



Datasheet

Multi-parameters water analyzer

AI-MP100



Multi-parameters water analyzer AI-MP100

Multi-parameters water analyzer is a new generation of drinking water quality monitoring equipment independently developed and manufactured by our company. This equipment can be widely used in urban or rural water supply plants, tap water pipeline networks, tap water secondary water supply, user taps, Online monitoring of water quality such as large-scale water purification equipment and direct drinking water is an indispensable online analysis equipment in the fields of water plant production process control, water conservancy and water management, and sanitation supervision.

The monitoring parameters include turbidity, residual chlorine dioxide, pH, temperature, conductivity, dissolved oxygen, ORP, etc.

Application

- Urban/rural water supply plants
- Sewage treatment
- Tap water
- Secondary water supply
- Indoor swimming pools
- Online monitoring of water quality
- Water conservancy
- Water management
- Sanitation supervision

Features

- Multi-parameters
- High precision
- High reliability
- Low maintenance
- Self-protection
- Easy integration
- Strong environmental adaptability
- Highly customized



Multi-parameters water analyzer

Parameters

Working power	(220±22)VAC, (50±1)Hz
Power	30W
Cabinet size	800mm*506mm*180mm(standard version)
Weight	15kg
Storage temperature	4°C~+50°C
Working temperature	4°C~+50°C/-25°C~+50°C
Working humidity	≤95%RH (no condensation)
Inlet flow	500~1000 mL/min
Inlet pressure	< 3kg/cm ²
Communication interface	RS485 Modbus RTU communication protocol + air data interface
Display	7-inch color touch screen, Chinese/English
Working power	(220±22)V AC, (50±1)Hz
Cabinet size	800mm*506mm*180mm(standard version)

Turbidity

Measurement method	90° light scattering method
Range	0-1NTU / 0-20NTU / 0-100NTU / 0-4000NTU
Resolution	0-1NTU/0-20NTU/0-100NTU : 0.001NTU 0-4000NTU : 0.01NTU
Lower detection limit	0.02NTU ; 0.1NTU (0-4000NTU)
Zero drift	≤1.5%
Repeatability	≤3%
Response time	≤120s
Recommended maintenance period	3-12 months (depending on the water quality on site)

Residual chlorine/chlorine dioxide

Measurement method	Amperometric method/ polarography(automatic temperature and pH compensation) Chlorine dioxide adopts special membrane head and electrolyte, which can effectively shield the interference of residual chlorine, and the maximum shielding amount is 2mg/L.
Range	0-5mg/L / 0-20mg/L
Resolution	0.01mg/L
Lower detection limit	0.05mg/L
Accuracy	±0.05mg/L or ±5% (DPD comparison error ±10%)
Response time	≤120 seconds
Recommended maintenance period	1-3 months or weekly calibration, 3-6 months to replace consumables
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PH /ORP(optional)	
Measurement method	Electrode method (automatic temperature compensation)
Range	0-14pH, $\pm 2000\text{mV}$ (ORP)
Resolution	0.01pH, $\pm 1\text{mV}$ (ORP)
Accuracy	$\pm 0.1\text{pH}$, $\pm 20\text{mV}$ (ORP) or $\pm 2\%$
Repeatability	$\pm 0.1\text{pH}$, $\pm 10\text{mV}$ (ORP)
Response time	≤ 60 seconds
Recommended maintenance period	1-3 months

Temperature	
Measurement method	Thermistor method
Range	-20°C - 85°C
Resolution	0.1°C
Accuracy	$\pm 0.5^{\circ}\text{C}$
Repeatability	$\leq 0.5^{\circ}\text{C}$
Response time	≤ 25 seconds
Recommended maintenance period	12 months

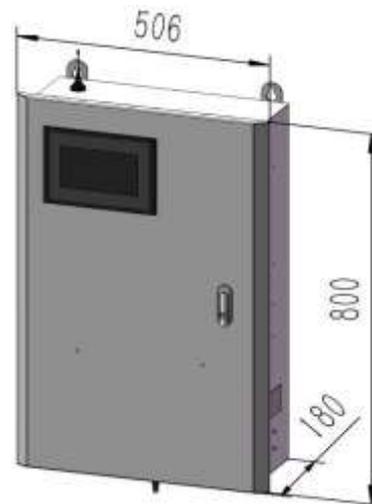
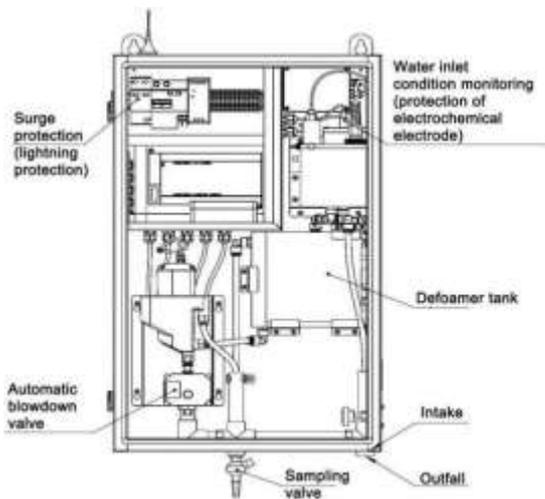
Conductivity (Optional)	
Measurement method	Conductivity cell method (automatic temperature compensation)
Range	1-2000 $\mu\text{S}/\text{cm}$ / 1~200 mS/m
Accuracy	$\pm 1.5\% \text{FS}$
Repeatability	$\leq 0.5\% \text{FS}$
Response time	≤ 30 seconds
Recommended maintenance period	3-6 months
Measurement method	Conductivity cell method (automatic temperature compensation)

Dissolved oxygen (Optional)	
Measuring method	Fluorescence method (Optional coating ampere current method)
Range	0-20mg/L
Accuracy	$\pm 0.3\text{mg}/\text{L}$
Repeatability	$\leq \pm 1.5\%$
Response time	≤ 30 seconds
Recommended maintenance period	1-3 months

Expansion port	
Port type	RS485, 4-20mA

Dimensions

The main structure of the multi-parameter water analyzer is shown in the Figure.



Ordering Code

AI-MP100-3A-A-E-3														Description	
AI-MP100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3A														Three Parameters: pH, Turbidity, Temperature
	3B														Three Parameters: pH, Residual Chlorine, Temperature
	4A														Four Parameters: pH, Turbidity, Residual Chlorine, Temperature
	4B														Four Parameters: pH, Turbidity, Chlorine Dioxide, Temperature
	5A														Five Parameters: pH, Turbidity, Residual Chlorine, Conductivity, Temperature
Measurement Parameter Type	5B														Five Parameters: pH, Turbidity, Chlorine Dioxide, Conductivity, Temperature
	5C														Five Parameters: pH, Turbidity, Dissolved Oxygen, Conductivity, Temperature
	6A														Six Parameters: pH, Turbidity, Dissolved Oxygen, Conductivity, Temperature, Residual Chlorine
	6B														Six Parameters: pH, Turbidity, Dissolved Oxygen, Conductivity, Temperature, Chlorine Dioxide
	XX														Other
Output		A													RS485
		B													4-20mA+RS485
Power Supply			E												220VAC
Housing Material and Ingress Protection				3											304SS, IP56
				4											Plastic ABS, IP65

Note: Parameters can be matched as follows: turbidity, chlorine dioxide/residual chlorine, temperature, pH, conductivity /TDS, dissolved oxygen,ORP



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