Level Measurement and Water Quality Monitoring

with Infrared, Ultrasonic, and LiDAR sensors

Material Level Measurement

Why is Material Level Measurement Important?

1. **Mining:**
   Measure the level of rocks and mines to optimize efficiency and cut cost.
2. **Agriculture:**
   Measure the level of materials to stabilize the processing operation and food safety.
3. **Chemical Industry:**
   Measure the level of raw materials to ensure the stability and efficiency of making process.
4. **Environmental Monitoring:**
   Measure the level of waste in landfills to improve the efficiency and safety.

【R718X】
Wireless Ultrasonic Distance Sensor

【R718PE02】
LiDAR For Material Level Detection Sensor

Liquid Level Detection

Why is Liquid Level Detection Important?

1. **Power Plant:**
   Monitor water-level fluctuations of spent fuel pools.
2. **Raw Water Tank:**
   Detect the changes in water level to prevent the overflow or drain of the water supply system.
3. **Feed Tank Control System**
   Measure the material level to ensure the stability and safety of the production of chemicals and medicines.
4. **Drainage System**
   Monitor the liquid level of the drainage system in case it exceeds or below the threshold.

【R718PA22】
Wireless Bottom-installed Ultrasonic Liquid Level Sensor

【R718PE】
Wireless Top Mounted Ultrasonic Liquid Level Sensor

【R718PA11】
Wireless Liquid Level Sensor

Model	Sensor	Measurement Range	Accuracy	Effectual Angle
R718X	Ultrasonic sensor	0.2 to 3.5m (blind zone: 0 to 0.2m)	S±0.12m	80°±15°
R718PA22	Ultrasonic sensor	0.12 to 3m (blind zone: 0 to 0.12m)	1%	8°
R718PE	Ultrasonic sensor	0.25 to 8m (blind zone: 0 to 0.25m)	±(1+S*0.3%) cm	20°
R718PE02	LiDAR sensor	90% Reflectivity 0Klum, 0.1 to 25m 10% Reflectivity 0Klum, 0.1 to 12m 90% Reflectivity 100Klum, 0.1 to 25m 10% Reflectivity 100Klum, 0.1 to 12m	±6cm(0.1 to 6m) ±1%(6 to 25m)	3°
R718PA11	Contact sensor	10m	0.25%FS	

Note: a. The LiDAR sensor of R718PE02 cannot be used to detect liquid levels for its ability to penetrate through liquids.
b. S refers to distance.

Toilet Tank Water Level / Liquid Hand Soap / Toilet Paper Detection

Why do we need these sensors for our bathrooms?

To create a better experience, Netvox's devices can ...

1. monitor the water level of toilet tanks.
2. detect the level of liquid hand soap and the presence of toilet paper.

【R718VA】
Wireless Capacitive Proximity Sensor

【R718VB】
Wireless Capacitive Proximity Sensor

【R311LA】
Wireless Infrared Proximity Sensor

Water Quality Monitoring

Why do we need sensors to monitor water quality?

1. Environmental Monitoring:

- Detect chemicals in water, such as heavy metals, ammonia nitrogen, and phosphorus.
- Measure the PH level, DO value,and conductivity of water.

2. Industrial Water Monitoring:

- Detect pollutants and harmful substances in wastewater
- Help companies' reevaluation of wastewater treatment.

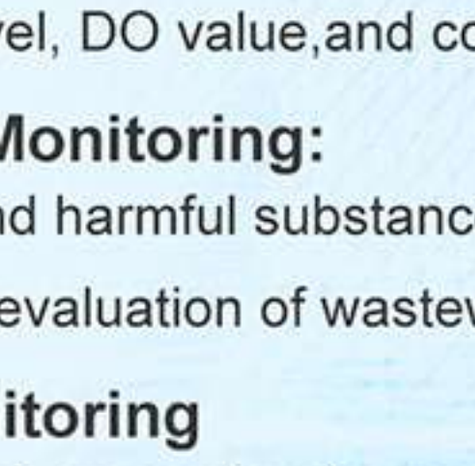
3. Urban Water Monitoring

- Detect the amount of ammonia nitrogen and phosphorus in water
- Help the government to improve urban water quality.

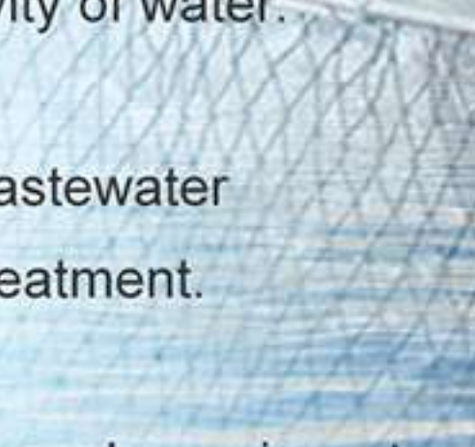
4. Aquaculture Water Quality Monitoring

- Detect the level of oxygen, ammonia nitrogen, and nitrite in water
- Improve the productivity and quality of aquaculture.

【R718PA8】
Wireless PH Sensor



【R718PA9】
Wireless ORP Sensor



【R718PA10】
Wireless Turbidity Sensor

Sensor	Measurement Range	Accuracy	Resolution
PH	0 to 14PH	±0.01PH	0.01PH
ORP	-1500 to 1500mv	±6mv	1mv
Turbidity	0.1 to 1000NTU	<5% or 0.3NTU	0.1NTU