

SIMULATOR



GHM SensorSimulator SIM-1

Art. no. 201164
Simulator

GHM SensorSimulator SIM-1F

Art. no. 201366
Simulator with frequency output

General:

The GHM SensorSimulator issues various current and voltage signals. With additional return measurement of feed voltages and currents from connected measuring amplifiers, the GHM SensorSimulator can also provide optimal, true-to-the-original simulation of sensors like Pt100, various thermocouples and strain gauge sensors. An optional frequency output is available.

Application:

It can be used to compare and check displays and measuring transducers or transformers or complete measuring distances. Voltages and currents can also be measured with the device.

Specifications:

Accuracy:	see under Sensors
Connections:	7-pin Binder socket for signal input and output, Mini USB for voltage supply / charge function
Display:	Graphic LCD, monochrome, adjustable background light (180 x 128 pixels)
Operation:	Keypad
Supported languages:	German / English
Dimensions:	86 x 160 x 37 mm (W x H x D)
Weight:	250 g (including battery)
Supply voltage:	5 V DC (micro-USB)
Akku:	Li-Ion battery
Ambient temperature:	0 ... 50 °C
Simulation function	
Voltage source:	Simulation range: ± 10 V Accuracy: ± 1 %
Signal current:	Simulation range: ± 25 mA Accuracy: ± 1 %
Strain gauge bridges:	Simulation ranges: 0, 0.5, 1, 2, 4, 5, 10, 25, 50 mV/V Accuracy: ± 1 % Feed: 2.5 V, 5 V, 10 V
Thermocouples	
Type K	
Simulation ranges:	-100 ... +1000 °C (Increments: -100 ... +100 °C: 10 °C 100 ... 500 °C: 25 °C 500 ... 1000 °C: 50 °C)

HIGHLIGHTS:

- Simulation of various sensors, such as strain gauge, Pt100, TC
- Transmitter and measuring function for voltages and currents
- Simple, self-explanatory use in German and English
- Robust protective silicone case
- Graphic LCD
- Compact dimensions
- Battery-operated



Accuracy: with simulated compensation: ± 1 %; with internal temperature measurement: ± 3 K

Type J

Simulation ranges: -100 ... +1000 °C
(Increments: -100 ... 100 °C: 10 °C
100 ... 500 °C: 25 °C
500 ... 1000 °C: 50 °C)

Accuracy: with simulated compensation: ± 1 %; with internal temperature measurement: ± 3 K

Type N

Simulation ranges: -100 ... +1250 °C
(Increments: -100 ... +100 °C: 10 °C
100 ... 500 °C: 25 °C
500 ... 1250 °C: 50 °C)

Accuracy: with simulated compensation: ± 1 %; with internal temperature measurement: ± 3 K

Type S

Simulation ranges: -50 ... +1600 °C
(Increments: -50 ... +100 °C: 10 °C
100 ... 500 °C: 25 °C
500 ... 1600 °C: 50 °C)

Accuracy: with simulated compensation: ± 1 %; with internal temperature measurement: ± 3 K

Pt100

Simulation ranges: -100 ... +850 °C
(Increments: -100 ... +100 °C: 10 °C
100 ... 500 °C: 25 °C
500 ... 850 °C: 50 °C)

Accuracy: ± 1 %

Frequency (option F)

Simulation ranges: 1 Hz ... 500 kHz
(Increments: 1 ... 10 Hz: 1 Hz
10 ... 100 Hz: 10 Hz
100 Hz ... 1 kHz: 100 Hz
1 ... 10 kHz: 1 kHz
10 ... 100 kHz: 10 kHz
100 ... 500 kHz: 100 kHz)

Level (adjustable): ± 10 V

Accuracy: ± 1 %

Measurement function:

Voltage source: Measuring range: ± 30 V
Accuracy: ± 0.5 %

Current: Measuring range: ± 30 mA
Accuracy: ± 0.5 %

Scope of supply: GHM SensorSimulator, battery, charger, manual

PH AND MV SIMULATOR



HIGHLIGHTS:

- Checking and calibrating pH and redox ORP instrument
- Simple to use

HD-9609

Art. no. 700046
pH- und mV-Simulator

General:

The simulator HD-9609 is a portable instrument for checking and calibrating pH and mV measuring instruments. The characteristics of this instrument satisfy any checking and calibrating requirements for both portable and panel-mounted instruments; it can be used in laboratories, in industry or for check out on field. Despite its many functions, the instrument is simple to be used: a large display, with dual indication, and a series of symbols allow it to be used even by unskilled personnel.

Specifications:

pH simulation:	0 ... 14 pH
pH resolution:	0.1 pH
pH accuracy (20 ... 25 °C):	0.002 pH
mV simulation:	± 1.999 mV
mV resolution:	1 mV
mV accuracy:	± 100 μ V
Noise (0 ... 10 Hz):	1 μ V peak/peak
Simulation of temperature compensation:	-20 ... +150 °C (-4 ... +302 °F)
Output impedance:	100 k Ω 1 %, 1 G Ω 5 %
Display:	LCD 2 lines, 3 1/2 digits. Figure height approx. 12.5 mm.
Symbols:	pH, mV, °C, °F, HI imp., LO imp., 0.1 pH, 1 pH, 1 mV, 10 mV
Working temperature:	-5 ... +50 °C (-23 ... +122 °F)
Power supply:	9 V DC alkaline battery. Low battery indication.
Consumption (instrument only):	5 mA lit up, 20 μ A turned off
Autonomy:	about 200 h
Dimensions:	187 x 72 x 38 mm (H x W x D)
Scope of supply:	Gerät HD-9609, Adapterkabel CP-9509BNC, CP-9509-T, Transportkoffer

Accessories:

CP9509/BNC
Art. no. 700047
Adapter cable, L = 1 m, BNC plug both sides

CP9509/T
Art. no. 700048
Adapter cable, L = 1 m, BNC plug