



Level Transmitter

(Model No. WPCK81)

Zhengzhou Winsen Electronics Technology CO., LTD

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WPCK81 Level Transmitter

Product Description

The WPCK81 liquid level transmitter consists of a high-performance diffusion silicon piezoresistive pressure sensor as the measuring element, which accurately measures the static pressure of the liquid proportional to the depth of the liquid level. The internal dedicated integrated circuit converts the sensor millivolt signal into a standard (current or voltage) signal output, establishing a linear correspondence between the output signal and the depth of the liquid, and achieving measurement of the depth of the liquid. The product has high accuracy and small size. It can be directly put into the liquid to measure the liquid height from the end of the transmitter to the liquid level, making it convenient to use. Suitable for liquid level measurement and control in the fields of petroleum, chemical engineering, power plants, urban water supply, and hydrological exploration.



Main features :

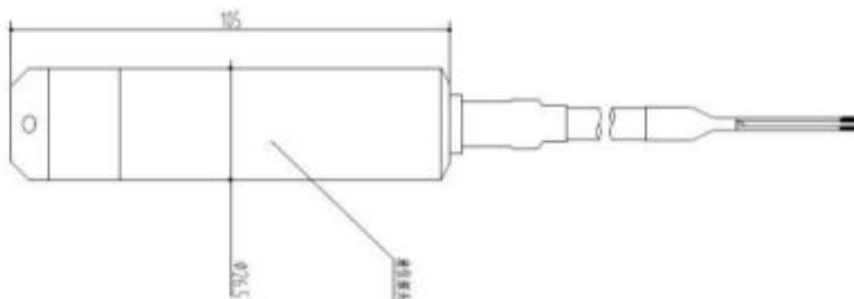
- Stainless steel structure, multi thread structure
- Wide temperature compensation-10~+70℃
- Multi output methods
- Excellent anti-interference ability
- High reliability
- Hi Accuracy
- Low consumption

Application:

- Static liquid level
 - Liquid tank
 - Fire water pool
 - Water wells
 - Rivers
 - Seawater
 - Lakes
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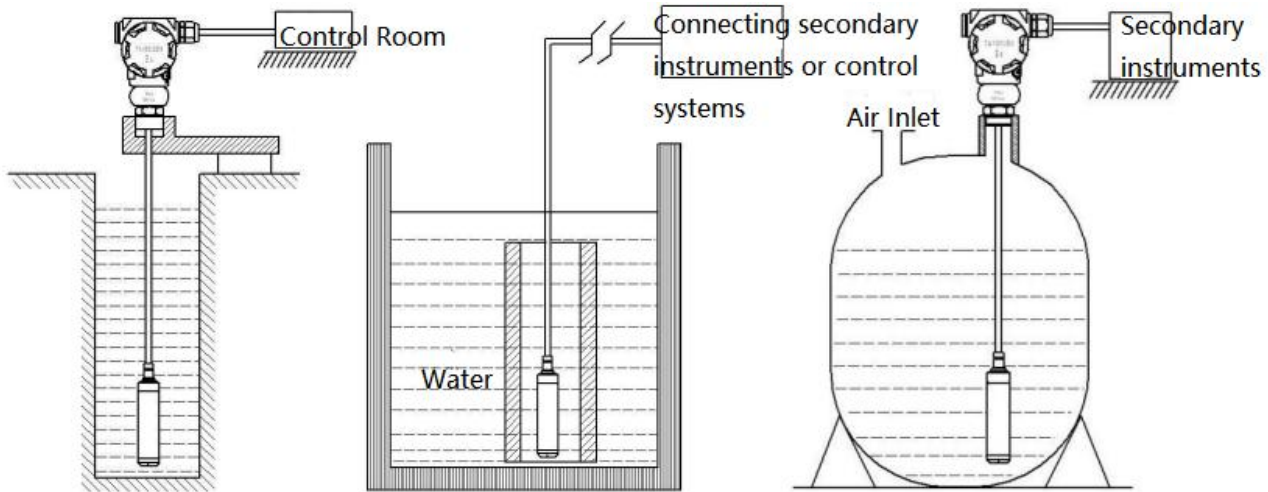
Basic Parameter Index		
Detection range	0~1m...5m...200mH ₂ O	
Output	4-20mA; RS485	
Accuracy	±0.5%FS(Range>1m); ±1%FS (Range=1m)	
Temperature Drift	35kPa: ±2%FS(0℃~60℃) Others: ±1.5%FS(-20℃~85)	
Working Temperature	-20℃~85℃	
Environment Temperature	-20℃~85℃	
Storage Temperature	-40℃~125℃	
Response Time	≤1ms	
Lifespan	≥1×10 ⁶ Pressure Cycle	
Vibration	20g (20~5000HZ)	
Shock	100g (11ms)	
Insulation	200MΩ/250VDC	
Long term Stability	±0.2%FS/Year	
Media Compatibility	Various media compatible with 304 stainless steel	
Protection Level	IP68	
Cable Material	Polyurethane	1m Cable in default

