Water-proof handheld device for conductivity measurement with external electrodes

WATER-PROOF DEVICE AND PLUG CONNECTIONS

STANDARD-FUNCTIONS:

AUTO-HOLD · AUTO OFF · BAT · MIN MAX

HIGHLIGHTS:

- *Serial interface*
- *Analog output (GMH 5450)*
- *Data logger and alarm function (GMH 5450)*
- *Measurement of conductivity, resistance, salinity, TDS*
- *Robust silicone protection cover*
- *Large double display with background illumination*
- *Automatic cell correction with reference solutions*
- *Incl. calibration protocol*

ADDITIONAL FUNCTIONS GMH 5450:

ALARM · LOGG

GMH 5430

Product-ID: 600035

Water-proof handheld device without electrode

GMH 5450

Product-ID: 600037

Water-proof handheld device with analog output and data 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 meas. 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
Display:	4 ½ digit 7-segment, illuminated (white)
Operating conditions:	-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 time:	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, 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