

# Water Quality Analyzer



# Intelligent Professional Water Analyzer

M510T



**Large color touch screen**  
Easy operation and comfortable experience



**Method management**  
Various methods are built-in, available for methods customization



**Support for Bluetooth**



**Assortment of accessories**

## GENERAL FEATURES

- Color High contrast LCD touchscreen, 4.3 inches.
- Intelligent operation system provides features including user management, calibration management, electrode management, method management, data management, Log Management and etc.
- Multi-reading feature allows auto-read, timed-read and continuous-read.
- Automatic/Manual temperature compensation ensures accurate results.
- Auto-hold feature senses and locks the measurement endpoint.
- Data Storage 1000 sets for each parameter (GLP-compliant).
- Data analysis feature helps user review, compare and recalculate results.
- Support for USB communication.
- Auto-power off feature effectively extends the battery service life.
- Reset feature automatically resumes all settings back to factory default options.
- IP65 waterproof. The portable meter is suitable for fields measurements and out door measurements.

## pH

- 1-8 points calibration with Standard Recognition.
- Selectable pH buffer groups, including USA, NIST, DIN, GB, MERK, JIS.
- User-defined pH buffer or buffer group is supported.
- Automatic electrode diagnosis with pH slope and offset display.

## Ion

- 1-6 points calibration.
- Selectable measurement unit, including  $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{g/L}$ ,  $\text{mmol/L}$ ,  $\text{pX}$ ,  $\text{ppm}$ , etc.
- Multi-measurement modes are supported, including Direct Reading mode, Standard Addition mode, Sample Addition mode and GRAN mode.
- Over 10 methods are built-in, including  $\text{F}^-$ ,  $\text{Cl}^-$ ,  $\text{Br}^-$ ,  $\text{I}^-$ ,  $\text{NO}_3^-$ ,  $\text{BF}_4^-$ ,  $\text{NH}_4^+$ ,  $\text{K}^+$ ,  $\text{Na}^+$ ,  $\text{Ca}^{2+}$ ,  $\text{Cu}^{2+}$ ,  $\text{Pb}^{2+}$ ,  $\text{Ag}^+$  and etc., user-defined method is supported.

## Conductivity

- 1-5 points calibration automatically recognizes the standard solutions.
- Settable parameters, including cell constant, reference temperature (5/10/15/18/20/25°C), temperature compensation coefficient and TDS factor.
- Temperature compensation type (none, linear, pure water).

## DO

- Support for air-saturated water or zero oxygen calibration.
- Auto barometric pressure compensation
- Manual Salinity Factor Correction
- Selectable pressure unit, including  $\text{kPa}$ ,  $\text{mbar}$ ,  $\text{Torr}$ ,  $\text{Atm}$ .

Model	M510T	
Parameters	pH/EC/ISE/DO/Temp. (mV/ORP/pX/Resistivity/TDS/Sal./DO Saturation)	
pH	Range	-2.000 to 20.000 pH
	Resolution	0.1, 0.01, 0.001pH
	Accuracy	± 0.002 pH
	Calibration Points	Up to 8
	Standard Customization	Yes
	Calibration Reminder	Yes
	Standard Recognition	USA, NIST, MERK, JIS, GB and DIN buffers
	Slope Limit	Yes
mV/ORP	Range	-2000.00 to 2000.00 mV
	Resolution	0.1, 0.01 mV
	Accuracy	± 0.1 mV or ± 0.03%
	EH ORP Mode	Yes
	ORP Calibration Points	1 custom point (relative mV)
pX	Range	-2.000 to 20.000 pX
	Resolution	0.1, 0.01, 0.001 pX
	Accuracy	± 0.002 pX
	Calibration Points	Up to 6
ISE	Range	1E-9 to 9.999E9
	Units	mol/L, mmol/L, g/L, mg/L, µ g/L
	Resolution	Up to 4 significant digits
	Accuracy	± 0.3%
Conductivity	Calibration Points	Up to 8
	Range	0.000 µ S/cm to 3000 mS/cm
	Resolution	0.001 µ S/cm minimum, various with range selection
	Accuracy	± 0.5% FS
	Reference Temperature	5, 10, 15, 18, 20, 25 °C
	Calibration Points	Up to 5
	Calibration Reminder	Yes
Resistivity	Standard Recognition	10 µ S/cm, 84 µ S/cm, 500 µ S/cm, 1413 µ S/cm, 12.88mS/cm
	Range	5.00 Ω ·cm~100.00 M Ω ·cm
	Resolution	0.01 Ω ·cm minimum
TDS	Accuracy	± 0.5% FS
	Range	0.000mg/L~1000g/L
	Resolution	0.001mg/L minimum, changed with range
Salinity	Accuracy	± 0.5%
	Range	(0.00~8.00)%
	Resolution	0.01%
Dissolved Oxygen Concentration	Accuracy	± 0.1%
	Sensor Type	Polarographic
	Range	0.00 to 99.99 mg/L
	Resolution	0.01mg/L
	Accuracy	± 0.3mg/L (0.00 to 20.00 mg/L); ± 10% (20.00 to 99.99 mg/L)
	Calibration Reminder	Yes
	Calibration Points	Air-saturated water or zero point
Saturation	Barometric Compensation	Yes
	Manual Salinity Factor Correction	Yes
	Range	(0.0 to 600.0)%
Temperature	Resolution	0.10%
	Accuracy	± 10.0%
	Range	-10 to 135 °C, 14 to 275 °F
	Unit	°C, °F
Measurement	Resolution	0.1
	Relative Accuracy	± 0.1
	Reading Mode	Auto Read (Fast, Medium, Slow), Timed, Continuous
Data management	Reading Prompts	Reading, Stable, Locked
	Temp. Compensation	ATC, MTC
	Data Storage	1000 Groups
Inputs	GLP Features	Yes
	pH Electrode	BNC(Q9)
	DO with Temp. Probe	4-pin aviation connector
Outputs	Conductivity with Temp. Probe	5-pin aviation connector
	USB	USB 2.0 flash memory device, PC, scanner
Display options	Bluetooth	printer
	Backlight	Yes
	Auto Shutdown	300, 600, 1200, 1800, 3600 sec., off
	IP Rating	IP65
General	Date and Time	Yes
	Power	Rechargeable Lithium battery, AC Adapter, 100-240V AC input, DC5V output
	Dimensions	90 × 255 × 40 mm
	Weight	500g (1.1 lb)