SUBMERSIBLE LEVEL TRANSMITTER

Applications

Natural lakes, rivers, reservoirs
Wastewater treatment and biogas production
Brackish water and fuel tanks in shipbuilding
Oil and fuel storage tanks
Mining and gas extraction
Fire water tank. Roof water tank. water tower



Special Features

Suitable for all water level measurements
Shipbuilding approval in accordance with GL
Ingress protection IP68 up to 500m immersion depth
Comes with analog signal output. 4-20mA,0-10V. RS485 and etc

Principle

Submersible liquid level transmitter uses diffused silicon piezoresistive pressure sensor as a measuring element, the liquid static pressure proportional to the liquid level depth is accurately measured, and converted into standard analog current or voltage signal output by the signal conditioning circuit, and the linear correspondence between the output signal and the liquid depth is established to realize the measurement of liquid depth, the product has high precision, small size, and is directly put into the liquid level to measure the liquid height from the end of the transmitter to the liquid level.

Output Mode

2 wires 4-20MA
3 wires 0-10V, 0-5V ,1-5V,0.5-4.5V,0-3.3V etc
4 wires RS485

Voltage Supply

Power Supply : DC24V default ,DC 10~36V
Power Supply : DC5V with 0.5-4.5V,0-3.3V output

Reference Conditions

Model: QDY30A
Measuring Range: 0~0.5~500m H20
Power supply: 12-36VDC (Standard 24VDC)
Output Signal: 4~20mA; 0-5V; 1~5V; 0-10V; RS485;0.5-4.5V,0-3.3V
Accuracy: 0.2%F.S; 0.5%FS
Response Time: <1ms (up to 90%FS)
Long-term Stability: ±2F.S/Year
Medium Temperature: -20-85 Degrees
Working Temperature: -40-80 Degrees
Overload Capacity: 200%F.S
Insulation Resistance: 100MΩ/250VDC
Sensitivity Drift: ±2%F.S
Zero Drift: ±2%F.S
Protection: IP68
Mechanical Vibration: 20g (20-5000Hz)Impact: 100g (11MS)
Measuring Medium: Various medium which is compatible with SS304

Size

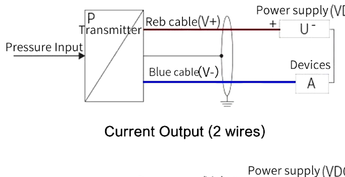


Selection

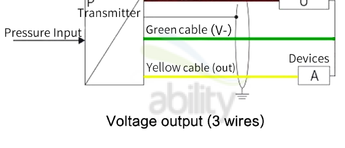
QDY30A	-	-	-	-	Notes
Range					0~0.5~500m H2O
Output signal		O1			4-20mA
		O2			0-5Vdc
		O3			1-5Vdc
		O4			0-10Vdc
		O5			RS485
Power supply			P1		12Vdc
			P2		24Vdc
			P3		12-36Vdc
Cable Length				LM	Xm,such as 5m(can be customized)

Probe Diameter	28mm
Probe Length	105mm
Cable Material	PUR

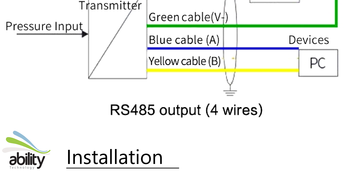
Wiring



Current Output (2 wires)

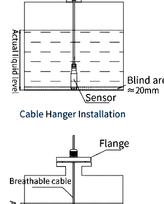


Voltage output (3 wires)



RS485 output (4 wires)

Installation

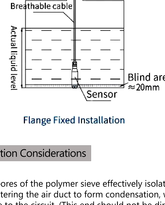


Cable Hanger Installation

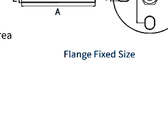


Locking core material: Engineering plastic
Hanger material: 304 stainless steel
Weight: 110g

Cable Hanger Size



Flange Fixed Installation

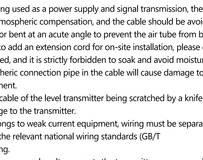


Flange Fixed Size

Installation Considerations

Warn!

1. The pores of the polymer sieve effectively isolate the water molecules in the humid environment from entering the air duct to form condensation, which flows into the probe
Damage to the circuit. (This end should not be directly immersed in water)
2. The installation of equipment must be carried out without pressurization and without power supply.
3. It is forbidden to measure media that is not compatible with the material of the transmitter.
4. When receiving the product, please check whether the packaging is intact, and check whether the transmitter model and specifications match the product you purchased.
5. No modifications or alterations can be made on the device.
6. Do not use brute force when installing the transmitter.
7. If the transmitter is installed in a bad site and encounters dangerous damage such as lightning strike or overvoltage, we recommend that the user in the distribution box;
or lightning protection and overvoltage protection between the power supply and the transmitter.
8. The transmitter can be installed vertically, obliquely or horizontally in the tank and tank, which should ensure that impurities such as sediment are buried or blocked by the transmission Probe section.
9. When the medium fluctuates greatly, measures should be taken to fix the probe part of the transmitter, such as adding counterweight to the transmitter or fixing the sleeve.
When measuring the water level in flowing water, a steel pipe larger than the diameter of the probe or PVC pipe can be inserted or installed in the water, in the tube
The sub is located in the opposite direction of the water flow direction and opens several small holes of about 5mm at different heights to allow water to enter the pipe. As shown in the image



10. In addition to being used as a power supply and signal transmission, the gas conduction cable also plays a key role in atmospheric compensation, and the cable should be avoided during installation
The lock is too tight or bent at an acute angle to prevent the air tube from becoming blocked or broken.
11. When you need to add an extension cord for on-site installation, please ensure that the wiring part is kept dry and ventilated, and it is strictly forbidden to soak and avoid moisture and dirt
Blocking the atmospheric connection pipe in the cable will cause damage to the transmitter or inaccurate measurement.
12. Please avoid the cable of the level transmitter being scratched by a knife or other sharp metal body, causing water damage to the transmitter.
13. This product belongs to weak current equipment, wiring must be separated from the strong cable, should comply with the relevant national wiring standards (GB/T 50312-2016) for wiring.
14. Ensure that the power supply voltage meets the transmitter power supply requirements.
15. Please do not disassemble by yourself when using, let alone touch the diaphragm, so as not to cause damage.