

pH/DO Meter

2.913.0020

The 913 pH/DO Meter offers two measuring inputs for determining the pH value and dissolved oxygen in water.

- Portable meter with built-in battery pack and two galvanically isolated measuring inputs.
- Analog pH measuring input for standard pH electrodes
- Digital measuring input for O2 measurement using O2 Lumitrode or intelligent pH electrodes
- Robust, water-tight, and dust-tight housing (IP67) for tough outdoor and laboratory use
- LCD color display with background illumination making results easy to read
- USB interface for simple data export to PC or printer
- Large internal memory (10,000 data sets)
- Pin-protected User and Expert modes, prevents unwanted parameter changes
- GLP-compliant printout and data export with User ID and timestamp

Below, the accessories are grouped into Scope of delivery and Optional accessories. Please keep this printout at hand for ordering replacement material. These lists may be subject to change.



Scope of delivery 2.913.0020

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Qt.	Order no.	Description	
1 PCS	1.913.0020	pH/DO Meter	
	 The 913 pH/DO Meter offers two measuring inputs for determining the pH value and dissolved oxygen in water. Portable meter with built-in battery pack and two galvanically isolated measuring inputs. Analog pH measuring input for standard pH electrodes Digital measuring input for O2 measurement using O2 Lumitrode or intelligent pH electrodes Robust, water-tight, and dust-tight housing (IP67) for tough outdoor and laboratory use LCD color display with background illumination making results easy to read USB interface for simple data export to PC or printer Large internal memory (10,000 data sets) Pin-protected User mode and Expert mode, prevents unwanted parameter changes GLP-compliant printout and data export with User ID and timestamp 		
1 PCS	6.2008.060	Holder for electrode storage vessel	
		for fastening the electrode storage vessels to the 912, Conductometers.	
1 PCS	6.2050.010	Carrying strap for 912/913/914	
		040/040/044	S. Marraham

Carrying strap for 912/913/914 meters





For connecting USB instruments.



1 PCS 6.2151.110 Metrohm USB Mini B cable (OTG) - USB A, 1.8 m

For connecting USB instruments.



1 PCS 6.2166.100 USB power supply unit 5.25 V / 1.53 A

USB power supply unit for 912 / 913 / 914

Efficiency Level VI



Optional accessories

Order no.	Description			
2.142.0100	Custom Q3X thermal printer			
	Compact printer with USB interface for			
	 900 Touch Control 915 KF Ti-Touch 916 Ti-Touch 917 Coulometer 877 / 848 Titrino plus 865 / 876 Dosimat plus 91X Meter (cable 6.2151.140) Eco Dosimat / Titrator 862 Compact Titrosampler 870 KF Titrino plus 899 Coulometer 			
	Paper width 60 mm (40 characters). Including 6.2151.120 USB cable.			
2.854.0010	854 iConnect	,		
	The 854 iConnect – Electrode cable and measuring amplifier for intelligent "iTrodes" electrodes (cable length 150 cm).	Est femal		
6.00226.600	Spearhead electrode with Pt1000			
	Maintenance-free combined pH electrode (gel electrolyte) for piercing measurements of all types (e.g., with cheese, meat, dough) with			





integrated Pt1000 temperature sensor. The electrode is stored in saturated potassium chloride solution c(KCI) = sat. (6.2308.000) and is not suitable for low-ion solutions. The ageing indicator gives early

indication of when the electrode needs to be replaced.

Combined pH electrode for measurements in very small sample volumes (>50 uL) and biological samples.

Idrolyte (6.2308.040) is used as reference electrolyte and storage solution.



6.0228.000

Solitrode with Pt1000 (fixed cable 1.2 m)

Combined pH electrode with integrated Pt1000 temperature sensor and fixed cable (1.2 m). This electrode is suitable for routine pH measurements in solutions that do not contain precipitates, proteins, or sulfides. This electrode is mechanically resistant thanks to the robust /unbreakable plastic shaft made of polypropylene and impact protection for the glass membrane.



Reference electrolyte: c(KCI) = 3 mol/L, storage in storage solution.

