

ECO 510 / ECO 511 Waterproof pH meter

- Modern and functional housing
- Excellent price-performance ratio
- Waterproof (IP65 / IP67)
- 3-line display / overhead display at the touch of a button
- Backlight
- Robust, long battery life
- BNC connection for interchangeable electrodes
- Sets with low-maintenance pH electrode GE 114 WD / 135 WD
- Hold function for freezing measured values
- Min/max function for minimum and maximum recorded measured values
- Made in Germany



DESCRIPTION

When developing the ECO 51x series, the focus was deliberately placed on the essential functions of measurement technology. Pure measurement with a focus on precision, speed and reliability, packaged in a compact housing, is what makes the outstanding price-performance ratio, Made in Germany, possible.

The handheld meters also impress with their ergonomic design, dust and water-protected design in accordance with IP 65/67 and the illuminated display. The compact pH meter is a real alternative to pH sticks on the one hand and high-priced, complex devices on the other. The ECO 510 meter enables measurements in the pH range, while the ECO 511 also offers the option of pH/redox measurements with a temperature input (Pt1000).

The measuring devices can be used in aquaristics, aquaculture and water monitoring, plant cultivation, agriculture, laboratories, quality assurance, service and foodstuffs.



ECO 510 front



ECO 511 front

Display

Thanks to the backlight, the three-line LCD display offers ergonomic wide-angle visibility - by day and by night.

The HOLD function enables the display values to be frozen.

Power supply

2 powerful AA batteries, the energy-saving design and the configurable automatic switch-off function ensure long operation.

Configurable LCD backlight for additional energy-saving options.

Calibration

With regular calibration with the recommended GPH-DOS 4 /7/10 the instrument reaches outstanding precision for its instrument class.

ECO 510 / ECO 511 Waterproof pH meter

TECHNICAL SPECIFICATIONS

Measurement specifications

	ECO 510	ECO 511
Inputs	pH electrode can be connected via BNC Standard GE 114 WD Temperature compensation on the device	pH electrode can be connected via BNC Temperature input Pt1000 2 x 4mm banana Automatic temperature compensation via temperature input
Recommended electrodes	Standard GE 114 WD	pH: Standard GE 114 WD or GE 135 combination electrode with T-sensor Redox: GR 105
Measuring range	0.0..14.00 pH	0.0..14.00 pH Redox ± 1500 mV Temperature -0.5 ..+105.0 °C
Accuracy	± 0.02 pH ± 1 digit (at nominal temperature 25 °C)	
Maximum cable length	3 m	

General specifications

Display	3-line with battery status display, Backlight, protected by shatterproof glass, Overhead display at the touch of a button
Power supply	2 x AA alkaline batteries (included)
Power consumption	<1 mA
Battery life	> 3000 h typ. Continuous operation
Automatic switch-off	Yes, configurable by the user
Operating conditions	-20...50 °C device (note the application range of the electrode, usually -5...50°C)
Storage temperature	-25...65 °C (without batteries)
Protection class	IP65 / IP67 (only with electrodes with waterproof BNC connection)
Dimensions	108 x 54 x 28 mm (H x W x D)
Weight	approx. 130 g (ECO 520) approx. 135 g (ECO 521)
Housing material	Impact resistant ABS, polyester (front panel)

Scope of delivery

- Dust and water-protected hand-held meter with BNC connection for interchangeable electrodes
- Test protocol
- 2x AA battery
- Manual
- With or without pH electrodes and accessories, depending on the option

ECO 510 / ECO 511 Waterproof pH meter

ORDER CODES

ECO510		
Waterproof pH-meter (formerly G 1500)		
1	Set-Option	
	-	Device alone (without pH electrode)
	-114	Device complete with pH electrode GE 114-WD entry level set, for water with min. conductivity 200 µS/cm
	-100	Device complete with pH electrode GE 100 e.g. application Koi Pond, low conductivity from 100µS/cm
	-SET	Device complete with pH electrode GE 114 WD, GAK 1400 and suitcase GKK 1001 e.g. application pool
	-SET100	Device complete with pH electrode GE 100 WD, GAK 1400 and suitcase GKK 1001 e.g. application soil /compost
ECO511		
Waterproof pH/ORP-meter with Pt1000 input and alarm (formerly G 1501)		
1	Set-Option	
	-	Device alone (without pH electrode)
	-114	Device complete with pH electrode GE 114-WD (without T-sensor)
	-SET	Device complete with pH electrode GE 114-WD + GF1T-T3-B-BS + GPH4.0/5+ GPH7.0/5 + 2x GPF100
	-135	Device complete with pH electrode GE 135 (PT1000), 1m
	-SET114	Device complete with pH electrode GE 114-WD, T-probe GF1T-T3-B-B, GAK 1400 and suitcase GKK 1001
	-SET135	Device complete with pH electrode GE 135 1m, GAK 1400 and suitcase GKK 1001

