MP301 Multi-Parameter Analyzer

Introduction



MP301 multi-parameter online analyzer: suitable for long-term on-line online monitoring, measuring up to 8 parameters simultaneously, including: Temperature, Depth, pH, ORP, Conductivity & Salinity & TDS, Turbidity, DO, Chlorophyll, Blue-green algae, Ammonia nitrogen, Nitrate, Chloride, Fluoride. Optional accessories such as bluetooth module, battery pack, and handheld communicator are also available for easy portable measurement.

HDC-100A Communicator: In order to make the MP301 integrated multi-parameter analyzer complete data reading, parameter setting and calibration of the analyzer without PC, and it can be applied to handheld and portable applications. On the occasion, the company has developed a HDC-100A handheld device for use with it. Built-in GPS receiver; with bluetooth function; with USB interface and data storage function; designed with ergonomic curve, rubber gasket, suitable for hand-held operation, easy to grasp in wet environment.

Features



- The host can flexibly set the sampling interval, optimize the working/sleep time, and reduce the overall power consumption. It can be applied to battery power, solar power, and mains power supply.
- SensorRS485 A/B terminal is connected to power supply protection.
- The host can select blue-tooth communication function to realize data transmission via blue-tooth.
- Optional handheld communicator, and blue-tooth wireless communication mode with the handheld communicator, data viewing, calibration is convenient, and can realize handheld applications.
- The host has a data storage function, and more than 100,000 data.
- Self-cleaning system allows the product to obtain accurate data for a long time.
- The electrode can be replaced directly in the field, and the maintenance is simple and fast.
- Sensor power supply positive and negative reverse connection protection.
- The host has LED lights to display the current running status of the host and the working status of blue-tooth.
- Standard ModbusRS-485 digital signal output, can be connected with third-party data loggers or remote devices for integration and networking; With built-in battery, optional battery to achieve battery power in a short time; purchase in your local market.

Software Functions

- Operation software of windows interface has the function of settings, online monitoring, calibration and historical data download, convenient and efficient parameters settings. Convenient and efficient calibration functions.
- Real-time data and curve display can help users intuitively obtain the data of measured water bodies.
- Intuitively and accurately understanding and tracking the parameters' changes of the measured water bodies in a certain period through the Historical data download and curve display.

Application

- Multi-Parameter water quality online monitoring of rivers, lakes and reservoirs.
- Water quality online monitoring of drinking water source, ground water and sea water.

Mainframe Physical Indicators

Power Supply	9-36VDC	**Measuring Temperature**	0-40℃（non-freezing）

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Power Dissipation	3W	**Storage Temperature**	0-50℃（non-freezing）
Communication protocol	MODBUS RS485	**Protection Class**	IP68
Size	Diameter 90*Length 635mm	**Weight**	5KG
Maximum withstand pressure depth	30M(With ion selective elect rode: 10 m）	**Battery capacity**	8 sections, 3.6V lithium sub-battery

Communicator Physical Indicators

Display	3.5-inch color display screen with adjustable backlight
Data storage	More than 100,000 data
Material	ABS+PC
Power supply	Built-in battery power, battery specifications: 4 3.7V rechargeable lithium battery
Protection level	IP67
Operating & Storage temperature	0-50℃（Non-freezing）,-15-60℃
Size &Weight	203*100*43mm,0.5KG

Standard Electrode Parameters

pH Sensor :		**Temperature:**	
Principle	Glass electrode method	**Principle**	Thermistor method
Range	0-14 pH（With ion electrode:5~ 10 pH）	**Range**	0℃-60℃（Mainframe's work temp. 0~40℃）
Resolution	0.01 pH	**Resolution**	0.1℃
Accuracy	±0.1 pH	**Accuracy**	±0.5℃
Conductivity sensor:		**ORP Sensor:**	
Principle	A pair of platinum gauze electrode	**Principle**	Glass electrode method
Range	1us/cm-2000 us/cm（K=1） 100us/cm-100ms/cm（K=10.0）	**Range**	-1000mV -+1000mV
Resolution	0.1us/cm-0.01ms/cm（Depending on the range)	**Resolution**	1mV
Accuracy	±3%	**Accuracy**	±5mV
DO sensor:		**Turbidity sensor:**	
Principle	Fluorescence	**Principle**	Light scattering method
Range	0 -20 mg/L；0-20 ppm；0-200%	**Range**	0-1000NTU
Resolution	0.1%/0.01mg/l	**Resolution**	0.1NTU
Accuracy	±3% or ±0.3 mg/L, whichever is greater	**Accuracy**	± 5% or 0.3NTU, whichever is greater
Chlorophyll sensor:		**Blue-green algae sensor:**	
Principle	Fluorescence	**Principle**	Fluorescence
Range	0-500 ug/L	**Range**	0-300,000cells/mL
Resolution	0.01 ug/L-0.1 ug/L, Depending on range	**Resolution**	20cells/mL
Accuracy	±5% of the signal level corresponding value of 1ppb Rhodamine B Dye	**Accuracy**	±10% of the signal level corresponding value of 1ppb Rhodamine B Dye
Ammonia Sensor:		**Nitrate Sensor:**	
Principle	Ion selection	**Principle**	Ion selection
Range	0.1-3000mg/L-N	**Range**	0.5-3000mg/L-N
Resolution	0.01mg/L-N	**Resolution**	0.01mg/L-N
Accuracy	±5% or ±0.2mg/L	**Accuracy**	±10% or ±0.2mg/L
Chloride Sensor:		**Fluoride Sensor:**	
Principle	Ion selection	**Principle**	Ion selection
Range	3-3500mg/L	**Range**	0.5-10000mg/L
Resolution	0.01mg/L	**Resolution**	0.01mg/L
Accuracy	±10% or ±0.2mg/L	**Accuracy**	±10% or ±0.2mg/L
Depth (Pressure):		**Potassium ion sensor**	
Principle	Pressure-sensitive Method	**Principle**	Ion selection
Range	0-61m(Maximum withstand pressure depth:30M）	**Range**	0.5-5000 mg/L
Resolution	2cm	**Resolution**	0.01mg/L
Accuracy	±0.3%	**Accuracy**	±10% or ±0.2mg/L

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