

PH / ORP / TEMPERATURE MEASURING DEVICES



HIGHLIGHTS:

- ORP mode allows for automatic conversion to hydrogen system electrodes
- temperature compensation
- Automatic buffer detection
- Rating function of electrode's quality
- New: analog output for all variants

ADDITIONAL FUNCTIONS GMH 3551:

**GMH 3511**

Art. no. 604953
pH / ORP / temp. measuring device w/o accessories

GMH 3531

Art. no. 602076
pH / ORP / temp. measuring device w/o accessories

GMH 3551

Art. no. 602817
pH / ORP / temperature measuring device with data logger
w/o accessories

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 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 range -5 ... +100 °C)

pH: ±0.01 pH

Redox (ORP): ±0.1 % FS (mV bzw. mV_H)

rH: ±0.1 rH (not GMH 3511)

Sensor connections

Temperature: 2 x 4 mm
banana socket for Pt1000, 2-wire

pH, Redox: BNC socket

Display: two 4-digit LCD displays
(12.4 and 7 mm high)

Working temperature: 0 ... +50 °C

Storage temperature: -20 ... +70 °C

Interface: serial interface; connectable to RS232 or USB interface of PCs via electrically isolated interface converter GRS 3100, GRS 3105 or USB 3100 N (accessories).

Power supply: 9 V battery, additional socket for external 10.5 ... 12 V direct current power supply (adequate PSU: GNG10/3000)

Battery life: approx. 300 h

Housing: Impact-resistant ABS plastic housing, 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 supply: Device, battery, calibration protocol, manual

Functions:**Automatic temperature compensation:**

In operation mode „pH“ an automatic temperature compensation (ATC) is possible in the range 0 ... 105 °C if a temperature probe is connected. Otherwise a manual input of temperature is possible.

pH calibration:

Buffer selection, temperature compensation and sensor rating according to calibration result (from 10 ... 100 %) is done automatically.

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

GMH 3531, GMH 3551: Either 1-, 2- of 3- point calibration with Greisinger standard buffer, buffer according to DIN19266 (A, C, D, F, G) or manual buffer selection.

Calibration interval (not for GMH 3511):

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

GMH 3551: Calibration history additional

ORP measurement (Redox):

There are 2 choices:

„mV“: standard ORP or mV measurement
„mV_H“: temp. compensated conversion to hydrogen system acc. to DIN38404 part 6, table 1 based on the standard ORP electrode (e.g. GE105 with Ag/AgCl system and 3 mol KCl) used.

rH measurement (not GMH 3511):

Calculation of the rH value by means of a ORP measurement and by manually entering the pH-value. The pH-value may also be taken from a previous pH measurement.

Analog output:

0 ... 1 V, not changeable 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 (GMH 3551 only):

cyclic 10,000 data sets, manual: 1,000 data sets (with measuring point input, 40 adjustable measuring point texts or measuring point numbers)

Accessories and spare parts:**GMH 55 ES**

Art. no. 603066
Additional set: pH-electrode GE 100 BNC, temperature probe GF 1T-T3-B-BS (Pt1000), case GKK 3500, GAK 1400

GF 1T-T3-B-BS

Art. no. 611088
Pt1000 handheld sensor, Pt1000 Class B, with 2 banana plugs

GE 100-BNC

Art. no. 600704
Standard electrode, BNC plug

GE 117-BNC

Art. no. 600730
pH electrode with integrated Pt1000 sensor (see p. 59)

GNG 10/3000

Art. no. 600273
Plug-in power supply

GKK 3001

Art. no. 611605
with cut-outs for 1 device of the GMH 3xxx series and accessories for water analysis (395 x 295 x 106 mm)

USB 3100 N

Art. no. 601092
Interface converter to USB, electrically isolated

EBS 20M

Art. no. 601158
Software for read-out, recording and archiving of measuring data (see page 108).

**GMH 3511-Set**

Art. no. 605021
Full set for pH/temperature measurements

General:

For comfortable measurements of pH value and temperature. Even easier operation ensured by a menu reduced to 5 points for GMH 3511. Minimal measuring effort because of maintenance-free gel-electrode and automatic temperature compensation.

Specifications:

p.r.t. GMH 3511

Scope of supply: GMH 3511, pH electrode GE 114, temperature probe GF 1T-T3-B-BS, buffer capsules 5 x GPH 4, 5 x GPH 7, 2 plastic wide mouth bottles GPF 100

Spare parts:**GE 114-BNC**

Art. no. 604701
Spare electrode

GKK 3001

Art. no. 611605
with cut-outs for 1 device of the GMH 3xxx series and accessories for water analysis (395 x 295 x 106 mm)