

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-/Redox-/Temperature measuring instrument w/o accessories

GMH 3531

Art. no. 602076

pH-/Redox-/Temperature measuring instrument w/o accessories

GMH 3551

Art. no. 602817

pH-/Redox-/Temperature measuring instrument with 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 or 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 Δ 0 ... 14 pH or -2000 ... +2000 mV, connection via 3-pole jack socket \varnothing 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

pH additional set for GMH 35xx and GMH 55xx
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

compact Pt1000 temperature probe with silicone handle, Pt1000 cl. B, with 2 banana plugs

GE 100-BNC

Art. no. 600704

pH-electrode, BNC plug

GE 117-BNC

Art. no. 600730

pH-electrode incl. Pt1000, pressure resistant

GNG 10/3000

Art. no. 600273

Plug in power supply for devices of the series GMH 3XXX

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 GMH3xxx \Rightarrow PC, USB, electrically isolated**EBS 20M**

Art. no. 601158

Measuring data acquisition software for EASYBus & GMH, see page 109