Waterproof pH/ORP-meter with Pt1000 input and alarm (formerly G 1501)

Standard articles

ECO510	Waterproof pH meter (formerly G 1500) Device in box (without pH electrode)	Art. no. 486761
ECO510-114	Waterproof pH meter (formerly G 1500) Device complete with pH electrode GE 114-WD	Art. no. 486762
ECO510-SET	Waterproof pH meter (formerly G 1500) ECO510 device complete with pH electrode GE 114 WD+ GF1T-T3-B-BS + GPH4.0/5+ GPH7.0/5 + 2x GPF100	Art. no. 487057
ECO511	Waterproof pH/ORP meter with Pt1000 input & alarm (formerly G 1501) Device in box (without pH electrode)	Art. no. 486763
ECO511-114	Waterproof pH/ORP meter with Pt1000 input & alarm (formerly G 1501) Device complete with pH electrode GE 114-WD	Art. no. 487060

Family Datasheet

ECO 510 / ECO 511 Waterproof pH meter

ECO511-135	Waterproof pH/ORP meter with Pt1000 input & alarm (formerly G 1501) Device complete with combination pH electrode GE 135	Art. no. 486764
ECO511-SET	Waterproof pH/ORP meter with Pt1000 input & alarm (formerly G 1501) Device complete with pH electrode GE 114 WD+ GF1T-T3-B-BS + GPH4.0/5+ GPH7.0/5 + 2x GPF100	Art. no. 487062
ECO511-SET114	Waterproof pH/ORP meter with Pt1000 input & alarm (formerly G 1501) Device complete with pH electrode GE 114-WD, T-probe GF1T-T3-B-BS, GAK 1400 and case GKK 1001	Art. no. 487063
ECO511-SET135	Waterproof pH/ORP meter with Pt1000 input & alarm (formerly G 1501) Device complete with pH electrode GE 135 1m, GAK 1400 and case GKK 1001	Art. no. 487064

Accessories

GE 114 WD	Low-maintenance gel electrode GE 114 WD (waterproof BNC connection)	Art. no. 610460
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Technical data

Measuring range:	0.0..14.00 pH, 0..60 °C
Conductivity:	>200 µS/ cm
Waterproof:	Waterproof to IP 65/67
Pressure-resistant:	no
Cable:	1 m
Electrolyte:	Gel electrolyte
Diaphragm:	1 x Pellon
Electrode shaft:	Epoxy, Ø 12 mm x 120 mm
Special features:	low cost, low maintenance

GE 100 BNC	Universal electrode, replacement pH electrode	Art. no. 600704
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Only for G1501, not G 1500:

GE 135-WD	Universal combination pH electrode incl. Pt1000, replacement pH electrode, 1 m	Art. no. 483292
GE 135-WD-L02	Universal combination pH electrode incl. Pt1000, replacement pH electrode, 2 m	Art. no. 483293
GR 105-BNC	Redox electrode	Art. no. 607798

Consumables:

GPH-DOS-4	ready-to-use buffer solution (pH 4.01 / 25 °C), 250 ml	Art. no. 485556
GPH-DOS-7	ready-to-use buffer solution (pH 7.00 / 25 °C), 250 ml	Art. no. 485554
GPH-DOS-10	ready-to-use buffer solution (pH 10.01 / 25 °C), 250 ml	Art. no. 485557
GAK 1400	Working and calibration set consisting of: 5 x buffer capsules GPH 4.0, GPH 7.0 and GPH 10.0, 3 x 100 ml plastic bottle GPF 100, 1 x 3 mol KCL electrolyte, KCL3M and 1 x cleaning solution GRL 100	Art. no. 603523

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