pH-/redox-/temperature measuring devices

- Double display for pH or redox and temperature
- Redox mode allows for automatic conversion to a hydrogen system.
- Automatic or manual temperature compensation
- Automatic buffer detection
- Automatic detection of measuring value stability
- rH-measurements
- Min/Max value memory, Hold function
- Evaluation of probe quality
- Battery and d.c. operation
- Serial interface, device can be connected to bus system (up to 5 devices can be connected to one PC interface)
- Device can be used as thermometer, too

GMH 3530 without accessories

pH-probe, temperature probe, redox probe, calibration access., etc. please order separately or as additional set.

GMH 35 ES additional set

consisting of: pH-electrode GE100BNC, temperature probe GTF35 (Pt100 4-wire), case GKK3500 and GAK1400

Specification:

Measuring ranges:

Temperature:	-100,0 ... +250,0°C or -148,0 ... +482,0°F
pH:	0,00 ... 14,00 pH
Redox (ORP):	-1999 ... +2000 mV. for hydrogen system (DIN38404): -1792 ... +2207 mV_H (at 25°C)
rH:	0,0 ... 70,0 rH

Accuracy: (device) (±1 digit) (at nominal temperature = 25°C)

Temperature:	±0,2°C (-20...+80°C), otherwise ±0.4°C
pH:	±0,01 pH
Redox (ORP):	±0,1% FS (mV or mV_H)
rH:	±0,1rH

Sensor connections:

Temperature:	4-pin screened Mini-DIN-socket. for Pt100 4-wire (2-wire connection possible)
pH, Redox:	BNC-socket

Input resistance: (pH, Redox) 10^{12} Ohm

Display: 2 four digit LCDs (12.4mm or 7mm high) for pH, redox and temperature, min./ max values, hold function, etc. as well as additional functional arrows.

Working temperature: 0 to +50°C
Relative humidity: 0 to +95%RH (non-condensing)
Storage temperature: -20 to +70°C

Pushbuttons: 6 membrane keys for ON/OFF-switch, selection of meas. mode, min-/max-value memory, hold-function, calibration etc.

Interface: serial interface, direct connection to RS232 or USB interface of a PC via electrically isolated interface adapter GRS3100 or GRS3105 resp. USB3100 (p.r.t. accessories).

Min/Max-value memory: max. and min. values will be memorized.

Hold function: by pressing a button the current meas. value will be memorized

Power supply: 9V-battery, type IEC 6F22 (included) as well as additional d.c. connector (internal pin Ø 1.9mm) for external 10.5-12V direct voltage supply. (suitable power supply: GNG10/3000)

Auto-Off-Function: 1...120min (can also be deactivated).

Low battery warning: ⚠ and ' bAt '

Power consumption: approx. 3 mA

Housing dimensions (device): 142 x 71 x 26 mm (H x W x D)
Impact-resistant ABS plastic housing, membrane keyboard. Front side IP65, integrated pop-up clip for table top or suspended use.

Weight: approx. 165 g

Automatic temperature compensation: Automatic temp. comp. (ATC) if temperature probe is plugged in and operating mode is "pH". Temperatur compensation ragen: 0 - 105°C.
Manual temperature input if no probe connected.

pH-calibration: automatic buffer detection. Automatic compensation of temperature dependance of buffers.

acceptable electrode data:	Asymmetry:	±55 mV
	Slope:	45...62 mV/pH

Sensor evaluation depending on calibration results (10 to 100%), displayed by pressing a key.

Opt. 2- or 3-point-calibration with bend of the characteristics for GREISINGER-standard-buffer (pH4.01, pH7.00, pH10.01), buffers acc. to DIN19266 (A,C,D,F,G) or manual buffer entry.

Redox-Measurements(ORP): you have 2 choices:
"mV" standard-redox- or mV-measurement
"mV_H" Temp. compensated conversion to hydrogen system acc. to DIN38404 part 6, table 1 based on the standard redox electrode (e.g. GE105 with Ag/AgCl system and 3mol KCl) used.

rH-measurement: Calculation of the rH value by means of a redox measuring and by manually entering the pH-value. The pH-value can also be taken from a previous pH measurement.

Temperature measurements: Display of current value 12.4 mm high for thermometer mode. Min-/Max- or Hold values can be displayed in the second 7 mm high display.

Accessories:

GTF 35 temperature probe, Pt100 4-wire (p.r.t. page 89)

GE 100 BNC Standard-electrode, BNC-plug

GE 109 pH electrode with integr. Pt100, without thread, BNC-plug and MiniDIN-plug (suitable for GMH3530)

GNG 10/3000 plug-in power supply (recommend for logger application!)

GKK 3000 case with cut-outs for GMH3xxx

GKK 3500 large case with punched lining suitable for device and accessories

ST-R2 device protection bag with cut outs for sensor connection punch: 2 round holes, suitable for: GMH3510, GMH3530, ... (p.r.t. page 38).

USB 3100 interface converter to USB, electrically isolated

GRS 3105 interface converter to RS232 with 5 connection points, electr. isolated, for the connection of 5 GMH3xxx to one PC.

EBS 9M software for transmission, recording and archiving measuring values obtained from one GMH3xxx (p.r.t. page 39).

miscellaneous accessories (case, mains adaptors, etc.) suitable for all GMH3xxx devices p.r.t. p. 38 - 39