

Conductivity Meter ECO 522 / ECO 523

- Modern and functional housing
- Outstanding price/performance ratio
- Waterproof (IP65 / IP67)
- 3-line display / overhead display at the push of a button
- Backlighting
- Durable, long battery life
- Measurement accuracy with high precision measuring cells with temperature measurement
- Hold function for freezing measured values
- Min/Max function for minimum and maximum recorded measured value
- Made in Germany



ECO 522

ECO 523

Features

The primary focus in the development of the ECO-Line was placed on the essential functions of the measurement technology. Pure measurement with a focus on precision, speed and reliability and compact packaging enable an impressive price/performance ratio, Made in Germany.

The devices also have impressive ergonomics, dust and water protection according to IP 65/67 and display backlighting.

ECO 522 is a universal wide-range conductometer with durable 2-pole measuring cell for measurements in applications from deionised water (purification processes, aquarium applications) to sea water with up to 100.0 mS/cm.

ECO 523 is equipped with a stainless steel purest water measuring cell and specialised for high-resolution measurement of purest water, alcohol, solvents and similar liquids. The resolution is up to 0.001 $\mu\text{S}/\text{cm}$.

The measuring devices can be used in aquarium, aquaculture, plant cultivation, pharmaceutical, laboratory, quality assurance and service (e.g. osmosis systems) applications.

Conductivity Meter ECO 522 / ECO 523

Technical data

| | ECO 522 | ECO 523 |
|----------------------------|--|--|
| | Wide-range meas. device, incl. graphite meas. cell | Cleanest water version, incl. stainless steel measuring cell |
| Measuring | Conductivity, salinity, TDS | Conductivity, specific resistance, NaCl |
| Measuring ranges | With automatic measuring range shifting | |
| Conductivity | 0...2000 $\mu\text{S}/\text{cm}$ 0,00...20,00 mS/cm 0,0...100,0 mS/cm | 0,000...2,000 $\mu\text{S}/\text{cm}$ 0,00...20,00 $\mu\text{S}/\text{cm}$ 0,0...100,0 $\mu\text{S}/\text{cm}$ |
| Specific resistance | | In $\text{MOhm}\cdot\text{cm}$ 0,0100...0,2000 0,010...2,000 0,01...20,00 |
| TDS | 0..2000 mg/l | |
| Salinity (PSU) | 0.0..50.0 g/kg | |
| Temperature Accuracy | -5,0...+105,0 $^{\circ}\text{C}$ | |
| Conductivity | $\pm 0.5\%$ of meas. v. $\pm 0.5\%$ FS | Typ. $\pm 1\%$ of m. value $\pm 0.5\%$ FS |
| Temperature | $\pm 0.3\text{ }^{\circ}\text{C}$ | $\pm 0.3\text{ }^{\circ}\text{C}$ |
| Oxygen | $\pm 1.5\%$ of meas. value $\pm 0.2\text{ mg}/\text{l}$ or $-> 0.2$ | |
| Temperature compensation | Off: deactivated nLF: non-linear, acc. to EN 27888 | Off: deactivated nLF: non-linear, acc. to EN 27888 LIN: linear with variable coefficients NaCl: For weak NaCl solutions in accordance with EN 60746-3 |
| Reference temperatures | 20 und 25 $^{\circ}\text{C}$ | 20 und 25 $^{\circ}\text{C}$ |
| Sensors / measuring inputs | Permanently connected 2-pole measuring cell with integrated temperature sensor | |
| Measuring cell | 2-pole meas. cell, \varnothing 12 mm graphite Cable 1.2 m (others avail. for additional charge) | 2-pole measuring cell, \varnothing 12 mm (stainless steel 1.4404,1.4435)) Cable 1.2 m (others avail. for add. charge) |
| Range of application | -5...+80 $^{\circ}\text{C}$ (temporarily 100 $^{\circ}\text{C}$) | |
| Display | 3-line with battery status indicator, background light, protected by an break-proof pane, overhead display at key press | |
| Operation | 4 long-lasting, easy-to-operate buttons | |
| Additional functions | Automatic measuring range shifting, automatic temperature compensation | |
| Display unit environment | -20...+50 $^{\circ}\text{C}$ | |
| Current supply | 2 x AA battery, >1000 h operating time | |
| Ingress protection | IP 65 /67 | |
| Housing | Break-proof ABS housing | |
| Dimensions | 108 x 54 x 28 mm (H x W x T) without sensor | |
| Weight | approx. 200 g (G 1410) approx. 230 g (G 1420) | |

Conductivity Meter ECO 522 / ECO 523

Measuring cell



Measuring cell G 1410, wide-range 2-pole graphite:
Low maintenance and applicable up to 100 mS/cm



Measuring cell G 1420, purest water 2-pole stainless steel/Peek:
High-resolution up to 0.001 μ S/cm

Scope of delivery

- Dust-proof and waterproof handheld measuring device according to IP 65/67
- Permanently connected measuring cell:
ECO 522: 2-pole graphite measuring cell up to 100 mS/cm
ECO 523: 2-pole stainless steel/Peek measuring cell up to 100 μ S/cm
- Test report
- 2x AA battery
- Operating manual

