FLOWTECH

Hydrostatic Level Measurement

FTHT

- High Accuracy Measurement
- Stainless Steel Body
- Suitable for Various Liquids
- Stable Analoge Output
- Easy Installation
- Corrosion Resistant

Working Principle

A hydrostatic level transmitter sensor determines the liquid level by measuring the hydrostatic pressure generated by the liquid level. The hydrostatic pressure of a liquid is expressed by the formula P = Po + pgh.

When Po remains constant, the pressure depends on two variables: density and liquid level. When the liquid density is constant, the liquid level will have a linear relationship with the pressure. This pressure acts on the sensing surface of the transmitter's diffused silicon pressure sensor, and the sensor converts the pressure into a voltage signal through the piezoresistive effect. This signal is then amplified and directly converted into a 4~20mA signal.

This series of liquid level transmitter products uses an pressure sensor with a stainless steel isolation diaphragm as the signal measurement element. After automatic computer testing, the zero point and sensitivity temperature compensation over a wide temperature range are carried out using laser trimming technology. The amplifying circuit is located in the stainless steel shell and converts the sensor signal into a standard output signal, giving full play to the technical advantages of the sensor and giving this series of liquid level transmitters excellent performance. It has anti- interference, small temperature drift, high stability, and high measurement accuracy.

It is an ideal liquid level measurement instrument in the field of industrial automation.

FLOWTECH™

FTHT Series

Hydrostatic Level Transmitter

Applications

- Deep Well Level Measurement
- Sewage Treatment
- Hydraulic Monitoring in Rivers And Sea
- Muddy Liquid Level Measurement
- Liquid Reservoir Level Measurement
- Water Saving Irrigationg
- Water Diversion Project

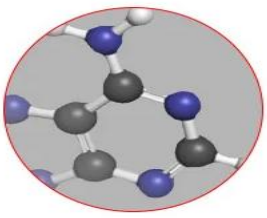
Technical Parameter

Product name	Hydrostatic level transmitter
Product Series	FTHT Series
Measuring range	0~5~8~10...300 m (optional within range)
Output signal	4~20mA (default), 0~5V, 0~10V, RS485
Power supply	12~36V (default), 5V, 3.6V
Compensation temperature	-10~60°C
Measurement accuracy	0.5%FS . 0.2%FS, 0.1%FS
Operating temperature	-10~50°C
Housing protection	IP68
Media compatible	Various fluid media compatible with 304 stainless steel
Measuring medium	room temperature water
Overload pressure	150%FS
Long term stability	±0.2%FS/ year
Response frequency	≤500Hz

Elaborate design

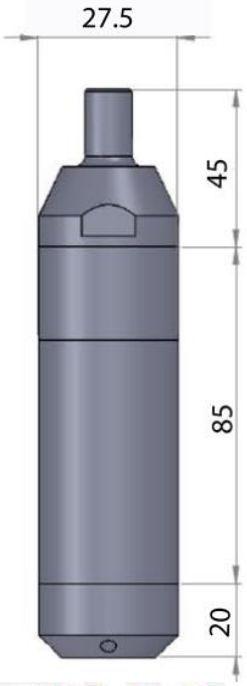
IP68 protection level

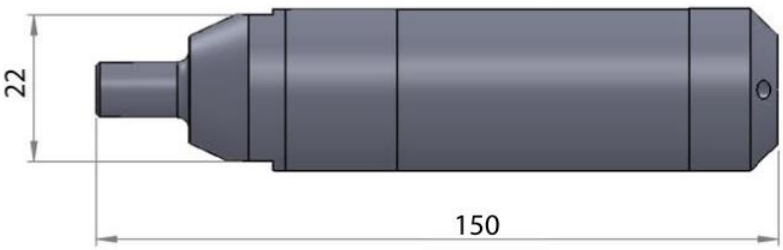
Waterproof PVC lead material is thick, wear-resistant, aging resistant, long service life



Polymer materials

Mechanical Construction



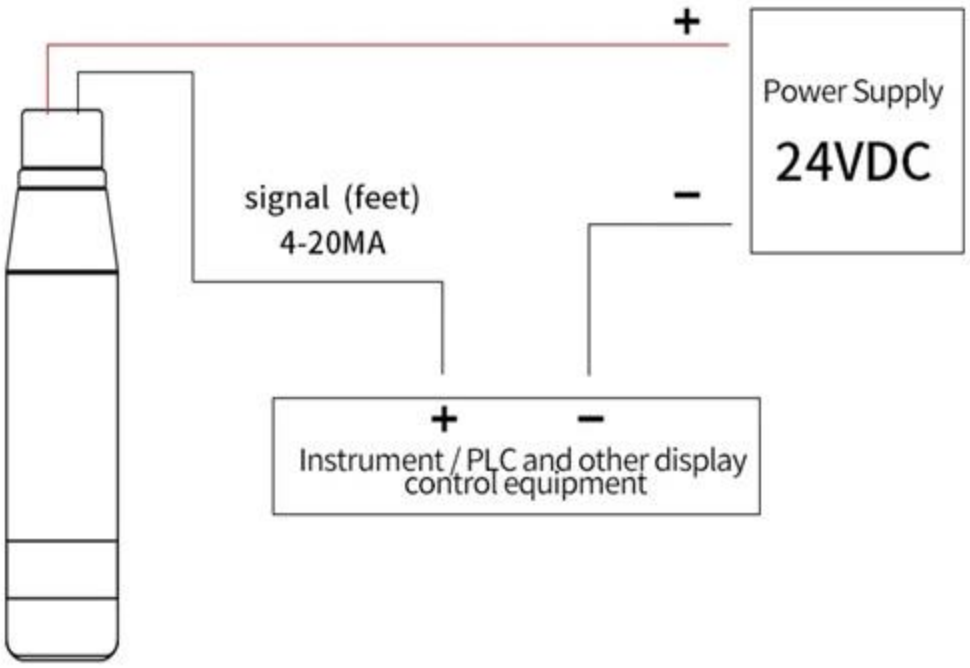


45 ° inclined pressure hole
Anti clogging

45 ° tilt design can effectively avoid the error caused by liquid level fluctuation

