Waterproof handheld measuring device for pH / Redox with external probe

STANDARD-FUNCTIONS:

AUTO-HOLD · AUTO OFF · BAT · HOLD · MIN MAX

WATER-PROOF DEVICE AND PLUG CONNECTIONS

HIGHLIGHTS:

- *Serial Interface*
- *Analog output (GMH 5550)*
- *Data logger- and alarm function (GMH 5550)*
- *GLP-features (Good Laboratory Practice)*
- *Robust silicone protection cover*
- *Big dual display with background illumination*
- *High resolution (0.001pH / 0.1 mV)*
- *Incl. calibration protocol*

ADDITIONAL FUNCTIONS GMH 5550:

ALARM · LOGG

GMH 5530

Waterproof handheld measuring device without electrode

GMH 5550

Waterproof handheld measuring device with analog output and data logger, without electrode

Application:

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

Specification:

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)
Working conditions:	-25 ... 50 °C; 0 ... 95 % RH (non condensing)
Display:	two 4½ - digit seven-segment display (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)
Manually:	1-, 2- or 3- point calibration
Housing:	impact resistant ABS housing with pop-up clip
Protection class:	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
Power supply:	2 x AAA-battery (incl. in scope of supply) power consumption: <1.0 mA
Battery life time:	1000 hours

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):
last 16 calibrations

Analog output (GMH 5550):
0 - 1 V, freely adjustable, connection with 4-pole bayonet connector, resolution 13 bit, accuracy 0.05 % at nominal temperature