

WATERPROOF HANDHELD MEASURING DEVICE FOR PH / REDOX



WATER-PROOF DEVICE AND
PLUG CONNECTIONS

**GMH 5530**

Art. no. 600041

Waterproof pH-/Redox-/Temperature measuring instrument, without electrode

GMH 5550

Art. no. 600043

waterproof pH-/Redox-/Temperature measuring instrument with logger, without electrode

Application:

- Waters measuring, fishkeeping, aquafarming
- Drinking water monitoring, process control, soil measuring
- Food production and monitoring
- Laboratory: Medicine, pharmaceuticals, chemistry
- Quality management

Specifications:**Measuring ranges**

pH:	-2.000 ... 16.000 pH (resolution selectable)
Redox / mV:	-2000.0 ... 2000.0 mV (resolution selectable) for hydrogen system DIN38404: -1792 ... +2207 mV _H)
Temperature:	-5.0 ... +150.0 °C; 23.0 ... 302.0 °F
rH:	0.0 ... 70.0 rH

Accuracy

pH:	±0.005 pH
Redox / mV:	±0.05 % FS (mV or mV _H)
Temperature:	±0.2 °C (in the range of -5.0 ... 100.0 °C)
rH:	±0.1 rH

Connections

pH, Redox:	BNC-female connector, compatible to standard BNC-plugs and waterproof BNC-plugs, additional banana-jack (4 mm) for separate reference electrode, input resistance: 10 ¹² Ohm
Temperature:	2 banana-jacks (4 mm) for temperature probes (Pt1000 or NTC 10K)
Interface / Supply:	4-pole bayonet connector for serial interface and supply (with accessory USB 5100)
Operating conditions:	-25 ... +50 °C; 0 ... 95 % RH (non-condensing)
Display:	two 4 ½ digit 7-segment displays (15 mm and 12 mm)

pH-Calibration

Automatically:	1-, 2- or 3- point calibration, GREISINGER standard buffer or buffer to DIN19266 (A, C, D, F, G)
Manual:	1-, 2- or 3- point calibration
Power supply:	2 x AAA-battery, power consumption: <1.0 mA
Battery life:	1000 hours

Housing: impact resistant ABS housing with pop-up clip**Protection rating:** IP65 / IP67**Dimensions:** 160 x 86 x 37 mm (H x W x D) incl. protection cover**Weight:** 250 g incl. battery and protection cover**Scope of supply:** Device, battery, calibration protocol, manual**HIGHLIGHTS:**

- GLP-features (Good Laboratory Practice)
- Big dual display with background illumination
- High resolution (0.001pH / 0.1 mV)
- Incl. calibration protocol

ADDITIONAL FUNCTIONS GMH 5550:**Additional functions:****Additional Display for pH-Electrode and Battery:** Bar graph display**Background illumination:** duration adjustable (off, 5 s ... 2 min)**Automatic Temperature Compensation:** There is an automatic temperature compensation (ATC) in the range of 0 ... 105 °C for operation mode "pH" and if a temperature probe is connected. Without connected probe the temperature can be input manually.**pH-Calibration:** 1-, 2- or 3- point calibration with characteristics bend for GREISINGER standard buffer, buffer to DIN 19266 or manual buffer input. The used buffer is detected automatically. The temperature dependency of the buffer is automatically compensated. Permissible electrodes' data: Asymmetry: ±55 mV / Slope: 45 ... 62 mV/pH
The condition of pH-Electrode is checked at each calibration.**Redox-Measurement (ORP):** 2 choices:

- „mV“ Standard-Redox-, ORP or mV- measurement
- „mV_H“ Conversion to hydrogen systems according to DIN38404 part 6

rH-Measurement: The rH-value is calculated from a measured Redox-value and a manually input pH-value.**Calibration interval:**

The device asks for a recalibration after a selectable time period (1 ... 365 days or inactive)

Calibration memory (GMH 5550 only):

last 16 calibrations

Analog output (GMH 5550 only):

0 ... 1 V, freely adjustable, connection with 4-pole bayonet connector, resolution 13 bit, accuracy 0.05 % at nominal temperature

data logger (GMH 5550 only):with measuring point input, adjustable cycle time: 1 s ... 1 h
recording time: 416 days at interval 1 h,
data logger: cyclic: 10000 data sets, manual: 1000 data sets**Accessories and spare parts:****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 with supply of device 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