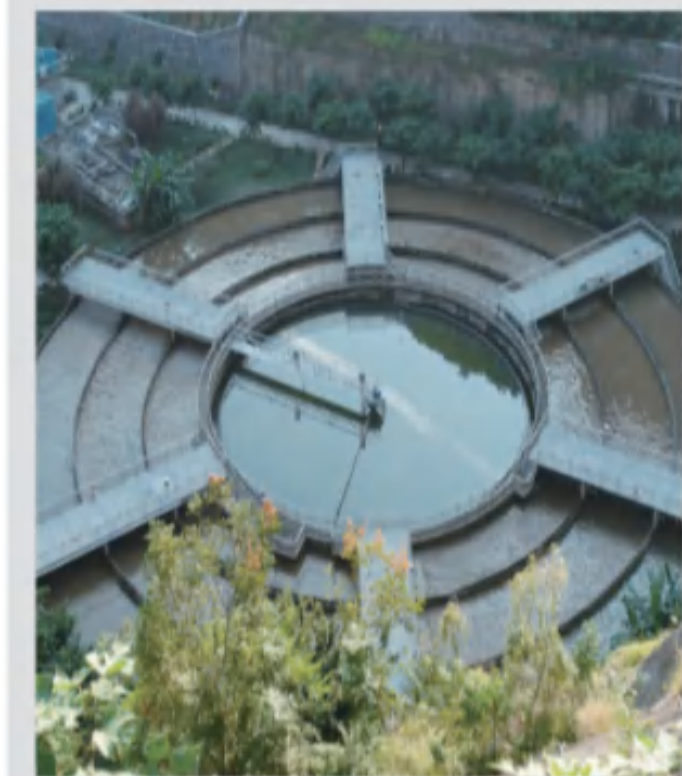


Type	Code	Parameters
Probe Type	P	Standard type
	T	Anti-corrosion type
	Y	Special Custom
Probe Size	G	G1.5 thread, rated range 5 meters
	E	NPT1.5 thread, rated range 5 meters
	H	G2 thread, rated ranges 5 meters and 10 meters
	T	NPT2 thread, rated ranges 5 meters and 10 meters
	Y	Special Custom
Power Supply	D	24VDC
	Y	Special Custom
Output Mode	O	RS485 MODBUS-RTU
	Y	Special Custom
Cable Length	1	5m
	2	10m
	Y	Special Custom
Measurement Range	XXX	Actual measuring range (Unit: meter)
Process Connection	G	Thread G1.5
	N	Thread NPT 1.5
	H	Thread G2
	Q	Thread NPT 2
	A	Flange DN50
	J	Flange DN65
	B	Flange DN80
	C	Flange DN100
	Y	Special Custom

VSAN-ULT-300 Ultrasonic Level Transmitter



Application	Liquids
Measuring Range	0~20m
Connection Process	Thread
Process Pressure	≤0.3MPa
Accuracy	0.5%
Protection Grade	Probe IP68
Signal Output	(4~20) mA@HART / RS485 MODBUS-RTU
Explosion-Proof Grade	/



