

## 310T Series Portable Meters



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



**Tilting stand**  
Support better reading and operation



**Multiple external devices available**  
PC, printer



**Wristbands**  
Safety hold

### GENERAL FEATURES

- Color High contrast LCD touchscreen, 4.3 inches.
- 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 capacity of up to 1000 sets for each parameters (GLP-compliant).
- 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

- 1-5 points calibration with standard recognition.
- Selectable pH buffer groups, including NIST, DIN, GB.
- Automatic electrode diagnosis with pH slope and offset display.

### Conductivity

- 1-3 points calibration with standard recognition.
- Settable parameters, including cell constant, temperature compensation coefficient, and TDS factor.
- Temperature compensation type (none, linear, pure water).

### Ion

- 1-5 points calibration.
- Selectable measurement unit, including  $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{g/L}$ ,  $\text{mmol/L}$ ,  $\text{pX}$ ,  $\text{ppm}$ , etc.
- 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.

### DO

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

| Model                          |                                   | M310T                                                                   | PH310T           | EC310T                             | I310T                   |
|--------------------------------|-----------------------------------|-------------------------------------------------------------------------|------------------|------------------------------------|-------------------------|
| Parameters (up to 12)          |                                   | pH/EC/ISE/DO/Temp.<br>(mV/ORP/pX/Resistivity/TDS/Sal. / DO Saturation)  | pH/Temp.<br>(mV) | EC/Temp.<br>(Resistivity/TDS/Sal.) | pH/ISE/Temp.<br>(mV/pX) |
| pH                             | Range                             | -2.00 to 20.00pH                                                        | •                | /                                  | •                       |
|                                | Resolution                        | 0.1, 0.01 pH                                                            | •                | /                                  | •                       |
|                                | Accuracy                          | ±0.01 pH                                                                | •                | /                                  | •                       |
|                                | Calibration Points                | Up to 5                                                                 | •                | /                                  | •                       |
|                                | Standard Customization            | Yes                                                                     | •                | /                                  | •                       |
|                                | Calibration Reminder              | Yes                                                                     | •                | /                                  | •                       |
| mV                             | Standard Recognition              | NIST, GB and DIN buffers                                                | •                | /                                  | •                       |
|                                | Range                             | -2000.0 to 2000.0 mV                                                    | •                | /                                  | •                       |
|                                | Resolution                        | 0.1                                                                     | •                | /                                  | •                       |
| pX                             | Accuracy                          | ±0.3 mV or ±0.1 %                                                       | •                | /                                  | •                       |
|                                | Range                             | -2.00 to 20.00                                                          | /                | /                                  | •                       |
|                                | Resolution                        | 0.1, 0.01 pX                                                            | /                | /                                  | •                       |
|                                | Accuracy                          | ±0.02 pX                                                                | /                | /                                  | •                       |
| ISE                            | Calibration Points                | Up to 5                                                                 | /                | /                                  | •                       |
|                                | Range                             | 1E-9 to 9.999E9                                                         | /                | /                                  | •                       |
|                                | Units                             | mol/L, mmol/L, g/L, mg/L, µg/L, ppm                                     | /                | /                                  | •                       |
|                                | Resolution                        | Up to 4 significant digits                                              | /                | /                                  | •                       |
|                                | Accuracy                          | ±0.5 %                                                                  | /                | /                                  | •                       |
| Conductivity                   | Calibration Points                | Up to 5                                                                 | /                | /                                  | •                       |
|                                | Range                             | 0.000 µS/cm to 1000 mS/cm                                               | /                | •                                  | /                       |
|                                | Resolution                        | 0.001 µS/cm minimum;<br>changed with range                              | /                | •                                  | /                       |
|                                | Accuracy                          | ±1.0 % FS                                                               | /                | •                                  | /                       |
|                                | Reference Temperature             | 20, 25 °C                                                               | /                | •                                  | /                       |
|                                | Calibration Points                | Up to 3                                                                 | /                | •                                  | /                       |
| Resistivity                    | Calibration Reminder              | Yes                                                                     | /                | •                                  | /                       |
|                                | Standard Recognition              | 84µS/cm, 1413µS/cm; 12.88mS/cm                                          | /                | •                                  | /                       |
