Online Residual/Total Chlorine Analyzer

The MX-FC device is one of the real-time and continuous measuring devices of this company, which, while being small and lightweight, has all the necessary facilities for a stable and easy-to-use controller.

This device is an optimal controller for industrial purposes, which can be connected to all kinds of chlorine and temperature electrodes and is able to analyze:

- Total chlorine (Total Chlorine Monitor)

- Residual chlorine monitor

- Chlorine Dioxide

- Ozone sensor

and other oxidants.

The possibility of connecting amperometric chlorine sensors with internal pH measurement capability to stabilize the applied potential on the electrode has enabled the device to use sensors with the modern technology provided in the disinfection system. .

Application

DIN96 compact size: The standard size of 96 * 96 mm with a panel cut of 89 * 89 mm (DIN standard) and lightweight along with the use of electronic components from the most famous and reliable brands of electronic equipment in the world have made it suitable and efficient.

Screen: This device with a graphic screen suitable for use in industrial place and a high-accuracy analog-to-digital converter is able to read several parameters with appropriate accuracy and repeatability.

Isolated analog output: The device has an analog current output of 4~20 mA with isolated input and output terminals, which provides the ability to connect to any external device. This output is based on opto-electronic isolation technology and provides the possibility of sending results to long distances with minimal noise.

Relay output: The existence of 3 two-state relays, the alarms in the system or when the values go out of the defined upper and lower limitsare announced on the screen as a free voltage connection output to be used in control or automation systems.

MX-FC

Alarm: This device has an isolated output alarm signal with the ability to define upper and lower limits, save and disable alarms.

Strong electronics: The high-accuracy signal amplifier with very low temperature drift, proper accuracy and stability provides the possibility of measurement with the least fluctuation.

Application: This type of transmitter is very small and lightweight and is used for a wide range of needs from drinking water and industrial water production processes to the sewage treatment industry.

Automatic and manual temperature compensation: Due to the dependence of chlorine amount on pH and temperature, very accurate temperature compensation is possible in a wider temperature range than the analog method.

power supply: this type of device can be powered by DC with voltages of 12~24 volts or 100~240 VAC and frequency of 50/60Hz.

Temperature indicator: By adding types of temperature sensors, you will be able to measure the temperature of the sample or even the environment.

Perform more than one point calibration:

Performing a multi-point calibration allows you to achieve more accurate results over a wider range of measurements.

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Amperometric Residual Chlorine Sensor

Easy installation

Low maintenance cost

Very high zero point stability

The possibility of multi-point calibration

To measure:

- Total chlorine (Total Chlorine Monitor)

- Residual chlorine monitor

-Chlorine Dioxide

- Ozone sensor

Function

The potentiostatic method is a method based on constant potential and current measurement (amperometric), which consists of two metal electrodes and a reference electrode that are placed inside a cell The current that flows into the cell causes the consumption of chlorine or ozone, which must be supplied with a constant flow of water on the electrode.

In the traditional amperometric measurement method, it is very difficult to establish a constant relationship between the amount of passing current, the amount of chlorine and ozone, especially near the zero point due to the ORP and resistance of the solution, that is why they require repeated zero point and standard calibrations.

In this method, the potential of the electrodes is electronically controlled in relation to the liquid to maintain a linear relationship between current intensity/ concentration. This action provides very high zero point stability in the absence of oxidizing species.

The design of the sensor is such that it is very easy to wash and replace.

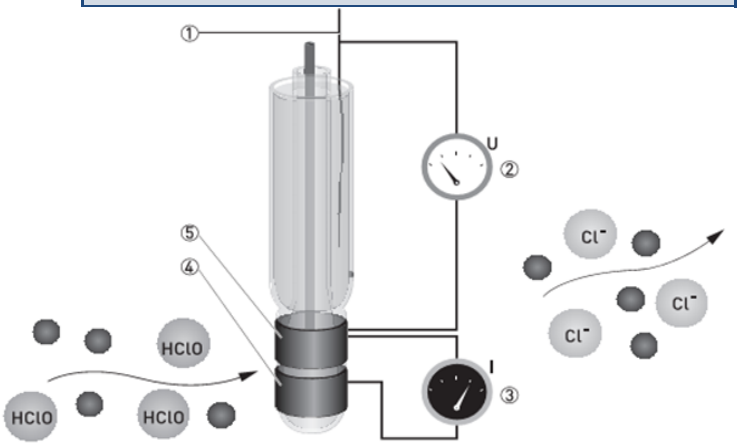
In order to establish a very constant flow of water, it is better to use cells designed for this purpose in order to achieve a stable measurement in the presence of a constant water flow.

This electrode is an electrode for measuring the amount of chlorine, chlorine dioxide and ozone based on the constant voltage principle. This type of measurement is based on constant voltage by fixing the electric potential on the side of the measuring electrode.

Different combinations in the desired measurement potential create different currents. The micro current system consists of two platinum electrodes and a reference electrode, chlorine, chlorine dioxide and ozone are consumed when water passes over the measurement electrode, so the water flow must always be constant on the electrode.

Sensor specifications

Electrode material	platinum (in the electrode)
Electrode shape	Glass bubble
Reference electrode	Inside, gel
Body Material	Glass
Cable length	5 meters, three-core silver coating
work pressure	10 Bar at 20˚C
Dimensions	Length 110 mm, diameter 12 mm



1- Reference electrode

2-Potential, especially Chlorine

3-Current required to maintain constant potential

4-counter of chlorine

5-Measuring electrode

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