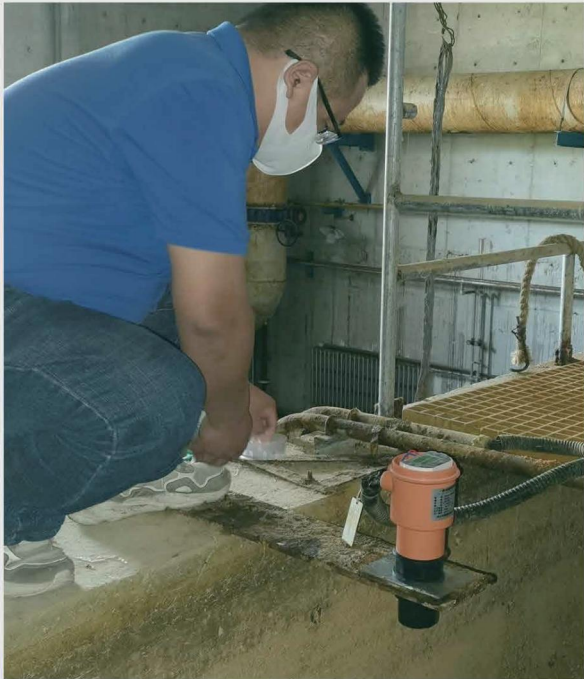
Type	Code	Parameters
Sensor Type	P	Standard Type
	T	Anti-corrosion Type
	B	Standard Explosion-proof Type
	F	Anti-corrosion Explosion-proof Type
Housing/Protection Grade	L	Die-cast Aluminum Single Chamber / IP67
	G	Die-cast Aluminum Double Chamber / IP67
	D	316L Stainless Steel / IP68
	S	Plastic Enclosure
Probe Mounting Size	G	Thread G1½, rated range 5m
	E	Thread NPT1½, rated range 5m
	H	Thread G2, rated ranges 5m, 10m
	T	Thread NPT2, rated ranges 5m, 10m
	J	Thread M78*2, rated range 15m
	K	Thread M78*2, rated range 20m
	Y	Special Custom
Power Supply	A	220V AC
	D	24V DC
Output Mode	N	(4-20) mA@HART
	O	RS485 MODBUS-RTU
Cable Inlet	M	M20*1.5
	Y	Special Custom
Sensor Range	XXX	Unit: m
Process Connection	G	Thread G1½
	N	Thread NPT 1½
	H	Thread G2
	Q	Thread NPT 2
	K	Thread M78*2
	A	Flange DN50
	J	Flange DN65
	B	Flange DN80
	C	Flange DN100
	Y	Special Custom

VSAN- ULT-400 Ultrasonic Level Transmitter-Standard



Application	Liquids
Measuring Range	0~20m
Connection Process	Thread, flange
Process Pressure	≤0.3MPa
Accuracy	0.5%-1.0%
Protection Grade	Probe IP68
Signal Output	(4~20) mA /RS485 Modbus

Type	Code	Parameters		
Sensor Type	P	Standard		
	T	Anti-Corrosion Type		
Housing/Protection Grade	L	Die-casting aluminium/Single chamber/IP67		
	G	Die-casting aluminium/Dual chamber housing/IP67		
	S	Plastic housing /IP66		
	D	Stainless steel / IP68		
Probe Mounting Size	G	Thread G1.5,Rated Range 5m		
	E	Thread NPT1.5,Rated Range 5m		
	H	Thread G2,Rated Range 5m,10m		
	T	Thread NPT2,Rated Range 5m,10m		
	J	Thread M78*2,Rated Range 15m		
	K	Thread M78*2,Rated Range 20m		
	Y	Special Custom		
Power Supply	A	220V AC		
	D	24V DC		
	Y	Special Custom		
Output Mode	I	(4-20) mA Two-Wire System (Without Relay Output)		
	K	(4-20)mA Four-Wire		
	O	RS485 Communication (MODBUS-RTU protocol)		
	M	(4~20)mA+485Communication (MODBUS-RTU)		
	Y	Special Custom		
Relay Output	R	No Relay		
	R1	1 Relay		
	R2	2 Relay		
Electrical Interface	M	M20*1.5		
	Y	Special Custom		
Sensor Range	XXX	Unit: m		
Process Connection	G	Thread G1½	H	Thread G2
	K	Thread M78*2	J	Flange DN65
	A	Flange DN50	C	Flange DN100
	B	Flange DN80	N	Thread NPT 1½
	Q	Thread NPT 2	Y	Special Custom
Special Custom	Y	Special Custom		



VSAN- ULT-500 Ultrasonic Level Transmitter-Explosion proof



Application	Liquids
Measuring Range	0~20m
Connection Process	Thread, flange
Process Pressure	≤0.3MPa
Accuracy	0.5%-1.0%
Protection Grade	Display Meter IP67/Probe IP68
Signal Output	(4-20) mA
Explosion-Proof Grade	Ex d IIC T6 Gb



