

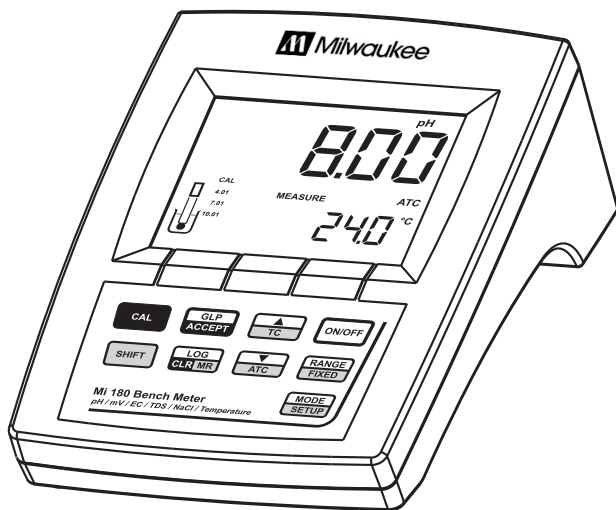
# INSTRUCTION MANUAL

## Multiparameter Bench Meter



### ■ Mi 180

pH/mV/EC/TDS/NaCl/Temperature



**M Milwaukee**

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**SPECIFICATIONS**


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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 $\mu\text{S}/\text{cm}$
		30.0 to 299.9 $\mu\text{S}/\text{cm}$
		300 to 2999 $\mu\text{S}/\text{cm}$
		3.00 to 29.99 mS/cm
		30.0 to 200.0 mS/cm
		up to 500.0 mS/cm (uncompensated EC)*
	TDS	0.00 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 (uncompensated TDS)* with 0.80 conversion 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 $\mu\text{S}/\text{cm}$
		0.1 $\mu\text{S}/\text{cm}$
		1 $\mu\text{S}/\text{cm}$
		0.01 mS/cm
		0.1 mS/cm
	TDS	0.01 mg/L
		0.1 mg/L
		1mg/L
		0.01 g/L
		0.1 g/L
	NaCl	0.1%
	Temp	0.1 °C (0.1 °F)

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

# Instruction Manual Mi 180 Bench Meter

Accuracy (@ 20 °C / 68 °F)	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 mg/L or 1 digit)
	NaCl	±1% of 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: 1.68, 4.01, 6.86, 7.01, 9.18, 10.01 and 12.45
	EC	1 point slope calibration with 6 memorized solutions available: 84.0 µS/cm, 1413 µS/cm, 5.00 mS/cm, 12.88 mS/cm, 80.0 mS/cm, 111.8 mS/cm; 1 point offset calibration: 0.00 µS/cm
	NaCl	1-point, with MA 9050 calibration 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)	
TDS factor	0.40 to 0.80 (default value is 0.50)	
pH Electrode	MA 917B/1 (included)	
Temperature Probe	MA 831R (included)	
EC Probe	MA 814DB/1 (included)	
Input Impedance (pH)	10 <sup>12</sup> ohms	
Computer Interface	RS232/USB opto-isolated	
Power supply	12 VDC power adapter	
Dimensions	230 x 160 x 95 mm (9.0 x 6.3 x 3.7")	
Weight	0.9 kg (2.0 lb.)	
Environment	0 to 50 °C (32 to 122 °F) ; max RH 95%	
Warranty	3 years	

*This instrument is in compliance with the CE Directives.*