

pH / ORP / temperature measuring devices



STANDARD-FUNCTIONS:



NOW WITH PT1000 PROBE

GMH 3511

Product-ID: 604953

pH / ORP / temp. measuring device w/o accessories

GMH 3531

Product-ID: 602076

pH / ORP / temp. measuring device w/o accessories

GMH 3551

Product-ID: 602817

pH / ORP / temperature measuring device with data logger w/o accessories

| Specification: | |
|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 (DIN38404) |
| 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). |
| Current consumption: | < 1 mA |
| Housing: | Impact-resistant ABS housing, membrane keyboard, transparent panel. Front side IP65, integrated pop-up clip for table top or suspended use. |
| Dimensions: | 142 x 71 x 26 mm (H x W x D) |
| Weight: | approx. 170 g |
| Scope of supply: | Device, battery, manual |

HIGHLIGHTS:

- ORP mode allows for automatic conversion to hydrogen system electrodes
- Automatic or manual temperature compensation
- Automatic buffer detection
- Rating function of electrode's quality

ADDITIONAL FUNCTIONS GMH 3551:

NEW: ANALOG OUTPUT
FOR ALL VARIANTSSUCCESSOR OF
GPRT 1400 & GPHR 1400**GMH 3511-Set**

Product-ID: 605021

Full set for pH/temperature measurements

| Features: | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| 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. | |
| Specification: | |
| p.r.t. GHM 3511 | |
| Scope of supply: | GMH 3511, pH electrode GE 114, temperature probe GTF 55 B, buffer capsules 5 x GPH 4, 5 x GPH 7, 2 plastic wide mouth bottles GPF 100 |
| Accessories: | |
| GKK 1105 appropriate case | |
| Accessories and spare parts: | |
| GMH 55 ES Additional set: pH-electrode GE 100 BNC, temperature probe GTF 55 B (Pt1000), case GKK3500, GAK1400 | |
| GTF 55 B Temperature probe, Pt1000 (see p. 47) | |
| GE 100-BNC Standard electrode, BNC plug | |
| GE 117-BNC pH electrode with integrated Pt1000 sensor (see p. 48) | |
| GNG 10/3000 Plug-in power supply | |
| GKK 3000 Case with cut-outs for GMH 3xxx | |
| USB 3100 N Interface converter to USB, electrically isolated | |
| EBS 20M Software for read-out, recording and archiving of measuring data (see p. 77). | |

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)

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 (except GHM 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

additional functions GMH 3551:

Analog output freely scalable