

HD 9609



HD9609 pH AND mV SIMULATOR

GENERAL CHARACTERISTICS

The simulator **HD 609** 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.

The HD9609 outputs on channel A the simulation of signals of an electrode for measuring pH, ORP, ISFET, in the range:

- 0 to 14 pH, with resolution 0.10 pH;
- ±1999 mV, with resolution 1 mV.

It is possible to choose between two output impedance values:

- 100 kΩ, low impedance;
- 1 GΩ, high impedance.

The simulation of the temperature compensation electrode is programmed manually in the range from -20° C to $+150^{\circ}$ C, while the temperature is measured in Celsius or Fahrenheit degrees.

The pH simulation values can be manually set as desired, in steps of 0.1 or 1 pH. The mV simulation values can be manually set as desired, in steps of 1 or 10 mV. The HD9609 is powered by an ordinary 9Vdc alkaline battery.

The electronics are housed in a sturdy ABS case with ergonomic lines.

In designing and making the instrument, each detail has been assessed and selected in order to provide an instrument with high performance and excellent long-term measurement stability.

TECHNICAL CHARACTERISTICS

pH simulation: 0÷14 pH pH resolution: 0.1 pH pH accuracy 20÷25°C: 0.002 pH

Thermal drift: ± 0.0005 pH/°C from -5°C to 20°C and from

25°C to 50°

mV simulation: ± 1999 mV mV resolution: 1 mV mV accuracy: ± 100 μ V

Thermal drift mV scale: $-199.9 \dots +199.9$: $\pm 0.01 \text{ mV/}^{\circ}\text{C}$ from -5 to

20°C and from 25 to 50°C

Thermal drift mV scale: -1999 ... +1999: ±0.05 mV/°C from -5 to 20°C

and from 25 to 50°C

Noise $0 \div 10$ Hz: $1 \mu V$ peak/peak

Simulation of temperature

compensation: -20 to 150°C (-4 to 302°F)

Output impedance: $100 \text{ k}\Omega$ 1%, 16Ω 5% (no leading load capacity) Display: LCD 2 lines, 3 ½ 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

Signals: LOU, ER1, CAL

Working temperature: -5 to 50°C (23 to 122°F)

Power supply: 9 Vdc alkaline battery. Low battery indication.

Consumption (instrument only): 5 mA lit up, 20 µA turned off

Autonomy: about 200 hours
Dimensions: 187 x 72 x 38 mm.

Weight: 300 gr

ORDER CODES

HD 9609: The kit is made of: instrument HD 9609, adapter cables CP 9509BNC, CP 9509 T, carrying case

 $\ensuremath{\text{CP 9509BNC:}}$ Adapter cable L = 1 mt, male BNC connector on both ends

CP 9509 T: Adapter cable L = 1 mt, BNC connector on only one end

 $\mbox{{\bf CP}}$ 9509 S7: Adapter cable L = 1 mt, BNC wall connector one end, S7 male connector on the other end.

