

pH-Measuring Instruments, Phoenix Instrument



Innovative measurement technology „Made in Europe“ – this is what the new pocket and laboratory measuring instruments of the Phoenix Instrument EC series offer. During the development, the main focus was put on user-friendliness and the technical features of the instruments. The pH electrodes and conductivity cells are produced in Switzerland by experienced specialists.

Portable pH-meter EC-21-pH/EC-26-pH

During the new development of the EC-21/EC-26 series, particular emphasis was placed on easy handling during daily routine. The high-resolution color display guides the user intuitively through the measurement and calibration process.

EC-21 pH

- High-resolution color display, adjustable brightness
- DHS-function, automatic detection of DHS and analog sensors
- Display of pH/mV and temperature values
- Automatic pH calibration up to 3 points
- Automatic ORP 1-point calibration
- Selectable stability parameter (low-medium-high)
- Automatic and manual temperature compensation
- Protection class IP 57
- Supplied in a robust carrying case with all accessories

... additionally for the EC-26 pH

- GLP-function
- Data logger (automatic or manual) 1000 data strings
- Connection to PC via micro-USB
- Free DATA LINK +
- Automatic brightness regulation

Technical data:	EC-21-pH	EC-26-pH
pH meas. range:	0.00 – 14.00 pH	-2.00 – 16.00 pH
Resolution:	0.1/0.01 pH	0.1/0.01 pH
Calibration points:	1 – 3	1 – 3
Buffer recognized:	USA, NIST and user defined	USA, NIST and user defined
mV meas. range:	±1000 mV	1000 – 1900 mV
Resolution:	1 mV	0.1/1 mV
Temperature range:	0.0 – 100°C	-10 – 110°C
Resolution:	0.1 / ± 0.5°C	0.1 / ± 0.5°C
GLP:	–	yes
CALDUE:	–	yes
Memory:	–	1000 data
Output:	–	Micro USB
IP-class:	IP 57	IP 57
Dimensions:	185 × 85 × 45 mm / 400 g	185 × 85 × 45 mm / 400 g
Warranty instrument:	3 years	3 years



Article	Order No.
① EC-21-pH-0 Kit without pH electrode, with temperature sensor NT 55, BNC/S7 1mt cable, pH buffer, carrying case and accessories	10 13 72100
EC-21-pH-1 Complete kit include pH electrode 201T, pH buffer, carrying case and accessories	10 13 72210
EC-21-pH-5 Complete kit include pH electrode 201T DHS, pH buffer, carrying case and accessories	10 13 72150
② EC-26 pH-0 Kit without pH electrode, with temperature sensor NT 55, BNC/S7 1mt cable, power supply, software PC-Link, pH buffer carrying case and accessories	10 13 72600
EC-26 pH-1 Complete Kit include pH-electrode 201T, pH buffer, power supply, software PC-Link, USB- cable, carrying case	10 13 72610
EC-26 pH-5 Complete Kit include pH-electrode 201T DHS, pH buffer, power supply, software PC-Link, USB- cable, carrying case	10 13 72650

Basic laboratory pH-meter EC-31-pH/EC-36-pH

During the new development of the EC-31/EC-36 series, particular emphasis was placed on easy handling during daily routine. The high-resolution color display guides the user intuitively through the measurement and calibration process.

EC-31 pH

- High-resolution color display, adjustable brightness
- DHS-function, pH electrodes with internal chip
- Display of pH/mV and temperature values
- Automatic pH calibration up to 3 points
- Automatic ORP 1-point calibration
- Selectable stability parameter (low-medium-high)
- Automatic and manual temperature compensation
- Protection class IP 54

... additionally for the EC-36 pH

- GLP-function
- Data logger (automatic or manual) 1000 data strings
- Connection to PC via micro-USB
- Free DATA LINK +

Technical data:	EC-31-pH	EC-36-pH
pH meas. range:	0.00 – 14.00 pH	-2.00 – 16.00 pH
Resolution:	0.1/0.01 pH	0.1/0.01 pH
Calibration points:	1 – 3	1 – 3
Buffer recognized:	USA, NIST and user defined	USA, NIST and user defined
mV meas. range:	±1000 mV	1000 – 1900 mV
Resolution:	1 mV	0.1/1 mV
Temperature range:	0.0 – 100°C	-10 – 110°C
Resolution:	0.1 / ± 0.5°C	0.1 / ± 0.5°C
GLP:	–	yes
CALDUE:	no	yes
Memory:	–	1000 data
Output:	–	Micro USB
IP-class:	IP 54	IP 54
Dimensions:	170 x 145 x 60 mm / 530 g	170 x 145 x 60 mm / 530 g
Warranty instrument:	3 years	3 years



Article	Order No.
③ EC-31 pH 0 Kit without pH electrode, with temperature sensor NT 55, BNC/S7 1mt cable, pH buffer, electrode holder and accessories	10 13 73100
EC-31 pH 1 Complete kit include pH electrode 201T, pH buffer, electrode holder and accessories	10 13 73110
EC-31 pH 5 Complete kit include pH electrode 201T DHS, pH buffer, electrode holder and accessories	10 13 73150
EC-36 pH 0 Kit without pH electrode, with temperature sensor NT 55, BNC/S7 1mt cable, power supply, software PC-Link, pH buffer electrode holder and accessories	10 13 73600
EC-36 pH-1 Complete Kit include pH-electrode 201T, pH buffer, power supply, software PC-Link, USB- cable, electrode holder	10 13 73610
EC-36 pH-5 Complete Kit include pH-electrode 201T DHS, pH buffer, power supply, software PC-Link, USB- cable.	10 13 73650



④ Professional bench top pH-meter EC-45-pH

The large color display easy on to read shows all information necessary information about measurement, calibration, standards, cell condition, GLP. Anyone can use this meter easily with its intuitive menu available in up to 8 languages in the EC-45-Multi. Easy to learn.