6.0228.030

Solitrode with Pt1000 (IP67, fixed cable 1.2 m)

Combined pH electrode with integrated temperature sensor (Pt1000) and fixed cable conforming to IP67 (1.2 m).

This electrode is suitable for an introduction to GLP-compliant pH measurements in solutions that do not contain precipitates, proteins, or sulfides. This electrode is mechanically resistant thanks to the robust /unbreakable plastic shaft made of polypropylene and impact protection for the glass membrane.



Additionally, this electrode offers a waterproof plug in accordance with IP67 for mobile use with Metrohm pH meters.

Reference electrolyte: c(KCI) = 3 mol/L, storage in storage solution.



Combined pH electrode with integrated Pt1000 temperature sensor and fixed cable (1.2 m, diameter banana plug 2 mm). This electrode is particularly suitable

- for pH measurements and titrations in difficult, viscous, or alkaline samples
- at elevated temperatures
- for long-term measurements

The fixed ground-joint diaphragm is insensitive to contamination.

Reference electrolyte: c(KCI) = 3 mol/L, storage in storage solution. Alternatively: reference electrolyte for measurements at T>80°C: Idrolyte, storage in Idrolyte.



6.0278.300

iUnitrode with Pt1000

Intelligent, combined pH electrode with integrated memory chip for storing sensor data and Pt1000 temperature sensor. This electrode is particularly suitable:

- for pH measurements and titrations in difficult, viscous, or alkaline samples
- at elevated temperatures
- for long-term measurements

The fixed ground-joint diaphragm is insensitive to contamination.

Reference electrolyte: c(KCI) = 3 mol/L, storage in storage solution. Alternatively: reference electrolyte for measurements at T>80°C: Idrolyte, storage in Idrolyte.

iTrodes can be connected to Titrando, Ti-Touch or 913/914 meters.





The optical sensor for measuring dissolved oxygen (DO) can be used with a 913 pH/DO meter or with a 914 pH/DO conductometer. The measuring principle of the sensor is based on luminescence quenching. The space-saving and maintenance-free sensor is suitable for DO measurement, for example in:



- Water quality control
- Wastewater industry
- Beverage production
- Fish farming

This sensor is supplied with a calibration vessel.

Where necessary, it is easy to replace the measurement cap $(O_2 \text{ cap})$ that contains the oxygen-intensive luminophore.

6.2001.130 Stand plate for 912/913/914

Stand plate for converting a mobile 912/913/914 pH/Conductometer into a laboratory meter.



6.2104.600 Electrode cable for plug in head U/plug F, 2x2 mm B, 1m

For connecting electrodes with Metrohm plug-in head U to Metrohm instruments (socket F).



Y cable for connection of a USB printer to the pH/Conductometers 912 $\,/\,$ 913 $\,/\,$ 914. This cable allows a printer and the power supply unit to be connected to the measuring instrument at the same time.



6.2166.500 12 V USB adapter for 912 / 913 / 914 pH/Conductometer

12 V USB adapter for 912 / 913 / 914 pH/Conductometer.



6.2307.230 Buffer solutions pH 4, 7 and 9

Mixed buffer solutions pH 4.00/7.00/9.00 (25 °C) in single use sachets, colourless, box of 3 x 10 x 30 mL



6.2313.000 Electrolyte 3 mol/L KCl (1000 mL)

Electrolyte solution c(KCI) = 3 mol/L (for Ag/AgCl reference systems)





Maintenance kit for pH electrodes

The kit contains:

- 50 mL cleaning solution
- 50 mL 3M KCl solution
- 50 mL storage solution
- 2 Storage vessels
- Instructions for use



6.2329.000 Oxygen standard 0%

Oxygen standard for 0% calibration of the ${\rm O_2}\text{-Lumitrode}$. Contains 5 sachets of 30 mL each.



6.5623.000 O2 Lumitrode replacement set

Replacement set for the $\rm O_2$ Lumitrode. The set contains a certified $\rm O_2$ cap as replacement, a calibration vessel, and 5 x 30 mL oxygen standard, 0%.

