

sensION™+ MM374
 Benchtop Multi-Parameter Meter

Electrochemistry



Complete Simplicity
 Hach sensION+, an all-in-one system with guided menu navigation makes general electrochemistry testing fast and simple. Each system is designed to be used in a wide variety of applications and comes complete with everything you need to start testing.

Features and Benefits

- **sensION™+ MM374** is a high performance instrument that combines a pH meter, an ion meter, and a conductivity meter.
- Multi-parameter instrument with two measuring channels: Channel 1, pH and Conductivity with temperature °C; Channel 2, pH, ORP/Redox or I.S.E. + °C
- It is supplied with magnetic stirrer, calibration flasks, pH buffers and conductivity standard solutions.
- In addition, there is a connection for a second stirrer which allows for a second measuring stand.
- Data logger-Storage of up to 330 measurements per channel.
- Includes RS 232 C connectivity for printer or PC as well as a connection for external PC keyboard or barcode reader.

Recommended Sensors

pH Electrode

LZW5014.97.0002: 5014 Universal and high performance, for general aqueous samples, sulfurs, reducing sugars or applications that react with silver ions.

- Refillable
- Thick glass body
- 2 ceramic junctions
- High performance electrode with encapsulated reference element and Ag+ ion barrier
- pH 0 to 14, Temp. -10 to 100°C (14 to 212°F)

Conductivity Cell

LZW5070.97.002: 5070 Universal, for general aqueous samples.

- Includes 3 platinum electrodes, 2 pole cell
- With 8 contact telephone connector
- Includes temperature sensor Pt 1000
 $C \approx 0.7 \text{ cm}^{-1}$. EC 0.2 to 200.000 uS/cm, Temp. -30°C (-22° F) to 85°C (185°F)



50 70



50 14



Be Right™

Specifications

	Measurement Ranges	Resolution	Input Accuracy (± 1 digit)	Reproducibility (± 1 digit)
pH	-2 to 16	0.1/0.01/0.001	≤0.002	±0.001
mV	±2000	0.1/1	≤0.2	±0.1
Temp.	-20 to 150°C (-4 to 302°F)	0.1 °C (0.1°F)	≤0.2 °C (0.4°F)	±0.1°C (0.1°F)
ISE	10 ⁻⁶ M to 10 ⁻¹ M	programmable	--	--
Conductivity	0.001* μS/cm to 1000* mS/cm * With 5070 cell: 0.2 μS/cm to 200 mS/cm	variable	≤0.5 %	±0.1 %
Resistivity	0 Ohm to 500 MOhm	--	≤0.5%	± 0.1 %
Salinity	5.85 mg/L to 311.1 g/l NaCl	--	--	--
NaCl	--	variable	≤0.5 %	±0.1 %
TDS	0 mg/L to 500 g/L	variable	≤0.5 %	±0.1 %

Temperature Compensation Automatic with temperature probe Pt 1000, NTC 10kOhm. Programmable isopotential pH, standard value at pH 7.00 EC: TC (temperature coefficient) Linear, 0.00 to 9.99 % /°C. Non linear for natural waters (UNE EN 27888). TR (ref. temperature) 20°C (68°F), 25°C (77°F) or values between 0 to 99°C (0 to 210°F).

pH Calibration Technical buffers DIN 19267: pH 2.00, 4.01, 7.00, 9.21 and 10.01 (values at 25°C)(77°F). DIN 19266 buffers: 1.679, 4.006, 6.865, 7.000, 9.180, 10.012 and 12.454 at 25°C (77 °F). Specific user's buffers. With 1, 2 or 3 buffers selectable inside the range. Calibration at any pH value (indirect calibration). Manual introduction of the calibration parameters. Programmable calibration validity between 0 h to 7 days. Automatic rejection of electrodes in poor condition.

mV Calibration Automatic recognition of redox standard 220 mV at 25°C (77°F). Calibration at any mV value.

ISE Calibration 2 to 5 programmable standards. Selectable calibration units: mol/L, M, mmol/L, mM, umol/L, g/L, mg/L, ppm and %. Up to 4 calibration curves per channel.

Conductivity Calibration Standards: 147 μS/cm, 1413 μS/cm, 12.88 mS/cm and 111.8 mS/cm [values at 25°C (77°F)]. Demal, 1409 μS/cm, 12.85 mS/cm and 111.31 mS/cm (25°C). NaCl 0.05 % (1014.9 μS/cm at 25 °C). With 1, 2 or 3 standards selectable inside the range. Special calibration at any Conductivity, salinity or TDS value. Manual introduction of cell constant. Programmable calibration validity between 0 to 99 days.

TDS Conversion Factor Values between 0 to 4.44. Default 0.64.

Temperature Readjustment Correction of the temperature probe deviation (A.T.C.) at 25°C (77°F) and 85°C (185°F).

Data Logger Storage capacity up to 330 readings per channel.

Languages English, German, Spanish, French, Italian and Portuguese.

Display Graphic, backlit liquid crystal, 128 x 64 dots.

Connectable Sensors 2 combined or indicator electrodes, BNC connector (Imp. >10¹²Ω).

2 Reference electrodes, banana connector.

1 A.T.C. type Pt 1000 or NTC 10kOhm.,

1 Conductivity cell with built-in Pt 1000 sensor, telephone connector.

Connectable Peripherals 2 magnetic stirrers. Printer or PC. External PC keyboard or barcode reader.

Directives Low Voltage and EMC According to 2004/95/EC. According to 2004/108/EC.

Power Supply External power supply 100-240 V, 0.4 A, 47-63 Hz, with plug adapters.

Materials Enclosure, ABS and PC. Keypad, PET with protective treatment.

Physical Parameters Weight: 1100 g. Size: 350 x 200 x 110 mm.

How To Order

LPV4110.97.0002 Multimeter SensION+ MM374, with accessories

LPV4140T.97.0002 Multimeter SensION+ MM374, accessories, electrode **5014** and conductivity cell **5070**.

Included Accessories

- Magnetic stirrer
- Sensor holder
- User manual
- Calibration flasks with magnetic stirring bar
- Solutions: pH 4, pH 7, Conductivity standard 1413 μS/cm and KCl

Other Accessories:

LZW8201 Thermal printer of 40 columns, interface RS.

LZW8200 Impact printer of 40 columns, interface RS.

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