

WATER-PROOF HANDHELD DEVICE FOR CONDUCTIVITY MEASUREMENT



WATER-PROOF - GERÄT
UND STECKVERBINDUNGEN

HIGHLIGHTS:

- Measurement of conductivity, resistance, salinity, TDS
- Large double display with background illumination
- Automatic cell correction with reference solutions
- Incl. calibration protocol

ADDITIONAL FUNCTIONS GMH 5450:



GMH 5430

Art. no. 600035

Waterproof conductivity handheld device without electrode

GMH 5450

Art. no. 600037

Waterproof conductivity handheld device with logger, without electrode

Application:

Mobile use for:

industry and craft

- measurements of waters and aquaristics, fish farming
- drinking water monitoring, process control, soil measurements
- food production and control
- quality management

Additional applications at laboratory:

- medicine, pharmacy, chemistry

Specifications:

Measuring range

Number of measuring ranges: 5

Smallest range: 0.000 ... 5.000 $\mu\text{S}/\text{cm}^*$ or 0.0 ... 500.0 $\mu\text{S}/\text{cm}^{**}$

Biggest range: 0 ... 5000 $\mu\text{S}/\text{cm}^*$ or 0 ... 1000 mS/cm^{**}

Resistivity: 0.005 ... 500.0 $\text{k}\Omega\text{m}^* \text{cm}$ (depends on cell constant)

TDS: 0 ... 5000 mg/l (depends on cell constant)

Salinity: 0.0 ... 70.0 (g salt / kg water)

Temperature: -5.0 ... +100.0 °C, Pt1000 or NTC 10 k

Supported cell constants: 4.000 ... 15.000 / cm - 0.4000 ... 1.5000 / cm - 0.04000 ... 0.15000 / cm - 0.004000 ... 0.015000 / cm

Accuracy (at nominal temperature = 25 °C)

Conductivity: $\pm 0.5\%$ of m.v. $\pm 0.1\%$ FS (depends on electrode)

Temperature: ± 0.2 K

Connection

Conductivity, temperature: 1 x 7-pole bayonet connector for connection of different measuring cells, supported temperature sensors: Pt1000 or NTC (10 k)

Interface / ext. supply: 4-pole bayonet connector for serial interface and supply (with accessory: USB adapter USB 5100)

Analog output: (GMH 5450 only) 0 ... 1 V, freely adjustable, connection with 4-pole bayonet connector, resolution 13 bit, accuracy 0.05 % at nominal temperature

Data logger: (GMH 5450 only) cyclic: 10.000 data sets, adjustable cycle time: 1 s ... 60 min
manual: 1000 data sets (with measuring point input, 40 adjustable measuring point texts or measuring point numbers)

Display: 4 ½ digit 7-segment, illuminated (white)

Operating conditions: Device: -25 ... +50 °C, 0 ... 95 % RH (non-condensing)

Storage temperature: -25 ... +70 °C

Background illumination: duration adjustable (off, 5 s ... 2 min)

Power supply:	2 x AAA battery (included), power consumption 6.25 mA
Battery life:	approx. 160 h (without background illumination)
Protection rating:	IP65 / IP67
Housing:	Impact-resistant ABS plastic housing, integrated pop-up clip
Dimensions:	160 x 86 x 37 mm (H x W x D) incl. silicone protection cover
Weight:	approx. 250 g incl. battery and protection cover
Scope of supply:	Device, K 50 BL, battery, calibration protocol, manual

depends on cell constant of used electrode

** cell constant 0.01 / cm ** cell constant 0.1 ... 1.2 / cm (standard)*

Additional functions:

Cell correction

Manually or automatically with reference solution

Automatic temperature compensation

As conductivity depends strongly on temperature, each conductivity value is only valid at the corresponding temperature. Therefore the device supports temperature compensation, i.e. referring the conductivity to a reference temperature (selectable: 20 °C or 25 °C).

Supported types of compensation:

nLF: Non-linear function of natural waters acc. to DIN EN 27888 (ISO 7888)
(Reference temperature 25 °C)

Lin: adjustable linear compensation

off: no compensation

Salinity measurement

Salinity means the sum of the concentrations of all dissolved salts in water. The unit is g/kg. (equals PSU = Practical Salinity Unit).

TDS measurement (total dissolved solids)

TDS means the mass concentration of dissolved media in a liquid. The unit is mg/l.

GLP (Good Laboratory Practice)

adjustable calibration intervals

GMH 5450: Calibration memory: latest 16 calibrations

Accessories and spare parts:

GKL 10... conductivity control solution see next page

EBS 20M

Art. no. 601158

Measuring data acquisition software for EASYBus & GMH (p.r.t. page 109)

GSOFT 3050

Art. no. 601336

Windows software for GMH 3000 and GMH 5000 with logger, p.r.t. page 110

USB 5100

Art. no. 601095

Electrically isolated interface converter, supplied via USB

GNG 5 / 5000

Art. no. 602287

Plug in power supply for devices of the series GMH 5XXX, p.r.t. page 115

GKK 5001

Art. no. 611606

with cut-outs for 1 device of the GMH 5xxx-/7500 series and accessories for water analysis (395 x 295 x 106 mm), p.r.t. page 112