Structure



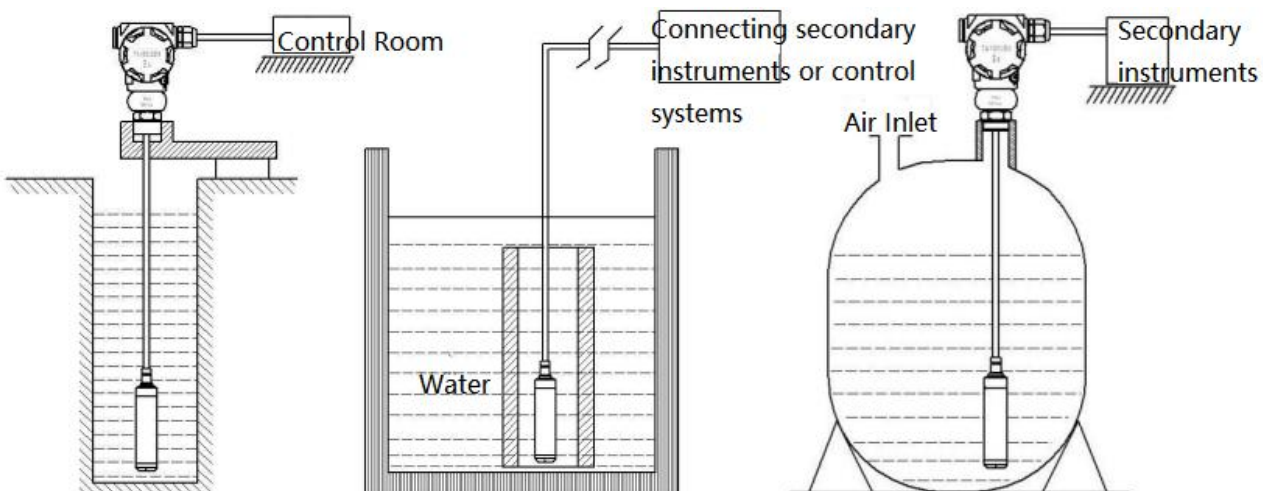
Installation Tips

Installation in still water



1. When measuring the static fluid level in an open container, place the level transmitter vertically at the bottom of the container, and fix the cable and junction box connecting the transmitter at the opening of the container.
2. When the medium viscosity is high (such as in a sewage tank), a sleeve or bracket can be installed to ensure that the transmitter can be inserted into the bottom of the container.
3. When installing in the open air, the transmitter junction box should be placed in a well ventilated and dry place as much as possible to avoid direct exposure to strong light and rain, which may cause excessive temperature or water ingress to the housing, thereby damaging the internal circuit board.

Installation in flowing water



1. When measuring the water level in flowing water, when the medium fluctuates greatly, a steel pipe with an inner diameter of ≥ 5 centimeters can be inserted into the waterway. Several pipes can be opened at different heights in the opposite direction of the water flow when the pipe invading the water is located Φ . A small hole around 5 allows water to enter the pipe and fix the cable and junction box at the outlet of the pipe.
2. When the water channel medium fluctuates and sediment is large, damping devices can also be installed to filter sediment and eliminate the adverse effects of dynamic pressure and waves, ensuring measurement accuracy.

Electrical connection

Output

4-20mA: Red wire :Power+

Green wire: Current Output

RS485: Red wire : Power+

Yellow wire: RS485+

Green wire: Power-

White wire: RS485-

Cautions

- Do not touch the diaphragm with any hard objects, it may break the diaphragm.
 - Please carefully read the manual before installation, to avoid damage to the product caused by wrong installation.
 - Misuse may cause danger and personal injury.
 - When pulling out the core from the shell, do not pull the wire and pin.
 - For customized product cycle, please consult sales department.
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