

PH / ORP / TEMPERATURE MEASURING DEVICES



STANDARD-FUNCTIONS:



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



SUCCESSOR OF
GPR1 1400 & GPHR 1400

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

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 (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

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: (except 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)

GMH 3511-Set

Product-ID: 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 GTF 55 B, buffer capsules 5 x GPH 4, 5 x GPH 7, 2 plastic wide mouth bottles GPF 100

Accessories:**GKK 1105**

Product-ID: 601050
appropriate case

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

Product-ID: 603066

Additional set: pH-electrode GE 100 BNC, temperature probe GTF 55 B (Pt1000), case GKK3500, GAK1400

GTF 55 B

Product-ID: 602764

Temperature probe, Pt1000 (see page 47)

GE 100-BNC

Product-ID: 600704

Standard electrode, BNC plug

GE 117-BNC

Product-ID: 600730

pH electrode with integrated Pt1000 sensor (see p. 48)

GNG 10/3000

Product-ID: 600273

Plug-in power supply

GKK 3000

Product-ID: 601048

Case with cut-outs for GMH 3xxx

USB 3100 N

Product-ID: 601092

Interface converter to USB, electrically isolated

EBS 20M

Product-ID: 601158

Software for read-out, recording and archiving of measuring data (see page 76).