



# HQ440D Benchtop Meter Package for Pure Water Applications with PHC281 pH Ultra Electrode and CDC401 Conductivity Cell

**Product #:** 8510200

ZAR Price: Contact Hach

Ships within 3 days

Designed for water quality experts, the Hach HQ440D Laboratory Multi-Meter is an advanced laboratory meter that takes the guesswork out of measurements. HQD meters connect with smart Intellical electrodes that automatically recognize the testing parameter, calibration history, and method settings to minimize errors and setup time. The advanced HQD Laboratory Meter is designed to withstand years of continuous lab use. HQD meters feature a simple user interface that does not require manuals or training to operate. The Intellical PHC281 is a standard combination pH electrode, robust plastic body, refillable with built-in temperature sensor and 1 m cable. PHC281 is intended for laboratory use and specially designed for fast response and stabilisation to measure pH in general purpose water quality applications or in difficult samples such as low ionic strength (LIS), ultrapure, dirty, TRIS, or high-solid content samples. The Intellical CDC401 with 1 m cable CDC401 is a digital, graphite, 4-pole conductivity electrode, ideal for measuring electrical conductivity, salinity, resistivity, or total dissolved solids (TDS) in wastewater, drinking water, or general water quality applications.

## Make your pH and Conductivity/TDS water laboratory quality parameters testing more efficient and flexible

Two input channels for simultaneous measurement of pH, Conductivity, Total Dissolved Solid (TDS), Optical Dissolved Oxygen (DO), Biochemical Oxygen Demand (BOD), Oxydo Reduction Potential (ORP/RedOx), Temperature, Ion Selective Electrode (ISE) direct concentration reading for Ammonia, Ammonium, Fluoride, Chloride, Sodium - connect any Intellical™ smart probe.

#### Intuitive user interface for simple operation, reliable and accurate results

Guided calibration and check standard routines reduce calibration errors while stabilization alerts and visual measurement lock ensure that you can trust the accuracy of the results.

#### Trust your measurements with Intellical smart probes that store all calibrations in the probe

Calibration history allows quick and easy change out of probes without re-calibrating. The HQD smart system records serial numbers, current calibration data, user ID, sample ID, time, and date automatically in the data log for complete Good Laboratory Practice (GLP) traceability.

#### Enhance data connectivity with easy to read results

Internal USB ports simplify data transfer, peripherals, and software updates and connection to PCs printer and keyboards, with a large ultrabright backlit LCD screen with large font size for convenient reading.

## Complete convenient kit

Package content includes everything you need to start testing. Details below

# **Specifications**

Automatic Buffer Recognition: Yes

Barometric Pressure Measurement: Automatic compensation of DO when using an LDO or LBOD probe

Calibration Intervals/Alerts/Reminder: Off, selectable from 2 hours to 7 days

CDC Electrode Calibration: Demal (1D/ 0.1D/ 0.01D);

Molar (0.1M/0.01M/0.001M);

NaCl (0.05%;  $25\mu$ S/cm;  $1000\mu$ S/cm; 18mS/cm);

Standard sea water;

User defined

Communication: Integrated USB type A (for USB 2.0 flash memory device, printer, keyboard) and Integrated USB

type B (for PC)

Compliance Certifications: CE.WEEE

Conductivity Measurement at Stable

Reading:

Yes

Conductivity measurement: Temperature

correction:

None; Linear; NaCl Non-Linear Natural Water.

Conductivity Range: 0.01 µS/cm - 200.0 mS/cm

Conductivity resolution: 0.01 µS/cm - 0.1 mS/cm upon selected measuring range

Contents: Meter + Probe(s) + Lab. Accessories + Reagents

Custom Calibration Standards: Yes

Data Export: Download via USB connection to PC or flash memory device. Automatically transfer entire data

log or as readings are taken.

Data Memory: 500 records/FIFO

Data storage: Automatic, GLP ISO compliant reading data stored with calibration details.