Up to 5-point pH-calibration and up to 4-point Conductivity calibration with automatic recognition of all standards. Icon support for all calibration functions and advanced electrode diagnostics. Easy to calibrate. All functions can be controlled in an intuitive and easy way. Instrument will be delivered with a stirrer.

EC-45 pH

- Large color display with indication of Calibration Buffers and measurement's stability
- DHS-function, pH electrodes with internal chip
- Indication stability of the measurement with icon
- IP54 protection
- Display pH/mV and Temperature, COND/TDS/Salinity/Resistivity and Temperature simultaneously
- Selectable Resolution: 0.1/0.01/0.001 pH; Auto range for COND
- GLP and IQ-OQ manual available
- Memory with re-call of last calibration date and time and information of electrode's life
- CAL DUE: set of calibration frequency for high quality of measurements
- Stability Parameter (Low-Med-High) for high accuracy measurement
- Non-volatile memory holds up to 1000 data points with date and time in automatic (Data logger) or manual
- 2 x USB ports to transfer data at PC or printer and for external keyboard
- Software PC-Link to download data (included)

Technical data:

pH meas. range:	-2 – 20 pH
Resolution:	0.1 / 0.01 / 0.001 pH
Calibration points:	1 – 5
Buffer recognized:	USA, NIST, user defined
mV meas. range/resolution:	±2000/ 0.1/1 mV
Temperature range:	-20 – 120°C
Accuracy/resolution temp.:	0.1/±0.2°C
Temperature calibration:	yes
GLP:	yes, with date and time
CALDUE:	yes
Memory:	yes, 1000 data
Interputs:	2 x USB, RS-232
Protection class:	IP 54
Power supply:	AC/DC adaptor 12 V / 1000 mA
Dimensions:	165 x 195 x 68 mm, 1050 g without stirrer

Article	Order No.
EC-45 pH 2	10 13 74520
Kit without pH-electrode, with temepature sensor NT 55, BNC/S7 1m cable, pH puffer pH 7 and pH 4, tripod, power supply and accessories, with magnetic stirrer, DHS-function	
EC-45 pH 3	10 13 74530
Kit with pH-electrode XS STANDARD S7, 1 m cable S7/BNC, pH puffer pH 7 and pH 4, power supply and accessories, with magnetic stirrer, DHS-function	
EC-45-pH-5	10 13 74550
Kit with pH-electrode STANDARD T - BNC DHS, pH puffer pH 7 and pH 4, with magnetic stirrer, DHS-function	



④



pH electrodes for general applications

Article	Order No.
⑤ Gel pH electrode, gel-filled with ceramic diaphragm	10 13 71204
⑥ Polymer pH electrode, polymer-filled with open pore diaphragm	10 13 71223
⑦ Polymer Tip pH electrode, polymer-filled with double open pore diaphragm	10 13 71443
⑧ Standard pH standard electrode with ceramic diaphragm	10 13 71363
Standard HA like Standard, minimal Alkali error	10 13 71423
Standard HF like Standard, for samples with HF	10 13 71433
Standard BNC like Standard, with fix cable BNC	10 13 71263
Standard DIN like Standard, with fix cable DIN	10 13 71273
Standard T-BNC like Standard, with fix cable BNC and temperature sensor	10 13 71473
Standard T DIN like Standard, with fix cable DIN and temperature sensor	10 13 71463
Polymer Plast pH electrode, polymer-filled with 1 open pore diaphragm and 1 ceramic diaphragm	10 13 71493
Polymer Plast BNC like Polymer Plast, with fix cable BNC	10 13 71503
Polymer Plast DIN like Polymer Plast, with fix cable DIN	10 13 71513
⑨ 201 T pH electrode with epoxy body, temperature sensor and fix cable BNC	10 13 71022
201 T DIN pH electrode with epoxy body, temperature sensor and fix cable DIN	10 13 71249
Flat pH electrode for surface measurements, 3-hole diaphragm with Teflon	10 13 71413
⑩ Flow pH electrode for viscous samples and low ion media	10 13 71373
⑪ Semi-Micro pH electrode for small volume samples	10 13 71383
Micro pH electrode for small volume samples	10 13 71213
Micro P pH electrode for small volume samples with mit protein, electrolyte glycerin	10 13 71253
Gel Plast BNC pH electrode with epoxy body, fix BNC-cable and double ceramic diaphragm	10 13 75223



pH electrodes for food measurement applications

Article	Order No.
Food pH electrode with glycerin KCl electrolyte and 3 ceramic diaphragm	10 13 71393
2 PORE pH electrode with 2 open pore diaphragm	10 13 71333
2 PORE Slim like 2 PORE, with small surface Ø 4,5 mm	10 13 71283
2 PORE F like 2 PORE, shaft POM/glass	10 13 71293
2 PORE T like 2 PORE, with temperature sensor and fix cable BNC	10 13 71323
2 PORE Steel T like 2 PORE, shaft steel/glass, with temperature sensor and fix cable BNC	10 13 71313
2 PORE K complete like 2 PORE T, with knife	10 13 71303
2 PORE K 2 PORE K without knife	10 13 71343
Knife Replacement knife for 2 PORE K	10 13 71353
Food Slim pH electrode with glycerin KCl electrolyte and 2 ceramic diaphragm	10 13 71248