MILWAUKEE





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.



Specifications	Mi180
Range pH	-2.00 to 16.00 pH; -2.000 to 16.000 pH
ORP	±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;
1000	3.00 to 29.99 mS/cm; 30.0 to 200.0 mS/cm; up to 500.0 mS/cm (uncompensed 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);
2	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 ORP	0.01 pH; 0.001 pH 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
ORP	±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,
The second secon	9.18, 10.01 and 12.45)
EC	1 point slope calibration with 6 memorized solutions: (84 μS/cm, 1413 μS/cm,
1000000	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 Electrode & Temp. Probe EC/TDS/NaCl/Temp. Probe	MA917B/1 & MA831R (included) MA814DB/1 (included)
TDS Factor	0.40 to 0.80 (default value is 0.50)
Logging	up to 50 records, LOG on demand or auto-logging
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
(*) I becomponented conductivity (c	r TDS) is the conductivity (or TDS) value without temperature compensation

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

Ordering Information

Mi180 is supplied complete with

- · MA917B/1 pH Electrode
- MA814DB/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 • M10030 12880 µS/cm calibration solution
- M10031 1413 µS/cm calibration solution

Accessories

MA9004

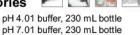
MA9007











MA9010 pH 10.01 buffer, 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 MA814DB/1 EC/TDS/NaCl/Temperature probe

with DIN connector and 1 m cable MA924B/1 ±2000 mV Glass ORP electrode, refillable with BNC connector and

1 meter cable

SE300 Platinum ORP electrode with 1 meter cable

MA831R Temperature probe MA9350

RS232 connection cable with 2 meters cable

- M10016 Sachet Electrode Cleaning solution
- · Mi5200 Application Software
- MA9350 RS232 connection cable (2 meters)
- MA9310 12 VDC Adapter
- · Graduate Pipet & Instruction manual