Liquid Level Transmitter

Descriptions

The liquid level transmitter is the extension and development of the pressure transmitter technology, according to the principle of linear relationship between the pressure generated by the liquid of different gravity at different heights, to achieve the accurate measurement and transmission of the liquid level height of water, oil and paste.

Working principle

Principle of static pressure measurement: When the liquid level transmitter is put into a certain depth of the measured liquid, the pressure formula of the sensor to the liquid surface is :P=p·g.H + Po type:
P; Pressure on the surface of the transmitter p: density of the measured liquid g: local acceleration of gravity
Po: atmospheric pressure at the liquid surface H: depth at which the transmitter is put into the liquid
At the same time, the liquid pressure is introduced into the positive pressure chamber of the sensor through the gas conducting stainless steel, and then the atmospheric pressure Po on the liquid surface is connected with the negative pressure chamber of the sensor to offset the Po on the back of the sensor, so that the sensor can measure the pressure :p·g.H. Obviously, by measuring the pressure P, the liquid level depth can be obtained.

Technical Parameter

Measuring medium	The fluid in the open container (compatible with the contact material), can be customized PTFE anticorrosion
Contact material	Diaphragm 316L stainless steel (in contact with media) Probe housing 304 stainless steel (default)
Liquid level range	0~0.5 m ~1000 m (each gear of the range is optional)
Working mode	Static pressure type, input type
Output signal	to 20mA(delivered by default), 0 to 10V, 0 to 5V, 1 to 10V, 1 to 5V0.5 to 4.5V(customized), RS485 power supply voltage :12 to 36VDC(default), 5VDC(customized)
Accuracy	0.5% full scale
Working condition	Medium temperature -10~50℃(non-crystallization) ambient temperature -20~60℃ Temperature compensation -10~70℃
Seismic performance	10g(202000HZ)
Response frequency	Analog signal output <100Hz(default)
High-frequency customization	1200Hz, 2400Hz stability :±0.1%FS/ year
Temperature drift	±0.02%FS/℃(within the temperature compensation range)
Class of protection	IP68 Maximum power :≤0.5(W)

Part Number Scheme

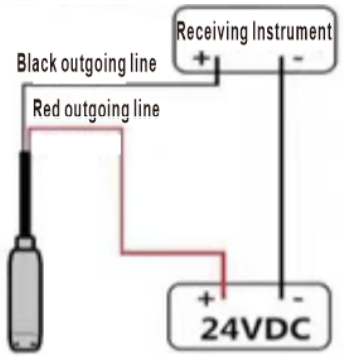
LLT – 1 – 10

Code	Description
LLT	Liquid Level Transmitter

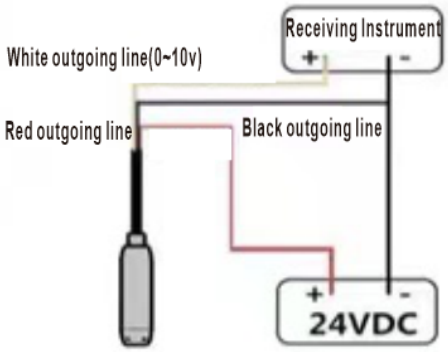
Code	Range
1	1m depth
2	2m depth
3	3m depth
⋮	⋮
10	10m depth
Other length available	

Code	Output Type
10	0~10v
20	4~20mA

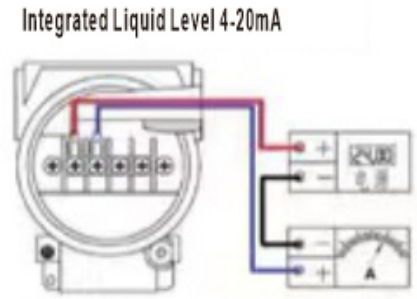
Wiring Diagram



Integrated Liquid Level 4-20mA



Integrated Liquid Level 0~5v,0~10v



Explosion-proof type4-20mA two-wire wiring Diagram

Installation drawing