



# 949 pH Meter

2.949.0210

949 pH Meter – pH

- pH
- pHmV ORP
- NIST 2
- 
- 3
- GLP
- 
- RS232

949 pH Meter

## Scope of delivery 2.949.0210

Qt.	Order no.	Description
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1 PCS

1.949.0210

**949 pH Meter with electrode holder and power supply unit**



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1 PCS

6.2001.140

**Electrode holder with stand base**

Electrode holder for 949 pH Meter



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1 PCS

6.2166.200

**Power supply unit for 949 pH Meter**

Tabletop power supply unit, 100–240 V, 50–60 Hz, 5 V DC, for 949 pH Meter

Efficiency Level VI



## Optional accessories

Order no.	Description
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<b>2.143.0200</b>	<b>TX-900MH impact printer</b>
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Compact impact printer with USB and RS232 interface for

- 900 Touch Control (+)
- 915 KF Ti-Touch (+)
- 916 Ti-Touch (+)
- 917 Coulometer (+)
- 91X Meter (+)  
Eco Dosimat/Titrator (+)
- 877/848 Titrino plus (additional 6.2151.100 required)
- 865/876 Dosimat plus (additional 6.2151.100 required)
- 862 Compact Titr sampler (additional 6.2151.100 required)
- 870 KF Titrino plus (additional 6.2151.100 required)
- 899 Coulometer (additional 6.2151.100 required)



(+) Cable included in scope of delivery

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<b>6.00226.600</b>	<b>Spearhead electrode with Pt1000</b>
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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  $c(\text{KCl}) = \text{sat.}$  (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.



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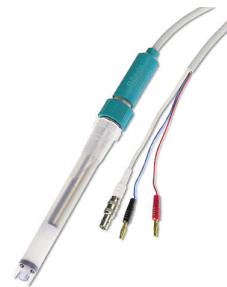
<b>6.0224.100</b>	<b>Biotrode</b>
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Combined pH electrode for measurements in very small sample volumes ( $>50 \text{ uL}$ ) and biological samples.

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



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:  $c(\text{KCl}) = 3 \text{ mol/L}$ , storage in storage solution.

Combined pH electrode for pH measurement / titration of:

- viscous samples (e.g., nutrient solutions, emulsions)
- protein- or sulfide-containing media

The flexible ground-joint diaphragm is insensitive to contamination and easy to clean.

Reference electrolyte:  $c(\text{KCl}) = 3 \text{ mol/L}$ , storage in storage solution.



This combined pH electrode is well suited for:

- pH measurements on surfaces, such as paper, textiles, leather
- pH measurement/titration in small sample volumes (min. immersion depth = 1 mm)
- pH measurement/titration of aqueous suspension

Reference electrolyte:  $c(\text{KCl}) = 3 \text{ mol/L}$ , storage in storage solution.



Combined pH electrode with integrated Pt1000 temperature sensor for pH measurements/titrations in ion-deficient aqueous media (e.g., drinking water, process water). This electrode shows a very short response time in these samples.

The fixed ground-joint diaphragm is insensitive to contamination.

When  $c(\text{KCl}) = 3 \text{ mol/L}$  is used as bridge electrolyte, storage in storage solution is recommended.

The bridge electrolyte can be easily replaced with a chloride-free electrolyte (e.g., potassium nitrate  $c(\text{KNO}_3) = 1 \text{ mol/L}$  (6.2310.010)), storage in the used bridge electrolyte.



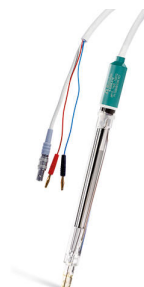
Combined pH electrode with integrated Pt1000 temperature sensor and fixed cable (1.2 m, diameter banana plug 2 mm). This electrode is particularly suitable

- 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:  $c(\text{KCl}) = 3 \text{ mol/L}$ , storage in storage solution.

Alternatively: reference electrolyte for measurements at  $T > 80^\circ\text{C}$ : Idrolyte, storage in Idrolyte.



Combined pH electrode with integrated Pt1000 temperature sensor for pH measurements/titrations. 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:  $c(\text{KCl}) = 3 \text{ mol/L}$ , storage in storage solution.

Alternatively: reference electrolyte for measurements at  $T > 80^\circ\text{C}$ : Idrolyte, storage in Idrolyte.



Combined platinum ring electrode with a ceramic pin diaphragm.

This electrode is well suited for redox titrations when the pH value varies, e.g.:

- oxygen content according to Winkler
- determination of hydrogen peroxide with  $\text{KMnO}_4$
- diazotization titrations

$c(\text{KCl}) = 3 \text{ mol/L}$  is used as reference electrolyte and storage solution.



Pt1000 temperature sensor (class B) made of glass.

This PT1000 temperature sensor is also available under the article number 6.1110.110 with an installation length of 17.8 cm.



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



For connecting temperature sensors with Metrohm plug-in head G with 780, 781, 826, 827 pH/Ion meters and all Titrandos



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).



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6.2306.020

**Redox standard 250 mV (250 mL)**

Redox standard (with Ag/AgCl/c(KCl)=3 mol/L reference electrode gives  $U = 250 \pm 5$  mV (20° C); can also be used as buffer pH=7)



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6.2307.100

**Buffer solution pH 4 (500 mL)**

Ready-to-use buffer solution pH = 4 (25 °C), colored, with closure seal



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6.2307.110

**Buffer solution pH 7 (500 mL)**

Ready-to-use buffer solution pH = 7 (25 °C), colored, with closure seal



**6.2307.120**

**Buffer solution pH 9 (500 mL)**

Ready-to-use buffer solution pH = 9 (25 °C), colorless, with closure seal



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**6.2307.200**

**Buffer solution pH 4.00 (30 x 30 mL)**

Buffer solution pH 4.00 (25 °C) in single use sachets, colorless



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**6.2307.210**

**Buffer solution pH 7.00 (30 x 30 mL)**

Buffer solution pH 7.00 (25 °C) in single use sachets, colorless



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**6.2307.220**

**Buffer solution pH 9.00 (30 x 30 mL)**

Buffer solution pH 9.00 (25 °C) in single use sachets, colorless





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