Type	Code	Parameters		
Sensor Type	P	Standard		
	T	Anti-Corrosion Type		
Housing/Protection Grade	L	Die-casting aluminium/Single chamber/IP67		
	G	Die-casting aluminium/Dual chamber housing/IP67		
	D	Stainless steel / IP68		
Probe Mounting Size	G	Thread G1½, Rated Range 5m		
	H	Thread G2, Rated Range 10m		
	J	Thread M78*2, Rated Range 15m		
	K	Thread M78*2, Rated Range 20m		
	Y	Special Custom		
Power Supply	A	220V AC		
	D	24V DC		
	Y	Special Custom		
Output Mode	I	(4-20) mA Two-Wire System (Without Relay Output)		
	K	(4-20)mA Four-Wire		
	O	RS485 Communication (MODBUS-RTU protocol)		
	M	(4~20)mA+485Communication (MODBUS-RTU)		
Relay Output	R	No Relay		
	R1	1 Relay		
	R2	2 Relay		
Electrical Interface	M	M20*1.5		
Sensor Range	XXX	Unit: m		
Process Connection	G	Thread G1.5	A	Flange DN50
	H	Thread G2	J	Flange DN65
	K	Thread M78*2	B	Flange DN80
	C	Flange DN100		
	Y	Special Custom		
Special Custom	Y	Special Custom		

VSAN- ULT-600 Split ultrasonic level Transmitter



Application	Liquids
Measuring Range	10m
Connection Process	Thread, flange
Process Pressure	≤0.3MPa
Accuracy	0.5%-1.0%
Protection Grade	Display Meter IP67/Probe IP68
Signal Output	4-wire system(4-20)mA/RS485 MODBUS RTU
Explosion-Proof Grade	/

Type	Code	Parameters
Sensor Type	P	Standard type
	T	Anti-corrosion type
	Y	Special agreement
Housing/Protection Grade	F	Plastic shell
Probe Mounting Size	G	G1.5 thread, rated range 5 meters
	E	NPT1.5 thread, rated range 5 meters
	H	G2 thread, rated range 5 meters, 10 meters
	T	NPT2 thread, rated range 5 meters, 10 meters
	Y	Special Custom
Power Supply	D	24VDC
	A	220VAC
	Y	Special Custom
Output Mode	K	4-wire system (4-20) mA
	M	4-wire system (4-20) mA+RS485 MODBUS RTU
	Y	Special Custom
Relay Output	R	No relay
	R1	1 relay
	R2	2 relays
Cable Entry	H	Aviation plug
	Y	Special Custom
Sensor Range	XXX	Actual measuring range (unit: m)
Process Connection	1	5m
	2	10m
	Y	Special Custom



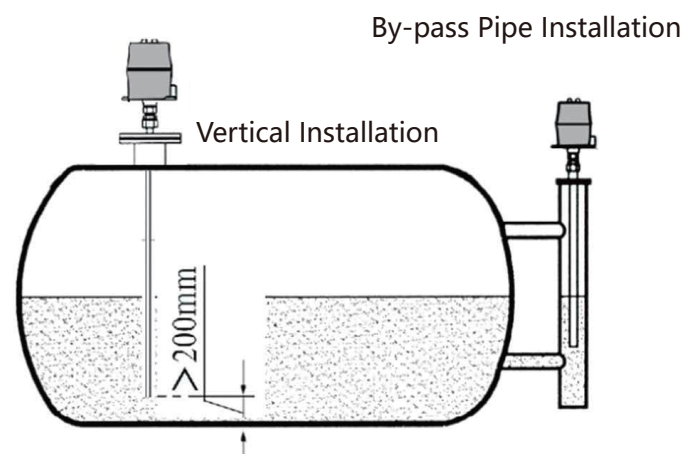
RF Admittance Level Transmitter

Overview

The RF admittance level Transmitter is a continuous level measurement product based on the principle of RF admittance. The product has the advantages of good stability, high sensitivity and wide application range. It is developed on the basis of the traditional capacitive level meter and can be widely used in the continuous measurement of various liquid and solid level in petroleum, chemical, metallurgy, medicine, electric power, food, paper and other industrial fields. Especially in the environment of high temperature, strong corrosion, strong adhesion, and dust.

Principle

The RF admittance measurement technology is a unique measurement technique. When the level gauge probe is installed in a container, it forms a capacitor. The probe (measuring electrode) acts as a plate of the capacitor and the container acts as the other plate of the capacitor. (If the container is an insulating material, a reference electrode should be added). When the level rises, the dielectric change between the two plates causes a change in capacitance. This change will cause radio waves acting on the RF admittance switch probe. The change, the RF admittance level meter detects the change of the radio wave through the RF circuit and converts it into a linear current output.