|                                | Range                             | 5.00Ω·cm ~ 20.00MΩ·cm                                                   | /                | •                                  | /                       |
| TDS                            | Resolution                        | 0.01Ω·cm minimum                                                        | /                | •                                  | /                       |
|                                | Accuracy                          | ±1.0 % FS                                                               | /                | •                                  | /                       |
|                                | Range                             | 0.00mg/L ~ 300g/L                                                       | /                | •                                  | /                       |
| Salinity                       | Resolution                        | 0.01mg/L                                                                | /                | •                                  | /                       |
|                                | Accuracy                          | ±0.2%                                                                   | /                | •                                  | /                       |
|                                | Range                             | (0.00 ~ 8.00)%                                                          | /                | •                                  | /                       |
| Dissolved Oxygen Concentration | Resolution                        | 0.01%                                                                   | /                | •                                  | /                       |
|                                | Accuracy                          | ±0.2%                                                                   | /                | •                                  | /                       |
|                                | Sensor Type                       | Polarographic                                                           | /                | /                                  | /                       |
|                                | Range                             | 0.00 to 50.00 mg/L                                                      | /                | /                                  | /                       |
|                                | Resolution                        | 0.01mg/L                                                                | /                | /                                  | /                       |
|                                | Accuracy                          | ±0.3mg/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 300.0) %                                                        | /                | /                                  | /                       |
| Temperature                    | Resolution                        | 0.1%                                                                    | /                | /                                  | /                       |
|                                | Accuracy                          | ±10.0 %                                                                 | /                | /                                  | /                       |
|                                | Range                             | -5 to 110 °C, 23 to 230 °F                                              | •                | •                                  | •                       |
|                                | Unit                              | °C, °F                                                                  | •                | •                                  | •                       |
| Measurement                    | Resolution                        | 0.1                                                                     | •                | •                                  | •                       |
|                                | Relative Accuracy                 | ±0.2                                                                    | •                | •                                  | •                       |
|                                | Reading Mode                      | AutoRead( Fast, Medium, Slow), Timed, Continuous                        | •                | •                                  | •                       |
| Data Management                | Reading Prompts                   | Reading, Stable, Locked                                                 | •                | •                                  | •                       |
|                                | Temp. Compensation                | ATC, MTC                                                                | •                | •                                  | •                       |
| Inputs                         | Data Storage                      | 1000 results each                                                       | •                | •                                  | •                       |
|                                | GLP Features                      | Yes                                                                     | •                | •                                  | •                       |
|                                | pH Electrode                      | BNC(Q9)                                                                 | •                | /                                  | •                       |
| Outputs                        | Temp./DO Probe                    | 4-pin aviation connector                                                | •                | /                                  | •                       |
|                                | Temp./EC. Probe                   | 5-pin aviation connector                                                | /                | •                                  | /                       |
| Display Options                | USB                               | USB 2.0 flash memory device, PC,scanner                                 | •                | •                                  | •                       |
|                                | Backlight                         | Yes                                                                     | •                | •                                  | •                       |
|                                | Auto Shut-down                    | 300, 600, 1200, 1800, 3600sec, off                                      | •                | •                                  | •                       |
|                                | IP Rating                         | IP65                                                                    | •                | •                                  | •                       |
| General                        | Date and Time                     | Yes                                                                     | •                | •                                  | •                       |
|                                | Power                             | Rechargeable Lithium batter; AC Adapter, 100-240 VAC input, DC5V output | •                | •                                  | •                       |
|                                | Dimensions                        | 90 x 255 x 40 mm                                                        | •                | •                                  | •                       |
|                                | Weight                            | 500g (1.1 lb)                                                           | •                | •                                  | •                       |

• INCLUDED, / NONE