Datasheet

Residual Chlorine Meter

AI-RC400

Arka Instruments LLP

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The residual chlorine meter has a built-in sensor, which has the characteristics of high measurement accuracy, fast response time and low maintenance cost. The residual chlorine meter outputs 4~20mA standard signal and RS485 signal, which can be connected to various regulators, and can be connected to two-position regulators, time proportional regulators, non-linear regulators and classic PID regulators according to requirements, which can be combined into various types. Residual chlorine control system.

Applications

- Secondary water supply
- Tap water
- Pool water
- Water works
- Agricultural drinking water

Residual Chlorine Meter

Features

- The electrode measurement is accurate and the response speed is fast
- LCD with backlight, easy and intuitive operation
- With automatic temperature compensation, pH manual compensation function
- Restore factory function to avoid data loss by misoperation
- Isolated 4-20mA standard signal can realize signal remote transmission
- Range can be switched manually
- A variety of calibration methods are convenient for on-site adjustment

Principle

The residual chlorine meter has a built-in sensor, which has the characteristics of high measurement accuracy, fast response time and low maintenance cost. The residual chlorine meter outputs 4~20mA standard signal and RS485 signal, which can be connected to various regulators, and can be connected to two-position regulators, time proportional regulators, non-linear regulators and classic PID regulators according to requirements, which can be combined into various types. Residual chlorine control system.

Parameters	
Display	7" Touch screen
Protective box dimensions	Dimensions : 400mm×300mm×180mm Visual size : 155mm×87mm
Measuring range	Free chlorine: (0～5) mg/L Temperature: (0.1～40.0) ℃
Output signal	(4~20)mA and RS485
Load resistance	≤750Ω
Ambient humidity	≤95% No condensed water
Power supply	220VAC
Ingress protection	IP43

Wiring

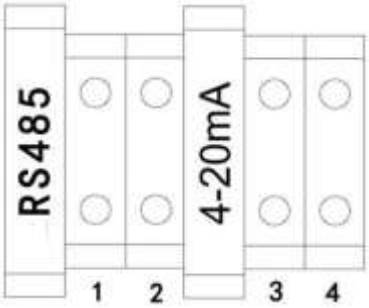
Analyzer power supply wiring

The analyzer can use 220V AC power supply. Connect cables strictly according to the related instructions. Three power plugs have been connected before delivery, which can be used directly.

Analyzer output signal wiring

Fig.3 shows the preview of analyzer output wiring and wiring definition. The user can correctly connect according to the connection information.

