

Mi180

pH/ORP/EC/TDS/NaCl/Temperature Laboratory Bench Meter

Mi180 measures 6 different parameters: pH, ORP, EC, TDS (Total Dissolved Solids), percentage of NaCl and temperature in a variety of ranges.

pH calibration can be performed in 3 points selectable between 7 memorized buffers, to provide a very accurate calibration curve even when testing different samples, where very wide differences in pH can be found.

The auto-ranging feature for EC and TDS measurements automatically sets the resolution suitable to the tested sample. All measurements can be temperature compensated at 20 or 25°C and the compensation coefficient is selectable by the user.

The automatic temperature compensation can also be disabled for measuring the actual conductivity value. The stability indicator on the LCD ensures accuracy. Conductivity readings are performed with the 4-ring probe supplied with the meter. The GLP feature allows users to store and recall data on system status. PC compatible through an RS232 port or USB.



Years warranty
3

MEM

RS232

USB

ATC

GLP

Points
2

Dual Display

MULTI

Software CD

Self diagnostics

CE

Specifications	Mi180
Range	pH -2.00 to 16.00 pH; -2.000 to 16.000 pH mV ±699.9 mV; ±2000 mV EC 0.00 to 29.99 μS/cm; 30.0 to 299.9 μS/cm; 300 to 2999 μS/cm; 3.00 to 29.99 mS/cm; 30.0 to 200.0 mS/cm; up to 500.0 mS/cm (uncompensated EC*) TDS 0.0 to 14.99 mg/L (ppm); 15.0 to 149.9 mg/L (ppm); 150 to 1499 mg/L (ppm); 1.50 to 14.99 g/L (ppt); 15.0 to 100.0 g/L (ppt); up to 400.0 g/L actual TDS (with 0.80 factor) NaCl 0.0 to 400.0% Temp -20.0 to 120.0°C / -4.0 to 248.0°F
Resolution	pH 0.01 pH; 0.001 pH mV 0.1 mV; 1 mV EC 0.01 μS/cm; 0.1 μS/cm; 1 μS/cm; 0.01 mS/cm; 0.1 mS/cm; TDS 0.01 mg/L; 0.1 mg/L; 1.0 mg/L; 0.01 g/L; 0.1 g/L NaCl 0.1% Temp 0.1°C / 0.1°F
Accuracy	pH ±0.01 pH; ±0.002 pH mV ±0.2 mV; ±1 mV EC ±1% of reading ±(0.05 μS/cm or 1 digit) TDS ±1% of reading ±(0.03 ppm or 1 digit) NaCl ±1% reading Temp ±0.4°C / ±0.8°F
Rel mV offset	±2000 mV
Calibration	pH 1, 2 or 3 points calibration, with 7 memorized buffers (pH 1.68, 4.01, 6.86, 7.01, 9.18, 10.01 and 12.45) EC 1 point slope calibration with 6 memorized solutions: (84 μS/cm, 1413 μS/cm, 5.00 mS/cm, 12.88 μS/cm, 80.0 μS/cm, 111.8 mS/cm) NaCl 1 point, with MA9066 solution Temp 2 point, at 0 and 50°C / 32 and 122°F
Temperature Compensation	automatic or manual, from -20.0 to 120.0°C / -4.0 to 248.0°F
Temperature Coefficient	selectable from 0.00 to 6.00%/°C (EC and TDS only)
pH Electrodes & Temp Probe	MA917B/1 & MA831R (included)
EC/TDS/NaCl/Temp Probe	MA813D/1 (included)
TDS Factor	0.40 to 0.80 (default value is 0.50)
Log on demand	up to 50 samples on each range (pH, mV, EC, TDS, NaCl)
GLP	last pH, EC, NaCl calibration data
PC Interface	RS232 / USB Opto-isolated
Environment	0 to 50°C / 32 and 122°F; max RH 95%
Input Impedance	10 ¹² Ohm
Power supply	12 VDC power adapter (included)
Dimensions	230 x 160 x 95 mm
Weight	0.9 kg

(*) Uncompensated conductivity (or TDS) is the conductivity (or TDS) value without temperature compensation.

Ordering Information

Mi180 is supplied complete with

- MA917B/1 pH Electrode
- MA813D/1 EC/TDS/NaCl/Temperature probe
- MA831R Temperature Probe

- MA9315 Electrode Holder
- M10004 pH 4.01 Sachet Buffer Solution
- M10007 pH 7.01 Sachet Buffer Solution
- M10010 pH 10.01 Sachet Buffer Solution
- M10016 Sachet Electrode Cleaning Solution
- Mi5200 Application Software

Accessories



- MA9001 pH 1.68 buffer, 230 mL bottle
- MA9004 pH 4.01 buffer, 230 mL bottle
- MA9006 pH 6.86 buffer, 230 mL bottle
- MA9007 pH 7.01 buffer, 230 mL bottle
- MA9009 pH 9.18 buffer, 230 mL bottle
- MA9010 pH 10.01 buffer, 230 mL bottle
- MA9012 Refilling solution for pH electrode, 230 mL bottle
- MA9015 Electrode storage solution, 230 mL bottle
- MA9016 Electrode cleaning solution, 230 mL bottle
- MA9112 pH 12.45 buffer solution, 230 mL bottle
- MA9060 12880 μS/cm calibration solution, 230 mL bottle
- MA9061 1413 μS/cm calibration solution, 230 mL bottle
- MA9063 84 μS/cm calibration solution, 230 mL bottle
- MA9065 111.8 mS/cm calibration solution, 230 mL bottle
- MA9066 100% NaCl calibration solution, 230 mL bottle
- MA9069 5000 μS/cm solution, 230 mL bottle
- MA9310 12 VDC Adapter, 220 V
- MA9311 12 VDC Adapter, 110 V
- MA9315 Electrode Holder
- MA917B/1 Double junction refillable pH electrode
- MA813D/1 EC/TDS/NaCl/Temperature probe with DIN connector and 1 m cable
- MA921B/1 Double junction, gel filled ORP electrode
- MA831R Temperature probe
- MA9350 RS232 connection cable with 2 meters cable

- MA9350 RS232 connection cable with 2 meters cable
- Graduate Pipet, 12 VDC Adapter & Instruction manual