

PH/ORP/TEMPERATURE MEASURING DEVICES



HIGHLIGHTS:

- In the case of redox, automatic conversion to the hydrogen system is possible
- Temperature compensation
- Automatic buffer recognition
- Rating of electrode's quality
- New: analog output for all variants

ADDITIONAL FUNCTIONS OF GMH 3551:



GMH 3511

Item No. 604953
pH/ORP/temperature meter
Device only (without pH electrode)

GMH 3531

Item No. 602076
pH/ORP/temperature meter
Device only (without pH electrode)

GMH 3551

Item No. 602817
pH/ORP/temperature meter with logger
Device only (without pH electrode)

TECHNICAL SPECIFICATIONS:

Measuring ranges

Temperature:	-5.0 .. + 150.0 °C or 23.0 .. + 302.0 °F
pH:	0.00..14.00 pH
Redox (ORP):	-1999 .. + 2000 mV based on the hydrogen system: -1792 .. + 2207 mV _H (DIN 38404)
rH:	0.0..70.0 rH (not GMH 3511)

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

Temperature:	± 0.2 °C (at -5 .. + 100 °C)
pH:	± 0.01 pH
Redox (ORP):	± 0.1 % FS (mV or mV _H)
rH:	± 0.1 rH (not GMH 3511)

Sensor connections

Temperature:	2 x 4 mm banana for Pt 1000, 2-wire
pH, redox:	BNC socket

Display:	2 four-digit LCD displays (12.4 mm or 7 mm high)
----------	--

Working temperature: 0 .. + 50 °C

Storage temperature: -20 .. + 70 °C

Interface: serial interface, can be connected directly to a PC via galvanically isolated interface converter GRS 3100 or GRS 3105 or USB 3100 N (accessory).

Power supply: 9 V battery, power supply socket for external 10.5..12 V DC voltage supply (suitable power supply: GNG 10/3000)

Battery life: approx. 300 h

Housing: Made of impact-resistant ABS, membrane keyboard, transparent panel, integrated pop-up clip

Dimensions: 142 x 71 x 26 mm (H x W x D)

Weight: approx. 170 g

Scope of delivery: Device, battery, test report, operating instructions

FUNCTIONS:

Automatic temperature compensation:

If the temperature sensor is plugged in and the "pH" operating mode is active, there is automatic temperature compensation (ATC) in the range of 0..150 °C. The temperature can be entered manually without a temperature sensor.

pH calibration:

There is an automatic buffer recognition, temperature compensation and a sensor evaluation depending on the calibration (from 10..100 %).

GMH 3511: 2-point calibration with Greisinger buffer capsules (GPH 4, 7, 10)

GMH 3531, GMH 3551: Either 1-, 2- or 3-point calibration with characteristic curve kink for Greisinger standard buffers, buffers according to DIN19266 (A, C, D, F, G) or manual buffer entry.

Calibration interval (not GMH 3511):

after a selectable period (1 .. 365 days or inactive) a recalibration is requested.

GMH 3551: additional calibration history

Redox measurement (ORP): 2 options are available:

"mV": Standard redox or mV measurement
"mV_H": Starting from the standard redox electrode used (eg GE 105 with the Ag / AgCl system and 3 mol KCl), a temperature-compensated conversion to the hydrogen system is carried out in accordance with DIN38404 Part 6, Table 1.

rH measurement (not GMH 3511): The rH value is calculated using a redox measurement and manual entry of the pH value. The pH value can also be taken from a previous pH measurement.

Analog output: 0..1 V, permanently set 0.1 V ± 0.14 pH or -2000 .. + 2000 mV, connection via 3-pole jack socket Ø 3.5 mm, resolution 13 bit,

Accuracy 0.05 % at nominal temperature
GMH 3551: Analog output freely scalable

Data logger (only GMH 3551):

Cyclic: 10,000 data records, single value: 1,000 data records (with measuring point input, 40 adjustable measuring point texts or measuring point numbers)

ACCESSORIES OR SPARE PARTS:

GMH 55 ES

Item No. 603066
pH add-on set for GMH 35xx and GMH 55xx
pH electrode GE 100 BNC, temperature probe GF1T-T3-B-BS, case GKK3500, calibration set GAK1400

GF 1T-T3-B-BS

Item No. 611088
compact Pt1000 hand probe with silicone handle, Pt1000 class B, with 2 banana plugs

GE 100-BNC

Item No. 600704
Universal pH electrode, BNC connector

GE 117-BNC

Item No. 600730
pH electrode with Pt1000, pressure-resistant

GNG 10/3000

Item No. 600273
Plug in power supply for GMH 3XXX series

GKK 3001

Item No. 611605
Case for GMH 3000 series water analysis / universal 395 x 295 x 106 mm (W x H x D)

USB 3100 N

Item No. 601092
Interface converter GMH3xxx <=> PC, USB, galvanic isolation

EBS 20M

Item No. 601158
Measurement data acquisition software for EASYBus & GMH