Dimensions: 859 x 175 x 235 mm

Display: Detailed mode/Large mode

Display Type: 440 x 160 pixel LCD with backlight illumination

DO Measurement Range: 0.1 - 20.0 mg/L (ppm) 1 - 200% saturation

DO Resolution: 0.1

DO sensor calibration: • 100% (water-saturated air (100%) calibration

• 100% with 0 (water-saturated air (100%) calibration with 0 point

• mg/L (calibration with a specified dissolved oxygen concentration (mg/L) solution)

mg/L with 0 (calibration with a specified dissolved oxygen concentration (mg/L) solution with 0

point)

• Factory (calibration with the default LDO calibration)

Electrode Holder: NA

Electrode stand: Included

Environmental Conditions: Relative

Humidity:

90 % relative humidity (non-condensing)

Environmental Conditions: Temperature: 0 - +60 °C (32 - 140 °F)

GLP Features: Date; Time; Sample ID; Operator ID

Instrument: Bench

IP Rating: IP54 (Resistant to spray of water; Dust-proof)

ISE Direct Measurement Range: Yes

ISE Electrode Calibration: 2 - 5 points

Kit?: Yes

Languages user interface: English, French, German, Italian, Spanish, Danish, Dutch, Polish, Portuguese, Turkish, Swedish,

Czech, Russian

Lock Function: Continuous / Auto-stabilization ("press to read") / At Interval

Measurement method: Probe specific programmed method settings

Model: HQ440D – Multi/2 Channels

mV Measurement at Stable Reading: Yes

mV Measurement Range: -1500 - 1500 mV

mV Resolution: 0.1 mV

Needed Cable Length: 1

Operating Error Messages: Clear text error messages displayed

Operating Interface: Soft Touch Keypad

ORP Electrode Calibration: Predefined ORP standards (including Zobell's solution)

Parameter: pH/Oxydo Reduction Potential (ORP)

Conductivity/Total Dissolved Solid (TDS)/Salinity/Resistivity

Dissolved Oxygen (DO)

Biochemical Oxygen Demand (BOD)

Ion Selective Electrode (ISE): Ammonia, Ammonium, Chloride, Fluoride, Nitrate, Sodium

PC Data Transfer Software : HQD Series Meter Data Transfer Utility

pH Buffer Sets: Color-coded: 4.01, 7.00, 10.01 pH;

IUPAC: 1.679, 4.005, 7.000, 10.012, 12.45 pH

DIN: 1.09, 4.65, 9.23 pH

User-defined custom buffer sets

pH Electrode calibration: 1 - 3 Calibration points

Calibration summary data logged and displayed

pH Measurement Range: 0 - 14 pH

pH Resolution: Selectable:

0.001/0.01/0.1 pH

Printer: Yes, Optional

Probes included: PHC28101, CDC40101

Resistivity Measurement:  $2.5 \Omega.cm - 49 M\Omega.cm$ 

Resistivity Resolution: 0.1

Salinity Measurement Range: 0 - 42 (ppt) (%)
Salinity Resolution: 0.01 (ppt) (%)

Sensor A: PHC28101
Sensor B: CDC40101

Sensor C: NA

Sensors: Sensor A: PHC28101

Sensor B: CDC40101

Sensor C: NA

Simultaneous measurements: Yes

TDS Measurement Range: 0.00 mg/L - 50.0 g/L as NaCl

TDS Resolution: 0.01 mg/L - 0.1 g/L upon measuring range.

Temperature Compensation: Automatic Temperature compensation for pH

Temperature Measurement: °C or °F

Temperature Range: -10°C - 110 °C

Temperature resolution: 0.1

Type of measurement: Lab Water Quality applications.

Warranty: 36 months

Weight: 750 g (1.65 lb) without batterie; 850 g (1.87 lb) with batteries

What's included?: Meter package includes HQ440D Laboratory Multi Meter, Universal electrode Stand with

electrode holder, PHC281 pH Ultra Refillable pH Electrode with 1 m cable, pH Buffer Kit 4,01/7,00/10,01 (500 mL), Filling Solution, Reference, 2.44 M KCl, 59 mL, CDC401 conductivity/TDS/salinity cell with 1 m cable, NaCl conductivity standard (1000 µS/cm, 491 mg/L, 100 mL), 4 Alkaline 1,5V AA batteries, Power Supply Adapter, Power Cord, USB cable for

data transfer, and Operating Documentation.

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