

510T Series Portable Meters



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 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 parameters (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.

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.

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).

Ion

- 1-6 points calibration.
- Selectable measurement unit, including µg/L, mg/L, g/L, mmol/L, pX, 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 F⁻, Cl⁻, Br⁻, I⁻, NO₃⁻, BF₄⁻, NH₄⁺, K⁺, Na⁺, Ca²⁺, Cu²⁺, Pb²⁺, Ag⁺ and etc.; user-defined method is supported.

DO

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

Model	M510T	M510T-A	PH510T	EC510T	I510T	DO510T	DO511T
Parameters (up to 12)	pH/EC/ISE/DO/Temp. (mV/ORP/pX/Resistivity/TDS/Sal./ DO Saturation)	pH/EC/ISE/Temp. (mV/ORP/pX/Resistivity/TDS/Sal.)	pH/Temp. (mV/ORP)	EC/Temp. (Resistivity/TDS/Sal.)	pH/ISE/Temp. (mV/ORP/pX)	DO/Temp. (DO Saturation)	DO/Temp. (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	•	•	/	•	/
mV/ORP	Slope Limit	Yes	•	•	/	•	/
	Range	-2000.00 to 2000.00 mV	•	•	/	•	/
	Resolution	0.1, 0.01 mV	•	•	/	•	/
	Accuracy	±0.1 mV or ±0.03 % of reading whichever is greater	•	•	/	•	/
	EH ORP Mode	Yes	•	•	/	•	/
pX	ORP Calibration Points	1 custom point (relative mV)	•	•	/	•	/
	Range	-2.000 to 20.000 pX	•	/	/	•	/
	Resolution	0.1, 0.01, 0.001 pX	•	/	/	•	/
	Accuracy	±0.002 pX	•	/	/	•	/
ISE	Calibration Points	Up to 6	•	/	/	•	/
	Range	1E-9 to 9.999E9	•	/	/	•	/
	Units	mol/L, mmol/L, g/L, mg/L, µg/L	•	/	/	•	/
	Resolution	Up to 4 significant digits	•	/	/	•	/
	Accuracy	±0.3 %	•	/	/	•	/
Conductivity	Calibration Points	Up to 8	•	/	/	•	/
	Range	0.000 µS/cm to 3000 mS/cm	•	/	•	/	/
	Resolution	0.001 µS/cm minimum; changed with range	•	/	•	/	/
	Accuracy	±0.5 % FS	•	/	•	/	/
	Reference Temperature	5, 10, 15, 18, 20, 25 °C	•	/	•	/	/
	Calibration Points	Up to 5	•	/	•	/	/
Resistivity	Calibration Reminder	Yes	•	/	•	/	/
	Standard Recognition	10µS/cm, 84µS/cm, 500µS/cm, 1413µS/cm; 12.88mS/cm	•	/	•	/	/
	Range	5.00Ω·cm ~ 100.00MΩ·cm	•	/	•	/	/
TDS	Resolution	0.01Ω·cm minimum	•	/	•	/	/
	Accuracy	±0.5 % FS	•	/	•	/	/
	Range	0.000mg/L ~ 1000g/L	•	/	•	/	/
Salinity	Resolution	0.001mg/L minimum; changed with range	•	/	•	/	/
	Accuracy	±0.5%	•	/	•	/	/
	Range	(0.00 ~ 8.00)%	•	/	•	/	/
Dissolved Oxygen Concentration	Resolution	0.01%	•	/	•	/	/
	Accuracy	±0.1%	•	/	•	/	/
	Sensor Type	Polarographic	/	/	/	•	Optical
	Range	0.00 to 99.99 mg/L	/	/	/	•	0.00 to 20.00 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)	/	/	/	•	±0.3mg/L (0.00 to 20.00 mg/L)
	Calibration Reminder	Yes	/	/	/	•	/
Saturation	Calibration Points	Air-saturated water or zero point	/	/	/	•	•
	Barometric Compensation	Yes	/	/	/	•	•
	Manual Salinity Factor Correction	Yes	/	/	/	•	•
Temperature	Range	(0.0 to 600.0) %	/	/	/	•	(0.0 to 200.0) %
	Resolution	0.10%	/	/	/	•	•
	Accuracy	±10.0 %	/	/	/	•	•
Measurement	Range	-10 to 135 °C, 14 to 275 °F	•	•	•	•	0 to 50 °C
	Unit	°C, °F	•	•	•	•	°C
	Resolution	0.1	•	•	•	•	•
	Relative Accuracy	±0.2	•	•	•	•	•
Data Management	Reading Mode	AutoRead(Fast, Medium, Slow), Timed, Continuous	•	•	•	•	•
	Reading Prompts	Reading, Stable, Locked	•	•	•	•	•
Inputs	Data Storage	1000 Groups	•	•	•	•	•
	GLP Features	Yes	•	•	•	•	•
Outputs	pH Electrode	BNC(Q9)	•	•	/	•	/
	Temp./DO Probe	4-pin aviation connector	•	•	/	•	•
Display Options	Temp./EC. Probe	5-pin aviation connector	•	/	/	/	/
	USB	USB 2.0 flash memory device, PC,scanner	•	•	•	•	•
General	Bluetooth	printer	•	•	•	•	•
	Backlight	Yes	•	•	•	•	•
	Auto Shut-down	300, 600, 1200, 1800, 3600sec, off	•	•	•	•	•
General	IP Rating	IP65	•	•	•	•	•
	Date and Time	Yes	•	•	•	•	•
	Power	Rechargeable Lithium batter; AC Adapter, 100-240 V AC input, DC5V output	•	•	•	•	•
General	Dimensions	90 x 255 x 40 mm	•	•	•	•	•
	Weight	500g (1.1 lb)	•	•	•	•	•

• INCLUDED, / NONE