

WATER-PROOF HANDHELD DEVICE FOR CONDUCTIVITY MEASUREMENT



WATER-PROOF DEVICE AND  
PLUG CONNECTIONS



- 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  
Water-proof handheld device without electrode

GMH 5450

Art. no. 600037  
Water-proof handheld device with analog output and data logger, without electrode

Application:	
<b>Mobile use for:</b> <ul style="list-style-type: none"><li>• industry and craft</li><li>• measurements of waters and aquaristics, fish farming</li><li>• drinking water monitoring, process control, soil measurements</li><li>• food production and control</li><li>• quality management</li></ul> <b>Additional applications at laboratory:</b> <ul style="list-style-type: none"><li>• medicine, pharmacy, chemistry</li></ul>	
Specifications:	
Measuring range	
Number of measuring ranges: 5	
Smallest range:	0.000 ... 5.000 µS/cm * or 0.0 ... 500.0 µS/cm **
Biggest range:	0 ... 5000 µS/cm * or 0 ... 1000 mS/cm **
Resistivity:	0.005 ... 500.0 kOhm * 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:	±0.5 % of m.v. ±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: (only GMH 5450)	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 class:	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 <i>depends on cell constant of used electrode</i> * cell constant 0.01 / cm      ** cell constant 0.1 ... 1.2 / cm (standard)
Additional functions:	
<b>Cell correction</b> Manually or automatically with reference solution	
<b>Automatic temperature compensation</b> 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).	
<b>Supported types of compensation:</b> 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	
<b>Salinity measurement</b> Salinity means the sum of the concentrations of all dissolved salts in water. The unit is g / kg. (equals PSU = Practical Salinity Unit).	
<b>TDS measurement (total dissolved solids)</b> TDS means the mass concentration of dissolved media in a liquid. The unit is mg / l.	
<b>GLP (Good Laboratory Practice)</b> adjustable calibration intervals GMH 5450: Calibration memory: latest 16 calibrations	
Accessories and spare parts:	
GLK 10... conductivity control solution	see next page
<b>EBS 20M</b> Art. no. 601158 Software for long-term monitoring (p.r.t. page 108)	
<b>GSOFT 3050</b> Art. no. 601336 Software for operation of logger devices (p.r.t. page 109)	
<b>USB 5100</b> Art. no. 601095 Electrically isolated interface converter, supplied via USB	
<b>GNG 5 / 5000</b> Art. no. 602287 Plug-in power supply 5 V DC, suitable for devices of the series GMH 5000 (p.r.t. page 113)	
<b>GKK 5001</b> 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 111	