

## M600L Multi-parameter Analyzer



**Large color touch screen**  
Simple Operation, Comfortable Experience



**Modular design**  
Four channels, flexible configuration



### GENERAL FEATURES

- Color High contrast LCD touchscreen, 7.0 inches.
- Temperature Unit Options: Choose between °C or °F.
- Reset feature automatically resumes all settings back to factory default options.
- IP54 waterproof.

### Professional - Moldable, Multi-channel

- Modular four Channel: Four measurements channels can be configured in any combination of the modules.
- Support for 6 modules: pH module, pX module, EC-T module, EC-F module, DO-F module, DO-P module.
- The multi-channel allows measurements of 1, 2, 3, or 4 parameters simultaneously, either in the same or in different samples.
- According to the module, the parameters can be pH, mV, EC, Resistivity, TDS, Sal., ISE, pX, DO, DO Saturation and Temp.

### Smart operation, Auto-recognition, High throughput

- Intelligent operating system, with user management, method management, method management, sample management, electrode management, data management, GMP management and other functions.
- User three-level authority management and password management.
- Method management function, built-in methods and custom measurement methods.
- Multi-reading feature allows auto-read, timed-read and continuous-read.
- Support calibration reminder and forced calibration function
- Support standard liquid check and mandatory check function
- Calibration and measurement alarm limit setting.
- Connection with automatic sampler to realize the automatic measurement and batch detection of samples.

### Data management, Audit trial

- Data Storage 1000 sets for each parameter (GLP-compliant).
- Support for GMP management, the GMP logs achieve the tracking and analysis of the the data.
- Support for RS-232 communication for print and the print format can be alternate.
- Support for USB communication for PC software.
- Support for U disk for method export and import.
- Support for U disk for data export with CSV or PDF format.
- Support for barcode scanner.

### pH module

- It shows the mV, pH and ORP
- NIST, USA, MERK GB, DIN, or JIS pH buffers standard recognition.
- Data storage of 1000 sets of pH measurement results, 100 sets of calibration data, and 1000 sets of pH standard solution verification data.

### pX module

- It shows the mV, pH, pX, ORP and ion concentration.
- Selectable measurement unit, including µg/L, mg/L, g/L, mmol/L, pX, ppm, ppb, 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<sup>-</sup>, Cl<sup>-</sup>, Br<sup>-</sup>, I<sup>-</sup>, NO<sub>3</sub><sup>-</sup>, BF<sub>4</sub><sup>-</sup>, NH<sub>4</sub><sup>+</sup>, K<sup>+</sup>, Na<sup>+</sup>, Ca<sup>2+</sup>, Cu<sup>2+</sup>, Pb<sup>2+</sup>, Ag<sup>+</sup> and etc., user-defined method is supported.
- NIST, USA, MERK GB, DIN, or JIS pH buffers standard recognition.
- 1 point ORP calibration.
- NIST, USA, MERK GB, DIN, or JIS pH buffers standard recognition.
- Data storage of 1000 sets of pH/ORP/Ion measurement results, 100 sets of calibration data, and 1000 sets of pH standard solution verification data.

### EC-T module

- It shows conductivity, Resistivity, TDS, Salinity and Ash.
- 1-5 points calibration with GB and International standard recognition .
- Temperature compensation type (none, linear, pure water).
- Settable parameters, including cell constant, reference temperature (5/10/15/18/20/25°C), temperature compensation coefficient and TDS factor.
- Data storage of 1000 sets of EC/Resistivity/TDS/Salinity/Ash measurement results, 100 sets of calibration data, and 1000 sets of EC standard solution verification data.

### DO-F module

- 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.
- Data storage of 1000 sets of DO/Saturation measurement results, 100 sets of calibration data, and 1000 sets of Zero DO and Full DO verification data.