1 --- RS485A
2 --- RS485B
3 --- 4~20 mA +
4 --- 4~20 mA –



Analyzer wiring

Dimensions

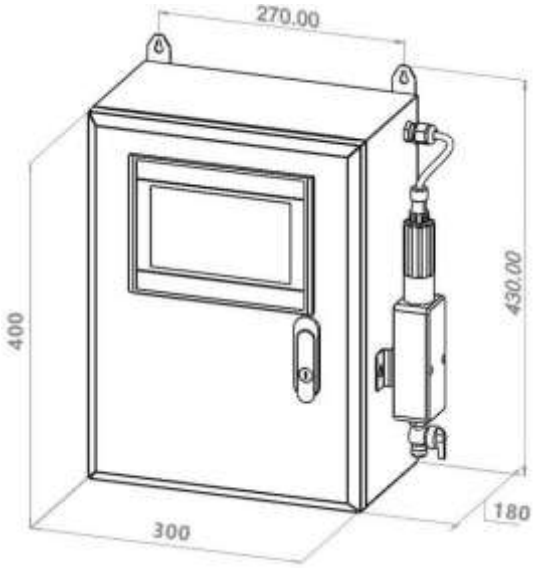


Fig.1 Protective box dimensions

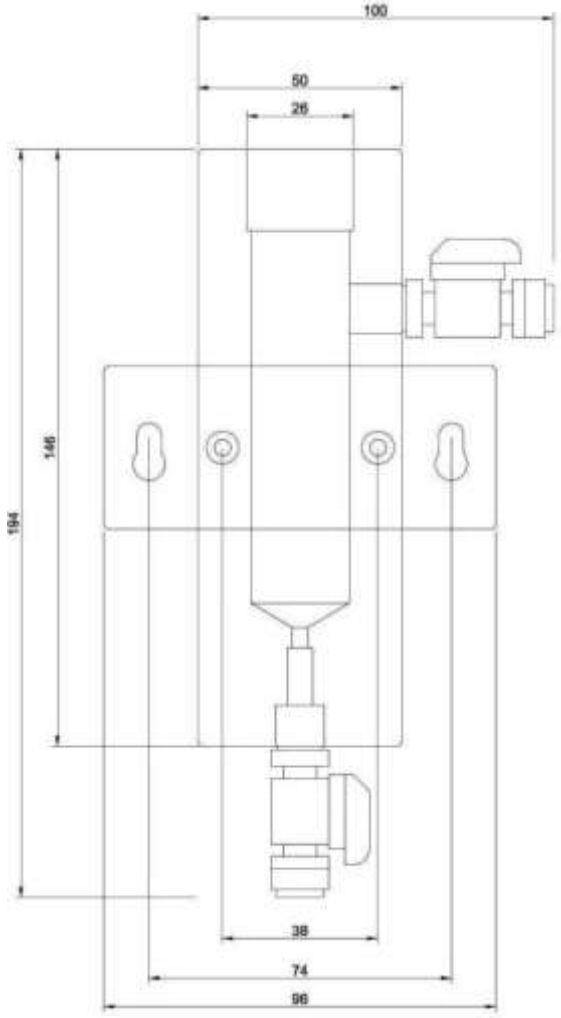


Fig.2 Flow cell dimensions

Installation

Installation location

The installation position of the analyzer shall meet the following conditions:

- Indoor installation is recommended ;
- Clean, dry ;
- There is no high-power motor operation equipment nearby ;
- Ambient temperature range is 0~40℃.

Installation of protective box

The protective box integrates touch screen, power supply and electrode, which has the characteristics of easy installation and superior protective performance. The dimensions of the protective box are shown in Fig.1. During installation, install M6-M8 expansion screws on the wall according to the spacing between the mounting feet, and then fix the box. Connect the water inlet and outlet respectively with 2 PE pipes. If there is no leakage, the water test can be carried out and the next operation can be carried out.

Choose of sampling points

When choose the sampling point, consider the following factors:

- The chlorine stays in the water for a period of time (i. e., after the residual chlorine content in the tested water sample is relatively stable).
- The sampling point should be close to the measuring unit, and the residual chlorine concentration at the sampling point should be the same as in the water sample entering the measuring unit.
- Stay away from high-power mechanical and electrical equipment, such as working pump, frequency conversion cabinet, etc.
- With the electromagnetic flowmeter and other instruments, keep the spacing is not less than 3m.
- The height of the water intake point should be the same as the installation height of the circulation pool. When the temporary water cut off on site causes backflow, it can ensure a certain amount of water in the circulation pool to avoid electrode damage caused by long-term dry burning without water.

Installation of sensor flow cell

The specific installation steps are as follows:

(1) Fix the flow cell on the wall or panel with screws;
(2) Screw the residual chlorine sensor into the flow tank;
(3) 8mm water pipe is used to connect to the water inlet and outlet of the circulation tank.
(4) Refer to Fig. 2 for dimension drawing of flow cell

Ordering Code

AI-RC400 -WB-A-4-2-3-E-03-N9									Description
AI-RC400	-	-	-	-	-	-	-	-	
Measurement Range	WB								0-5mg/L
	XX								Others
Output		A							RS485
		B							4-20mA+RS485
Temperature Compensation Type			4						PT1000
Alarm Output				2					2-channel SPST
Level of Protection					3				IP43
Power Supply						E			220VAC
Cable Length							03		3m
							XX		Others
Housing Material								N9	PVC

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