

SevenCompact™ ML1503

Truly Universal and Reliable



The SevenCompact™ series combines precise electrochemical measurement technologies with flexibility, innovative design and ease-of-use. It can be universally employed and continues the tradition of the Seven series from METTLER TOLEDO.

The SevenCompact™ pH/Ion meter ML1503 is the perfect choice for a wide range of applications. It is much more than a pH meter: it can also measure ORP and ion concentration in various units. Starting a measurement or calibration has never been easier, requiring only a single keypress.

Seven good reasons for SevenCompact™

- Fast and accurate measurements
- User-friendly operation
- Menu guidance in 10 languages
- Clear, well arranged color display
- Many peripheral options
- GLP compliant
- Service offering, including IQ/OQ

Productive Work from the Start

Intuitive and Powerful

The instrument's functionality has been designed to maximize the productivity of your work. Stand alone, the instrument already offers many functionalities, but you can achieve higher efficiency and flexibility by connecting peripherals.

Security

The instrument's versatility is also reflected in its security package. Users requiring little or no GLP support can easily use the instrument

without worrying about security settings. Still they benefit from the functionalities that minimize mistakes, such as calibration support and Intelligent Sensor Management

(ISM[®]). On the other hand, those that need full GLP support will have peace of mind when employing the full spectrum of security functionalities.

All Parameters or the Essentials – Decide by a Single Keypress



The instrument gives you the choice! In the normal screen layout, all available information is visible. By switching to the uFocus™ view you will not be distracted by information of less importance.

Perfect Ergonomics and High Productivity with uPlace™



uPlace™: the electrode arm can be operated with one hand; moving straight up and down. This allows for faster measurements and reduces the risk of the sample vessel tipping over and/or damage to the sensor!

Total Flexibility with Data Processing



Upon endpointing SevenCompact™ allows multiple archiving options: the data can be stored, printed or transferred to LabX direct. Any combination of these three options is possible giving you total flexibility.

Specifications for SevenCompact™ ML1503 pH/Ion

	Measuring range	Resolution	Accuracy
pH	-2.000 ... 20.000	0.001 / 0.01 / 0.1	± 0.002
mV	-2000.0 ... 2000.0	0.1 / 1	± 0.2
Rel. mV	-2000.0 ... 2000.0	0.1 / 1	± 0.2
Ion concentration	0.000... 1000.0 % 0.000... 10000.0 ppm 1.00E-9 ... 9.99E+9 mg/L 1.00E-9 ... 9.99E+9 mmol/L 1.00E-9 ... 9.99E+9 mol/L -2.000 ... 20.000 pX	± last significant digit	± 0.5%
Temperature MTC	-30.0 ... 130.0 °C	0.1 °C	± 0.1 °C
Temperature ATC	-5.0 ... 130.0 °C	0.1 °C	± 0.1 °C
Calibration	Calibration points Buffer groups Buffer recognition Isopotential point Temperature capture Calibration reminder Electrode status icon	Max. 5 8 pre-defined and 1 user-defined Automatic pH 7.00 Automatic and manual User-configurable Shows quality of last calibration	
Measurement	Choice of endpoint formats Choice of stability criteria Choice of pH decimal places Temperature capture Serial measurements	Automatic, manual, timed Fast, standard, strict X.XXX, X.XX, X.X Automatic and manual Time interval user-configurable	
System and GLP	Menu guidance Display color scheme Time and date PIN protection Measurement limits Instrument modes ID input ID input automation	10 languages Blue, red, green, grey 2 time formats, 4 date formats Login, deletion of data, system settings User-defined Routine mode / expert mode User ID, sample ID, sensor ID, sensor SN Barcode reader and keyboard (USB)	
Data processing	Data storage Print formats Data Export	1000 measurements Short, normal, GLP USB-stick, LabX direct PC software	
Connectors	pH Sensor input Temperature sensor input Reference input Digital sensor input Communication interfaces Stirrer connector	BNC (impedance > 3 x 10E+12Ω) Cinch/RCA (NTC30 kΩ or Pt1000) 2 mm Ref. mini-LTW RS232, USB-A, USA-B Mini-DIN	
General	Power requirements Size/weight Display	DC 9–12V/10W 204 x 174 x 74 mm, 890 g TFT	
Ambient conditions	Display Temperature Relative humidity Installation category Pollution degree Altitude	TFT 5...40 °C 5..80% (non-condensing) II 2 Up to 2000 m above sea level	
Ingress protection	Protection level	IP54	
Materials	Housing Window Keypad	ABS/PC reinforced Polymethyl methacrylate (PMMA) Membrane keypad: Polyethylene terephthalate (PET)	

