# portable pH-meter

Very easy to use portable instrument for  $pH/mV/^{\circ}C$  measurements. pH and temperature values can be stored directly on the SD card (Excel file) or directly transferred from the pH-meter to the pH-meter values can be stored directly on the pH-meter values can

Gel-filled electrode with external temperature sensor and 1 m cable.

Automatic temperature compensation (ATC).

Large easy-to-read LCD display.

3 calibration points.

BNC connector.

Suitable for all SD cards 1-16 GB.

Batteries 6 x 1.5V AA (to be ordered separately).

Optional: power cable, PC connection cable, PC software.

<u>The supply includes</u>: pH-meter, pH electrode with temperature sensor, pH4 and pH7 buffers, 4 GB SD-Memory card, transport case.

Description	PK	Cat. No.
LLG-pH Meter 5	1	6263691
pH electrode, general applications, plastic body, pH 014, 080 °C with S7 screw head	1	3126038
pH electrode, general applications, plastic body, pH 014, 080 °C with S7 screw head & temperature sensor	1	3126058



# 2 LLG-pH Pen, pH tester

Economical pH tester, perfect for small volume measurements in tight containers. 3-points calibration, ATC from 0 °C to 50 °C. Large, easy-to-read LCD display. Supplied with storage container to prevent the electrode from drying.

#### **Technical features:**

 $\begin{array}{lll} \mbox{Measure range:} & 0.00 \ \mbox{to} \ 14.00 \ \mbox{pH} \\ \mbox{Accuracy:} & \pm 0.1 \ \mbox{pH} \\ \mbox{Resolution:} & \pm 0.1 \ \mbox{pH} \\ \mbox{Electrode dimensions (L x W x H):} & 36 \ \mbox{x} \ 20 \ \mbox{x} \ 210 \ \mbox{mm} \\ \mbox{Electrode dimensions (diam. x L):} & 12 \ \mbox{x} \ 110 \ \mbox{mm} \\ \mbox{Weight:} & 72 \ \mbox{g} \end{array}$ 

Battery: 2 x 3 V CR2032, button

Protection class: IP 65 Warranty: 2 years

Description	PK	Cat. No.
IIG-nH Pen	1	6263690





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### Bench pH-meter, Hach Lange Sension + Ph3

Quick results: Ideal choice of quick response electrodes for desired applications. Maximum simplicity: supplied complete with everything needed for your measurements.

Technical specifications: ORP accuracy: 1 mV. Temperature Accuracy: 0.2 °C. mV accuracy: 1 mV.

Data storage: date and time, instrument ID and sample.

Result internal storage capacity: No.

GPL Features: No.

Certification of conformity: CE.

Temperature compensation: with Pt1000 probe or via keypad.

Environmental conditions: Temperature: 5 - 40 °C.

Relative humidity (non-condensing): <80%. Dimensions (HxWxL): 110x350x201 mm. Display: backlit graphical LCD, 128x64 pixels.

Data export: No.

CA and USB operation: Yes. Inlets: BNC, ref, Pt1000. Operating Interface: Keypad.

Temperature measurement: -20 to 150 °C. Measure mV: -1999 to 1999 mV.

Parameters: pH, mV, Temperature.

PH Accuracy: 0.02 pH.

PH electrode calibration: 1 - 3 points.

pH measure: -2 to 16. Optional pH printer.

Measuring range ORP: -1999 to 1999 mV.

Automatic buffer recognition: IUPAC standards (DIN 19266) or Technical buffer (DIN 19267).

Temperature resolution: 0.1 °C.

mV resolution: 1 mV. ORP resolution: 1 mV.

PH resolution: between 0.01 and 0.1 pH.

Calibration Intervals/Alerts/Reminder: Reminder 1 hour for 7 days.

### Measurement details:

Range Resolution -2 ... 16 pH 0.01 pH ±2000 mV 1 mV -20 ... 150 °C 0.1 °C

Measure error (1 digit) Reproducibility (1 digit)

≤ 0.01 pH ±0.01 pH ≤ 1 mV ±1 mV ±0.1 °C ≤ 0.2 °C

Description	PK	Cat. No.
Sension+ PH3, with accessories + 50 10T electrode (Universal, plastic body, with T° sensor).	1	3126050
Sension+ PH3, with accessories + LZW5012T electrode (Universal, glass body, with T° sensor).	1	3126057
Sension+ PH3, simple pH & ORP bench meter with magnetic stirrer and sensor's support, w/o electrode.	1	39987201
Sension+ PH3, with high-performances electrode 5021T for hard samples	1	E004089



## Electrodes for Hach Lange bench pH-meters

Description	PK	Cat. No.
Electrode, plastic body, low maintenance, gel electrolyte pH 0-14 0-80 °C	1	3126030
pH electrode 5010T, low Cost, plastic body, gel electrolyte, pH 0-14, 0-80 °C with T° sensor	1	3126092
pH electrode 5011T. With T° sensor, plastic body, gel electrolyte 0-14 ph, 0-60 °C	1	3126061
pH electrode 5021 for hard samples. Frosted glass diaphragm, crisolyt electrolyte, glass body 0-14 ph,0-60 °C	1	3126069
pH electrode 5021T for hard samples. Same as art. 3126069 + T° sensor	1	3126070
pH electrode for hard samples, pH 0-12, 0-60 °C	1	3126278





## LLG-pH-Buffer solution

Tested and certified at 20 °C. Provided with label that gives the pH value at different temperatures. Tolerance ±0.02 pH. Supplied in HDPE containers. Traceable to NIST (SRM). Temperature dependence data is printed on the label as well as batch numbers and expiry dates. Buffers have a 24 month shelf life from date of manufacture.

Description	cap.	PK	Cat. No.
	mL		
Buffer: citrate. pH 4,00 at 20 °C	1000	1	4664603
Buffer: phosphate. pH 7,00 at 20 °C	1000	1	9041368
Buffer: borate. pH 9,00 at 20 °C	1000	1	9041374
Buffer: borate. pH 10,00 at 20 °C	1000	1	9041369