The 45° section design can effectively reduce the wear of the shell caused by impurities at the bottom of the liquid, and make the pressure at the bottom of the liquid enter into the pressure hole smoothly. The pressure hole with a diameter of 3 mmis designed to resist stamping, prevent blockage, and sense the pressure in multiple directions through four holes.

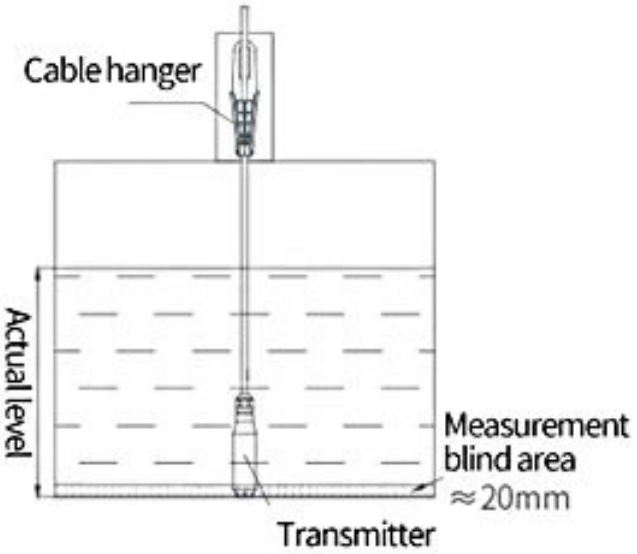
Wiring

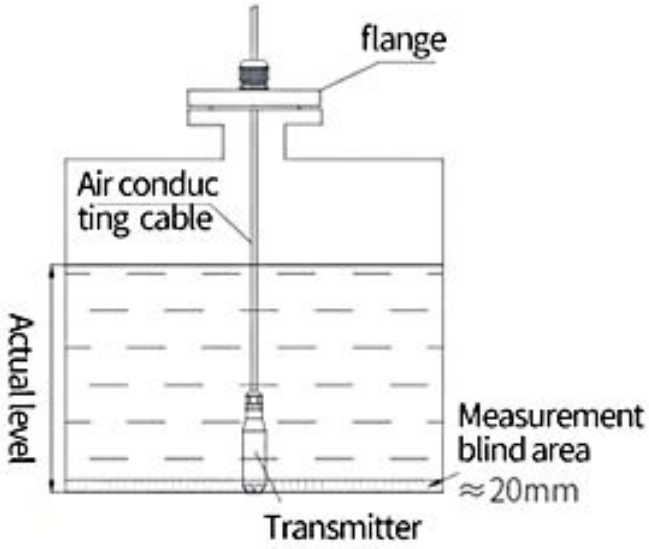


Imported core
Intelligent circuit

Anti interference, good stability,
ensure the correct signal transmission

Installation Precautions





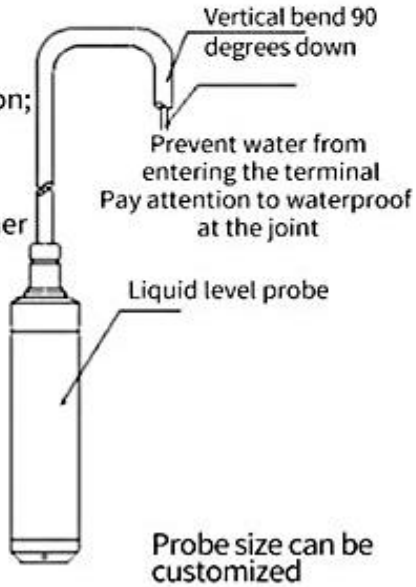
Installation instructions

Appearance and installation

The configuration is shown in the figure, liquid level transmitter (flexible wire input type)
The utility model is composed of a shell, an amplifier, a wiring terminal,
a protective cap, a hollow wire, etc.

Installation method

(1) Select the place easy to operate and maintain for installation;
(2) It should be installed as far away from the vibration source as possible;
(3) Keep away from heat sources as far as possible;
(4) The metal probe should sink into the bottom of the container when the input liquid level transmitter is installed.



Installation precautions (customer terminal)

(1) In case of additional wiring, waterproof measures must be taken (such as sealing junction box, etc.).
If there is no or relatively simple, the wire can be bent and installed downward (as shown in the figure), so as to prevent water from entering and avoid failure.
(2) When the liquid level probe is put into the water,
it is better to be fixed and away from the water inlet.

Order Code

	Measuring Range (m)	Accuracy	Electrical Connection	Option
FTHT	---	-	-	-
		L: 0.5%	C : Cable	N : None
		M: 0.2%	J : Junction Box	…
		N: 0.1%		