ORDER CODES

ECO522 1.
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| 1. | Option | Description |
|----|--------|--|
| | | Device, measuring cell LF 202, 2-pole graphite, permanently connected |
| | 1002 | Device, measuring cell LF 202, 2-pole graphite, permanently connected, in case GKK1002 |

ECO523 1.

| 1. | Option | Description |
|----|--------|--|
| | | Device, measuring cell LF 200 RW, 2-pole stainless steel/Peek, permanently connected |
| | 1002 | Device, measuring cell LF 200 RW, 2-pole stainless steel/Peek, permanently connected, in case GKK 1002 |

Conductivity Meter ECO 522 / ECO 523**STANDARD ARTICLES**

| | |
|---------------------|---|
| ECO 522-L01 | Waterproof universal conductivity measuring device Set-Option: Device, measuring cell LF 202, 2 pole graphite, fix mounted Measuring cell: 2-pole graphite measuring cell Scope of delivery: Device incl. measuring cell, manual, battery, test protocol Range of application: Device: -20 ... +50 °C, measuring cell: -5 ... +80 °C (short time 100 °C) Art no. 486758 |
| ECO 522-1002-L01 | Waterproof universal conductivity measuring device Set-Option: Device, measuring cell LF 202, 2 pole graphite, fix mounted, in suitcase GKK1002 Measuring cell: 2-pole graphite measuring cell Scope of delivery: Device incl. measuring cell, manual, battery, test protocol Range of application: Device: -20 ... +50 °C, measuring cell: -5 ... +80 °C (short time 100 °C) Art no. 487055 |
| ECO 522-WPL3-L01 | Waterproof universal conductivity measuring device Set-Option: Device, measuring cell LF 202, 2 pole graphite, in suitcase GKK1002, factory calibration WPL3 Measuring cell: 2-pole graphite measuring cell Scope of delivery: Device incl. measuring cell, manual, battery, test protocol Range of application: Device: -20 ... +50 °C, measuring cell: -5 ... +80 °C (short time 100 °C) Art no. 487059 |
| ECO 523-L01 | high resolution ultrapure water conductivity measuring device Set-Option: Device, measuring cell LF 200 RW, 2 pole stainless steel, fix mounted Measuring cell: 2-pole stainless steel measuring call Scope of delivery: Device incl. measuring cell, manual, battery, test protocol Range of application: Device: -20 ... +50 °C, measuring cell: -5 ... +80 °C (short time 100 °C) Art no. 486760 |
| ECO 523-1002-L01 | high resolution ultrapure water conductivity measuring device Set-Option: Device, measuring cell LF 200 RW, 2 pole stainless steel, fix mounted, in suitcase GKK1002 Measuring cell: 2-pole stainless steel measuring call Scope of delivery: Device incl. measuring cell, manual, battery, test protocol Range of application: Device: -20 ... +50 °C, measuring cell: -5 ... +80 °C (short time 100 °C) Art no. 487056 |
| ECO 523-WPL3-RW-L01 | high resolution ultrapure water conductivity measuring device Set-Option: Device, measuring cell LF 200 RW, 2 pole stainless steel, in suitcase GKK1002, factory calibration WPL3-RW Measuring cell: 2-pole stainless steel measuring call Scope of delivery: Device incl. measuring cell, manual, battery, test protocol Range of application: Device: -20 ... +50 °C, measuring cell: -5 ... +80 °C (short time 100 °C) Art no. 487058 |

Conductivity Meter ECO 522 / ECO 523

ACCESSORIES

| | | |
|----------|---|-----------------------|
| GKL 100 | Conductivity control solution (100 ml bottle with 1413 $\mu\text{S}/\text{cm}$, in accordance with DIN EN 27888) | Art no. 601396 |
| GKL 101 | Conductivity control solution (250 ml bottle with 84 $\mu\text{S}/\text{cm}$) | Art no. 601398 |
| GKL 102 | Conductivity control solution (100 ml bottle with 50 mS/cm) | Art no. 601400 |
| GWZ-01 | Glass flow vessel (for measuring cells \varnothing 12 mm, hose connection \varnothing 6 mm) | Art no. 603499 |
| ST-G1000 | Device protection bag with 1 round cut-out | Art no. 611373 |
| GB AA | Spare battery AA (2 batteries required) | Art no. 610049 |

Case:

| | | |
|----------|---|-----------------------|
| GKK 1001 | Compact storage of the device | Art no. 611604 |
| GKK 1002 | With recesses for a device with sensor, additional recess for temperature sensor GF1T (235 x 185 x 48 mm) | Art no. 411907 |

ADDITIONAL ACCESSORIES**ISO calibration certificates**

| | | |
|-------------|--|-----------------------|
| ISO-WPL3 | ISO calibration certificate with 3 test points: $\sim 147 \mu\text{S}/\text{cm}$, $\sim 1413 \mu\text{S}/\text{cm}$, $\sim 12.90 \text{mS}/\text{cm}$ | Art no. 602622 |
| ISO-WPL3-RW | ISO calibration certificate with 3 test points: $\sim 2.50 \mu\text{S}/\text{cm}$, $\sim 7.00 \mu\text{S}/\text{cm}$, $\sim 15.00 \mu\text{S}/\text{cm}$ | Art no. 602624 |

Further available accessories can be found on the Senseca website.