

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
- rH-measurements
- Evaluation of probe quality
- Battery and d.c. operation
- Serial interface
- Device can be used as thermometer, too

GMH 3530 without accessories

GMH 35 ES additional set

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 possible)

pH, Redox: BNC-socket

Input resistance: (pH, Redox) 10¹² Ohm

Display: 2 four digit LCDs
(12.4 mm or 7 mm high)

Working temperature: 0 to +50°C

Storage temperature: -20 to +70°C

Interface: serial interface, direct connection to RS232
or USB interface of a PC via electrically isolated interface
converter GRS 3100 or GRS 3105 resp. USB 3100 N
(p.r.t. accessories).

Power supply: 9V-battery, type IEC 6F22 (in-
cluded) 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)

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, in-
tegrated pop-up clip for table top or suspended use.

Weight: approx. 165 g

Functions:

**Min/Max-value memory, Hold function, Auto-
Off-Function, Low battery warning**

Automatic temperature compensation: Auto-
matic 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. Auto-
matic compensation of temperature dependance
of buffers.

acceptable electrode data:

Asymmetry: ±55 mV

Slope: 45...62 mV/pH

Sensor evaluation depending on calibration re-
sults (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 manu-
ally 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 123)

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

USB 3100 N

interface converter to USB, electrically isolated



EBS 20M

software for transmission, recording and archiving meas-
uring values obtained from 1 GMH3xxx (p.r.t. p. 62)

**miscellaneous accessories (case, mains
adaptors, etc.) p.r.t. p. 60 - 62**

pH-electrodes for goods and food, etc.



	GE 101	GE 120
Measurand	pH	pH
Measuring range	2 - 11 pH 0 - 60 °C	0 - 14 pH 0 - 80 °C
Conductivity	> 200 µS	> 200 µS
Temperature meas.	no	no
Water proof	no	no
Pressure resistant	no	no
Cable	1 m	1 m
Electrolyte	3 mol/l KCL	3 mol/l KCL
Thread	without	without
Application	foods, suspensions, ground survey, etc.	frozen food, meat, cheese, etc.
Temperature connection	-	-
Connection:		
Cinch 		
BNC 		

Options, upcharges:

- Cable extension

(available cable length: 1, 2, 5 und 10 m)

- Special disign types upon request

(electrodes with thread, other length, special
applications etc.)

Accessories:

VD120

injection aid for injection electrode GE101

GAD 1 CINCH

Adapter for the plug-in of electrodes with
Cinch-plugs to devices with BNC-sockets

GAD 1 BNC

Adapter for the plug-in of electrodes with
BNC-plugs to devices with Cinch-sockets.

GPF 100

Plastic bottle with wide neck, 100ml

**miscellaneous accessories
p.r.t. p. 37**