

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 VARIANTS**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

SUCCESSOR 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).