Order Information

Description and order information for SevenCompact™ pH/Ion ML1503

Order info	Description and sensors	Order no.
ML1503-Basic (instrument)	Includes instrument, electrode holder, protective cover, operating instructions, quick guide, declaration of conformity and test certificate	ML1503
ML1503-Kit (kit)	As ML1503-Basic, but also with InLab® Expert Pro-ISM, guide to pH measurements and 2 buffer sachets for pH 4.01, 7.00, 9.21 and 10.00.	ML1503K
ML1503-Bio (kit)	As ML1503-Kit but with InLab® Routine Pro-ISM cable kit instead of InLab® Expert Pro-ISM	ML1503B
ML1503-U (kit)	As ML1503-Kit but with InLab® Versatile Pro instead of InLab® Expert Pro-ISM	ML1503U

General accessories for SevenCompact™

Description	Order no.
uPlace™: Electrode holder (included in standard delivery)	30019823
Protective cover (included in standard delivery)	30019824
Mains adapter 12V (included in standard delivery)	11120270
RS-P25 printer (with RS232 cable)	11124300
Barcode reader body	21901297
USB cable for barcode reader (not included with barcode reader body)	21901309
LabX direct PC software	51302876
USB A-B cable 1.8m for LabX direct PC software (not included with LabX direct PC software)	51191926
Guide to pH measurement (included in kit versions)	51300058

Sensors and cables for SevenCompact™ pH/Ion ML1503

Sensors with fixed cable	Order no.
InLab® Expert Pro-ISM, rugged 3-in-1 pH sensor, PEEK shaft, ATC	30014096
InLab® Versatile Pro, 3-in-1 pH Sensor, Polysulfone shaft, ATC, Refillable	51343031

ISM® sensors with MultiPin™ head	Order no.
InLab® Routine Pro ISM, 3-in-1 pH sensor, glass shaft, ATC, refillable	51344055
InLab® Micro Pro ISM, 3-in-1 pH sensor, glass shaft, 5 mm shaft diameter, ATC, refillable	51344163
InLab® Power Pro ISM, 3-in-1 pH sensor, glass shaft, ATC, pressurized SteadyForce™ reference system	51344112
InLab® Pure Pro ISM, 3-in-1 pH sensor, glass shaft, immovable glass sleeve, ATC, refillable	51344172
InLab® Science Pro ISM, 3-in-1 pH sensor, glass shaft, movable glass sleeve, ATC, refillable	51344072
InLab® Solids Pro ISM, 3-in-1 pH sensor, glass shaft, open junction, sharp membrane, ATC	51344155
ISM® cable 2 m, BNC/RCA-MultiPin™	51344291
ISM® cable 5 m, BNC/RCA-MultiPin™	51344292

pH Buffers	Order no.
pH 4.01 buffer solution in side-sealed sachets, 30 x 20 mL	51302069
pH 7.00 buffer solution in side-sealed sachets, 30 x 20 mL	51302047
pH 9.21 buffer solution in side-sealed sachets, 30 x 20 mL	51302070
pH 10.01 buffer solution in side-sealed sachets, 30 x 20mL	51302079
Rainbow I (3 x 10 sachets of 20 mL, 4.01/7.00/9.21)	51302068
Rainbow II (3 x 10 sachets of 20 mL, 4.01/7.00/10.01)	51302080
pH 2.00 buffer solution, colorless, 250 mL	51350002
pH 4.01 buffer solution, red, 250 mL	51350004
pH 7.00 buffer solution, green, 250 mL	51350006
pH 9.21 buffer solution, blue, 250 mL	51350008
pH 10.01 buffer solution, colorless, 250 mL	51350010
pH 11.00 buffer solution, colorless, 250 mL	51350012



Subject to technical changes
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