General information about ADWQ-5019CH Online Free Chlorine(Chlorine Dioxide) Analyzer:

Product Introduction:

ADWQ-5019CH online free chlorine analyzer consists of probe, transmitter, constant current device and flow cell , with a high degree of intelligence and flexibility , which can measure free chlorine, PH, temperature, can also be used to detect chlorine dioxide, widely used in electricity , water , medicine, chemical industry.

Product Feature:

- ✓ No need to replace reagent, no discharge of waste liquid
- ✓ Real-time process control
- ✓ With PH and temperature compensation
- ✓ Integrated structure, easy installation
- ✓ Low operating costs, simple maintenance

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Application:

According to different applications, the instrument can be used with constant voltage and polarographic method of two types of sensors:

Constant voltage sensor:

It is mainly used for measuring the effective residual chlorine,chlorine dioxide in drinking water,pure water,electrode is economic,structure is simple, it is easy to be cleaned and replaced.
But measurement range is narrow,it is easily affected by the interference ions,when measuring, make sure the water flow rate through the measuring electrode is stable, therefore we recommend to use it with constant current device.

Polarography sensor:

It can be used to test chlorine, chlorine dioxide testing, chlorination control, monitoring and emissions monitoring of drinking water, tap water, recycled water, swimming pool, hospital waste and other occasions. It also cab be used in seawater. It can not be used for water containing surfactants, and the field of sewage containing copper ions, manganese ions, chromium ions. Electrode type is diversity, with wide application scope, measurement is stable, but one-time investment is a bit higher.

Working Principle:

Constant voltage sensor:

The sensor consists of two platinum electrode and a reference electrode, they constitute a micro-current measurement system, maintain a stable voltage value on the electrode measurement end, the effective chlorine, chlorine dioxide, ozone in water samples through the measuring electrode is consumed, different measured components generate currents in the voltage, there is a linear relationship between the different current intensity and measured water samples concentrations. The corresponding concentration can be measured by detecting the current.

Polarography sensor:

This type of sensor is covered with a layer of membrane, there are two electrodes behind the membrane that is galvanometer type sensor, gold cathode is working electrode, silver chloride is the corresponding anode, connected to the controller that has a fixed polarity of the voltage to the electrodes, hypochlorous acid offsets the polarity of electrodes to generate current when penetrating membrane,the measurement of this flow offset polarity current is proportional to the concentration of hypochlorous acid under constant conditions,electronic circuit of sensor is converted into standard output signal, displayed by detecting device or controller.

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Technical Specification of the device:

Sensor:

- Sensor principle: Polarography sensor-Constant voltage sensor
- Measured variables:HCLO-CLO2-Temperature pH(Optional according to the working condition or user requirements）
- Measuring range:30℃,pH7.2:0.01…0.5,0.02…2,0.01…5,0.1…10,0.5…50,1…10mg/l ,0…20mg/l
- pH range: pH range 5.5…8.0
- Medium temperature: 5…45℃,Maximum fluctuation 0.3℃/min-5/100℃
- Storage temperature: 5…50℃
- Conductivity: 50μS/m~5, 000μS/m
- Max pressure: 0~1bar （Prohibit negative pressure）/0~ 6bar（25℃）
- Application flow: 40~60l/h （Using the corresponding standard circulation15~40l/h （Using the corresponding standard circulation）
- Cross sensitivity:Chloroform,IodineCarbon Dioxide,Ozone,Bromine.

Transmitter:

- Unit：ppm, mg/L
- Accuracy：2%FS（0～5.00ppm）
- Resolution：0.01ppm，0.01pH，0.1℃
- Screen：240×160 Graphic dot-matrix backlit LCD
- Analog Output：one channel HCLO（CLO2）4-20mA analog output（Standard configuration），maximum 750Ω load resistance.
- Digital Output： RS485 digital signal output(optional)
- Control Output：with 2-channel alarm relays that can be set
- (250VDC,3A)（Standard configuration），one channel programmable
- cleaning relay output(optional)
- Power Supply：220VAC±10%, 49-51Hz, 10W
- Working Temperature：0-50℃
- Environment Humidity：≤95% non-condensing water
- Shell Material：Polycarbonate (PC)
- Protection Grade：IP65
- Installation Type：Wall-mounted Installation
- Dimension：234/185/118mm，L/W/H
- Weight：3.9kg

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