

Bench-top pH and conductivity meter


NEW!
HIGHLIGHTS:

- Primary water treatment
- Chemicals laboratories general use
- Water purification, water softening
- Multi-channel laboratory instrument

HD-3456-2

Art. no. 700042

Bench-top pH and conductivity meter

General:

The HD-3456-2 is a bench top instrument for electrochemical measures: pH, conductivity and temperature. The displayed data can be stored (datalogger) and can be transferred to PC or serial printer. The storing and printing parameters can be set from menu. The HD-3456-2 measures pH, mV, redox potential (ORP), conductivity, resistivity in liquids, total dissolved solids (TDS), and salinity using combined 4-ring and 2-ring conductivity/temperature probes. Temperature is measured by Pt100 or Pt1000 immersion, penetration or contact probes.

Specifications:
Display ranges: pH, mV, χ , Ω , TDS, Sal, °C/°F measurement

Gerät
Abmessungen: 55 x 120 x 220 mm (H x W x D)

Material: ABS, rubber

Display: 2 x 4½ characters plus symbols, visible area: 52 x 42 mm

Operating conditions
Working temperature: -5 ... +50 °C

Storage temperature: -25 ... +65 °C

Working relative humidity: 0 ... 90 % RH without condensation

Protection degree: IP66

Power
Batteries: 3 batteries 1.5 V type AA

Autonomy (only batteries): 100 h with 1800 mAh alkaline batteries

Mains (cod. SWD-10): Output mains adapter 100-240 V AC/12 V DC-1A

Storage of measured values
Quantity: 20,000 terns of measures made up of [pH or mV], [χ or Ω or TDS or salinity] and temperature.

Connections
Serial interface and USB: 8-pole MiniDin connector, 1.1 - 2.0 electrically isolated

Mains adapter (cod. SWD-10): 2-pole connector (positive at centre) 12 V DC/1 A

Connections
pH / mV input: Female BNC connector

Conductivity input: 8-pole male DIN45326 connector

Input for temperature probes: 8-pole male DIN45326 connector

Measurement of pH by Instrument
Measurement range: -2.000 ... +19.999 pH

Resolution: 0.01 or 0.001 pH selectable from menu

Accuracy: ± 0.001 pH ± 1 digit

Automatic / manual temperature compensation
Measurement of mV by Instrument
Measurement range: -1999.9 ... +1999.9 mV

Resolution: 0.1 mV

Accuracy: ± 0.1 mV ± 1 digit

Standard solutions automatically detected (@25 °C): 1.679 pH – 2.000 pH – 4.000 pH – 4.008 pH – 4.010 pH – 6.860 pH – 6.865 pH – 7.000 pH – 7.413 pH – 7.648 pH – 9.180 pH – 9.210 pH – 10.010 pH

Measurement of conductivity by Instrument
Measurement range (SPT-01G) (Kcell=0.1): 0.00 ... 19.99 μ S/cm, resolution 0.01 μ S/cm

Measurement range (SP-T06-01G) (Kcell=1): 0.0 ... 199.9 μ S/cm, resolution 0.1 μ S/cm
 200 ... 1999 μ S/cm, resolution 1 μ S/cm
 2.00 ... 19.99 mS/cm, resolution 0.01 mS/cm
 20.0 ... 199.9 mS/cm, resolution 0.1 mS/cm

Accuracy (conductivity): ± 0.5 % ± 1 digit

Measurement of resistivity by instrument, resolution
Measurement range (Kcell=0.1): Up to 100 M Ω cm, resolution (*)

Measurement range (Kcell=1): 5.0 ... 199.9 Ω -cm, resolution 0.1 Ω -cm
 200 ... 999 Ω -cm, resolution 1 Ω cm
 1.00 k ... 19.99 k Ω -cm, resolution 0.01 k Ω -cm
 20.0 k ... 99.9 k Ω -cm, resolution 0.1 k Ω -cm
 100 k ... 999 k Ω -cm, resolution 1 k Ω -cm
 1 ... 10 M Ω -cm, resolution 1 M Ω -cm

Accuracy (resistivity): ± 0.5 % ± 1 digit

Measurement of total dissolved solids (with coefficient χ /TDS=0.5)
Measurement range (Kcell=0.1): 0.00 ... 19.99 mg/l 0.05 mg/l

Measurement range (Kcell=1): 0.0 ... 199.9 mg/l 0.5 mg/l
 200 ... 1999 mg/l 1 mg/l
 2.00 ... 19.99 g/l 0.01 g/l
 20.0 ... 99.9 g/l 0.1 g/l

Accuracy (total dissolved solids): ± 0.5 % ± 1 digit

Measurement of salinity
Measurement range: 0.000 ... 1.999 g/l 1 mg/l
 2.00 ... 19.99 g/l 10 mg/l
 20.0 ... 199.9 g/l 0.1 g/l

Accuracy (salinity): ± 0.5 % ± 1 digit

Automatic / manual temperature compensation 0 ... 100 °C with α T that can be selected from 0.00 ... 4.00 %/°C

Reference temperature: 20 or 25 °C selectable from menu

 χ /TDS conversion factor: 0.4 ... 0.8

Cell constant K (cm⁻¹): 0.01 - 0.1 - 0.7 - 1.0 - 10.0

Standard solutions automatically detected (@25 °C): 1413 μ S/cm

Measurement of temperature by Instrument
Resolution: 0.1 °C

Accuracy: ± 0.25 °C

Scope of supply: Instrument HD-3456-2, 3 1.5 V alkaline batteries, operating manual and DeltaLog9 version 2.0.

pH/mV electrodes, conductivity probes, temperature probes, standard reference solutions for different measurement types, connection cables for pH electrodes with ST connector, cables for data download to PC or printer have to be ordered separately.

(*) The resistivity measurement is obtained from the reciprocal of conductivity measurement.

Accessories:
SP-06-T

Art. no. 700043

 Conductivity and temperature probe, measuring range: 5 μ S/cm ... 200 mS/cm

SP-T01-G

Art. no. 700044

 Conductivity and temperature probe, measuring range: 0.1 μ S/cm ... 500 μ S/cm

TP47-100

Art. no. 700045

 PT100 without SICRAM module (DIN cl. AA), \varnothing 3 mm, length 230 mm, measuring range: -50 ... +250 °C

SWD-10

Art. no. 700039

Stabilized power supply at 100 ... 240 V AC/12 V DC/1 A mains voltage.

HD-22-3

Art. no. 700040

 Laboratory electrode holder with metal basis plate. Flexible electrode holder for free positioning. For \varnothing 12 mm probes.

HD-2101-USB

Art. no. 700038

Connection cable USB 2.0 connector type A - 8-pole Mini Din for connection to PC with USB input.

HD-40-1

Art. no. 700056

Portable, serial input, 24 column thermal printer, 57 mm paper width, 4 NiMH 1.2 V rechargeable batteries, SWD-10 power supply, instruction manual, 5 thermal paper rolls. Requires the cable HD-2110-CSNM (optional).

HD-2110-CSNM

Art. no. 700041

RS232C 8-pole MiniDin - 9-pole D Sub female null-modem cable for connecting the printer to instruments with MiniDIN connector (HD21xx.1 and HD21xx.2 series, HD34xx.2, HD98569, etc.).