VSAN- ULT-501 RF Admittance Level Transmitter



Application	Liquid
Measuring Range	10PF~5000PF
Allow Work Pressure	0.1~2MPa
Allowable Ambient Temperature	-35℃~65℃
Accuracy	< 0.5% Actual Measured Value
Protection Grade	IP67
Signal Output	4-20mA (24V DC)
Housing	Die Casting Aluminum
Explosion-Proof Grade	Ex d IIC T6 Gb,Ex ia IIC T6 Ga
Cable Entry	M20*1.5



Type	Code	Parameters
Instrument Type	P	Standard
	Z	Explosion-Proof Type
Instrument Appearance	Y	Integrated Type
Measurement Electrode	1	Rod Type φ12+FEP Bushing
	3	Rod Type φ8+FEP Bushing
	Y	Special Custom
Process Connection/	H	Thread G1
	N	Thread NPT1
	W	DN32
	K	DN40
	A	DN50
	J	DN65
	B	DN80
	C	DN100
	F	DN125
	D	DN150
	Y	Special Custom
Signal Output	M	(4-20mA)
	Y	Special Custom
Medium Temperature	A	(-40~100) °C
	B	(-40~250)°C Heat Sinks
	Y	Special Custom
Measuring Range	XXX	User Specified Unit : m
Special Custom	Y	Special Custom

VSAN- ULT-502 RF Admittance Level Transmitter



Application	Liquid
Measuring Range	10PF~5000PF
Allow Work Pressure	0.1~2MPa
Allowable Ambient Temperature	-35℃~65℃
Accuracy	< 0.5% Actual Measured Value
Protection Grade	IP67
Signal Output	4-20mA (24V DC)
Housing	Die Casting Aluminum
Explosion-Proof Grade	Ex d IIC T6 Gb,Ex ia IIC T6 Ga
Cable Entry	M20*1.5



Type	Code	Parameters
Instrument Type	P	Standard
	Z	Explosion-Proof Type
Instrument Appearance	Y	Integrated Type
Measurement Electrode	2	Cable Type φ6+FEP Bushing
	Y	Special Custom
Process Connection/	H	Thread G1
	N	Thread NPT1
	W	DN32
	K	DN40
	A	DN50
	J	DN65
	B	DN80
	C	DN100
	F	DN125
	D	DN150
	Y	Special Custom
Signal Output	M	(4-20mA)
	Y	Special Custom
Medium Temperature	A	(-40~100) °C
	B	(-40~250)°C Heat Sinks
	Y	Special Custom
Measuring Range	XXX	User Specified Unit : m
Special Custom	Y	Special Custom

VSAN- ULT-503 RF Admittance Level Transmitter



Application	Liquid
Measuring Range	10PF~5000PF
Allow Work Pressure	0.1~2MPa
Allowable Ambient Temperature	-35℃~65℃
Accuracy	< 0.5% Actual Measured Value
Protection Grade	IP67
Signal Output	(4-20) mA with Alarm Output
Housing	Die Casting Aluminum
Explosion-Proof Grade	Ex d IIC T6 Gb,Ex ia IIC T6 Ga
Cable Entry	M20*1.5



Type	Code	Parameters
Instrument Type	P	Standard
	Z	Explosion-Proof Type
Instrument Appearance	Y	Integrated Type
Measurement Electrode	1	Rod Type φ12+FEP Bushing
	3	Rod Type φ8+FEP Bushing
	Y	Special Custom
Process Connection/	H	Thread G1
	N	Thread NPT1
	W	DN32
	K	DN40
	A	DN50
	J	DN65
	B	DN80
	C	DN100
	F	DN125
	D	DN150
	Y	Special Custom
Signal Output	M	(4-20mA) With two alarm
	Y	Special Custom
Medium Temperature	A	(-40~100) °C
	B	(-40~250)°C Heat Sinks
	Y	Special Custom
Measuring Range	XXX	User Specified Unit : m
Special Custom	Y	Special Custom