| Model                          |                     | M600L                                                                   |                                                        |
|--------------------------------|---------------------|-------------------------------------------------------------------------|--------------------------------------------------------|
| Parameters                     |                     | pH/EC/ISE/DO/Temp. (mV/ORP/pX/Resistivity/TDS/Sal./DO Saturation)       |                                                        |
| Module                         |                     | pX module                                                               | pH module                                              |
| mV                             | Range               | (-2000.00~2000.00)mV                                                    | •                                                      |
|                                | Resolution          | 0.01mV                                                                  | •                                                      |
|                                | Accuracy            | ±0.03% 或 ±0.1mV                                                         | •                                                      |
| pH                             | Range               | (-2.000~20.000)pH                                                       | •                                                      |
|                                | Resolution          | 0.001pH                                                                 | •                                                      |
|                                | Accuracy            | ±0.002pH                                                                | •                                                      |
| pX                             | Range               | (-2.000~20.000)pX                                                       | /                                                      |
|                                | Resolution          | 0.001pX                                                                 | /                                                      |
|                                | Accuracy            | ±0.002pX                                                                | /                                                      |
| Ion Concntration               | Range               | ( 1.000e-9~9.999e+9),<br>Unit: mol/L, mmol/L, g/L, mg/L, µg/L, ppm, ppb | /                                                      |
|                                | Resolution          | Up to 4 significant digits                                              | /                                                      |
|                                | Accuracy            | ±0.3%                                                                   | /                                                      |
| Temperature                    | Range               | (-10.0~135.0)°C /(14.0~275.0) °F                                        | •                                                      |
|                                | Resolution          | 0.1 °C /0.1 °F                                                          | •                                                      |
|                                | Accuracy            | ±0.3°C (0.0°C ~60.0°C ); ±1.0 °C (Other Range)                          | •                                                      |
| Module                         |                     | EC-T module                                                             | EC-F module                                            |
| Conductivity                   | Range               | 0.000µS/cm~3000mS/cm                                                    | 50.0 µS/cm~3000mS/cm                                   |
|                                | Resolution          | 0.001µS/cm minimum, various with range selection                        | 0.001µS/cm minimum, various with range selection       |
|                                | Accuracy            | ±0.5% FS                                                                | ±1.5% FS                                               |
| Resistivity                    | Range               | 5.00Ω·cm~100.0MΩ·cm                                                     | 5.00Ω·cm~20.0kΩ·cm                                     |
|                                | Resolution          | 0.01Ω·cm minimum, various with range selection                          | 0.01Ω·cm minimum, various with range selection         |
|                                | Accuracy            | ±0.5% FS                                                                | ±1.5% FS                                               |
| TDS                            | Range               | 0.000 ppm~1000ppt                                                       | 25.0 ppm~1000 ppt                                      |
|                                | Resolution          | 0.001ppm minimum, various with range selection                          | 0.001ppm minimum, various with range selection         |
|                                | Accuracy            | ±0.5% FS                                                                | ±1.5% FS                                               |
| Salinity                       | Range               | (0.00~8.00)%                                                            | 0.0~80.0 ppt                                           |
|                                | Resolution          | 0.01%                                                                   | 0.1ppt                                                 |
|                                | Accuracy            | ±0.1%                                                                   | ±2ppt                                                  |
| Temperature                    | Range               | (-10.0~135.0)°C /(14.0~275.0) °F                                        | (-10.0~135.0)°C /(14.0~275.0) °F                       |
|                                | Resolution          | 0.1 °C /0.1 °F                                                          | 0.1 °C /0.1 °F                                         |
|                                | Accuracy            | ±0.3°C (0.0°C ~60.0°C ); ±1.0 °C (Other Range)                          | ±0.5°C (0.0°C ~60.0°C );±1.5 °C (Other Range)          |
| Module                         |                     | DO-F module                                                             | DO-P module                                            |
| Dissolved Oxygen Concentration | Range               | (0.00~20.00)ppm                                                         | (0.00~99.99) ppm                                       |
|                                | Resolution          | 0.01ppm                                                                 | •                                                      |
|                                | Repeatability       | 0.15ppm                                                                 | •                                                      |
|                                | Zero Accuracy       | ≤0.1ppm                                                                 | •                                                      |
|                                | Accuracy            | /                                                                       | ±0.10ppm, (0.00~50.00)ppm<br>±0.50ppm, (50.0~99.99)ppm |
|                                | Instrument Accuracy | ±0.30 ppm                                                               | ≤20.00ppm: ±0.30 ppm<br>> 20.00ppm: ±10.0%             |
|                                | Response time       | ≤60s(20°C , up to 90% response)                                         | ≤45s(20°C up to 90% response)                          |
|                                | Salinity Accuracy   | ±2%                                                                     | •                                                      |
| Saturation                     | Range               | (0.0~200.0)%                                                            | (0.0~600.0)%                                           |
|                                | Resolution          | 0.10%                                                                   | •                                                      |
|                                | Accuracy            | ±10.0%                                                                  | •                                                      |
| Temperature                    | Range               | (0.0~50.0) °C /(32.0~122.0) °F                                          | (-10.0~135.0)°C /(14.0~275.0) °F                       |
|                                | Resolution          | 0.1 °C /0.1 °F                                                          | •                                                      |
|                                | Accuracy            | ±0.3°C (0~50°C )                                                        | ±0.3°C (0.0~60.0°C );±1.0 °C (Other Range)             |
| Environment                    |                     | Temperature: (0~40) °C<br>Relative Humidity: ≤85%                       |                                                        |
| Power                          |                     | AC Adapter, 100-240V AC input, DC20V output                             |                                                        |
| Dimensions, Weight             |                     | 240×310×98mm, about 2.0kg                                               |                                                        |