VSAN- ULT-RF 504 Admittance Level Transmitter



Application	Liquid
Measuring Range	10PF~5000PF
Allow Work Pressure	0.1~2MPa
Allowable Ambient Temperature	-35℃~65℃
Accuracy	< 0.5% Actual Measured Value
Protection Grade	IP67
Signal Output	(4-20) mA with Alarm Output
Housing	Die Casting Aluminum
Explosion-Proof Grade	Ex d IIC T6 Gb,Ex ia IIC T6 Ga
Cable Entry	M20*1.5



Type	Code	Parameters
Instrument Type	P	Standard
	Z	Explosion-Proof Type
Instrument Appearance	Y	Integrated Type
Measurement Electrode	2	Cable Type φ6+FEP Bushing
	Y	Special Custom
Process Connection/	H	Thread G1
	N	Thread NPT1
	W	DN32
	K	DN40
	A	DN50
	J	DN65
	B	DN80
	C	DN100
	F	DN125
	D	DN150
	Y	Special Custom
Signal Output	M	(4-20mA) With two alarm
	Y	Special Custom
Medium Temperature	A	(-40~100) ℃
	B	(-40~250)℃ Heat Sinks
	Y	Special Custom
Measuring Range	XXX	User Specified Unit : m
Special Custom	Y	Special Custom

VSAN- ULT-30 RF Admittance Level Switch

Overview

RF admittance level switch is a level limit switch based on the principle of RF admittance, which is modular in design and economical and practical. It can measure a variety of solids and liquids and can be used in a variety of applications. Potentiometers can be used to adjust sensitivity and output delay.

Principle

RF admittance level switch transmits a certain high frequency radio wave acting on the probe. To analyze and confirm the level change in the container. The frequency of radio waves varies with the materials measured by the level switch. The probe of RF admittance level switch and the wall of container will form a capacitor with fixed spacing as two electrodes. The insulating material of the probe and the surrounding air will provide the insulating medium; when air is replaced by other medium, the capacitance will change. This change will cause a change in the radio waves acting on the RF admittance level switch probe. Once this change is detected by the internal circuit of the RF admittance level switch, and compared with the setting value, the change will be confirmed. When the setting value is same with detected , it will output a switching signal.



	Application	Solid Particles, Powder Liquid Conductive Non-Conductive Materials
	Power Supply	220V AC or 24V DC
	Relay Capacity	DPDT rated 5A
	Time-Delay Relay	0~30 Second adjustable
	Rate Work	3W
	Medium Temperature	-40℃~200℃
	Environment Temperature	-40℃~80℃
	Cable Inlet	M20*1.5 or 1/2 NPT

Type	Code	Parameters		
Instrument Type	P	Standard		
	Y	Special Custom		
Instrument Appearance	Y	Integrated Type		
Process Connection	H	Thread G1	W	DN32
	N	Thread NPT1	K	DN40
	A	DN50	J	DN65
	B	DN80	C	DN100
	F	DN125	D	DN150
	Y	Special Custom		
Medium Temperature	P	Common seal/- 40 °C ~ 120 °C		
	G	High temperature sealing /- 40 °C ~ 200 °C		
	Y	Special Custom		
Power	1	220V AC		
	2	24V DC		
Cable Inlet	M	M20*1.5		
	N	NPT1/2		
Length Of Electrode	XXX	Actual Range Customer Selected, Unit cm		
Special Custom	Y	Special Custom		

VSAN-4GDTU-1



System	Cat.1 All-Network Communication
Transmission Type	http, socket,mqtt
Power Supply	(8-30)VDC
Input	RS485
Installation Form	M20*1.5 Threaded Installation
Protection Level	IP68

Intelligent Tank Side Display VSAN-2000



Power Supply	24VDC
Input Signal	HART,RS485
Output Signal	(4-20)mA,RS485,Relay SPST
Featured Functions	Volume and Mass Calculation
Installation Form	Screw Fixing
Protection Level	IP67

VSAN-4GDTU-2



System	Cat.1 All-Network Communication
Transmission Type	http, socket,mqtt
Power Supply	(8-30)VDC
Input	RS485, TTL ,
Installation Form	35mm Rail Mounting
Dimensions	36*105*60 (mm)